consumption in muscle. In either case one great advantage to be looked for from their use is the prevention of the muscular degeneration which inevitably occurs in muscular tissue that from paralysis or other causes is not employed. Care must be taken, as Mr Wells points out, not to overstimulate, which would fatigue and weaken, as I myself can testify with regard to my left eye, which has not yet perfectly recovered from the action of solutions of atropine, daturne, and the Calabar bean.

I perceive that Mr Neill's remarks on the Calabar bean are given more in detail in the British Medical Journal of 14th May, in which he refers to the use of glycerine for suspending the spirituous extract.

4 Maitland Street, 18th May 1863.

Part Second.

REVIEWS.

Consumption: its Early and Remediable Stages. By Edward Smith, M.D., LL.B., F.R.S., Assistant-physician to the Hospital of Consumption and Diseases of the Chest, Brompton, etc. London: Walton and Maberly: 1862.

Dr Smith has fairly earned the reputation of being one of the most careful and laborious physiological observers of the present day; and some time ago we took occasion to introduce him in this capacity to the notice of our readers. But Dr Smith is not merely a physiologist, he is also a practical physician; and at the Brompton Hospital his attention has been specially directed to the subject of consumption. Accordingly, he now comes before us as the author of a work on this disease,—a disease which, from its prevalence and its character, is, more than any other, worthy of the best attention of the medical practitioner. Dr Smith's object in the present volume has been to produce a practical work, which, founded on the inductive method, and on the improved physiology and pathology of the present day, should convey a faithful picture of cases of consumption seen at an early period, while the disease is still remediable, should enforce the principles upon which a successful treatment must be based, and should inform his readers of the means by which that treatment is to be carried out. We have read the book with much interest, and have no hesitation in saying that the object of the author has been fully attained.

Dr Smith's work consists essentially of two parts,—the first
treat of the nature and evidences of the early stage of phthisis; the second, of the treatment which is to be opposed to it. These two divisions constitute the great bulk of the volume; but they are preceded by a section containing an historical sketch of the views entertained at different times regarding the nature and treatment of the disease, and are followed by a short chapter on the circumstances which modify the prognosis in particular cases. Like all Dr Smith's writings, the volume contains abundant evidence of careful research and patient investigation; the results of observation are then subjected to a rigorous scrutiny; and if we do not always concur in the conclusions arrived at, this is not so much owing to any distrust in the logical faculties of the author, as to the circumstance that, the evidence on many points being still incomplete, it is calculated to impress different minds in a different manner. The work is one which we can strongly recommend to our readers, more particularly as, from its entering largely into details, it would be impossible for us, in any reasonable limits, to follow the author through the path he has chalked out for himself.

The first section of the work is, as already stated, introductory and historical; and we may quote the last four of the fifteen statements or propositions, in which Dr Smith endeavours to sum up the differences between our present knowledge of consumption, and the opinions entertained regarding it in former times.

"12. There is an impression that, within a few years, the effect of modern treatment has been to prolong life during the attack of the disease; and our distinguished colleague, Dr Williams, has felt himself justified in saying how long it is increased. There are also grounds for believing that a cure is sometimes effected; but the mortality referred to, and the general feeling of professional and non-professional people alike, is that the disease is a fatal one.

"13. The general principles of treatment and the methods employed are still the same as in former ages (due allowance being made for the separation of the particular class of cases which we are now able to effect), except that no bleeding is not resorted to, and the connexion with catarrh is not necessarily admitted, although we fully admit the influence of a cold in developing the disease. That there has been a change in the aspect of the disease at various eras is highly probable, according to the habits and prevailing constitution of the age, and hence the former practice and views might then have been as little incorrect as ours are now.

"14. There has been but little variation in the remedies employed in all ages, as we have seen that milk, cream, eggs, meat, vegetables, exercise, open air, sea voyaging, change of climate, and adaptation of temperature and dryness of the air, steel, bark, olive oil, mutton suet, etc., have been heretofore employed. There have been the selection and rejection of minor remedies as emetics, digitalis, hydrocyanic acid, etc., with every age, and the leading treatment of this day has been anticipated, although not in the precise form of cod liver oil.

