Part Second.

REVIEWS.

Practical Lithotomy and Lithotrity. By Sir Henry Thompson, F.R.C.S. 3d Edition. 1880.

Sir Henry Thompson has furnished the profession with a new edition of his valuable work on the operations for stone in the bladder. He is our greatest authority on the subject, and consequently whatever he says is most valuable, being backed by his unrivalled experience as well as skill and success.

His remarks on lithotomy commence with a brief (but most practical) review of the anatomy of the perineum. He discards the usual description which speaks of the perineum as being triangular or lozenge-shaped, and prefers to consider it as "heart-shaped," like the "ace of hearts with the apex upwards."

We consider this a valuable and practical description, though not strictly correct; for the part of the perineum in which the lithotomist has most space and freedom in making his incisions is the lower and outer portion—the "lobe of the heart," as Sir Henry Thompson would say. Another practical advantage which is taken of this description of the perineum is referred to in the following words:—"Hence, in withdrawing a large stone from the bladder, traction must be made obliquely downwards, to the right of the operator, in the direction of least resistance, which is towards the hollow of the sacrosciatic ligaments, where the fibres of the glutens muscle only cross the heart-shaped space already indicated as the true outlet of the male pelvis" (page 13). This sentence follows an argument in which is clearly demonstrated that a large stone cannot be removed so easily through the comparatively narrow portion of the perineum which lies above the ischial tuber-
osities as through the lower or posterior portion—the "lobe of the heart." In regard to the performance of the operation our author's opinions will be looked on with interest. We shall select a few points, and give his own words as far as possible.

On the question of how much water should be in the bladder he says, "It is sufficient to take the chance of the urine accumulating for an hour before the operation; at all events, any attempt to inject an irritable bladder is rarely of any service" (p. 21).

We gather from several remarks that the gorget is more in favour with Sir Henry than among surgeons here. While he says (p. 33), "There is a certain ease and simplicity in the use of a single knife which has commended it greatly to modern surgeons, and, unless there are some exceptional circumstances present, it must be admitted to be both a safe and convenient instrument," still he adds further on, "When the perineum is deep . . . . I prefer the probe-pointed knife for the last incision, as well as the blunt gorget to dilate it and conduct the forceps into the bladder."

As to the employment of a tube after the operation, our author considers it unnecessary, and has not employed it for some years, except in cases of haemorrhage (p. 39, etc.)

One of the most interesting portions of this valuable work we consider to be the remarks on the risks to be met with in the performance of lithotomy—risks, such as wounding the rectum, bulb, or pudic artery, and cutting beyond the capsule of the prostate, thereby causing infiltration of urine into the deep structures, risks which are doubtless ever present to the mind of the lithotomist, and certainly are thoroughly dinned into the ears of students; and it is most refreshing to read Sir Henry Thompson's frank and fearless statements on these points. He sums up the dangers into two principal ones. He says, "I wish, then, to point out that in shunning Scylla we may encounter Charybdis, . . . . that we must preserve the neck of the bladder equally from too deep an incision on the one hand, and from the mechanical injury necessitated by one which is too limited on the other" (p. 66).

He points out that the great success obtained in operating on children demonstrates that there can be no great risk of infiltration following an incision right through the prostate; seeing, the prostate in children being very small, the knife is always carried completely through that gland and a considerable piece beyond. He is not afraid to state, also, that the rectum (especially in children) is frequently wounded, and that little harm comes of it. He considers that the real dangers and risks to life arise from rough handling in the attempt to extract a calculus through an insufficient incision, and from reckless cutting in the attempt to appear brilliant, as when operating against time. In speaking of the causes of death he refers to this again, and points out that care and gentleness are as essential to the proper performance of lithotomy as of lithotrity. His opinion of the main source of danger to life may be
summed up in the following sentence:—"Danger is always great in a ratio proportioned to the size of the calculus, but this arises quite as much from the violence inflicted in removing it as from the depth of the incisions employed" (p. 66). He says again (p. 69), "All agree in the vital importance of extracting the stone with great care and gentleness, and of giving time in abundance to this part of the proceeding." We cannot dwell longer on this subject, however interesting, but must consider the second part of Sir Henry Thompson's work, which is on what may be considered his speciality—lithotrity.

