Part Second.

REVIEWS.

Cooper's Dictionary of Practical Surgery and Encyclopædia of Surgical Science. New Edition, brought down to the Present Time. By Samuel A. Lane, Surgeon to St Mary's Hospital, etc.; assisted by various Eminent Surgeons. In Two Volumes. Pp. 2130. London: Longman, Green, and Co.

These imposing volumes form the first posthumous edition of the famous Surgical Dictionary of Mr Samuel Cooper, the success of which may be best appreciated by the remembrance that during the author's life no fewer than seven editions were sold, besides various reprints in America, and translations into French, German, and Italian. The work, as performed by Mr Cooper, was a marvellous example of the power of vast industry, aided by extensive reading, a retentive memory, and a certain faculty of assimilation and digestion of the labours of others. This new edition by Mr Lane is not a mere reprint with additions, but, to a very great extent, it is a new work. It seems to have taken a long time to prepare, for, on the titlepage of the first volume, we find the date 1861, and on that of the second 1872.

Mr Lane has wisely associated with himself many well-known and distinguished surgeons in the work of revision. In the first preface he promises the services of twenty-three, but in the second we find that no fewer than thirty-four fellow-labourers have had, more or less, a share in the work; and, as a result, no fewer than 700 pages of new matter are added to the book. Of these 249 are allotted to entirely new articles; 280 have been consumed by articles which, although contained in previous editions, required to be written de novo; the remaining 171 pages have been expended on the new matter necessarily introduced by the reviser in almost every article.

We see that this work differs so much from the older editions of Mr Samuel Cooper's Dictionary as to merit notice on its own merits; we must now try to discover how far it will fill the place of its predecessor.

The first volume, we regret to find, is, of necessity, far behind the time. Amputation of thigh is described, and not one of the methods by long anterior flap, such as Teale's, Carden's, or Spence's, are alluded to. Cataract is described without an allusion to Graefe's operation. Such omissions are of course absolutely unavoidable, from the date at which the first volume came out, but still are to be deplored as interfering with the unity of the work.
In the second volume we find the articles, as a rule, exceedingly well up to date. Mr Druitt's article on Inflammation not only includes the very latest researches of Cohnheim, Stricker, and others, but gives a most masterly bird's-eye view of the literature of the subject in the past, and some interesting contrasts as to treatment. We notice that he refers with much respect to Professor Laycock's views on Counter-irritation. Mr James Lane on Lithotomy, and Sir Henry Thompson on Stricture, furnish papers conveying a great deal of information, in a readable and accessible manner.

On the whole, we believe that any surgeon, wishing a book of reference by which he can readily and briefly refresh his memory in any given subject, and especially discover what has already been done, and where information may be obtained, will find what he wants here. It is fragmentary and unequal; is not a systematic treatise; but it is a valuable storehouse of information, and, being a dictionary, the information is easily got at. If this edition were exhausted, an effort ought at once to be made to bring the first volume up to date.

Manual of Surgical Anatomy. By W. Roser, Professor of Surgery in the University of Marburg. Illustrated by numerous wood-engravings. Translated from the fourth German edition, by special permission of the Author, by John C. Galton, M.A. Oxon., F.R.C.S., F.L.S., formerly Lecturer on Comparative Anatomy at Charing Cross Hospital, etc., etc. Pp. 296. London: Renshaw. 1873.

This is an unpretending, but thoroughly practical and useful, little book, occupying a border-land between the ordinary manuals of regional and topographical anatomy on the one hand, and the works on surgical anatomy and operative surgery on the other; and we do not know of any work in the English language with which it can be compared. Its anatomy is sometimes put in an odd and original way; even its diagrams look unfamiliar, many of them showing the relation of muscles in section, as we see them in a round of beef, and others giving curious-looking but useful views of the relative position of parts by means of "window sections" ("Fensterschnitte"). For example, Fig. 2 illustrates the relation of the nasal duct to the antrum by a very excellent section, and the description of this section, as well as of the eyelids, muscles, etc., is one of the very best and clearest we have ever read.

In our study of the book we had marked various points which might be noted. In a diagram of the sensory nerves of the face (after H. Meyer), the regions of their distribution are very well shown; but a name, with which we are not familiar, and which is certainly a lumbering one, is given to the buccal twigs of the third branch of the fifth; it is crotavitico-buccinatorius!
We agree with Professor Roser as to the origin of ranula. "The old attempts to explain the so-called 'ranula,' as a dilatation of the salivary ducts, had as little foundation as the later theory, that of Fleischman, that they arise out of a bursa of the genio-glossus. Most ranulae are evidently independent cystic growths; according to an hypothesis I have put forward, they are cysts of the branchial fissures" (pp. 60, 61).

