REVIEWS.

The British Pharmacopoeia, 1914.

The fifth issue of *The British Pharmacopoeia* will be published on 31st December, 1914, but advance copies have been sent out for review. The first impression made by studying it is the number of changes, necessary and unnecessary, which have been made. Since the last issue in 1898 there has been an enormous output of new drugs, chiefly synthetic, and it is an interesting comment on the value of the product that the compilers of the new *B.P.* have only found it necessary to include less than a dozen drugs to represent the much advertised commercial products. In the new edition, accordingly, we find official drugs representing such commercial preparations as aspirin, veronal, eucaine, diuretin, urotropin, purgen, lysol, heroin, trional, and eucaine. We are glad to see that there is no official recognition of organic iodides, bromine or iron preparations. The new official preparations are in most cases so thoroughly disguised by the fanciful names given to them that it will be some considerable time before they are recognised. It is a distinct lack that there is no indication of the commercial trade-name. In the *B.P.* codex this plan was adopted, and greatly facilitated the introduction of the *B.P.C.* nomenclature. Now the practitioner must learn that barbitone is chemically the same as the trade-preparation veronal, that benzamine lactate is his old friend β-eucaine, diamorphine hydrochloride, heroin, and so on. There is absolutely no indication what these preparations represent, except that the useless information is given of the exact chemical name of the drug. A number of new vegetable preparations have been incorporated, and, speaking generally, these are drugs used in the East as substitutes for drugs already official. In this way a few new astringents and anthelmintics have been officially recognised. On the other hand, only one new drug of animal origin has been included, viz., adrenalin. Neither vaccines or serums receive any official recognition.
The British Pharmacopœia fulfils a twofold function. It is alike a guide for the chemist and a standard for the physician. Roughly speaking, the numerous changes which have been made in way of altering the official descriptions and improving the tests for the various drugs are chiefly of interest for the druggists, and no doubt in due course we shall have their opinion about the changes. Similarly, the many minor changes in the composition of pill excipients interest chiefly the druggists. It is a different matter when we come to the question of the composition and doses of the official drugs and preparations. These points concern the physician. In the new edition, there are many, we believe too many, changes in composition and strength of old preparations. It is, of course, evident that this question of change in composition affects chiefly the present generation of practitioners. It is inmaterial to the coming generation what is the composition of the B.P. preparations. To the present generation it will be a distinct hardship that so many important preparations in constant use have been altered in composition. To name but a few—paregoric, laudanum, tincture of digitalis, tincture of nux vomica, tincture of strophanthus, compound jalap powder, nitroglycerin tablet, solution of perchloride of mercury, antimony wine, in the new B.P. represent different preparations from those of the old B.P. We question whether the inconvenience of the change is really counterbalanced by the approximate correspondence of the new preparations to those recommended in the International Agreement of 1906.

The greatest change affecting the physician is the adoption of the metric system for dosage. In the old Pharmacopœia the metric system was given as an alternative in the compounding of the official preparations, but the official dosage was in the imperial system. Now the metric system is alone official in the formula of the official preparation, and an alternative metric scale of dosage is given along with the older imperial doses. The compilers seem to think that the fact that students already use the metric system in laboratory work will render it an easy matter for them to adopt it to their materia medica. It is true that in the physiological work the metric system is in use, but in our experience though students glibly talk about c.c., litre, gramme, etc., they have but little conception what values these
terms represent. In any case, the student does not use the terms mils, decimils, centimils, now introduced into the B.P.