Under this name he includes all crushing operations—or, to use his own definition, all those processes by which the stone is broken up in the bladder and removed through the natural canal of the urethra. One is naturally most interested to know what our author has to say to the comparatively new operation of "lithotrity at a sitting," as more recently advocated by Dr Bigelow. Chap. xi. is devoted to this; but there are besides many references to the subject in other parts. What we gather from the whole is this: Sir Henry Thompson is not averse to the procedure, and is increasingly inclined in its favour; whilst at the same time he objects to the large instruments recommended by Dr Bigelow, which he describes as "unnecessary and undesirable" (p. 190). In his history of "the procedure" (which, however, is very brief) we are astonished to find no one referred to as having proposed or practised the operation but Dr Bigelow. Among others, Dr P. H. Watson of this city performed "lithotrity at a sitting" in several cases, and published them in this Journal as early as 1859. Dr Watson at the same time described a method which greatly facilitated the operation, viz., by a lever or pair of spring forceps, which could be adapted to almost any lithotrite.

The conditions favourable to success in lithotrity are put thus briefly (p. 125): "1. A capacious and not very tender urethra. 2. A bladder capable of retaining 3 or 4 ounces of urine. 3. Absence of the ordinary signs of renal disease, and fair general health." To these we may add what is frequently dwelt upon by the author—a comparatively small stone.

On the question of the best instrument to employ, we find a decided preference shown for a small instrument which is yet strong enough to crush the stone easily, and somewhat fenestrated to prevent choking with detritus—this instrument only being used at a "sitting," even when the whole of the crushing is to be performed at once.

A much debated point often is the amount of fluid which should be in the bladder for the proper and safe performance of lithotrity. We find stated (p. 143), "Perhaps three or four ounces may, as a rule, be always present with advantage, especially for young operators. Nevertheless, I am bound to say that, with instruments constructed on the principles laid down, no mischief can be done by
proper manipulation in a bladder which is empty or nearly so; and, for myself, I as frequently operate in that condition as not.... For several years I have never made any preliminary injections, nor even desired the patient to retain his urine before the hour fixed for operating.” The safety in such cases consists, we are told, in maintaining the blades of the lithotrite in the centre of the bladder, firmly fixed, and in moving only the male blade in the manipulations necessary for crushing the stone.

Considerable importance is attached to the employment of what is now called the “aspirator,” which is simply the old washing-out bottle. The whole of the crushed fragments should be removed by the evacuating catheter and aspirator, and none by the lithotrite. Fragments that are too large to be washed out through a full-sized catheter would certainly injure the urethra were any attempt made to remove them by the latter means.

In describing the operation, of course, there are many most valuable remarks which we would gladly transfer to this notice; but in so doing we would have to quote many pages, and even whole chapters. These should be read where they are; and we cannot do better than recommend our readers to study the book carefully for themselves, well assured that they will be thoroughly rewarded by the amount of valuable information which they will find.

There is only one little point to which we would direct our author’s attention for correction. At page 146 the method of introducing a lithotrite is described. The operator is directed to hold the instrument with “the blades pointing downwards.” Then the further passing of the instrument is continued along the urethra and into the bladder without a word as to whether or when the points of the blades should be reversed. Either we have read the directions wrong, or there is some mistake here, for we cannot see how any instrument could be passed into the bladder with the point downwards.

We cannot close this notice without referring to Sir Henry Thompson’s advice to operators in regard to the selection of lithotomy or lithotrity in any given case of calculus. The usual success of the former operation in young subjects, and their general unsuitableness for the latter, makes lithotomy most undoubtedly the operation for children. In adults lithotrity should be preferred, unless the stone is of considerable size or the patient otherwise unsuitable. It is evident that lithotrity is being more and more practised, and is displacing the older operation in the case of adults. Our author almost ventures to prophesy that lithotomy in adults will disappear altogether. He points out that the size of the calculi removed by operation is steadily diminishing, owing to their being discovered and removed at an earlier stage of their existence than formerly. And if it be the case that all medium-sized as well as small stones should be crushed, it is evidently only a
matter of time till the knife is altogether laid aside, except for children.