"15. Hence as a final expression we may state that, whilst we have a selected class of cases, with an improved diagnosis and pathology, and these improved views are so largely shared by all practitioners, that the treatment is now similar in all parts of the kingdom, we are not agreed as to the essential nature of the disease, have no unfailing mode of treatment, and the disease is still essentially and almost as universally a fatal one as it has been in all ages."—Pp. 29, 30.
In these conclusions, Dr Smith, in our opinion, expresses too unfavourable a view regarding the incurability of phthisis, and the inefficiency of treatment. That cures not unfrequently take place cannot be doubted; that these cures are now more frequent than formerly is in the highest degree probable, although, from the obscurity which, till the discovery of Laennec, enveloped the diagnosis of phthisis, the matter does not admit of direct proof; and if this be so, it is illogical to conclude that treatment has nothing to do with the more favourable results. But neither do we agree with Dr Smith that "there has been but little variation in the remedies employed in all ages." The supporting treatment of consumption is, as a general plan of treatment, peculiar to modern times; there is no doubt that there have at all times been physicians who have recommended and practised this system, but these have been the exceptions; and though nourishing diet in the later stages of the disease has generally been allowed, it has not been until the supposed inflammatory symptoms of the early period had been combated by bleeding, purging, and other antiphlogistic remedies. It would be easy to accumulate testimony in support of this statement; but we shall content ourselves by adducing extracts from the writings of two of the most philosophic physicians of this country,—Sydenham and Alison.

In the Processus Integri, when speaking of the description and cure of a decline, Sydenham says:—"The treatment of the disease is, in my mind, as follows:—Bleed in the first instance, then purge for three days running, either with the pil. coch. maj., or with the lenitive decoction already noticed. On the third night, give half-an-ounce of the syrup of poppies. After an interval of two or three days, according to circumstances, repeat the purge, and do this as often as is necessary, i.e., until the symptoms either wholly or partially disappear. After each purge, give two drops of opobalsam on a large lump of sugar;" 1 and so on. It is true that riding on horseback is strongly recommended, but not until bleeding and purgation have been premised.

Dr Alison, in summing-up the indications for the treatment of phthisis, commences with the following recommendation:—"Repeated but cautious use of the antiphlogistic remedies, small bleedings, purgatives, blisters, and other counter-irritants, when the symptoms indicate attacks of 'intercurrent inflammation.'" 2

Another point in this preliminary sketch is worthy of notice. Till lately, phthisis was regarded as a disease which commenced by the deposition of tubercle in the lungs, and it was believed that all the symptoms of the malady were due to the presence of this substance, and to the progressive changes which it underwent. Lately, however, an opinion has gained ground that conditions exist anterior to this deposit which have such a connexion with

1 Sydenham's Works; Syd. Soc. Ed., vol. ii. p. 298.
2 Outlines of Pathology and Practice of Medicine, 1844, p. 289.
phthisis, that, if continued, the deposition in the lungs commonly appears. Some look upon these conditions as necessarily pre-existent to the deposit, and hence regard them as constituting a definite stage of the disease; others regard them as predisposing causes, and as indicating that there is a tendency to tubercular deposit. Dr Smith’s own view is that "there is a stage of the disease which exists before the deposition of tubercle, and that its evidences are to be found both in the lungs and the general system."

Now, that a peculiar train of symptoms does generally precede the local manifestations of tubercle, we do not doubt; the question is, whether or not this stage is specific, that is to say, whether it is preliminary to tubercle and to nothing else. If we look upon this stage as specific, we must suppose that it depends upon some peculiar lesion of nutrition, which we should naturally look upon as located in the blood. But Dr Smith himself admits (p. 157) "that there is no evidence of any known condition of the blood necessarily or even usually found in phthisis." If the stage is specific, and yet does not depend upon a change in the blood, in what can it consist? For our own part we should regard this pretubercular stage as non-specific, that is, as not necessarily preceding tubercle, but as a condition of generally impaired nutrition and constitutional weakness, which is not unlikely to be followed by that deposit. Tubercle we do not believe to be directly deposited from the blood, but all causes of local or constitutional debility predispose to its formation. What is called the tubercular dyscrasia is not established until tubercle has been deposited; and we would not call this the first stage of phthisis, because we do not believe that it necessarily precedes, or is inevitably followed by, the development of that disease. The question is of more importance pathologically than practically, for almost all modern observers are agreed that confirmed phthisis is generally preceded by a period during which various symptoms, mostly of debility, are present, without there being any distinct evidence of disease of the lung, and the treatment will be the same whether this period be regarded as specific or not. Those who look upon it as the first stage of phthisis, and those who do not, both regard it with anxiety, especially if there be any hereditary predisposition, as likely to be followed by the manifestation of the disease.

