NEW BOOKS.

The Nature of Disease. By J. E. R. McDonagh, F.R.C.S. Part I.
London: William Heinemann (Medical Books), Limited. 1924.
(£3, 3s. net.)

This book is so unusual in its character that any notice of it must give some description of its contents. The author writes, as a subtitle to his general introduction, "Study one disease in its entirety, especially syphilis, and you study medicine." The substance of the work is really an attempt to explain the phenomena of disease, and of the treatment of disease, on a purely physical basis. The first chapter gives an account of the life-history of the Leishman-Donovan body, which causes kala-azar and some ulcerative skin diseases. The parasite of syphilis is conceived to be a coccidial protozoon, like the other, and to have both male and female forms, the actual infective agent being a spore which develops inside an endothelial cell. The rationale of staining is then considered. There follows a discussion of the part played by epithelial and endothelial cells and leucocytes in the defensive mechanism against disease. Leucocytes, the author thinks, are derived from lymphatic endothelial cells, and that which is of greatest importance to the body is the lymphocyte. This gives rise also to the plasma cell. Malignancy may originate from irritation of cells, or from the irregular multiplication of cells when their resistance is severely taxed. The nucleolus is the agent which stimulates the pathological growth, and so, in fact, acts as a parasite. The author then considers the nature of conductors and condensers—that is to say, bodies which give up to, or take from, other bodies one or more atoms of electricity (electrons). The mode of action of a large number of remedies, metallic and non-metallic, occupies a considerable portion of the book, and the chapter on chemotherapy is one of its most interesting sections. There are included also studies, on the same molecular-physical lines, of the coagulation of the blood, the mechanics of the Wassermann reaction, shock and the nature of the cerebro-spinal fluid. The book will not be found easy reading, and those whom the names and formulae of the organic chemist fill with dismay, had better overcome their antipathy before attempting it.
Whether Mr. McDonagh is right or wrong in his theories, one cannot but feel that the most hopeful way to make advances towards the discovery of new remedies is to make extensive trial of new compounds as he has done. It is a pity that the book is so costly, but the price has doubtless been enhanced considerably by the large number of excellent plates.

Collected Papers on Beriberi. By H. Fraser, M.D., and A. T. Stanton, M.D. (Studies from the Institute for Medical Research, Federated Malay States, No. 17.) London: John Bale, Sons & Danielsson, Limited. 1924.

The authors state in their preface that the papers reproduced in this volume have been selected from the contributions they have made since 1907 to the study of beriberi in Malaya. They have republished their observations in collected form, in the hope that later students of this group of diseases may find in them something of interest. When their enquiries were begun in 1907, current views of the etiology of beriberi were (1) that it was a microbic infectious disease; (2) that it was due to nitrogen starvation; (3) that it was caused by a toxin, the product of a saprophyte outside the human body. They began their researches to test whether there was any connection whatever between a rice diet and beriberi, an idea suggested fifty years earlier, and strengthened by experiments in Java and Malaya about ten years before they took up their work. The results of experiment showed that beriberi was not communicable, that place played no part in its causation, and that the disease had an intimate relation to diet. In 1910 they were able to say from the evidence yielded by a continuous series of experiments that beriberi is a disorder of metabolism, and that white (polished) rice as a staple of the diet is deficient in certain substances of high value in nutrition. The latest of the papers is dated 1918. An interesting book.

General Cytology. Edited by E. V. Cowdry. Chicago: The Chicago University Press. ($7.50, postage extra.)

This volume consists of original studies by a group of specialists connected with the Marine Biological Laboratory at Woods Hole, Massachusetts. Each has written on that part of the subject which has occupied his own research, and the volume as a whole is a veritable mine of facts and data concerning the cell. The introduction is
written by Professor E. B. Wilson, of Columbia University, who reviews very briefly the history of cell-research. Thereafter are dealt with in ten succeeding chapters the biochemistry and biophysics of the cell, the behaviour of the cells in association one with the other, cell-fertilisation and cellular differentiation. The last two sections deal respectively with the chromosome theory of heredity and Mendelian heredity in relation to cytology. There is a very complete bibliography at the end of each section. The volume must not be thought of as a mere compilation of previously discovered facts. On the contrary, each section is original, and the authors themselves have recorded their own experimental work, along with which they have considered the work of others in order to present a comprehensive and authoritative account of our present state of knowledge. The general get-up of the book is very good, and the illustrations, few in number for the size of the book, are excellent. For those interested in cytological work, whether normal or pathological, this volume should be of immense value, if only as a mine of reference.

