REVIEWS.

The Surgery of the Chest. By Stephen Paget, M.A. Oxon., F.R.C.S. Bristol: John Wright & Co. 1896.

This work should have been noticed in these pages nearly a year ago, as it was published in June, 1896; but the reviewer has found it so crammed with interesting and important material that he has been led on to a complete study of it. Consisting as it does of nearly five hundred pages of close print, it has occupied the spare half-hours of many months in its perusal. We regard it as one of the most important works on surgery published in recent years in this country. Mr. Paget has himself had an unusually wide experience of the surgery of the chest, and he has sought with untiring industry in the medical literature of many countries for illustrations of the various surgical conditions he describes.

In discussing the complications of fracture of the ribs, the author devotes a chapter to the study of surgical emphysema. We are a little astonished to find him saying, "In simple fractures I have very seldom seen it, and have never seen trouble come of it," for our experience in the Glasgow hospitals does not bear out so optimistic a position. With us it occurs in about one case out of every ten of simple fracture of the ribs, and we have many examples of its leading to a fatal result. Some allowance must, of course, be made for the fact that only the graver cases of fractured ribs reach us, the milder ones being treated outside the hospital wards.

The chapter on wounds of the heart is one of the most interesting of the book, and contains marvels of recovery and astounding operations, such as would not be out of place in a story by Jules Verne. One fact is substantiated beyond cavil, namely, that wounds of the heart are not necessarily fatal, and that the most serious danger to be apprehended from such wounds is the haemorrhage into the pericardial sac and consequent impediment to the heart’s action. Some years ago there was shown at one of the Glasgow Medical Societies by Dr. James Dunlop, the heart of a man who had been wounded by a revolver bullet. The bullet had traversed the lung and entered the wall of the left ventricle where it had become imbedded, and the wound had healed over it; the man had lived some days and finally succumbed (we believe) to septic
pneumonia caused by the bullet track. Mr. Paget does not seem to have heard of this case, and may possibly be glad to be furnished with some particulars of it. The most interesting group of cases given by Paget of removal of needles from the heart, serve to show that the chief danger of such injuries lies in the impediment caused to the heart’s action; when, therefore, needles are pushed far enough in to be free from contact with the parietal pericardium they seem to be much less dangerous. Selzner’s case is most graphically described, and it says much for the endurance of his patient that in spite of “a plug of gauze escaping into the pleura, so that it could not be found again,” and also of the fact that “the heart beat so hard that the needle slipped back and vanished into the interior of the ventricle, and lay upright inside it,” the patient “left the hospital four weeks after the operation, in perfect health, with no signs of trouble either in the heart or lungs.”

We naturally turn with interest to the subject of empyæma, and find it treated with much fulness and in a thoroughly judicial and satisfactory manner. The comparative infrequency of tubercle as a cause of empyæma is well brought out by the statistics cited—thus, König reported 80 per cent of his cases as non-tuberculous; Moutard-Martin had only 7 tuberculous cases in 84 cases of empyæma; and Leudet in 826 post-mortems of cases of phthisis found empyæma present in only 9 instances. Mr. Paget endorses Schede’s opinion that in all cases of empyæma, if operated on early, there is not only the possibility but the certainty of a considerable expansion of the lung, and that in children this may even go so far as to the complete restoration of the shape of the chest and the functions of the lung! He would therefore reserve extensive rib-resections for chronic cases where milder measures have failed, and he thinks that if proper treatment be adopted at an early stage of the condition, such heroic measures should be unnecessary. He strongly disapproves of forcible irrigation and the use of strong antiseptic solutions, holding that the introduction even of warm aseptic water is not without its dangers, and that the pleura very readily absorbs such chemicals as carbolic acid and corrosive sublimate. We have ourselves arrived at much the same conclusions, but have not discarded irrigation entirely, for many empyæmas are so thoroughly septic that something more than evacuation of the pus is necessary if we would minimise the risk of septic absorption. But we have for a long time past done away with the irrigation at each dressing subsequent to the operation, and have had every reason to be satisfied with our results. Mr. Paget
mentions J. H. Lilly's case, where the patient was cured after fifty-six aspiration punctures, only for the purpose of "pointing the moral" as to the uselessness and stupidity of such treatment; but the fact remains that the patient is still alive (is driving a cab, indeed, in Glasgow), is in robust health, and has as perfect a lung on that side of his chest as on the other. Indeed, after a prolonged and wide experience of the treatment of empyema, we are still able to point to it as the most successful cure of that condition with which we are acquainted.