Although the book which we have been reviewing is only a new edition of a well-known and standard work, still we have thought it right to give this somewhat extended notice of it, as anything on the subject treated of which comes from the pen of such an author must be of more than ordinary interest and value to the profession.

The Journal of Anatomy and Physiology, Normal and Pathological. Vol. XIV. Edited by Professors Humphrey, Turner, and M'Kendrick, and Dr Creighton. London: Macmillan & Co.: 1880.

This volume of the Journal of Anatomy and Physiology is of very great interest to the medical man on account of the number of excellent papers on pathological subjects. To these we shall turn first.

Dr Creighton calls attention to the hard cancers of the breast, and to their infiltrating properties. He starts with Sir J. Paget's definition of infiltration as being the insertion of structures proper to cancer in the interstices of the proper tissue of the part, and then discusses two propositions—1. That the initial condition of the original epithelium is in many cases that of an actual or literal infiltration into the surrounding stroma; and 2. That it is this literal and actual insertion of epithelium that determines, through the mimicry of infection, the familiar appearance of alveolar or linear groups of epithelial cells springing from the stroma cells at a number of independent centres. In another admirable paper on the pathology of sarcoma he takes occasion to say, with regard to the origin of such tumours, that there is not a survival of the embryonic tissue itself, but of the tendency to form embryonic tissue.

In discussing the development of connective tissue in hepatic cirrhosis, Dr D. J. Hamilton points out that the liver cells are one of the main sources of the fibrous tissue. The cell nucleus enlarges, becomes nucleolated, and divides. This is followed by division of the cell. The cell division goes on; at each successive division the nucleus becomes as large as the former, but the periplast does not increase, and finally only free nuclei are left. Each nucleus becomes oval and begets a new fusiform periplast, which splits into fibres and forms connective tissue.

In tracing out the nexus between disease of the ear and consecutive brain lesions, Dr M'Bride has made a distinct step towards the elucidation of a vexed question. He describes a case of suppuration of the ear with accompanying cerebellar
abscess. Microscopic examination of the temporal bone showed numerous bacteria passing through its spaces and canals. On theoretic grounds this condition has been pointed out as probable by von Troeltsch, and this absolute confirmation is of great importance. Dr M'Brice also describes a hitherto unknown croupous inflammation of the cochlea. Delicate fibres and leucocytes occupied the scala vestibuli, and granular matter was found in the scala tympani, but the cochlear duct was almost intact.

Dr Dreschfeld, in describing a liver tumour, says that cancer is not often derived from liver cells. In narrating a case of cerebellar psammonium he states that this is only a degeneration, and that the tumour should be called a "psammo-sarcoma." He describes in a most interesting paper the changes in the spinal cord after amputation, and points out that the motor cells of the gray cornua are chiefly affected by degeneration.

Dr Gibson describes a small tumour on the tricuspid valve of a sheep, which was found to be caused by rupture of one of the vessels and extravasation into the valve tissue.

Dr Foulis, in treating of the healing of wounds under antiseptic dressings, holds that in aseptic conditions the process goes on by granulation, modified by absence of irritation.

Of the physiological papers some are of great interest. Dr Barlow shows that ozonized air lessens the number of respirations as well as the absorption of oxygen and elimination of carbonic acid. He thinks these results are due to changes in the pulmonary mucous membrane, for one per cent. ozone in air would cause death from bronchitis. When directly in contact with blood it decolorizes the red, and stops the movements of the white corpuscles.

Dr Gibson gives a careful series of measurements of the duration of the cardiac movements, in which he states that the auricular systole may vary from 8·8 to 13·7 per cent., the ventricular systole from 29·4 to 40·6 per cent., and the diastole from 49·1 to 61·1 per cent. of the whole cycle. The ventricular systole is the most stable, and the diastole the most variable factor.