---

**Pneumonia: Its Pathology, Diagnosis, Prognosis and Treatment.**
By the late R. Murray Leslie, M.A., B.Sc., M.D. Edited and Revised by J. Browning Alexander, M.D., M.R.C.P. London: William Heinemann (Medical Books), Limited. 1924. (12s. 6d. net.)

Though many monographs and articles have been written on pneumonia, few books entirely devoted to this disease have been published in this country. In this volume we are presented with a very complete and succinct account of our knowledge of pneumonia from the earliest days to the present time. The author was one who, from a large experience of chest diseases, was well qualified to deal with the subject, and the book, begun in 1919, was, unfortunately, barely completed at the time of his death. The manuscript was edited and revised by one of his colleagues, who undertook the responsibility of its publication. The treatment of the subject is very complete, the history, etiology, and symptomatology being very fully dealt with. The treatment of pneumonia has all along furnished a fruitful field for the faddist in the direction of specific therapy, but in this book the various lines of treatment, specific and otherwise, are presented in a very sane and well reasoned manner, with recommendations based on the experience of the author. It is thoroughly up to date, and due prominence has been given
to the question of vaccine therapy, which has been so strongly advocated in certain quarters. Naturally, the timeous production of an autogenous vaccine for use in such an acute disease must ever prove a difficult barrier for the bacteriologist to surmount. Stock vaccines, unless in the hands of a few, have not proved so beneficial as seemed probable at the time this book was begun, and this section has been modified accordingly by Dr. Alexander. To those students and practitioners who may desire a very complete book of reference on this important subject we can strongly recommend this volume as one which should prove of practical value.

Organic Substances, Sera and Vaccines in Physiological Therapeutics. By D. W. Carmalt Jones, M.D., F.R.C.P. London: William Heinemann (Medical Books), Limited. 1924. (15s. net.)

Professor Carmalt Jones has put into a compact form a great deal of information on organo-therapy, and on vaccines and sero-therapy. A short account is given of the glandular products and of their uses. The section on insulin might well have been fuller. Although the author states that there is no established basis for believing that the pancreas recuperates under insulin treatment, it is a matter of common experience that in many cases the dosage can be reduced gradually without the occurrence of glycosuria, and without deterioration in the patient's condition. The second and longer division gives a detailed account of the use of sera and vaccines, and there is a short reference to protein-shock therapy. Of the last, the author writes that cases of definite improvement from non-specific treatment have never come to his notice. Yet cases of definite improvement have nowadays been recorded on all hands. The book is quite a useful one for reference, but suffers from the failure of the writer to speak with authority.

Proceedings of the International Conference on Health Problems in Tropical America. Published by The United Fruit Company, Massachusetts.

This volume is a record of the proceedings of the International Conference held at Kingston, Jamaica, B.W.I., during the summer of 1924 by the invitation of the medical department of the United Fruit Company. The purpose of the Conference was to consider sanitary and administrative questions, to discuss tropical diseases, and to promote preventive medicine and hygiene. Delegates were
invited from universities, medical societies, and health organisations, and the participants in the Conference were representative of both the old and new world. The Conference lasted from 22nd July, to 1st August, and the papers read covered a wide field in tropical medicine in its clinical, laboratory, and administrative aspects. To attempt here to review individual papers or assess their value is impossible, but the Conference points a useful lesson. We need only instance the enormous advantage that has accrued to commerce from the campaign against malaria and yellow fever to appreciate why the whole subject of preventive medicine has such a strong appeal in the tropics. An interesting account is given of the activities of the medical department of the United Fruit Company. The Company employs about 67,000 persons, and has created an extensive system of hospitals and dispensaries, in addition to undertaking a large amount of sanitary work of a preventive nature. While in no way belittling what has already been done in this country, we think a good deal more might be done in the industrial world along the lines of Preventive Medicine.

Electro-therapy and Ionic Medication. By Harold H. U. Cross, Ph.D.Med. London: Charles Griffin & Co., Limited. 1925. (10s. 6d. net.)

