DIAGNOSIS AND TREATMENT OF INFECTIONS

The Diagnosis and Treatment of Infections. By D. Geraint James, M.A., M.D. (Cantab.), M.R.C.P. (London). Pp. viii+234. 30s. Oxford: Blackwell Scientific Publications. 1957.

Contents: Preface. *Part 1. Chemotherapeutics.* 1. Chemotherapeutic Agents. 2. Fate in the Body and Mode of Action. 3. Complications of Chemotherapy. *Part 2. Micro-organisms causing human disease.* 4. Fungi. 5. Protozoa and Metazoa. 6. Spirochaetes. 7. Mycobacteria. 8. Gram-positive Bacteria. 9. Gram-negative Bacteria. 10. Rickettsiae. 11. Viruses. *Part 3. Infections of Systems.* 12. Respiratory System. 13. Heart. 14. Central Nervous System. 15. Peritoneum and Intestine. 16. Liver, Biliary Tract and Pancreas. 17. Urinary Tract. 18. Eye. 19. Ear, Nose, Sinuses and Throat. 20. Venereal Diseases. 21. P.U.O. 22. The Use of Corticosteroids in the Management of Infections. Index.

The author, who visited South Africa last year with his wife, Dr. Sheila Sherlock, and rapidly confirmed his growing reputation as a clinician and lecturer, has set himself a very ambitious target in writing this book. He has endeavoured, in the short space of 224 pages, to describe and integrate the clinical and laboratory diagnosis of diseases caused by micro-organisms with their treatment by chemotherapy. The result is a masterpiece of compression, with some of the attendant faults and disadvantages thereof.

The style is didactic, succinct and terse—at times almost telegraphic. The subject matter is factual, up to date and authoritative, but somehow the overall effect is a little disappointing.

The opening (and best) section of the book deals with chemotherapeutic agents in the magement of disease. It is very well written and contains much of value.

The middle section on bacteriology, virology and protozoology is conventional and adequate, but the final section, which comprises descriptions of the infections as they affect the various systems, does not attain the standard of the earlier portions. The author has done some drastic pruning here, and many of the resultant clinical sketches of diseases read like the potted biographies of 'Who's Who' or Debrett's Peerage.

There is, unavoidably, a certain amount of repetition between the various sections of the book, which also contains 24 well devised, informative tables and a good index.

It is manifestly impossible to write a completely satisfactory book of manageable proportions on this vast theme. Nevertheless, Dr. James has made a commendable and courageous attempt to do so. The viewpoint throughout is largely clinical, and the therapeutic advice offered is sound and very well balanced.

The book was especially designed for senior medical students, interns and registrars. It could also be read with profit by many general practitioners and consultants.

J.S.

AIDS TO BACTERIOLOGY

Aids to Bacteriology. Ninth Edition. By H. W. Scott-Wilson, B.Sc., B.M., B.Ch. (Oxon). Pp. vii + 403. 12s. 6d. London: Baillière Tindall and Cox Ltd. 1957.

Contents: The General Biology of Bacteria. II. Infection and Immunity. III. Nomenclature and Classification. IV. Bacteriological Apparatus. V. The Preparation and Use of Nutrient Media. VI. The Microscopic Examination and Staining of Bacteria. VII. Micro-Organisms of Acute Inflammation and Suppuration. VIII. Neisseria. IX. Haemophilus, Moraxella and Brucella. X. The Diphtheria Bacillus and Allied Organisms. XI. The Acid-Fast Bacilli. XII. The Coli-Aerogenes Group. Proteus and Pneumobacillus. XIII. Salmonella and Shigella. XIV. The Vibrios. XV. Pasteurella and Malleomyces. XVI. Spore-Forming Organisms. XVII. Miscellaneous Bacteria of Medical Importance. XVIII. Actinomyces, Actinobacillus and Nocardia. XIX. The Spirochaetes. XX. Rickettsia. XXI. Viruses and Virus Diseases. XXII. The Pathogenic Fungi. XXIII. The Pathogenic Protozoa. XXIV. Chemotherapy of Bacterial Diseases. XXV. The Bacteriology of Sewage, Soil and Air. XXVI. The Bacteriology of Water. XXVII. The Bacteriology of Foodstuffs and Milk. XXVIII. Sterilization and Disinfection. Appendix. Index.