Of greater difficulty is the fact that it is not easy to find metric whole numbers which correspond accurately to the imperial quantities usually employed in dosage. The compilers have recognised this, and in the preface state that the correspondence between the two scales of doses is one of approximate equivalence only. That the degree of equivalence may be only very approximate is shown by a few tests. The official dose of tincture of digitalis is given as 3-10 decimils or 5-15 minims. Now, one decmil = 1'69 minims, so that 10 decimils = 16'9 minims. The difference between 16'9 and 15 is nearly 12 per cent. The ratio of 4 mils to 1 fluid drachm is taken throughout. Now 16'9 × 4 = 67'6 minims, whereas one fluid drachm contains 60 minims—or again, roughly, an error of 12 per cent. Similarly, the fluid ounce is equal to 28'4123 mils, but for purposes of dosage the fluid ounce is taken to be equivalent to 30 mils, involving an error of about 8 per cent. As 1 milligram corresponds almost accurately with \( \frac{1}{4} \) grain, the errors in the minute doses of solids are not so marked. To make the correspondence more accurate the doses of arsenic, strychnine hydrochloride, and other drugs, formerly with a dose of \( \frac{1}{10} - \frac{1}{15} \) gram, have now been changed to \( \frac{1}{4} - \frac{1}{8} \) gr. The gramme corresponds more nearly to 15 grains than the mil to 15 minims, since one gramme = 15'432 grs. Thus the assumption that 4 grammes = 60 grains is not so far out, since 4 grammes = 61'728 grains.

Another difficulty which will certainly arise from the double system of dosage is the question of bottle supply. The present range of 2, 4, 6, and 8 oz. bottles does not readily yield itself to the metric scale.

The substitution of empirical for constitutional chemical formulæ is not a forward step.

On the whole, the new issue seems to have been carefully revised, but there are still a few errors which have been overlooked. Thus the metric doses of tincture of strophanthus and of theobrominae et sodii salicylas are incorrectly given. On p. xxiii. cresolis is wrong. On p. 50 Bitter Orange should be Bitter-Orange. The index is defective in a few places. Troch. krameriae is omitted, and also the trochiscus of ipecacuanha and the trochiscus of morphine and ipecac, on pp. 573 and 574.
On p. 596 confection of sulphur is erroneously stated to be a preparation of sublimed sulphur, instead of precipitated sulphur. On pp. 532 and 533 surely distilled water is meant in defining the volumes of the measures of capacity. Would it not be well to include on p. 534 an approximate equivalent for the ounce of 437.5 grs.?

A new feature is the publication of official abbreviations of the Latin names. In it the contraction tr. is used for tincture. The official contraction—Ext. Gossyp. Rad. Cort. Liq.—is far too long; Ext. Gossyp. Liq. is surely sufficient.

Anæmia and Resuscitation: An Experimental and Clinical Research. By George W. Crile. New York and London: D. Appleton & Co. 1914.

This is a profoundly interesting book, and represents an amount of hard work, well ordered, and to be commended as an example to those about to engage in scientific research.

To those who are familiar with Dr. Crile’s contributions to the literature and practice of surgery our praise will not be unexpected; to others we recommend the present work.

Briefly put, the author’s experiments go to prove the extreme susceptibility of the brain to anæmia. He lays stress on the difficulty in overcoming anæmia of the brain, and in conformity with the importance of this fact he devotes the first two chapters of the book to a consideration of anæmia of the central nervous system. Dogs were killed by chloroform and resuscitated after the lapse of a period varying from three to fourteen minutes. The author found the average limit of total cerebral anæmia admitting of recovery to be between six and seven minutes; any recovery after more than seven and a half minutes was exceptional. “The histologic evidence that, even in so-called ‘recovered’ animals, some or even many nerve cells are permanently lost, and that all are temporarily damaged explains the great temporary and lesser permanent loss of power following any grave anæmia of the brain” (p. 72).

The subject of anæmia of voluntary muscles occupies several chapters. From experiments in this field the author draws
important conclusions. As regards muscular contractures, pressure, though usually present, is not an essential factor. Anaemia alone, nerve injury alone, or both in combination may cause contractures.

Clinical applications of experimental results are given, and there is a careful consideration of anaemia in spinal cord lesions, anaemia resulting from flap tension and from suture tension, &c.

To the surgeon, however, perhaps the most interesting subject considered is anaemia of the small intestine, with resulting production of powerful toxins and their action on the organism.