Here and there we feel the want of more detailed and precise explanations of the plates, the usefulness of some of which is much impaired by the omission of information as to their meaning.

Professor Roser's observations on the deep cervical fascia and its use are very good indeed, and have a practical bearing on the treatment of deep cervical abscesses, and the causation of emphysema during tracheotomy (pp. 66, 67). He explains the frequent hæmorrhage in cases of ligature of the subclavian as due not so much to the numerous large branches, as to the state of extreme tension in which this vessel always is, and the consequent risk of too rapid separation of the ligature. Might not this be avoided by the adoption of a double ligature with division of the artery between, as used to be practised in the groin?

We notice a mistake, probably in the translation, at p. 77, in the description of the descending branch of the ninth; it is said to supply the muscles of the tongue, instead of the depressors of the hyoid.

The most remarkable and original part of the book, and most interesting to a surgeon, is the appendix on Hernia, the gist of which may be briefly given in the following theses:—1. Femoral herniae originate from a drawing out of the peritoneum; then a lobule of fat forms attached to peritoneum, pushes itself into Cloquet's septum crurale, pushes through it, becomes pear-shaped, grows outside, pulls peritoneum into it, forms a sac, which is ready for the hernia. 2. External inguinal herniae, or more properly their sacs, are almost always congenital. These apparently startling theses Professor Roser supports with great ingenuity and force, and no surgeon who is really interested in hernia in a scientific aspect should condemn him unheard. He is evidently sore on the subject, for he says, "The majority of surgeons interest themselves but little in such details of etiology, for, on asking what treatment is to be deduced therefrom? if the answer be given that at present no therapeutic deductions may be made from them,—off they betake themselves quite indifferent; and one may be well pleased if no glance of mockery furnish evidence that they liken the sacrifice of time in investigations of that sort to the winnowing of an empty straw-haulm."

The work of the translator has been well done on the whole; perhaps he has retained a few Germanisms, but all know how infections such a style is. His notes are mostly good, and the Edinburgh School will be pleased by one, on page 193—"It is much to
be regretted that, though the opportunities for so doing are certainly equal, so much less regard should be paid—with the exception of about three hospitals—in London dissecting-rooms to really important human abnormalities (muscular), which are noted with care at Edinburgh, and even at the Universities of Oxford and Cambridge.”

Mr Galton’s spelling of the word exstirpation instead of extirpation, though correct, is peculiar, and not warranted by dictionary authority. Does he spell exstinguish in the same way?

Outlines of Surgery and Surgical Pathology, including the Diagnosis and Treatment of Obscure and Urgent Cases, and the Surgical Anatomy of some Important Structures and Regions. By F. Le Gros Clark, F.R.S., Senior Surgeon to St Thomas’s Hospital. Second Edition. Revised and Expanded by the Author, assisted by W. W. Wagstaffe, F.R.C.S., etc. London: J. and A. Churchill: 1872.

It is now nearly ten years since, in these pages (Edinburgh Medical Journal, Sept. 1863), we had occasion to review in no very flattering terms the first edition of this little work. We regret that we see little reason to modify, still less to reverse, our decision. As its name implies, the work consists of outlines, and certainly little more. In such a work, accuracy of definition and preciseness in arrangement are surely necessary. We fail to find these. For example, what is the student to make of the following?—

“Pus is found on the surface of ulcers, of mucous and other membranes, and contained in circumscribed cavities. Microscopically, pus consists of a multitude of cells, about \( \frac{300}{1000} \)th of an inch in diameter. These cells have the same appearance as the white corpuscles of the blood. In pus examined under ordinary circumstances, they are spherical bodies of plastic matter, more or less granular, and, when acetic acid is added, one or more nuclei are visible in their interior. When examined during the process of suppuration in the cornea or mesentery, they are seen to be amoeboïd bodies capable of movement and of constant alteration in form. Other globules and cells, mingled with pus on a suppurating surface, represent the spoiled material in question.”

Now, this paragraph is diffuse in style, obscure in sense, unprecise in pathology, and defective in information.

