

REVIEWS OF BOOK : BOEKRESENSIES

GERIATRICS

The Care of the Aged. By Malford W. Thewlis, M.D. Sixth Edition. Pp. 832. £6 18s. 9d. St. Louis: The C.V. Mosby Company. 1954.

Contents: 1. General Considerations. 2. Gerontology. 3. Medicolegal Relations. 4. Miscellaneous Geriatric Problems. 5. Diseases of Metabolism and Endocrine Disorders. 6. Infectious Diseases and Focal Infection. 7. Systemic Pathologic Conditions. 8. Special Topics.

This is a truly monumental work, and not one to be approached lightly, in the spirit of a 'nice, cozy read'. Its weight alone forbids that. And if the contents may at times seem just a little unnecessarily verbose, this fault, if fault it is, must be laid at the feet of the author's unbounded enthusiasm for his subject.

One does not have to read very far to realize that in Dr. Thewlis we have a man who has devoted his life to the care of the aged, both in sickness and in health; one who has read widely, and has done an enormous amount of personal research in his chosen subject. And in this book of his—now in its 6th edition—he has given us the fruits of his knowledge, garnered from a lifetime devoted to the very specialized needs of the aged.

Since the world has awoken to the fact that, owing to the ever-widening knowledge of our doctors and the brilliance of our research chemists, we have an ever-increasing generation of aged people in the world today, with medical problems all its own, much has been written on the subject by doctors of repute. But the student of geriatrics puts most of these books aside with a sigh of disappointment. While medically sound, their contents are equally applicable to patients of any age. It is precisely in this respect that Dr. Thewlis' book is different—I am almost tempted to say unique. For he seems to have insinuated himself into the mind and psyche of his old friends, and to consider their ailments and troubles from their own point of view—not as an outsider. And is that not, in reality, the ideal doctor-patient relationship?

In this work you have an excellent book of reference, clearly

indexed and subdivided, which deals in a scholarly yet practical fashion with the ills to which the various organs are subject—in every case with special reference to the aged person. The first section of the book, after a short amble through the history of geriatrics, gives most excellent advice on the physical and psychological needs of the aged—the provision of an harmonious way of life for them, the depressing effect of too much doctoring and, very important, the training of the physician himself.

Dr. Thewlis provides a most excellent and comprehensive list of books on every subject he discusses—one of the best I have ever seen. Were it only for his Bibliography of Geriatrics alone, he has added a very valuable contribution to literature.

L.B.

ELECTROCARDIOGRAPHY

Electrocardiography—Fundamentals and Clinical Application. 2nd Edition. By Louis Wolff, M.D. Pp. xi+342. Illustrated. \$7.700. Philadelphia & London: W. B. Saunders Company. 1956.

Contents: Part I. The Basic Principles of Electrocardiography. 1. Electrical Phenomena and Muscle Contraction. Electrical Properties of the Cell Membrane. Depolarization. Dipoles. 2. Volume Conductors. Unipolar and Bipolar Leads. 3. Deflections Which Represent Depolarization. Intrinsic and Intrinsicoid Deflections. 4. Vector Representation of Dipoles. Vector Summation. Anatomy and Physiology of the Heart. 5. The Electrical Effects of the Simultaneous Excitation of Two Muscle Masses in a Volume Conductor. 6. The Electrical Field Around the Heart. 7. Repolarization. Primary and Secondary T. Wave Changes. 8. The Precordial Electrocardiogram. 9. Unipolar Limb Leads. Standard Limb Leads. 10. The Einthoven Equilateral Triangle Hypothesis. Instantaneous and Mean Electrical Axis. Ventricular Gradient. 11. Right Bundle Branch Block. 12. Left Bundle Branch Block. 13. Left Ventricular Hypertrophy. 14. Right Ventricular Hypertrophy. 15. The Effect of Muscle Injury on the Electrocardiogram. 16. Current of Injury. Blocking of the Depolarization Wave. 17. Myocardial Infarction. Part II. Clinical Electrocardiography. 18. Introduction: Normal and Abnormal Electrocardiograms. Instruments. Technique. Nomenclature. 19. The Normal Electrocardiogram. 20. Bundle Branch Block. 21. Left Ventricular Hypertrophy. 22. Right Ventricular Hypertrophy. 23. Coronary Heart Disease. Myocardial Infarction. 24. Myocardial Infarction and Bundle Branch Block. Infarction of the Interventricular Septum. Persistent S-T Segment Displacement. Arborization Block. 25. Pericarditis. Pulmonary Embolism.