We need not dwell on the clinical application of the author's results. Suffice it to say that it has seldom been our good fortune to read so interesting a book, and we are sure that none of our readers who may peruse it will be disappointed. It is more than a mere addition to our knowledge; it is a mental stimulant of a high order.

Anaphylaxis. By Charles Richet. Translated by J. Murray Bligh, M.D. Liverpool: The University Press. London: Constable & Co., Limited. 1913.

An account is given first of all of the discovery of the phenomenon of anaphylaxis in 1902, and a summary of the main points established regarding it up to 1910. Anaphylaxis produced by alimentary absorption, and by hereditary transmission, has to be distinguished from what are merely cases of marked individual susceptibility. The incubation period varies with the dose, the type of animal, and, more especially, with the antigen used; and the results of various experiments by different observers show that the shortest period is ten days. The anaphylactic state lasts a long time, possibly, in the guinea-pig at least, during the remainder of life. The symptoms vary somewhat in different animals. They are described as they occur in dogs, rabbits, guinea-pigs, &c., and in man, the last occurring chiefly in children who have received antidiphtheritic serum on several occasions. Prophylactic intravenous second injections of horse serum in man are dangerous. Although anaphylaxis is not induced by crystalloids, there are apparently a few exceptions
in the case of certain drugs in predisposed people. Colloids almost invariably induce it. Injections of heterogenous serum—that is, the serum from an animal of a different species—cause it, also albuminous substances, possibly without exception. The anaphylactising powers in general of many substances have been tested by experiment, and the effects on them of heat and of chemical processes have proved the co-existence of a preparatory and of an exciting substance, the specificity of which, from a practical standpoint, is absolute. Hence a possible application in forensic medicine. Of anaphylactising substances in particular, sera, milk, eggs, toxins, bacterial albumens, extracts of cancerous tumours, and fluid from hydatid cysts are considered. Passive anaphylaxis has been induced in the dog, rabbit, and guinea-pig by injecting serum from an anaphylactised animal. This serum contains toxigen. Subsequently a dose of antigen that would be non-toxic to a fresh animal is injected. The condition may be homogeneous or heterogeneous, and is specific.

The phenomenon of anaphylaxis in vitro is produced, but not invariably, by mixing the blood of an anaphylactised animal with the antigen. The fluid becomes highly toxic, owing, probably, to the formation of a substance which has been named apotoxin.

The question of the relation of anaphylaxis to precipitin formation and complement deviation, being still the subject of research, is briefly referred to.

Anti-anaphylaxis is the prevention of the appearance of anaphylaxis by intercurrent injections of antigen.

The possible use of anaphylaxis as a test for the recognition of organic fluids has already been indicated. In the diagnosis of disease it has not yet become of practical value. The sensitiveness of some individuals to certain foods and drugs may be anaphylactic reactions; likewise the occurrence of death after the escape of hydatid fluid into the peritoneum; so also eclampsia, hay fever, asthma, &c. Infection of an animal with the tubercle bacillus gives rise to preparatory substances, and tuberculin to such an animal becomes an exciting substance, giving rise to anaphylaxis. Local anaphylaxis has been seen in man, and has been produced in the rabbit. Chronic anaphylaxis, that is, death after recovery from anaphylactic shock, has been
seen in some animals, and is probably due to lesions produced by the apotoxin. The artificial digestion of albumens has been investigated as regards their anaphylactising powers, but their effects are not fully understood.

Alimentary anaphylaxis sometimes occurs after certain foods in predisposed individuals, and is probably due to the presence in the blood of a toxin which reacts with the food.

General anaphylaxis—increased sensitiveness to all poisons as a result of the injection of a single antigen—has been produced in dogs.

The author's conclusions, based on the facts indicated and those ascertained by other workers besides himself, form an interesting epitome of the subject so far as it is known. For the complete bibliography for 1902 to 1911 the reader is referred to the French edition. A complete bibliography for 1910 and 1911, and of the leading papers published in 1912, is appended to the volume under review.