In proof that the arrangement is peculiar, we quote the order in which the following subjects occur:—Ulceration, Abscess, Sinus and Fistula, Mortification, Boil and Carbuncle, Acne, Erysipelae, Hospital Gangrene, Ulcers (pp. 17-22); and the following:—Corns, Bunions, Plica polonica, Porrigo decalvans, Diseases of Serous and Synovial Membranes, Bursae, Ascites, Hydrocele, Hydrops articuli (pp. 58, 59, 60).

One really good hint may be got from the typography of the work; the chief words, such as names of diseases, being printed in vol. xviii.—no. viii.
bold black type, rendering reference much easier than it otherwise would be.

The following, on the Temperaments, reads like a quotation from a work of the sixteenth rather than of the nineteenth century:—

"The temperaments which most concern the surgeon are the sanguine, the choleric, the phlegmatic, and the nervous."

How do these concern the surgeon? or why the surgeon more than the physician? Here is another definition reminding us of the well-known definition of an archdeacon:—"IRRITATION, in a pathological sense, is the consequence of an irritant acting on a morbidly excitable organ, or of a morbid excess in its healthy excitability" (p. 3).

The account of Ulcers is exceedingly unsatisfactory. They are described, as being acute or chronic, with the following modifications, irritable, catametal, and varicose (pp. 24, 25).

We are glad to find that some observations in our review of the account of Cancer in the first edition have produced good effect, as, in the present work, the cancer paragraphs are much improved, and the pathology, so far as it goes, seems correct enough.

Few surgeons will agree with the direction, in p. 142, that in tracheotomy the trachea should be fixed into a small hook, and punctured transversely with the scalpel, a blunt-pointed bistoury being subsequently used to divide two rings from below upwards. Nor will many patients approve of the direction not to administer chloroform during the operation for hernia, for the rather oddly expressed reason, "as it is likely to induce sickness in the susceptible state of the stomach." Nor will many surgeons agree with the very dangerous doctrine that the most fitting cases for the operation in which the sac is not opened, are recent cases of femoral hernia. It is now generally taught that, in recent cases of femoral hernia, ulceration is most likely to be rapidly fatal to the bowel from the tightness of the constriction.

We find, at p. 172, that Mr Clark still sticks to his opinion that "the cautious employment of potassa fusa is preferable to cutting; it is both safe and efficacious, especially where the stricture is irritable." We do not expect him to change his views.

In excision of the elbow, Mr Clark does not seem to expect much motion, and probably he is not disappointed, for he humbly says, "Considerable motion is sometimes restored after the operation."

In our review of the first edition, we spoke in strong terms of the conduct of a surgeon in describing incorrectly an operation, and then vilifying the results of the garbled operation. In this edition, though Mr Clark does not now introduce his own extraordinary modification of it, he still does not describe Syme's operation correctly; and an account of Amputation in which the operations of Spence, Carden, and Teale are not even alluded to, can hardly be considered up to date.

The chapters on the Diagnosis of Joint Disease, the Thermome-
ter in Surgery, and Hints on Minor Surgery, contain a great deal of useful information in small space.

In conclusion, we regret much that we have so little to say in favour of this little work. Mr Clark's forte possibly is clinical teaching; in this systematic treatise, he has attempted to be concise, and succeeded in being dull. The typography, paper, and general get up are all that could be desired.

Memorandum on Steppe Murrain in Shanghai. By Dr Edward Henderson.

In this pamphlet, Dr Henderson gives us a very interesting account of an outbreak of disease among horned cattle in Shanghai, to which his attention was first directed in the autumn of 1868. Not then suspecting the existence of steppe murrain in Shanghai, he omitted to make the necessary post-mortem examinations, which would have thrown light on the real nature of the disease. It was not till March of the present year that a recurrence of the epidemic afforded him an opportunity of doing so. After many dissections, and as the result of a painstaking and laborious examination, prosecuted with much zeal, Dr Henderson was led to adopt the following conclusions: namely, that the disease thus prevalent in Shanghai was rinderpest—highly contagious and rapidly fatal; that treatment was useless; that affected animals are to be slaughtered, and prompt measures otherwise taken to prevent dissemination; and, lastly, he regards this dangerous epizootic to be "as truly endemic in the great plain of China as in the steppes of Russia."