Having discussed these preliminary matters, Dr Smith passes on to the consideration of the nature and evidences of the early stage of consumption. The author first gives the result of his investigations regarding the kind of constitution most liable to be affected, as indicated by the temperament, the colour of the eyes and hair, the complexion, and the habit of body. Though the inquiry has been conducted on a large scale, embracing a thousand individuals, no very definite results are arrived at. Dr Smith’s own conclusion is expressed in the following terms:—"As a general expression of the whole, it may be stated that there is the greatest diversity in
all the points of inquiry in phthisical persons in this country, but
there is a preponderance of persons with grey eyes, florid complexion,
fleshy habit of body, and excitability of temperament. Whether,
however, they differ in these respects from the community at large
has not yet been determined." It may, however, be stated that, in
regard to the hair, instances of extreme colour (black on the one
hand, flaxen on the other) were few, and that in the case of the
eyes, while 74 per cent. had grey, and 23 per cent. had hazel, not
1 per cent. had black eyes.

The same system of minute inquiry is carried out in regard to
the performance of the different functions of the body, by persons
in this early stage of the disease. As was to be expected, the
general result is, that at this period the various functions are
carried on less perfectly than by individuals in a state of health.
We quote a few of Dr Smith’s results—"The whole of the pro-
cesses concerned in the function of alimentation are commonly
lessened in vigour." "The amount of food taken is commonly
somewhat lessened." "The weight and bulk of the body are
almost universally lessened." "The fixation of fluid in the body
is lessened, and the elimination of it increased." "The action of
the skin is commonly increased, either absolutely or relatively
to the vital transformation." "Perspirations are common in the
early, as in the later stages of phthisis, and oftentimes have a sour
odour." "There is a general tendency to defect of the temperature
of the body." "The muscular power is commonly lessened." "The
circulation is commonly enfeebled and somewhat quickened." "The
respiration is shorter, shallower, feebler, and, perhaps, quicker." The vital capacity of the lungs is diminished, even
when there are no evidences whatever of the presence of tubercular
deposits." "Innervation is commonly lessened." "The men-
strual function is frequently disturbed, but probably not in a
greater degree than occurs in health. There is much liability to
leucorrhœa." These and a variety of other statements regarding
the mode of performance of the functions of the body, are deduced
from numerous and careful observations, but for the facts on which
they are based, or by which they are illustrated, we must refer to
Dr Smith’s work. In regard to the appetite, however, it may be
stated that Dr Smith has discovered that, in the early stage of con-
sumption, patients show a decided dislike to fat, that this dislike is
more common in phthisis than it is in other diseased conditions,
and that it is more marked in the early than in the subsequent
stages of the disease.

Dr Smith, in the next place, directs attention to certain abnor-
mal manifestations which not unfrequently precede any evidence of
the existence of tubercle in the lungs. Thus, muscular pains are
common both in the front and back of the chest. There is
generally some degree of tickling or irritation of the throat due to
hyperesthesia of the pharynx, which, on examination, is sometimes
found pallid and contracted, at others a little congested, with the superficial glands enlarged and vascular. Cough is generally inconsiderable, short and repeated a few times at each attack, and appears to be due rather to the state of the pharynx than to the condition of the lungs. At this time, too, expectoration is scanty, and is chiefly derived from the fauces and pharynx.