On behalf of the Glasgow committee, Dr Newman reports that ether, ethidene, and chloroform cause stoppage, first in the lung capillaries, later in the arterioles, and last of all in the larger vessels. The capillaries contract and the corpuscles may disintegrate. Ether is the least and chloroform the most active.

Among the anatomical papers there are many of great importance. Professor Flower and Dr Garson contribute an important article upon the "Scapular Index as a Race Character in Man." This index is the numerical expression of a proportion between the length and breadth of the scapula. The "infra-spinous index," i.e., the distance between the root of the spine and
the inferior angle, is also taken into account. Broca was the
leader in this direction. In fourteen races (200 Europeans, 14
Australians, and 21 Andamanese) the authors found the Europeans
to have a scapular index of 65.4 and infra-spinous index of 89.4;
the Australian indices, on the other hand, were 68.1 and 93.3, and
the Andamanese 69.8 and 92.7.

Dr William Allen, in the latter part of his paper on the human
atlas, holds that whereas the anterior roots of the lower cervical
transverse processes are the homologues of the head and neck of
a rib each, and the anterior tubercles are representative of the
shafts of the ribs, this is not so in the atlas and axis. In these
vertebrae the portion of bone closing the vertebral foramen in
front merely represents the tubercle of the rib, and the head and
neck of the rib are both contained in the lateral mass.

Dr Anderson signalizes the occurrence of an astragalo-scaphoid
bone in man; Professor Turner describes a cleft sternum from
the University museum; and Drs Gibson and Malet narrate a
similar case still in life, with a physiological analysis of the
cardiac movements, while an abstract is given of the autopsy of
the famous Herr Groux.

The papers on comparative anatomy are of the greatest value,
especially that of Professor Turner on the Comb-like Branchial
Appendages and Teeth of the Basking Shark; that of Professor
Bridge on Vertebrate Pori Abdominales; and that of Professor
Morrison Watson on the Homology of the Sexual Organs. Those
papers, as well as one on the Anthropology of the Malay
Archipelago by Professor Turner, we would fain bring before our
readers, but limited space bids us draw to a close, merely
expressing our admiration of this last volume of the Journal.

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**Aids to Diagnosis. Part I., Semeiology. Specially designed for Students preparing for Examination.** By J. Milner Fothergill, M.D., etc., etc. "The eye can only see what it carries with it the power to see." London: Baillière, Tindall, & Cox.

As a rule, manuals for students preparing for examination are hurt-
ful to them and useless to every one else. This unpretending
little work seems to us to be of very great value, not only to students,
but to all practitioners whose instruction has been from books and
lectures rather than from practice. It gives in a very simple,
pleasant, amusing manner the kind of instruction that a very high-
class wise old practitioner might in his happiest moments com-
municate to his son or partner over his wine, or at a bedside where
they could talk freely.

In 75 small pages there are mines of information. Possibly some
of the statements might be disputed, some of the modes of putting
them might be improved; but the book is rich in the elements which induce and provoke thought and observation in the pupil. It educates, and does not cram. We have the greatest pleasure in recommending every student to purchase it; he is sure to read it, perhaps at a sitting, as we did.

Questions on Magnetism and Electricity. F. W. Levander, F.R.A.S. London: H. K. Lewis.

On the Treatment of Naevi by Electrolysis. William Newman, M.D. London: H. K. Lewis.

The Strong Galvanic Current in the Treatment of Sciatica. V. P. Gibney, A.M., M.D. Philadelphia: Collins.

Medical and Surgical Uses of Electricity. Beard & Rockwell. Third Edition. New York: William Wood & Co.

These books have only this in common, that they treat of electricity; and the first of them may be dismissed at once by saying that it is simply one of the noxious products of the modern system of cram.