We are sorry that the limits of space prevent our doing more than referring to such enticing subjects as "Puncture of the Heart in Chloroform Syncope," "Aspiration in Air-Embolism," "The Treatment of Gangrene of the Lung," "Subphrenic Abscess," and the "Surgical Treatment of Tuberculous Cavities in the Lung." If our readers are interested in these subjects they cannot take a better guide than Mr. Stephen Paget.

The work is valuable not only as a storehouse of facts and an exposition of surgical advance in one of the most difficult regions of the body, but also as showing how much of our advance must depend on accurate knowledge, careful observation, and boldness which is not rash.

The Education of the Central Nervous System: a Study of Foundations, especially of Sensory and Motor Training. By Reuben Post Halleck, M.A. (Yale). New York: The Macmillan Company. 1896.

This work is well calculated to be of service to intelligent parents and teachers as a valuable guide in the training of young people from infancy to maturity. It opens with an elementary account of the structure of the brain and spinal cord, which is on the whole good, though exception may be taken to some points in the illustrations on pp. 11 and 18 (figs. 4 and 8.) The writer then goes on to consider certain fatalistic aspects, and expresses his conviction, based upon experience, that young nerve cells are more amenable to training than any other matter of which he has knowledge. He then discusses the modes in which the brain may be modified by training, in regard to its sensory, its motor, and its highly important associative portions. We have next a chapter on attention, nutrition, and fatigue, and then one on environment and training. In connection with the subject of age and training, the author remarks that "the old theory that educa-
tion consists solely in modifications in an immaterial entity has worked untold damage. It was argued that the immaterial never grew old, and that it could be trained as well at one time as at another.” And he wisely observes further that “a well trained nervous system is the greatest friend that the mind can have. An ill trained nervous system is a relentless enemy to the higher mental powers. It follows its victims and thwarts their aims until the pitying grave stops it.” In the chapter on general sensory training, the author examines the character of the sensory images employed by Shakespeare and Milton, and gives numerous poetical illustrations which ought of themselves to be sufficient to commend the work to those of literary tastes. Extensive lists are given of sights, sounds, odours, &c., which the child ought to be trained to recognise by the use of one or other of his special senses. The tendency nowadays is to push book knowledge too far, and at the same time to give the special senses a very imperfect training. The kindergarten system is a judicious remedy for this in the case of the youngest scholars, but in primary and secondary education much remains to be put right. It is to be hoped that this excellent volume will come into the hands of many who are in a position to put into execution some of the important educational reforms which it advocates.

Report on the Causes and Prevention of Smoke from Manufacturing Chimneys. By Harvey Littlejohn, M.A., M.B., B.Sc., F.R.C.S. Ed. Sheffield: Townsend & Son. 1897.