Dr. Smith's views regarding hæmoptysis are somewhat peculiar. Whilst admitting that, at some period of the disease, two-thirds of all phthisical patients have spat blood, our author maintains that the quantity is generally very small, amounting to a streak or speck in one, or only a few masses of the sputa, that it is quite exceptional for any large amount to be expectorated, and that the quantity lost is too small to have the least significance. With regard to the seat of the hæmorrhage, Dr. Smith considers it in the highest degree improbable that it proceeds from the lungs; he believes that it comes from the pharynx, which, as already stated, is often in an irritable condition, and that even large emissions of blood may occur without any inflammation or marked local congestion of any part of the lungs, and be due to the rupture of a small vessel upon the mucous lining of the pharynx or large air-tubes. Dr. Smith consequently regards hæmoptysis, not as showing that mischief has already commenced in the lungs, but as indicating a condition of system in which phthisis will most probably occur. The frequent coexistence of hæmoptysis and phthisis is explained in the following manner,—hæmoptysis, to a trifling extent, occurs in almost all persons, however healthy, at some period of life, generally owing to some slight affection of the pharynx, with congestion of the mucous membrane; phthisis is the most prevalent of all mortal diseases, therefore it would be remarkable if the two conditions were not present together, "although it is quite within belief that the local causes of hæmoptysis may be more potential in certain persons than in others, precisely as we find variation in the influence of all agencies whatever." With these views we cannot, for various reasons, concur. We would not designate as hæmoptysis the presence in the sputa, on a solitary occasion, of a mere streak of blood; and if we did, we should cease to attach any importance to its occurrence, for, even on Dr. Smith's own admission, this frequently happens to the healthy, as often, for anything we know to the contrary, as to the phthisical. In most cases of phthisis, according to our experience, a sufficient amount of blood has been expectorated to attract the distinct attention of the patient, either by the emission of a certain quantity of pure blood, or at least by decided staining of the sputa amounting to more than a mere streak or speck. We have often found distinct evidence of the existence of tubercle to coincide with the presence of hæmoptysis; and all observers must have noticed the marked relief to dyspnœa and sense of constriction of the chest which the expectoration of a moderate quantity of blood often affords.
We much more nearly concur in the following statement by Louis regarding the diagnostic value of this symptom:—"For all these reasons, I am of opinion that hæmoptysis, if it be somewhat severe, and have not occurred under the exceptional circumstances alluded to (namely, in the case of persons who have received a severe contusion of the chest, or of women whose catamenia have been suppressed), denotes with infinite probability, no matter what have been the period of its occurrence, the actual presence of some tubercles in the lungs. I do not say that it does so with certainty, for several cases, of the correct observation of which no doubt can be entertained, appear to constitute fortunate exceptions to the general rule."

The next source of evidence of the existence of the early stage of phthisis is the examination of the lungs by inspection, auscultation, and percussion. Without entering minutely into a consideration of the physical signs, Dr Smith makes some interesting observations regarding them, and we shall state his conclusions in his own words.

"1. When there is less breath-motion, less length of inspiration, and feeble yet tolerably even vesicular sounds, both with ordinary and forced respiration over the whole chest, or particularly at one or both apices, with or without slight dulness on gentle percussion of the clavicles, and without rales or any sign of bronchitis, we believe that there is the early or the pretubercular stage of phthisis.

"2. When there is dulness at least moderately pronounced and localized, and prolonged expiration, with, but sometimes without, flattening of the chest at the part affected, and with or without wavy or jerking respiration, and with unevenness of the respiratory sounds at the part affected, in addition to the signs of the first stage, and still without rales or other evidences of bronchitis, we consider that tubercle is deposited, and the disease in that part has passed into the second stage.

"3. When general bronchitis is also present, the diagnosis from the examination of the chest is almost impossible, and whilst the progress of the general symptoms may aid us, a correct opinion can only be formed after the signs of old bronchitis have disappeared, or the general evidences of phthisis both in the lungs and system have increased.

"4. The state of the general system is substantially the same, whether before or soon after the first deposition of tubercle, but the degree of variation from health will have increased in the latter with lapse of time. Hence, whilst this state must be considered in forming our diagnosis of phthisis, it is equally indicative in the two stages, except perhaps in degree."—P. 183.