We have pleasure in congratulating Dr Henderson on his able and successful investigations; and, from the record of facts contained in his Reports, and our knowledge of the disease as it appeared in Great Britain, are glad to be able to express our full concurrence in the conclusions to which his inquiries have led him. While thus approving generally of Dr Henderson's Reports, and fully sensible of the important services rendered by means of them, we are not quite satisfied as to the soundness of some of his views, more especially relating to the pathological aspects of the question. What, for example, are we to understand by such terms as "peritonitis," "inflammation," "ulceration," "diphtheritic," "croupous," etc., which Dr Henderson applies to the morbid lesion which he finds in steppe murrain? In this disease we look in vain to discover any morbid conditions to represent these terms. And now that the pathology of cattle-plague has been thoroughly elucidated since the great epidemic of 1865, any one who, at the present day, professes to treat the subject with such defective views of its pathology can hardly be excused.
That the cattle disease, which is now of such frequent occurrence in Shanghai, is identical with the plague which devastated the herds of Great Britain in 1865, is a matter of certainty; and if Dr Henderson would compare the morbid lesions found in the course of his dissections with the diseased structures, so carefully delineated in the drawings which accompany the Edinburgh Reports on Cattle Plague, prepared for the authorities (and often referred to in this Journal), it would still further strengthen his conviction that he had arrived at the right view in regard to it.

The Institutes of Medicine. By Martin Payne, A.M., M.D., LL.D., etc. Ninth Edition. New York: Harper and Brothers: 1870.

Physiology of the Soul and Instinct, as distinguished from Materialism. With Supplementary Demonstrations of the Divine Communication of the Narratives of Creation and the Flood. By Martin Payne, A.M., M.D., etc. New York: Harper and Brothers: 1872.

These large works by Dr Martin Payne do not admit of being seriously criticised. They are obviously the production of one who in the course of a long life has amassed materials which he has never been able to understand in detail, and which have altogether baffled his powers of co-ordination. In the progress of science the venerable author has only been able to recognise an agency tending to destroy the religious opinions which he cherishes. Unfortunately, he has considered it to be his duty to assume the attitude of a champion of, that which he believes to be, the truth, and, in the discharge of this self-imposed duty, he has written books which are remarkable for the absolute misapprehension of scientific method and thought, no less than for the bitter animus, which they display.

The large work on the Institutes of Medicine, which has already passed through nine editions, is a medley in which Physiology proper finds no place, although under that title we find lengthy controversial disquisitions on some matters which are scarcely amenable to scientific investigation or discussion. We shall allow our readers to judge of the fitness of Dr Payne to be an expositor of the facts of science by quoting passages from two sections of his book, which afford admirable illustrations of its merits:

Section 130. "Every part is a perfect labyrinth, anatomically considered. It is a labyrinth also of perfect designs; while the harmonious concurrence of these designs in the aggregate organs and tissues is too profoundly complex for any exact analysis."

131. "It has already been stated, that a knowledge of the minuteness of structure which is supplied by the microscope is practically useless, while the deceptions of that instrument have led
to many important errors in physiology and pathology. It cannot be depended upon, especially in exploring soft structures. If it lead to unimportant facts, it is equally liable to betray us into error and fallacious hypotheses. The whole history of that instrument, so far as physiology is concerned, has gone to confirm the foregoing conclusions, which were originally advanced in another work, and has conclusively sustained the opinion of one of the most profound observers of the present age,” etc. . . .

“When we consider, therefore, the deceptions of the microscope, especially in all explorations of soft substances, and the absolute uselessness of any knowledge it may convey as to the recesses of organization, it may be reasonably expected that the time is not far distant when all this lumber will be excluded from practical works on physiology, and turned, at least, into a channel by itself.”

Of the second work, “On the Physiology of the Soul,” we would merely remark, that it suggested to our mind more forcibly than any book ever did before, that religion has even more cause to fear the zeal of intolerant and incapable advocates than the attacks of those who openly place themselves in opposition to her.

Elements of Zoology. By Andrew Wilson, Lecturer on Zoology.

Edinburgh: Adam and Charles Black.

This is an elementary work of some 600 pages, beautifully printed in large type, and designed more especially for junior students. It is dedicated to Dr Allman, lately Professor of Natural History here, to whose brilliant lectures we perceive a certain similarity in many passages. In our author’s case, however, this, being properly acknowledged and not exceeding due bounds, is a meritorious feature. The following two sentences, transcribed from the Preface, fairly indicate the method of treatment:—“The theoretical matter, which inevitably meets one on the threshold of biological science, has been but lightly touched upon; whilst in the equally difficult subject of Classification, the author has thought it better to follow in the footsteps of his elders and mentors in the science, than to seek new roads and paths for himself.” “The most recent classifications have been very generally adopted, but the author has not hesitated to retain an older system where simplicity, consistent with accuracy, could be obtained.”