This report was furnished to the city of Sheffield at the request of its Health Committee at the time when the author of it held the position of Medical Officer of Health, and it forms a valuable contribution to the literature of smoke-prevention, which has well-nigh become the despair of sanitarians up till the present time. Beginning with a short historical survey of the subject, Dr. Littlejohn brings out the salient points of the Parliamentary Committees' Reports on Smoke Prevention of 1819, 1843, 1845, and 1846, of the Report of the General Board of Health of 1855, and of the Letter of the Secretary of State to Local Authorities of 1866, and he notes the legislation which has resulted therefrom. Considering the vast amount of evidence which has been taken, it is disappointing to find that in English law all that has been enacted consists of a clause in the Towns' Improvement Clauses Act, 1847, and of certain sections of the Public
Health Act, 1875. He next discusses the sources of the smoke nuisance and its causes, more particularly with special reference to Sheffield; and while admitting the unenviable notoriety of Sheffield for its murky atmosphere, he very properly points out that this arises from the fact that it is the seat of manufactures which depend chiefly upon the combustion of coal in furnaces, not steam-generating. That such a blackened atmosphere should exist in Sheffield cannot be wondered at when we know that within the city area of 30 square miles there is an annual consumption of coal estimated at one and a quarter million tons, contrasted with which London, with an area of 225 square miles, burns only a like quantity. The author deals at some length with the effects of the smoke nuisance on the public health, in the production of fog and rain, the obstruction of sunlight, and the formation of a smut-laden atmosphere which is causative of general griminess, and in addition to all this, in the enormous amount of chemical gases which is annually discharged into the air. The means of prevention deservedly occupy an important place in the Report. The author holds it as proved that the smoke nuisance may be largely prevented by the use of smoke-consuming apparatus and by careful and continuous attention to “stoking.” The apparatus which in his experience produce the best uniform results are “coking stokers” and Oates’ apparatus. Probably the most novel features in the Report are the author’s suggestion that, by the larger and more general use of gas in manufacturing processes, the evil may be minimised, and his opinion that this is quite practicable for many processes in which coal is presently used. At present, however, gas as a heat-producer in trade processes is still on its trial, and, doubtless, time and experiment will test its value and applicability. We commend a perusal of the Report to sanitarians, engineers, and smoke-producers in the hope that it may assist in bringing about the time when, by the better consumption of smoke, the denizens of populous places will see more of the sunlight, and will have purer, and therefore more healthful, atmospheres in which to live.

A Text-Book of Histology, Descriptive and Practical, for the Use of Students. By Arthur Clarkson, M.B., C.M. Edin. Bristol: J. Wright & Co. 1897.

This work is one of the best text-books published within recent years on the subject of which it treats. It presents the
facts of histology in an exceedingly clear, concise, and intelligent manner, and is worthy of the attention of all students engaged in the study of this subject. The first two chapters are devoted to the general methods of histology; in connection with the processes for hardening we note the absence of any mention of Erlick's fluid. The staining process is very well treated; the author has been judicious in not attempting to mention every possible staining fluid, those reagents selected by the author being quite sufficient for all purposes. This division of the work requires no further comment on our part, unless we express the opinion that diagrams of the different microtomes might have been included with advantage.

The remaining chapters of the book take up the different tissues and organs of the body in detail; the descriptive matter is obviously unequal, the thyroid body being dismissed in rather less than one page, while ten pages are devoted to the suprarenal capsules. The author's account of the development of bone is particularly lucid; that on the development of the teeth is the best we have seen in any ordinary histological text-book. The chapter on the nervous system is the most inadequate of the whole book; it contains no account of the structure of the pons, mesencephalon, pineal body, or basal ganglia. The demarcation of the tracts in the spinal cord is not so definite as it might have been. There is no mention of Marchi's method of staining, a method much used for the investigation of degeneration.

The great feature of the work is the excellence and beauty of its numerous coloured diagrams. The coloured illustrations, which are all original, are most correct in their details; for delicacy of colour and perfection of finish they surpass any other series we have ever seen. We are convinced that the author must have expended a vast amount of time and labour in the execution of the illustrations. Finally, we believe that the book will prove of great assistance to the student engaged in the study of this subject.

**Exercises in Practical Physiology. By Augustus D. Waller, M.D., F.R.S. Part I: "Elementary Physiological Chemistry." London: Longmans, Green & Co. 1897.**

This little work, of twenty-four pages, by a well known physiologist, will prove itself invaluable to students of medicine. It contains practical exercises on every subject that is included in all ordinary examinations on physiological chemistry. The
style adopted is terse and agreeable; the tests given are well arranged. The lessons on the examination of the common food stuffs and of the more important fluids and tissues of the body are extremely good. Several important facts, not often recognised, are insisted upon in Dr. Waller’s footnotes. A lesson on the known facts illustrative of the coagulation of the blood would have been useful; this may be included in a second edition. On the whole we heartily commend the work as being eminently fitted for laboratory use.