The next division of Dr Smith's work is devoted to the treatment of the early stage of consumption; it contains a great deal of valuable matter, but our notice of it must be necessarily brief. The great object in the treatment is to restore the bulk of the body by diminishing excessive elimination on the one hand, and increasing the supply on the other. The first indication is chiefly fulfilled by moderating the action of the skin, kidneys, and bowels; the second by a due regulation of the diet. Where excessive elimination of fluid takes place by the skin, Dr Smith recommends the inunction of some fatty matter, giving the preference to lard as less offensive
than the liquid oils. Dr Smith does not believe that the fat is absorbed, but thinks that it acts mechanically by covering the pores of the skin, thereby restraining its action, and offering a certain protection against external agents acting upon a highly sensitive structure. For our own part, we cannot help believing that a portion of this oily matter is absorbed, as we see, under its use, persons increase in bulk to a degree which cannot be explained by a mere diminution of elimination. The application of cold to the skin is strongly to be recommended, as tending powerfully to remove the atonic and relaxed condition which favours undue perspiration. It is best practised by dipping a towel in water at about the temperature of the room, in which common salt has been dissolved, and quickly applying and reapplying it to all parts of the body; the surface is then to be thoroughly and rapidly dried with a coarse towel.

A proper regulation of the diet is perhaps the most important point in the treatment of consumption. Dr Smith believes that in the early stage of this disease not only is the appetite diminished, but that there is an absolute defect in the quantity of food taken, and that in particular the nitrogenous element is commonly deficient. There is a special danger of a deficiency of nitrogen in the case of adolescents when a change of dietary takes place, the diminished quantity of milk not being compensated for by a proportionally increased quantity of other nitrogenous food. Of course this danger is greatest among the poor, but it exists even among the rich, in whom tea or coffee, containing scarcely any nitrogen, constitutes with a little milk a great part of the breakfast, which formerly consisted of milk containing thirty or forty grains of nitrogen. The dietary recommended by Dr Smith is calculated to supply between three and four hundred grains of nitrogen, and is thus stated:

"Three pints of milk; 1½ lb. of bread; 6 oz. of uncooked meat (equal to 4 oz. of cooked meat); ½ lb. of potatoes; 1½ oz. of butter and 3 oz. of uncooked bacon, or 4 oz. of eggs. This would give the following quantity of nitrogen:—

| Item                        | Quantity |
|-----------------------------|----------|
| 3 pints of milk, new and good, grains | 132      |
| 6 oz. of meat (fat and lean) | 48       |
| 20 oz. of bread             | 155      |
| 12 oz. potatoes             | 9        |
| **Total**                   | **344**  |

In many cases the patient cannot take so much food, and under these circumstances Dr Smith recommends the use of glutenized food, especially of gluten bread, one ounce of which contains as much nitrogen as seven ounces of ordinary bread.

To promote the assimilation of food, exercise is of the greatest importance; under its use there is an increase in the metamorphosis of the tissues and in the final transformation of food; and if the quantity of food-transformation be in excess of the tissues wasted, a further amount of tissue will be deposited. Walking is, on the whole, the most suitable mode of taking exercise; but in reference
to women, Dr Smith strongly recommends skipping, as allowing considerable exertion to be made in an easy manner. The respiration, and consequently the free expansion of the lungs, may also be powerfully promoted by causing the patient to practise daily, for ten minutes at a time, the taking of deep voluntary inspirations. This is attended with a rapid increase in the expansibility of the chest, and with an invigoration of the whole vital actions of the body.

In reference to the use of medicines in this disease, we may quote the following passage:—

"In perhaps every case it is necessary to administer the mineral tonics: 15 minims of the Tinct. ferri sesquichloridi, with or without an equal quantity of chloric ether, should be taken thrice a-day in a wineglass of water, wine, beer, or quassia infusion; or 8 grains of the citrate of iron and quinine thrice a-day. The iodide of iron, when given, should be frequently intermitted. Cinchona and the mineral acids may be exchanged at intervals for the preparations of iron. Two or three drachms of cod-liver oil should be given twice or thrice a-day, when it is tolerated. The condition of the menstrual function, the digestion, and the alvine evacuation, will all need frequent attention. The best internal remedy for the cough is morphia in doses of 1-16 or 1-12 of a grain, taken every four or six hours, with mucilage or syrup. Frequent examinations of the state of the pharynx should be made; and this, with the state of the stomach and skin, will determine whether the acid or the alkaline plan of treatment must be temporarily pursued."—P. 336.

The remainder of the section on the treatment of phthisis is devoted to a consideration of the management of certain special symptoms, such as muscular pains and hæmoptysis, and concludes with some interesting observations on the therapeutical effects of climate.