This well-known member of the 'Aids' series has now reached its ninth edition. Although the scope and general arrangement of the book is similar to the previous edition, it has been revised and brought up to date. The latest matter has been included without adding much to its size by the condensation of some of the less important material.

A new addition is an Appendix in which bacteria are grouped according to their outstanding characteristics, thus making for easier identification of organisms.

The value of the 'Aids' series to medical students is well known and there must be few who have not made use of them at some time.

A.H.T.

IMMUNOPATHOLOGY

Immunopathologie in Klinik und Forschung und das Problem der Autoantikörper. Herausgegeben von P. Miescher und K.O. Vorlaender. XVI + 598 Seiten. 119 Abbildungen, in 171 Einzeldarstellungen. DM. 69.—. Stuttgart: Georg Thieme Verlag. 1957.

Contents: Experimentelle Grundlagen. I. Grundbegriffe der Immunologie. II. Antierythrocytäre Antikörper. III. Die experimentellen Grundlagen der Immunologie der Leukocyten und Thrombocyten. IV. Gegen Niere gerichtete Antikörper. V. Gegen Leber gerichtete Antikörper. VI. Die immunologischen Grundlagen rheumatischer Gewebsreaktionen. VII. Die experimentellen Grundlagen der Encephalomyelitis. *Klinik.* I. Die erworbenen hämolytischen Anämien. II. Die immunohämatologie der Leukocyten und Thrombocyten. III. Immunologisch bedingte vaskuläre Purpuraformen. IV. Immunoplasmopathien. V. Immunologische Vorgänge bei Nierenerkrankungen. VI. Immunologische Vorgänge bei Lebererkrankungen. VII. Immunologische Vorgänge bei rheumatischen Erkrankungen. VIII. Immunologische Vorgänge bei Schilddrüsenerkrankungen. IX. Über viscerale Erythematodes. X. Immunologische Vorgänge bei der Polyneuritis und bei Entmarkungskrankheiten. XI. Organ-Homotransplantation. Experimentelle Grundlagen und klinische Verwendung. XII. Sympathische Ophthalmie und Endophthalmitis phacoanaphylactica. Namenverzeichnis. Sachverzeichnis.

The authors give a very interesting introductory chapter on antigens and antibodies with special reference to globulin fractions as determined by electrophoretic means.

They also discovered that the speed of electrophoretic migration of the globulins depends on the size of the molecules and the way in which the antibodies combine with the toxins. The role played by lymphocytes and histiocytes is discussed, with special reference to increased antibody titre. The authors are of the opinion that most, if not all antibodies, originate in plasmacells although lymphocytes cannot confidently be excluded. They also hold the view that plasmacells precede the lymphocyte stage. It is also pointed out that the newborn belonging to animals with multi-core placentas, get their antibodies from colostrum—unlike human beings.

Haptenes and their antigenicity are discussed in relation to substances like Dextran and lipo-polysaccharides. All antibodies are said to be proteins and its formation is therefor bound up with structures involving amino-acids, hormones, CNS, and other proteins. Special mention is made of ribonucleic acid.

The theories of Burnet and Fenner are discussed with reference to the belief that enzymes and daughter cells are a prerequisite to antibody formation. This in turn also explains antibody-specificity. Under this heading phenomena inclusive of Arthus phenomenon, allergy, asthma, urticaria and anaphylaxis are appropriately taken into review. Erythrocytes and heterophile antibodies are discussed with special emphasis on Forsman-antigens.

The section on antigen-antibody reaction in kidney disease is very interesting. The antigen-antibody reaction is discussed with special emphasis on chemical structure and the importance of desoxypento-nucleic acid. Radio-active iodine was used as the antibody tracer and the value of streptolysin as a code to streptococcal activity pointed out.

Antibody reaction to liver extracts is described and the regeneration with complications enumerated. The chapter on anti-erythrocyte antibodies is very good and very well illustrated. Cold and warm agglutinins with the technique of tracing are described. Fuadin and chinidin are mentioned as possible causes of anti-erythrocyte immunising antibodies with subsequent anemia.