Handbuch der Physiologischen Optik. Von H. von Helmholtz. Hamburg and Leipzig: Leopold Voss. 1896.

We have at last received the final portions of the new edition of this standard book. We do not intend to review it, for that would be distinctly out of place in the pages of the Glasgow Medical Journal.

It is a matter to be thankful for that occasionally a work appears which is calculated for the specialist, and in which the author does not openly plead his own weakness by saying that it is written for “students and general practitioners.” The volume under consideration is essentially one for the ophthalmic specialist.

It is unquestionably the best, if not the only good book, on certain parts of the subject. Without the knowledge which is here given, at any rate in its more general aspects, no one should claim the title of specialist. It is to the student of ophthalmology what “Thomson and Tait” is to the student of dynamics. No doubt, time, with the further researches which it will bring with it, must change a good deal of what is mere theory, but it cannot well alter principles, and this work must for many years form one of the standards of ophthalmic science and a monument of the genius of its learned author.

In large part it has to deal with physiology, and little of finality can be predicted as yet about such matters. The theories of this month are, as a rule, upset at the latest next month by other theories which are, to other minds, equally untenable, and so on. But it may be said with truth that Helmholtz’s work forms the sure basis and foundation of all modern ophthalmic practice, and he who desires to be in reality a specialist ought to get at the root of the matter.

As is well known, quite recently an attempt, and as yet a very successful attempt, has been made to show that Helmholtz’s views as to the action of the lens in accommodation
are not correct. But this no more dims the reputation of Helmholtz than does Sir Isaac Newton's failure to discover the wave theory of light detract from the honour due to him.

The changes wrought by Helmholtz in ophthalmology have been enormous, and here we have the record of his labours. Till quite recently it was not uncommon to find large clinics in which the refraction ophthalmoscope was not in use, and we can remember the ridicule with which our first examinations by the shadow test were received. As further illustrative of the present changed aspect of affairs, we may mention that not many years ago we found a house surgeon in an English eye hospital who could not examine the fundus by the indirect method, and who was quite unable to estimate an error of refraction. Such anomalies are entirely things of the past, and we owe it chiefly to the German philosopher.

Ligaments: their Nature and Morphology. By J. Bland Sutton, F.R.C.S. Second Edition. London: H. K. Lewis. 1897.

A number of years have elapsed since the first edition of this unique work was published; during the interval, fresh facts have been constantly added to our previous store of morphological knowledge. Laborious work and persistent accurate observation are requisite in order to produce a book of its nature, and we feel that Mr. Sutton's long connection with the Zoological Gardens has eminently fitted him for such a task. We should have been sorry had the author allowed this work to go out of print, as there is no other published in this country which could have taken its place. The author states that "to sort out from among the enormous heap of structures known as ligaments those which can boast a noble descent, and trace the history of their downfall is the object of the present treatise." In the present edition the text has been rearranged, new facts have been intercalated, several new illustrations added, and a very interesting chapter on the ligaments of the larynx has been included. It is difficult to select one part as being more interesting than another, in fact, every sentence is of interest; but we specially admire the articles on the knee-joint, the shoulder and pelvic girdles. The facts contained in this book, and the arguments based on these facts, have done much to build up the doctrine of evolution. We very much doubt Mr. Sutton's opinion that the triangular masses of fibres in the lumbar aponeurosis are
homologous with the levatores costarum; if they were, they would be attached to the anapophyses of the lumbar vertebrae, which are regarded by most anatomists as the homologues of the dorsal transverse processes. Mr. Sutton has wisely, we think, altered his opinion in regard to the origin of the lesser sciatic ligament. We commend this book to all students of anatomy, especially to those who are working for the higher anatomical examinations.