We must now take leave of Dr Smith, expressing, in conclusion, our high sense of the able manner in which he has investigated the symptoms of the disease, and of the talent with which he has directed his physiological and pathological knowledge to its treatment.

Traité des Maladies à Urines Albumineuses et Sucrees, ou de l'Albu-
minurie et du Diabète Sucré dans leurs rapports avec les Maladies.
Par le Docteur J. Abeille, Ancien Médecin de l'Hopital du Roule, Chevalier de la Légion d'Honneur, etc., etc.

Treatise on Diseases with Albuminous and Saccharine Urine, or on
Albuminuria and Diabetes in their relation to Diseases. By
Doctor J. Abeille. Paris: J. B. Baillière and Son. Pp. 773:
1863.

The author of this work is already known to have devoted consider-
able attention to the important subjects of which it treats. Several
brief memoirs by him on Albuminuria and on Saccharine Urine have
during former years appeared, and lately his investigations con-
cerning the urine in Diphtheria have gained pretty general diffusion.
through the value assigned to them by so distinguished a writer as M. Trousseau.

The present extended work of M. Abeille is divided into two books: the first being occupied with albuminuria, or rather, to use his own words, with those diseases in which the urine becomes temporarily or persistently albuminous; while the second, comprising sixty-five only of the total seven hundred and seventy-three pages of which the entire volume consists, treats of those diseases which are associated with a saccharine condition of the urine.

The first book commences with a sufficiently interesting historical chapter. The discovery of albumen in the urine is assigned to Fordyce, who, in his Elements of Pathology, published in London in 1768, remarked that the chyle, serum, and coagulable lymph, may be removed from the system by the urine. A greater merit, however, belongs to Cotugno, who was the earliest to associate the presence of albumen in the urine with certain cases of dropsy. Several authors after these and before Dr Bright, paid attention to the coagulable condition of the urine, specially Blackall, and thus prepared the way for the really brilliant discovery by which the name of the former physician has been rendered illustrious. We have no great fault to find with M. Abeille’s historical introduction; nevertheless, some of his statements in it are very far from being accurate. He says of one author’s paper, on Temporary Albuminuria, that it was published in the Monthly Journal for 1858, the fact being that the memoir in question appeared in 1852. This circumstance, indeed, would scarcely require notice, were it not that M. Abeille charges the writer with claiming a priority of observation respecting the albuminous condition of the urine in certain cases of erysipelas. We have consulted the paper referred to, and have now to state that no such claim is advanced—the whole is a creation of M. Abeille’s own too fertile brain,—and it is scarcely creditable when we read a couple of lines further down, “La vérité est, qu’en 1849, nous l’avions devancé et que nous avions insisté sur la présence de l’albuminurie dans les érysipèles vastes, fait non signalé avant nous.”

The historical sketch is succeeded by four chapters, which are respectively occupied with the consideration of the normal structure of the kidneys, the physiological functions of these organs, the condition of the urine in diseases attended by albuminuria, and the pathological anatomy of Bright’s disease. There is nothing novel in any of these chapters; indeed, the information contained in them falls far short in interest and exactness of what is to be found in the pages of several older but still highly esteemed works. M. Abeille is not always circumspect in the choice of the language he employs. We object to his speaking of so distinguished an authority on renal diseases as Dr George Johnson in the following terms:—“Pour arriver à cette dénégation, il a recours à un subterfuge.” Having
carefully perused the passage in Dr Johnson's work to which M. Abeille refers, relating to the amount of importance to be assigned to the presence of renal epithelium in the urine, we have no hesitation in saying that there exists no evidence whatever of the author having had recourse to an *evasion*, his meaning and the explanation afforded are alike clear and comprehensive. If obscurity exist, it is to be found in the statements of those writers whom M. Abeille approvingly quotes.