Phagocytosis of such erythrocytes is discussed. Interesting also is the fact that auto-antibodies could be demonstrated against polmorphs, lymphocytes, monocytes and nuclear rests. No antibodies could be demonstrated against eosinophils or basophils. All of the α-globulin type.

D.J.H.

YEAR BOOK OF MEDICINE

The Year Book of Medicine (1957-1958 *Year Book Series*). Edited by Paul B. Beeson, M.D., Carl Muschenheim, M.D., William B. Castle, M.D., Tinsley R. Harrison, M.D., Franz J. Ingelfinger, M.D. and Philip K. Bondy, M.D. Pp. 752. 128 Figures. $7.50. Chicago: Year Book Publishers, Inc. 1957.

Contents: Part I. Infections. Antimicrobial Therapy. Steroid Therapy in Infection. Staphylococcic Infections Acquired in Hospitals. Staphylococcic Infections, General. Salmonella Infections. Bacterial Endocarditis. Urinary Infections Acquired in Hospitals. Leptospirosis. Tetanus. Tuberculosis. Fungous Infections. New Knowledge of Viral Diseases. Poliomyelitis. Varicella. Variola. Psittacosis. Herpes Zoster. Infectious Mononucleosis. Protozoan and Metazoan Infections. Rheumatoid Arthritis. Collagen Diseases. Diseases of Unknown Etiology. Fever. Bacteremia. Host Factors in Infections. *Part II. The Chest.* Pathology. Physiology. Emphysema. Congenital Disorders. Asthma. Bronchitis and Bronchiectasis. Pneumoconiosis and Other Inhalation Diseases. Sarcoidosis. Adenovirus Respiratory Infections. Friedlander's Pneumonia, Acute and Chronic. Pulmonary Mycoses. Tuberculosis. Lung Cancer. Miscellaneous. *Part III. The Blood and Blood-forming Organs.* General Topics and Basic Considerations. Hemolytic Anemias. Pernicious and Other Nutritional Macrocytic Anemias. Hypochromic Anemias. Other Anemias. Polycythemias. Spleen and Blood Disorders. Leukocytosis and Leukopenia. Leukemias and Related Disorders. Thrombocytopenic and Vascular Purpuras. Coagulation Defects. Drug-Associated Blood Dyscrasias. *Part IV. The Heart and Blood Vessels and the Kidney.* Congenital Heart Disease. Rheumatic Heart Disease. Atherosclerosis and Coronary Disease. Hypertension. Pathologic Physiology. Electrocardiography and Arrhythmias. Miscellaneous. Disorders of the Pulmonary Circulation. Cerebral Vascular Disorders. Peripheral Vascular Disease. The Kidney. *Part V. The Digestive System.* Alimentary Tract. Liver and Gallbladder. Pancreas. *Part VI. Metabolism.* The Adrenal Glands. The Thyroid Gland. Carbohydrate Metabolism. Calcium, Phosphorus and the Parathyroid Gland. The Pituitary Gland. Lipids and Nutrition. Metabolic Disease. Miscellaneous.

The volume of medical writing continues to increase at an alarming rate. No man born of woman can possibly keep up with the torrent that flows from the presses. Any attempt to do so can only result in utter confusion and frustration. The Year Book series has given considerable relief to many and the 1957-58 Year Book of Medicine has made its welcome appearance. It covers a great deal of the important work in the period May, 1956-1957, and includes infections, diseases of the chest, blood and blood forming organs, heart blood vessels and kidney, the digestive gland and last but not least, metabolism. Such a compilation cannot be reviewed in detail. On the whole the choice of subjects is well balanced and the articles are satisfactorily abstracted. The illustrations are well reproduced. The editorial comments are generally pertinent and valuable. For example (p. 654), like the Editor, the reviewer is sceptical as to the existence of a state of 'metabolic insufficiency'.