As is the case with many other constituents of the materia medica, the physiological actions of electricity are imperfectly understood, and its therapeutics largely tentative and empirical. The literature is, accordingly, of the most varied merit, the practice generally haphazard. The general attitude of the profession towards it consists in a vague half belief in its general curative powers, and a tendency to try it in chronic cases when everything else fails. It is easy to understand how this has arisen. The specialists have vaunted its powers indiscriminately, as the Spa doctors do their waters, and yet every one has had experience of striking therapeutic results. The multiplicity of instruments confuses the would-be purchaser, and all of them are so prone to become disordered that probably they are as often employed as not in a state of total inefficiency. To remedy these evils will take time, and requires the education of the profession by the current literature of the subject. This necessarily assumes two directions. From time to time textbooks sum up the general results, while, concurrently, clinical observations and experimental researches determine details. To the former category belongs the work of Messrs Beard and Rockwell. It has now reached a third edition, and it may on that account alone be presumed that it fairly fulfils the end it has in view. It undoubtedly has merits which deserve recognition. Of these the chief is its exhaustive character. It traverses the whole field. Whatever department you examine, some kind of information will be found in the book. It presents, also, a large amount of clinical
record, plainly indicating a wide experience in the use of the agent, and giving a certain basis of fact on which the practitioner may found his employment of it. It has many faults, some of which are inseparable from the subject, while others are due to the idiosyncrasies of the authors. In this edition the earlier portion of the book has been somewhat curtailed by excision. This might be carried further with great advantage; and, indeed, the first two hundred pages should be entirely rewritten. What is wanted in a text-book is not a succession of dotted facts on electro-physics, electro-physiology, and the history of electro-therapeutics, but a condensed summary of those things which are necessary to a correct appreciation of the medical applications, in which the known laws of the force are lucidly explained and their bearing on medicine pointed out. If history was to be discussed, at least it should be attempted in a useful manner, with the successive discoveries emphasized, and the bibliography carefully noted. It is evident that the authors are not electricians; and as it was not absolutely necessary that they should profoundly study the scientific aspects of electricity, neither was it essential that so large a portion of the work should be devoted thereto.

The clinical portion of the book is the more valuable, as giving details of a large amount of work, from which may be extracted much useful information. Here again the bibliography of the subject is most imperfectly worked up and the references exceedingly imperfect. The same tendency is also strongly marked to the record of isolated and useless observations, and a most disagreeable impression left that the whole thing is a gigantic advertisement. There is no attempt whatever in any part of the book to estimate the comparative value of electrical and other treatment in individual forms of disease. Take the two subjects which are treated in the pamphlets by Dr Gibney and Dr Newman, the anodyne and the electrolytic properties of electricity. They are precisely the properties from which our most valuable and certain effects are derived. In the relief of pain, both temporarily and permanently, we have most remarkable effects frequently produced. In a book such as Dr Rockwell’s we should expect to find a clear exposition of the kind of cases in which good results may be obtained, to what remedies it should be postponed, with which concurrent. What we find are general and vague statements, and a few inconclusive and unconnected cases. Dr Gibney’s results with a strong galvanic current in sciatica are recorded; galvano-puncture is mentioned with mild approval, the metallic brush, local galvanization, and even general Faradization, are damned with faint praise, and at the end of the chapter on neuralgia the student is left with a confused impression that anything will do for everything, although the author at the beginning had made a most definite announcement to the contrary.

The department of electro-surgery is treated in a very unsatis-
factory manner. Every disease in which it may be or has been used is recorded, but any attempt at appreciation of the value of treatment is avoided or is erroneous. The galvanic cautery possesses all the properties, and no more, which belong to heat. It is therefore a mere question of convenience what form of cautery should be used. Now, the galvanic cautery has this advantage over all others, that it may be maintained steadily at the necessary black heat without being quenched by the blood and tissues. But the instruments are inconvenient, unportable, and unstable, and it is quite plain that until we get a rotary machine which can be worked easily by the hand the galvanic cautery will not take the place of the hot iron, much less of Paquelin's cautery.