Arrived at page 147, M. Abeille addresses himself to the real subject of his volume, Albuminuria in its relation to different diseases,—considering, first, those afflictions in which the presence of albumen in the urine is temporary or transient, lasting usually for only a few days. *Albuminurie passagvere.*—Under this head, reference to albuminuria in the following diseases occurs: 1. *Neuralgia,* illustrated by one, assuredly by no means remarkable instance. 2. *Diseases of the respiratory organs,* among these *Phthisis,* of which an illustration is afforded of albuminuria alternating with *haemoptysis;* also *Pneumonia* and *Bronchitis.* In the case of the former, M. Abeille styles the albuminuria which occurs as critical, "Albuminurie critique," and justifies the employment of this expression by stating that the phenomenon in question invariably manifests itself during the period of declension of the pneumonia—the stage of resolution. We are rather surprised to find no reference made under this head to the observations of Finger and Becquerel. Nor can we find any proof of our author being acquainted with the really important results obtained by Heller and by Dr Parkes. The occurrence of albuminuria in acute pneumonia is a clinical fact of very considerable significance; for in ordinary acute bronchitis, and other inflammatory affections within the chest, we do not meet with it. Statements differ as to the period of the disease when the phenomenon is noticeable. Some affirm that it occurs during the advance of condensation, when, as Heller remarks, the chlorides are most deficient; others have found the experience of M. Abeille to be theirs, and have conjectured that some of the absorbed exudation is thus removed from the system. It is only by renewed careful examination that this important point can be determined.

In *Erysipelas* and *Hospital Gangrene,* M. Abeille has found a temporary albuminuria, not ordinarily in slight cases of the former, but in such as are distinguished by the extent of surface affected and by their severity.

*Diphtheria* is not unfrequently accompanied by an albuminous condition of the urine,—the precise frequency has not as yet been determined; indeed, it seems to vary considerably. M. Abeille has found it in two out of three cases in one epidemic prevalence, while at another season he has only seen it in one-third of those affected. Curiously enough there is no reference to the observations of Mangin on this subject. M. Abeille takes the same
view of the albuminuria in diphtheria and analogous diseases as that entertained by M. Trousseau, regarding it as the direct consequence of the specific morbid condition of the blood, which is believed to exist in such affections.

Under the same head of *Temporary Albuminuria*, we find observations on the urine in *Typhoid* fever, and *Typhus*, and in *Paludal* Fevers, finally, in *Cholera*, and a few other diseases.

*Persistent or Lasting Albuminuria.*—“Albuminuria persistante ou durable,” as opposed to temporary albuminuria, is next considered. This condition is discussed at length in relation to the occurrence of a coagulable state of the urine in *Scarlatina* specially, and in *Bright’s* disease. The author assails the opinions of previous observers, but does not contribute much, if anything, to our knowledge of this important subject.

In the second book, occupied with *Diabetes*, our readers, familiar with the most recent researches, particularly those of Dr Pavy,¹ will not find much to engage their attention.

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*Systematic Handbook of Volumetric Analysis.* By Francis Sutton, F.C.S. London: Churchill and Sons: Pp. 282.

As volumetric analysis means a mode of estimating the quantities of substances, the subject of Mr Sutton’s handbook will have more interest to the pure chemist, than to the members of the medical profession generally. As distinguished from the older methods of analysis, the volumetric plan proceeds by saturating, or oxidizing, or precipitating, the constituents of the substance to be analyzed, by means of a solution whose strength or chemical power has been previously ascertained, so that the same volume or measure of it will always effect the same amount of saturation or precipitation. A solution so prepared was formerly called a standard or normal solution, but to convey the notion of its use more accurately, it is now called a titrated solution, from the French word *titre*, strength or power. Such solutions have been in use in British laboratories for many years, but only to a limited extent. The later editions of such works as that of Fresenius’s Quantitative Analysis have, however, been making us more familiar with volumetric methods of analysis; and medical readers have been well introduced to these by Thudicum’s excellent work on the Pathology of the Urine. But up to the present time we have had only two works in English specially devoted to volumetric analysis, and that of our author is the fullest and best of these. He is, therefore, worthy of all praise in supplying this deficiency in our chemical literature. Mr Sutton does not profess to give original methods of analysis, preferring, as he says in his preface, “to adhere mainly to those processes which have received the approval of general experience.” But his book

¹ See review in our January number.
Sutton's Handbook of Volumetric Analysis.

is none the worse on that account, as it is best that our analytical manuals should chiefly contain those processes which are known to be accurate and trustworthy. We approve also of our author's practice of candidly pointing out when a process is not thoroughly to be relied upon.