Some of the comments are controversial and arresting and deserve to be in heavy and not small print, as on p. 676. 'The catheter is a dangerous instrument which should be used with the respect it deserves. In the long run it seems likely that more people die each year as a remote result of catheterization than from such major procedures as thoracotomies or craniotomies.'

The Year Book is a valuable aid to both physician and practitioner in keeping abreast with many of the facets of Internal Medicine.

E.L.

THE LYMPHATIC SYSTEM

Lymphatics, Lymph and Lymphoid Tissue. By Joseph Mendel Yoffey, D.Sc., M.D. (Manch.), F.R.C.S. (Eng.) and Frederick Colin Courtice, M.A., D. Phil. (Oxon.), D.Sc. (Sydney), F.R.A.C.S. (Hon.). Pp. vii + 510. 99 Figures. 60s. net. London: Edward Arnold (Publishers) Ltd. 1956.

Contents: 1. General Arrangement and Organization of the Lymphatic System. 2. The Formation of Lymph. 3. Physiological Significance of Regional Lymphatics. 4. Lymph Flow, Lymph Pressure and Lymph Composition. 5. Biological Significance of Lymphoid Tissue. 6. Cell Content of Lymph. 7. The Lymphocyte. 8. Practical Considerations. Author Index. Subject Index.

The second edition of this book is some 20% larger than the first, and one of the authors' main difficulties has been one of compression, in view of the abundant literature since 1940. The approach is physiological, and much of the work discussed is necessarily based on laboratory animals.

The morphological description of the lymphatic vessels is factual and relatively free from debateable matters, but it does reveal surprising gaps in our knowledge in the human. The next three chapters, taking up about half the volume, give a clear and up-to-date summary of our knowledge on the formation and significance of lymph and lymphoid tissue, and will prove of great interest and value to a wide range of medical readers.

The next two chapters on the cell content of lymph and on the lymphocyte give the impression that very little is known or generally accepted of the functions and potentialities of the lymphocyte. Part of this seems to be the result of some of the quoted authors accepting a wide morphological range for what they regard as lymphocytes, and some results from the basic difficulty of separating functionally the two components of lymph nodes, the lymphocyte and the reticulo-endothelial cell. But some at least is due to the historical approach to each section, where the older reviews seem to get as much space and prominence as the more recent opinions, based on data obtained by means unavailable to the earlier writers. The final chapter on practical considerations refers to many important matters such as hunger oedema, ascites and the lymphatic spread of tumours, but from lack of space some of these are discussed very briefly.

The authors have done a great service in putting together the many opinions and facts on this important subject, which today forms one of the many bridges between physiology and modern medicine.

T.J.

PRACTICAL ZOOLOGY

Practical Biology for Advanced Level, Medical and Intermediate Students. Volume I: Practical Zoology. 4th Edition. By C. J. Wallis, M.A. (Cantab.) Pp. x + 317. 175 Figures. 24s. net. London: William Heinemann—Medical Books—Ltd. 1957.

Contents: Foreword to the Fourth Edition. Preface. Introduction. *Part I. Microscopical Technique. Part II. Animal Biology.* Section I. Animal Morphology and Anatomy. Section II. Animal Cytology and Histology. Section III. Animal Physiology. Section IV. Vertebrate Embryology. *Appendices.* I. The Preparation of Reagents. II. Biological Methods. III. Equivalents, Conversion Table. IV. Treatment of Accidents in the Laboratory. V. Firms Supplying Biological Apparatus and Material. Index.

This textbook is designed to meet the practical requirements of a number of examination syllabi including those for the English General Certificate of Education and for the London Conjoint Board. In its fourth edition the book appears in two volumes, volume I being devoted to zoology.

There is undue emphasis on details of morphology, inevitable in a book of this nature, and some of the biochemical tests described have been superseded in most laboratories but apart from this the book is up to date in its approach. As an elementary textbook it is remarkably comprehensive but the species selected as examples are mostly those readily available in England. The South African student would need to be on his guard to detect morphological differences between his local species and those described in the text.

The style is clear and concise and the diagrams adequate. The practical instructions are sensible and cover a wide range of procedures. A useful appendix, for those who do not wish to limit their practical teaching to locally available species, is a list of firms which supply biological material.

A.S.