The style is clear and easily read, and while a sufficient number of examples have been given, the text is not overloaded with detail. In some places, such as the description of the Rhizostomidae and their allies, brevity has either prevented or supplanted a definite account of specific differences; and, in various other places, we have detected minor inaccuracies, such as the statement that the “ros-
trum" of the narwhal is the left incisor tooth. Of course, this tooth has now been abundantly proven to be the left canine. This leads us to remark that no proper definition of the different kinds of teeth, founded upon their anatomical position, has been given, and that our author's account of the vertebrates in general, and of the mammalia in particular, is not equal to that of the invertebrates. With the exception of a few diagrams, which are drawn upon too small a scale, the illustrations are praiseworthy, and well adapted for teaching. The chief merit of the work is, that any one reading it is not only put in possession of some facts in natural history, but is put in a position to carry out the study of the subject for himself in larger works. Upon the whole, we may congratulate the author upon having supplied a want and written a book which, if nothing very great or original, is likely to be useful.

**A Manual of Elementary Chemistry, Theoretical and Practical.** By George Fownes, F.R.S., late Professor of Chemistry in University College, London. Eleventh Edition. Revised and Corrected by Henry Watts, B.A., F.R.S. London: J. and A. Churchill: 1873.

For the last twenty-five years, Fownes's Manual has occupied an honourable and useful place among chemical text-books. Taking a position midway between the exhaustive "handbooks" and the small introductory text-books, it has proved itself a useful guide to the student, perhaps a little more full in its information than is absolutely required for his purposes, and also a valuable book of reference for those who are not chemists but require to make use of chemical facts. In its successive editions, it was always kept up to the existing position of the science; and, while it contained all that was new and important, undue prominence was never given to novel speculations. In Mr Watts it has found an editor admirably adapted to preserve these valuable characters, and we know of no book better fitted to present to an intelligent student, a fair and undistorted view of the present state of chemical fact and opinion.

**Introduction to Inorganic Chemistry.** By Wm. Geo. Valentin, F.C.S., Principal Demonstrator of Practical Chemistry in the Royal School of Mines and Science Training Schools, South Kensington. London: J. and A. Churchill: 1872.

It is obviously impossible to teach chemistry, or any other experimental science, without reference to certain so-called laws or principles. There are two ways in which these may be introduced
to the notice of the student. 1st, They may be enunciated dogmatically as useful conventions, and applied to the various cases to which they are applicable as these occur in the course of study, the student being allowed gradually to find out their meaning and value, and also the limits of their applicability, as he sees their usefulness, general consistency, and occasional failure. 2d, An attempt may be made, at the commencement of the course of study, to prove them by means of experiment. In the book before us, Mr Valentin tries the second plan, and, in our opinion, fails, not certainly from want of knowledge or skill (there is abundant proof of both), but because he has undertaken an impossible task. Very few of the "laws" of chemistry can be either completely stated or strictly proved; and the beginner will either discover that what has been taught him as a proof is not really so, and his confidence in the accuracy of the science will be shaken, or he will accept the proof, and be led to feel an undue-confidence in the laws. As an instance of such imperfect proof, we may take the evidence for the "theory of atomicity," which Mr Valentin makes a fundamental part of his teaching. This "theory" involves, and depends upon, the ratio of the equivalent to the atomic weight of an element. There are many cases in which the evidence leading us to fix upon a particular ratio can in part be made intelligible to junior students, but it would be absurd to expect a junior student to form an independent judgment upon any case of the kind. The facts upon which such a judgment can be based are too numerous, and some of them are of too little intrinsic interest, to justify a teacher in laying them before a class of beginners.

But our readers will, no doubt, expect us to do more than merely call in question the purpose of the book, or the principle upon which it is written. We therefore turn to the matter and style. The experiments are selected with great care and skill, and are, upon the whole, well described. Here and there we observe a fault, scarcely avoidable in a work addressed to teachers, some of whom are not supposed to be specially educated chemists. The descriptions are sometimes unnecessarily minute as directions to those who understand chemistry, yet not minute enough for those who do not. The questions at the end of each chapter are excellent, and, of themselves, render the book a valuable one to a teacher.