The translator is to be congratulated; there is almost perfect clearness, and the simplicity with which a complex subject has been presented is praiseworthy. On pp. 80 and 81 it is not quite clearly stated that albumenoids are anaphylactising substances, although it is readily inferred.

Printing and binding are most attractive.

Organic Chemistry for Students of Medicine. By James Walker, F.R.S., LL.D. London: Gurney & Jackson. 1913.

Excellent in many respects as this work undoubtedly is, it suffers, from the student's point of view, by the absence of a suitable introduction. It must be remembered that the student is not always in a position to begin this complicated branch of his study by an abrupt plunge (page 2) into a consideration of the purification of organic substances.

With the subject matter no fault can be found, and if the student already knows more than a little about organic chemistry he will be able to utilise the information to the full, although it is more than probable that few medical
students will be able to digest and assimilate more than a moderate amount of the material in the book.

The descriptions of many of the processes are unusually good, and an example of this is found in the description of Kjeldahl's process for the estimation of nitrogen.

As a book of reference for students and others the present work will be found invaluable.

Electrocardiographic Apparatus. Cambridge: The Cambridge Scientific Instrument Company. 1913.

We have received from the Cambridge Scientific Instrument Company a copy of their catalogue of electrocardiographic apparatus. It constitutes a catalogue raisonné, and gives, besides a list of prices and illustrations of the various forms of instrument and their accessories, a brief exposition of the general principles of electrocardiography, a detailed description of the string galvanometer and of the plate and paper cameras, time markers, and other important parts of the instrument, and a series of electrocardiograms from the different leads, illustrative both of the normal cycle and of a number of pathological conditions. An interesting modification is the phonocardiogram, by means of which a graphic record of the cardiac sounds, with their variations in pitch or tone, can be obtained, and the exact time relations of any murmur can also be accurately determined. The cost of a complete outfit varies from £200 to £290.

Physics: An Elementary Text-Book for University Classes. By C. G. Knott, D.Sc., F.R.S.E. London: W. & R. Chambers, Limited. 1913.

This is the third edition of Dr. Knott's excellent text-book on Physics, and we think that it is one of the best of its kind. The book is divided into two portions—the first entitled "Matter and energy;" the second, "Matter, ether,
and energy.” In the second portion we find an excellently written chapter on the electron theory and radio-activity. The book is throughout clearly and well written and easily read, and is also suitably illustrated. We venture to think that it is one of the best books in our language for medical students while attending their courses of physics.

**General Medicine.** Edited by Frank Billings, M.S., M.D., and J. H. Salisbury, A.M., M.D. The Practical Medicine Series. Vols. I and VI. Chicago: The Year Book Publishers. 1913.

We find more space devoted to medical subjects in this than in the previous series, and these two volumes provide a very comprehensive review of the year’s progress in the various branches. Diseases of the gastro-intestinal tract and the infections occupy much the greater part of Vol. VI, while the other sections of internal medicine are found in Vol. I.

The standard is quite up to that of last year, and the work must have entailed considerable painstaking effort on the part of the editors.

To general practitioner and specialist alike the volumes can be cordially recommended.

**Practical Pathology, including Morbid Anatomy and Post-Mortem Technique.** By James Miller, M.D., D.Sc., F.R.C.P.E. London: Adam and Charles Black. 1914.

The book is one of the Edinburgh Medical Series, and, as stated by the author, is meant to give the student of medicine and practitioner in a handy form the information required for practical work in relation to pathology. It does not aim to be a book for the specialist, nor does it serve the purpose of replacing the text-book on pathology. As a student’s handbook to assist him with the appearances presented by the organs as met with in the post-mortem room and museum, it serves well its purpose, and can be recommended as an addition to his text-books. It is well arranged and carefully written, and the
author has been fortunate in allotting to each section a proportion of the book consistent with the merits of the subject discussed, and for the size of the book it contains a large amount of information of a practical nature in a small compass. The work deals with the performance of the post-mortem examination, with a later chapter relating to medico-legal examinations, the diseased conditions most frequently met with in the various organs, a short account of tumours, and an appendix on methods.