The great recommendation which volumetric methods of analysis have over the older ones, is the speed and accuracy with which they can be performed, an advantage which must be as acceptable to our readers who are occasional analysts, as to those to whom analysis is a constant profession. Our author has made volumetric analysis all the more acceptable to the English chemist, by placing before him a plan by which the grain weight, and measures which are related to it, may still be used. In other works where volumetric processes are given, these are all stated in the French metrical system of weights and measures, which, being too slowly adopted in Great Britain, needs the constant use of calculations to reduce its values to the standards we have in use in this country; so that a plan which dispenses with such calculations is generally to be preferred.

Mr Sutton divides his work into five parts, the first of which he devotes to the description of the few pieces of apparatus required; and here he has introduced some neat and accurate woodcuts. The other subjects treated of in Part I. are chiefly preliminary,—as the preparation of titrated solutions, etc. Parts II., III., and IV. are respectively devoted to the description of processes for analysis by saturation, by oxidation and reduction, and by precipitation. Part V. is taken up with the details of methods showing various applications of volumetric analysis. Amongst these occurs a valuable section on the analysis of urine,—the processes contained in which can from practical experience recommend as worthy of all confidence. Under the head of the determination of urea, Liebig's process only is given. We think an omission has been made in not including Davy's method also, as it is clearly a volumetric process, and has the advantage, moreover, of being easy in execution, and accurate in its results.

In treating of the various subjects contained in the five parts of his work, Mr Sutton has put them before his readers in a clear and concise way. We have, therefore, great pleasure in recommending this Handbook of Volumetric Analysis to the English student of analytical chemistry.

Sixteenth Annual Report of the Chinese Hospital at Shanghae, for the Year 1862.

We have been favoured with a copy of the Sixteenth Annual Report of the Chinese Hospital at Shanghae, at present under the care of Dr James Henderson. He received his education under the auspices of the Edinburgh Medical Missionary Society, went out...
to China a few years ago, and conducts the institution avowedly on medical missionary principles. The hospital has recently undergone considerable improvements, and now affords accommodation, in six wards, for thirty in-door patients, and the requisite number of attendants. Dr Henderson's house is close by, so that his services are available at any hour, day and night. His principal assistant and the hospital native preacher have rooms for themselves and their families above the wards in one wing of the building. There is a hall capacious enough for the reception of 300 out-door patients. The surgery is at the western extremity of this apartment, and in it all the medicines are prepared, and the minor surgical operations performed, while operations of a graver character are performed in the middle of the hall.

At eight A.M., there is a short religious service, intended for the attendants and all the in-door patients who are able to be present. At ten, the out-door patients begin to assemble, and at twelve, there is reading of the Scriptures and sermon by a native preacher and a member of the London Mission. At one, the surgeon begins his work. We may form some idea of its onerous nature, when informed that the number of patients, in 1862, was 33,253, or, in other words, not counting Sundays, more than 100 new patients on an average every day. The work is overtaken thus. Ten patients are admitted into the surgery at a time—men and women alternately—and each of these is taken aside, examined, and prescribed for, while the others wait. Cases requiring operations of any moment are reserved until the others have been seen, and afterwards remain for a time as in-door patients. The in-door patients are visited and attended to immediately after the out-door ones have been examined. As a matter of course, cases of accident or acute disease are admitted and cared for at all hours.

The following details show still more clearly, than the mere number of patients, the amount of benefit which the institution is capable of conferring. During the last four months, there were 52 operations for artificial pupil; 25 for entropion; 5 for cataract; 17 for pterygium, and 4 for glaucoma; 29 bullets were extracted; 2 tumours excised; there was 1 amputation; 18 cases of tapping; 28 fractures of the upper extremity, and 18 of the lower; there were 6 cases of stricture of the urethra, and 9 operations for haemorrhoids; besides a large number of the ordinary minor surgical operations.

It is obvious that much substantial benefit must, in this way, be conferred upon the native community both in town and country, as regards their bodily health; and we cannot doubt, reasoning from similar experience in other parts of the world, that the great truths of the Christian religion, which, as we have seen, are systematically proclaimed, will be daily listened to by many grateful and attentive hearers; for it must be allowed, that no one possesses such favourable opportunities for impressing these truths upon the heathen as the medical missionary.