The usefulness of electrolysis in a limited class of nævi is very fairly brought out by Dr Newman. When a scar is important, and time is not, it finds its place. The applicability in cirrhotic aneurism, its failure in aneurism by anastomosis, its power to relieve symptoms and delay death in aortic aneurism, to cure certain other aneurisms beyond the reach of surgical interference, its comparative uselessness in solid growths, and a multitude of other points, might easily be demonstrated from the experience of many surgeons. But Drs Beard and Rockwell are quite content to put on record that they inserted insulated needles into this, uninsulated into that, cut off one tumour with the galvanic cautery, and harrowed another, and if they draw conclusions at all, do so from insufficient data or without any justification whatever. In short, this book is a most annoying mass of crude, undigested, valuable facts with a connecting chain of ill-considered remarks.

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_Hernia, Strangulated and Reducible._ By Jos. H. Warren, M.D., of Boston. London: Sampson, Low, Marston, Searle, & Rivington.

In this book Dr Warren has favoured the profession with an account of his method of treating hernia by injecting a stimulating fluid into the tissues which immediately surround the apertures, and so promoting closure by the effusion of plastic lymph.

The operation consists of several stages—first, the complete return of the hernia; next, the insertion of a fine hypodermic needle (which is blunt-pointed to prevent injury of important structures), from which a few drops of an irritating fluid is injected into the cellular tissue at the internal and external ring, and also along the canal (in oblique inguinal hernia). As a result of this operation, inflammation is set up (as in the case of an injected hydrocele), which lasts for some days, during which time the patient is kept in bed, and cold applied over the inflamed and swollen part. To give the irritated textures opportunity to become agglutinated, the patient must be kept in bed for a fortnight or three weeks.
Our author's specialities are, a spiral needle, which rotates as it is inserted, and thus, it is supposed, passes easier and distributes the injected fluid more generally, and the irritant used, which is a mixture of quercus alb., alcohol, ether, and morphia.

For this operation Dr Warren claims that it is generally successful and implies little or no risk. We find, however, on reading his book carefully and examining his cases, that the operation sometimes needs to be repeated, and even then that the result may be unsatisfactory from some slight indiscretion or obstinacy on the part of the patient. Also there is undoubted risk of suppuration (and that to a considerable extent) being caused by the irritant fluid. Dr Warren admits that the operation requires great care and experience on the part of the operator, may fail, or cause even serious mischief, in the hands of the careless or ignorant, and requires weeks of careful watching and hospital treatment to secure anything like a successful result.

On the whole, we are inclined to recommend this operation to practical surgeons for a fair trial. We found our recommendation mainly on an anatomical fact which Dr Warren points out, and which, though it is not new to any one, is apt to be forgotten by surgeons, from the manner in which they are accustomed to speak of the hernial openings as "rings." The fact is this, that these so-called rings are not rings at all, but have their walls in contact (generally), except when they are separated by the hernial protrusion. It seems natural enough, when we remember this fact, that if we can irritate these tissues in such a manner as to make their opposing surfaces become covered with plastic lymph, their subsequent fusion together is merely a question of rest and time.

Dr Warren prefixes to his work a statement of the introduction of the operation by injection by Dr Heaton of America. The latter practised this operation as a secret, and published a defence of himself in this most unprofessional proceeding. The said defence amounts simply to this, that Dr Heaton considers any discovery which he may make is not to be used for the benefit of the public or the profession, but of himself and his family.

We are glad to think that such sentiments are not generally held in the profession, nor would any one defend them on this side of the Atlantic.

Transactions of the Calcutta Medical Society for the Year 1880.
Reprinted from the Indian Medical Gazette. Vol. I. Calcutta: 1880.

We have much pleasure in welcoming this little volume, which, though unpretending in its size, contains a vast amount of interesting matter. Indeed, for brevity, compactness, and freedom from unnecessary detail, this record of practice may serve as a model for
older and richer societies. Some of the papers are very interesting. One by Professor M'Leod, on Fracture of Upper Third of Ulna in connexion with Dislocation Forwards of the Head of the Radius, is both original and thoughtful. Another by Dr E. W. Chambers, on the new disease Acute Edema, is very interesting. Assistant-Surgeon Anoda Cham Kastager on the Surgical Treatment of Scrotal Tumours, Wounds, and Ulcers, shows how much good work can be done with very insufficient and humble appliances, if aided by common sense and good surgical principles. We must criticise two great defects—first, the page headlines are merely repetitions of "Calcutta Medical Society," and there is neither an index nor a table of contents!