The appendix deserves special merit for the judicious selection of such methods as will best serve the purpose of the student without over-burdening him with alternatives. The illustrations, which are placed at the end of the volume, are entirely taken from macroscopic preparations, and are well selected and executed.

**Nervous and Mental Diseases.** Edited by Hugh J. Patrick, M.D., and Peter Bassoe, M.D. Practical Medicine Series. Vol. X. Chicago: The Year Book Publishers. 1913.

The closing volume of the Practical Medicine Series for the year 1913, like its predecessors, is highly to be commended as providing a clear and sufficient account of the advances made during 1912 in the subjects with which it deals. The series is primarily intended for general practitioners, but its arrangement in volumes devoted to special subjects makes it also convenient for the specialist, who will find in it a convenient résumé of work with which he is already familiar. Both in the department of neurology and in that of psychiatry the book will be a useful companion.

**Diabetes: Its Pathological Physiology.** By John J. R. Macleod, M.B., Ch.B., D.P.H. London: Edward Arnold. 1913.

This volume, which forms one of the series of International Medical Monographs under the general editorship of Drs. Leonard Hill and William Bulloch, is essentially a review of
the experimental work that has recently been done on glyco-
genesis and the pathology of diabetes. It is based for the most part, as its author states, upon his own researches and those of his collaborators, but it also takes into account the work of others who have given themselves to research upon these lines, and subjects their views and results to critical discussion. Beginning with an account of the sugar of the urine, for which the author considers that Nylander's and Benedict's tests are the most satisfactory, he next discusses the sugar of the blood and its relation to the urinary sugar, and then passes to a consideration of its nerve control, finding that in the presence of adrenalin stimulation of the splanchnic nerve produces hyperglycaemia, i.e., that there are efferent nerve fibres controlling the glycogenolytic activities of the liver. The relationship of the ductless glands to sugar metabolism forms the subject of the next chapter, and Dr. Macleod concludes that although the pancreas, the adrenals, the parathyroids, and perhaps the posterior lobe of the pituitary body have an important controlling influence, exerted probably by hormones, it is difficult to say precisely how each gland acts. The pancreas and parathyroids facilitate and the adrenals depress the utilisation of sugar, but it is not known whether the hormones act upon glycogenesis or glycolysis. There is nothing to show that the internal secretion of the pancreas is derived solely from the islands of Langerhans.

The glycogenic function of the liver is next discussed at some length, but the conclusions reached upon this important subject seem to be as yet largely provisional, although it is shown that "the variations which occur in the process of mobilisation of sugar in the liver are not due to changes in the amount of the enzyme (glycogenase)." The environment in which the glyco-
genase acts must therefore change; and this leads to a discussion of hyperglycaemia, which is shown not to be a necessary accompaniment of hyperglycogenolysis. Its probable causes, and therefore the probable causes of glycosuria, are grouped in tabular form, and the author passes to consider the assimilation limit of sugars, the lowering of which indicates a fault in carbohydrate metabolism, and the determination of which is therefore of importance for the early diagnosis of diabetes. A brief consideration of the subject of glyconeogenesis.
ends the volume, the importance of which for workers in carbo-
hydrate metabolism is materially enhanced by the valuable bib-
líography which is given at the close of each chapter. Dr. Macleod’s contribution to the pathological physiology of diabetes is valuable both for its clear statement of attained results and for its criticism of over-hasty assumptions; and if at times the results appear but meagre to the clinician, anxious above all things for an indication for treatment, it is to be remembered that the removal of misconceptions is an important step on the road to truth. The book, it may be said in closing, is of convenient size, the type is clear, and there are few misprints; but on p. 138, lines 15 and 16 are transposed to the destruction of the sense.