This is a new manual of the subject which covers the ground fairly well in an elementary fashion. It must be admitted that there is not much real medical information in the book, which is mainly taken up with accounts of the more technical details of the apparatus used. The book has been written in Australia, and most of the illustration blocks are culled from the catalogues of the English electro-medical apparatus manufacturers, and are mostly of apparatus which has been superseded by that of more modern design. The author has ventured too far when he enters the realm of x-rays and x-ray therapy. For instance, on p. 233, the statement made that "x-rays are divided into three classes—alpha, beta, and gamma—arranged in accordance with their increasing speed of radiation," is not in accordance with present-day knowledge, and the author is evidently not clear as to the meaning of these terms and their application in the physics of radium. On p. 234 it is stated that it is usually considered that the alpha rays are the most dangerous to the operator who is constantly using x-rays. This is a mis-statement, as alpha rays are not generated in an x-ray tube.
at all. The section on deep cancer therapy would have been better left unwritten, as it is obvious that the author has had no practical experience of this kind of work, and, in any case, it is quite out of place in a small elementary volume.

Physical Chemistry for Students of Medicine. By Alexander Findlay, M.A., D.Sc., F.I.C. London: Longmans, Green & Co. 1924. (8s 6d. net.)

The author states that he has dealt in this volume with those parts of physical chemistry which have found important applications in the medical sciences. The subjects are discussed in an elementary manner, and can be read with understanding and profit by both junior and senior medical students and, let us add, graduates who wish to understand modern medical literature. Such terms as hydrion, colloids, and adsorption are all but names to many students and practitioners, and appear to be outwith the scope of practical medicine. Yet an understanding of the processes which the names indicate, is essential to those who are following the trend of recent investigations. This little book of Professor Findlay appeals to us as an easy and interesting method whereby these deficiencies in knowledge can be readily overcome. We are sure that it will tempt many readers to proceed further with their studies in biochemistry.

NEW EDITIONS.

Principles of General Physiology. By the late Professor Sir William Maddock Bayliss, M.A., D.Sc., F.R.S. Fourth Edition. London: Longmans, Green & Co. 1924. (28s. net.)

This edition has been revised and prepared by a committee of physiologists under the chairmanship of Professor A. V. Hill. This book since its first publication in 1914 has been a classic, and may be said to have influenced the development of what may for want of a better name be called general physiology. It deals with the basic problems of physiology, and treats them as far as is possible from the aspect of physical chemistry. If there is any fault to be found it is that the mechanistic view of life is over-emphasised. In this, the fourth edition, the various sections have been revised by authorities who themselves have contributed to a great extent to our knowledge of the subject. Thus, Professor Hill himself has
revised the chapters on energetics, surface action, and contractile tissues, incorporating all the recent work done on these important subjects. The section on circulation has been overhauled and amended where necessary by Professors Sir T. Lewis and Starling. A noteworthy addition to this section is an account of the very important work done during recent years on the function of capillaries. It is impossible to deal with all the sections, but, in conclusion, it may be said that this last edition is not patched, but retains the unity characteristic of the earlier editions. It still remains the leading work on the subject, and should undoubtedly be in the library of every serious student and investigator of the medical sciences.

The Diagnosis of Nervous Diseases. By Sir James Purves-Stewart, K.C.M.G., C.B., M.D.Edin., F.R.C.P. Sixth Edition. London: Edward Arnold & Co. 1924. (30s. net.)

It is unnecessary to do more than announce the arrival of the sixth edition of this well-known manual. With each edition its size, as well as its usefulness, has been increased. The present edition has been carefully revised, and much of the experience gained in the war has been more carefully adjusted to the general arrangement of the book. The chapter on the psychoneuroses has been completely revised, and a chapter on delirium has been inserted. Though not a text-book on nervous diseases it should be in the possession of all physicians and general practitioners. The explanations of the various symptoms of diseases of the nervous system which it affords should be of real value to those who are apt to shun this branch of medical practice.

The Medical Year Book, 1925. Edited by Charles R. Hewitt. Second Edition. London: William Heinemann (Medical Books), Limited. 1924. (12s. 6d. net.)

This is the second edition of this Year Book, and it is produced on the same lines as the former edition which we have previously noted. In addition to the lists of the staffs of the various hospitals throughout the country, there is also a classified list of consultants and specialists, and there can be no doubt that these lists have been compiled without the permission of the individuals concerned. Otherwise, many of the inaccuracies which were noted in the previous edition would not have recurred. Apart from those lists, the volume contains a considerable amount of useful information, but much of it relating to Glasgow is not up to date.