Note-Book of Materia Medica, Pharmacology, and Therapeutics. By R. E. Scoresby-Jackson, M.D., F.R.S.E. Fourth Edition, revised and brought down to the present date by Dr Francis W. Moinet, F.R.S.E. Edinburgh: Maclachlan & Stewart: 1880.

This once popular work on materia medica has reached a fourth edition. The first edition was published in 1866, the second in 1870, the third in 1874, and the last in 1880.

We have on various occasions given our estimate of this book, and our chief duty at this time is to look at this edition as differing from the previous ones.

Dr Moinet has wisely followed the example of other writers by giving only the new chemical notation, and this is the chief point in which this edition excels its predecessors. As a text-book for students, it must be admitted that the volume contains much that no student is ever expected to learn, and we are forced to express our disapproval of the too common practice in works on materia medica of reprinting the British Pharmacopeia, especially in regard to the preparation of the various officinal substances. We firmly maintain that all who manufacture medicines should do so directly from the British Pharmacopoeia, and not from a work on materia medica, however excellent that work might be.

This edition is by no means distinguished for the accuracy of its chemical formulae; for example, iodide of sulphur appears as S₂I, nitric acid as 2HNO₃3H₂O, as if the acidum nitricum of the B. P. were a definite chemical compound.

The editor tells us that he has "altered the original text in many places, in consequence of the progress which the science of therapeutics has made since the date of the previous edition." We fear that in many cases this desirable end has not been attained. For example, neither under benzoic acid nor benzoate of ammonia is any mention made of the cholangogue action of the benzoates, and of their great use as hepatic stimulants.
In the preface we are told that the editor has “retained the botanical descriptions of such plants only as are indigenous.” We doubt the wisdom of leaving the student entirely ignorant of the botany of the great majority of the officinal plants. This could easily have been done without giving their full botanical details.

There is abundant evidence in this work that the editor is by no means distinguished for his botanical knowledge. Frequently he has neglected to append to the specific name of a plant the author, which in many cases leads to confusion.

He falls into a common mistake in supposing that the *Ulmus campestris*, Sm., is identical with the *Ulmus campestris*, Linn., and is thus led to describe the English elm as the one officinal in the B. P. More serious is his statement regarding the leaves of *Vaccinium Vitis idaea*, L., whose leaves are sometimes confounded with those of *Uva ursi*. Dr Moinet tells us that the leaves of this *Vaccinium* “are known by their serrated margin.” No person could have written these words who had ever seen the leaves of this plant—a plant, we may mention, which is abundant on one of the Pentland Hills.

We wonder on whose authority it is stated that *Ruta graveolens*, L., is not officinal. Certainly in the B. P. it is given as the only source of oleum *ruta*.

As examples of indigenous plants, if we are to regard them as such from their botanical descriptions being retained, we would mention the following, which may serve to show how much the editor knows of the botany of the British Isles. The botanical description of *Papaver somniferum* is retained, but not that of *P. Rhaes*. He has retained the botanical descriptions of *Glycyrrhiza glabra*, *Prunus Laurocerasus*, *Ecbalium officinarum*, *Anethum graveolens*, *Lavandula vera*, *Rosmarinus officinalis*, *Ricinus communis*, *Morus nigra*, *Quercus infectoria*, *Juniperus Sabina*, etc.

He retains the botanical description of the common larch, which certainly is not indigenous, but omits the botany of *Pinus sylvestris*, the Scotch fir, which every botanist knows is not only indigenous, but is very abundant on the mountains of the north of Scotland. Curiously enough (although we fail to discover why) he retains the botanical description of *Triticum vulgare*, the common wheat, but omits that of *Hordeum distichon*, common barley.

We could point out other inaccuracies in the book, but we have said sufficient to put the student on his guard, especially when the editor is dealing with botanical subjects.