Diseases of the Heart and Aorta. By A. D. Hirschfelder, M.D. Second Edition. London: J. B. Lippincott Company. 1913.

That the second edition of so large a work as is Dr. Hirschfelder’s upon diseases of the heart and aorta should have been issued so soon as three years after the publication of the first is a testimony to its merits more convincing than any that a reviewer can give. Its explanation is to be found not only in the unusually clear character of the author’s style, and the completeness of his presentation of the facts of cardiac pathology and symptomatology, but also in the attention which he devotes to the subject of treatment, and in his careful correlation of clinical indications with physiological action. But in the last three years many advances have been made in the knowledge of cardiac disease, and the second edition consequently differs from the first in several particulars. The new subject of electro-cardiography has received detailed consideration, the section upon arterio-sclerosis has been rewritten in the light of recent investigations upon syphilitic arterial disease, new drugs and new methods of treatment have been fully discussed, and in every particular the book has been brought into accordance with the latest results of research. While the book is thus considerably enlarged, and
while several of its chapters have been entirely rewritten, it still presents the same qualities which gained for it immediate recognition on its first appearance. In its present form it is a very complete presentment of the subject of cardiac disease, embodying not only the author's experience, but the fruits of his wide reading, and enriched at the end of each chapter by a bibliography which must prove of great value to those who desire further information upon particular branches of the subject.

__St. Bartholomew's Hospital Reports._ Edited by F. W. Andrews, W. M'A. Eccles, G. E. Gask, W. D. Harmer, H. Thursfield, and H. Williamson. Vol. XLIX. London: Smith, Elder & Co. 1914.

Some very interesting papers are included in the present issue of the _St. Bartholomew's Hospital Reports_, which opens with obituary notices of two members of the staff of the hospital, Alfred Willett and R. B. Etherington-Smith. The first of the medical papers, by Dr. A. F. S. Sladden, details the results of a trial of some tests of pancreatic disease. The author used the tests in thirty-six cases of various forms of disease in which the diagnosis was verified either at the operation or _post-mortem_, and he finds that no reliance is to be placed on Cammidge's test, which in the presence of pancreatic disease is as often negative as positive, and in its absence is positive at least once in four times. Schmidt's and Kasiwado's "nuclei" tests are not much more satisfactory, and the most reliable indications are afforded by Loewi's adrenalin mydriasis test, the analysis of fat in faeces, the tolerance for glucose, and the finding of muscle fibres in the faeces (_creatorrhœa_). Mr. T. H. G. Shore writes on the prognostic value of the blood-count in myelocytic leukæmia, and finds that the ratio \[
\frac{\text{granular leucocytes}}{\text{hyaline (non-granular) leucocytes}}
\] affords a useful indication of the outlook. When this ratio is above 10, the prognosis is relatively favourable, when below the reverse is the case, and before death the ratio may fall to 5 or less. Dr. Hugh Thursfield writes upon acholuric jaundice, and records the first British case of splenectomy for this condition,
which in this instance was congenital. He reviews the literature, and concludes that the operation is successful in selected congenital cases, and that its mortality is low, while in acquired cases the results are not so certain. He also finds that undue fragility of the red corpuscles is pathognomonic of the congenital condition. Mr. D'Arcy Power details the results of the treatment of ulcerative colitis by appendicostomy in a series of cases. He considers that the operation is indicated in the early stages, while the condition is yet local, and as soon as local remedies have failed, and he advises the use of vaccines in conjunction with the operative treatment. Mr. A. L. Moreton records a case of post-orbital arterio-venous aneurysm successfully treated by ligature of the internal carotid, and Dr. Garnet Twigg writes upon pes cavus as an initial sign of nervous disease. He finds that the primary cause in most cases is an affection of the nervous or muscular system, and that the condition calls for careful examination of these systems. Dr. Haldin Davis contributes a paper on the use of neo-salvarsan in out-patients of the skin department; and the rest of the volume is occupied with museum catalogues and hospital statistics. It will be seen that it contains material of much clinical interest.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by G. L. Gulland, M.D., and James Ritchie, M.D. Vol. XII. Edinburgh: Oliver & Boyd. 1913.