Practical Hints on District Nursing. By Amy Hughes. London: The Scientific Press, Limited. 1897.

This little manual is full of commonsense, and contains some most practical advice for those beginning district nursing. Miss Hughes states the difficulties which will be met with in the course of work among the sick poor, and points out how they may be best dealt with. Her ideal district nurse is above all a tactful person, who, while thoroughly trained in all branches of nursing and in the laws of hygiene, is yet careful in applying them to feel her way gradually with the patient and patient's friends, and by so doing gives them confidence and doubles her own influence for good.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections, from the Museum of the Saint Louis Hospital, Paris. Edited and annotated by J. J. Pringle, M.B., F.R.C.P. Part VII. London: The Rebman Publishing Co., Ltd. 1897.

Part VII of this atlas contains plates illustrative of the following conditions:—(1) Eruption from Bromide of Potassium (Lucien Jacquet); (2) Hypertrophic Papular Syphilides (Lucien Jacquet); (3) Rupioid and Early Gangrenous Syphilides (Hallopeau); (4) Gangrenous Syphilides (Henri Feulard). The high artistic merit of the atlas, to which we have already frequently directed attention, is maintained.

Parts VIII and IX are also to hand.

The Medical Annual or Practitioners' Index. Bristol: J. Wright & Co. 1897.

The present is the fifteenth issue of the Medical Annual. It has as usual a distinctive note of its own, and fully merits professional confidence and support. In addition to specific
uses of new remedies, and a critical summary of the therapeutic progress of the year, the volume contains several valuable special articles written by recognised authorities. There are also a number of highly successful illustrations. Most of our readers have this have, we expect, studied the Annual for themselves. We congratulate all concerned in the production of this serviceable manual.

ABSTRACTS FROM CURRENT MEDICAL LITERATURE.

NERVOUS DISEASES AND INSANITY.

BY DR. R. S. STEWART.

Pellotine as a Sedative and Hypnotic. By Hutchings (New York State Hospitals Bulletin, January, 1897).—This is an alkaloid obtained from several varieties of cactus, and is found in the market in the form of muriate, a white crystalline salt, freely soluble in cold water, and of a bitter gourdy taste, which is not persistent or very disagreeable. At present it is only to be obtained in small quantity, and at great cost. Given in one hundred instances to ten patients in half-grain doses it induced particularly calm and natural sleep without headache or nausea, and the only objectionable effect was a tendency to produce vertigo when given in full doses, and in one case actual loss of consciousness supervened.

Delirium Grave. By Rowley (American Journal of Insanity, April, 1897).—It is claimed that this affection constitutes a distinct psychosis, and has not necessarily any definite relationship to a primary physical condition. Of the fifteen cases, which is the total number admitted during eleven years into the Northern Michigan Asylum, 73 per cent had a fatal termination. The average age was 38 years; 66 per cent had had one or more previous attacks of insanity, and the average duration on admission was sixteen days. The symptomatology was one of profound mental excitation, usually occurring in degenerate individuals and developing suddenly. The temperature was high. In several cases albumen was present in the urine along with an excess of phosphates, and in the majority of the fatal cases there was incontinence of urine and feces. The results of treatment were unsatisfactory; hypnotics proved of only temporary value, and ergotine was of little avail, but dubreine hydrochlorate in one case relieved the muscular excitability and produced rest and sleep. In the fatal cases there were found exudates, adhesions, softening, and hyperaemias, and other evidences of inflammatory cerebral processes.

Affection of Taste and Smell in Tabes. By Klippel (Archives de Neurologie, April, 1897).—Gustatory and olfactory symptoms in tabes are, this writer thinks, much more common than is generally supposed. He groups them under the two heads of anesthesia and perversion, and when marked they are accompanied by other signs indicative of bulbar invasion, such as troubles of deglutition, intense salivation, affection of sensibility in the sphere of the trifacial, and permanent paralysis of the muscles of the eyelids.