The volume of these Reports now under review contains the contributions of workers up to the end of 1912, and consists of reprints of papers published during 1911 and 1912 in various medical and scientific journals. Many papers in anatomy, pharmacology, pathology, and bacteriology are thus united and preserved in a permanent form, which the worker on these subjects would otherwise be able to find only after a laborious search. Among them are to be found several of outstanding interest, and we may mention those of Mr. D. P. D. Wilkie, on the functions and surgical uses of the omentum; of Drs. Ritchie and Ninian Bruce, on the suprarenal glands in diphtheritic
Syphilis and the Nervous System. By Dr. Max Donne. Translated from the Second German Edition by Chas. R. Ball, B.A., M.D. London: J. B. Lippincott Company, 1913.

Syphilis may attack either the cranium and vertebrae or the nervous system; the latter in three ways, as newgrowth, chronic inflammation, or disease of blood-vessels, these three usually occurring in combination. Primary degeneration as the result of syphilis also occurs. Each of these conditions receives some consideration, and there is also a short account of syphilitic aortitis and of differential diagnosis in specific processes. In a chapter on "Etiology of nervous lues" there are some statistics regarding the stage at which disease of the nervous system may appear, and the influence treatment, injuries, alcohol, &c., have on its appearance. Then follows an account of the symptoms and differential diagnosis of specific endarteritis. Syphilitic cerebral meningitis and its differential diagnosis, and syphilitic basilar meningitis are each the subject of a chapter, the differential diagnosis of the latter occupying a separate one, in which also the prognosis of brain syphilis in general is described, and summarised in tabular form. In discussing the symptomatology of basilar syphilis, the relationships of the oculo-motor and trochlear nuclei are depicted. There is a chapter on neuroses and psychoses in syphilitics and in cerebral syphilis, which includes an account of the ways in which these may be caused. The relationship between general paralysis—often referred to simply as "paresis"—and syphilis is dealt with at some length. "Syphilis of the spinal cord and membranes" is the subject of three chapters; "Tabes and syphilis," "Cerebro-spinal syphilis," "Syphilitic disease of the peripheral nerves," and "Congenital syphilis as it affects the nervous system," each of one. The behaviour of the Wassermann reaction as applied to the blood and spinal fluids,
phagocytosis, and the globulin test are described. The concluding two chapters are on “Prophylaxis” and “Salvarsan therapy.”

There is a very comprehensive bibliography containing, we estimate, over 400 references. There are nearly 100 illustrations. We have found the arrangement of subject-matter a little confusing, but a closer acquaintance might remove this difficulty. And it took us some time to become accustomed to the peculiarity of construction which it is difficult to avoid in translating from the German.

A Synopsis of Surgery. By ERNEST W. HEY GROVES, M.D., F.R.C.S. Fourth Edition. Bristol: John Wright & Sons, Limited. London: Simpkin, Marshall, Hamilton, Kent & Co., Limited. 1914.

The call for each subsequent edition of a book furnishes the author with a fresh opportunity of eliminating defects and of incorporating such improvements as his experience in the interval may have suggested. Still, the alterations which can consistently be made on any edition are limited largely by the original plan and scope of the work. Each edition, therefore, it may be supposed, approaches more nearly the stereotyped form.

Less than six years ago Mr. Hey Groves produced his Synopsis of Surgery, and already we have to welcome the fourth edition. It would be superfluous now to enter into a detailed examination of the intrinsic qualities of the work, but we may point out briefly the new features.

Complete revision has been carried out, the chapters on pathology and on bacteriology have been rewritten, recent theories of shock and new methods of anaesthesia have been added, while the scope of those sections dealing with the surgery of the spinal cord has been enlarged.

We can wish the author no better fortune for his new edition than that it may be as well received as its predecessors, and we are confident of the fulfilment of that wish.