Abnormal Electrolyte Patterns. 26. Short P-R Interval with Abnormal QRS Complexes (Wolff-Parkinson-White Syndrome). Part III. The Normal and Abnormal Cardiac Mechanism. Digitalis and Quinidine. 27. The Cardiac Mechanism. 28. Normal and Abnormal S-A Nodal Mechanisms. 29. Ectopic Arrhythmias: Atrial and Ventricular Premature Beats. 30. Ectopic Arrhythmias: Paroxysmal Supraventricular (Atrial) Tachycardia. 31. Ectopic Arrhythmias: Paroxysmal Ventricular Tachycardia. 32. Atrial Flutter and Fibrillation. 33. Etiology of Paroxysmal Rapid Heart Action. 34. A-V Nodal Rhythm. A-V Dissociation. Paroxysmal. Carotid Sinus Stimulation. 35. Atrioventricular Block. Index.

Balanced interpretation of the meaning of cardiographic patterns as traced by modern instruments is not possible without a thorough understanding of the basic principles that underly the electrical phenomena associated with muscle-fibre contractions and the electrical field that results when the 2 main muscle masses of the heart contract. The introduction of unipolar methods and 12 or more lead tracings make it more than ever necessary for the physician to grasp the fundamentals and there is a long list of texts that endeavour to elucidate them.

The 2nd edition of Dr. Wolff's book (1st edition was published in 1950) is a sincere effort to teach first principles and their clinical applications. A weakness in many text-books on cardiography is that clarity is lost by inclusion of a multitude of theoretical details. In this book the author's stated aim is to simplify wherever possible and in Part I the chapters on electrical phenomena, vector summation, depolarization and repolarization, are concisely written and easy to read and understand.

Part II contains the chapters on clinical interpretation of cardiographic patterns and on technical methods, and follow conventional teaching methods.

In the 1st edition of this book arrhythmias were not discussed, on the grounds that their interpretation was not based on a knowledge of electrical phenomena. This is no doubt true; nevertheless, it is irritating to have on one's shelf a text-book on cardiography that does not contain a section on the arrhythmias, since their elucidation so often depends on the patterns seen in the tracing. The author of this volume has had second thoughts and now includes an admirable section on this subject.

This book is pleasing in style and illustration and is a model of its kind. Nevertheless a need still exists for a more severely compressed text-book on electrocardiography.

P.L.

ENDOCRINOLOGY

Ciba Foundation Colloquia on Endocrinology. Volume 9. Internal Secretions of the Pancreas. By G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc. P. xxi+292. 100 Illustrations. 40s. London: J. & A. Churchill Ltd. 1956.

Contents: Chairman's opening remarks—F. G. Young. Morphological studies of the destruction of A-cells by chemical means, by H. Ferner. Metabolic effects of A-cell destruction, by C. v. Holt, Linde v. Holt, Barbara Kröner and J. Kühnau. Pituitary growth hormone and blood insulin activity, by P. J. Randle. The control of the secretory activity of the islets of Langerhans, by P. P. Foa. The effects of hypophysectomy and of prolonged growth hormone administration on the pancreatic A-cells of the rat, by M. G. Goldner and B. W. Volk. Fractionation of insulin, by E. Fredericq. The chemical structure of insulin, by F. Sanger. A concept of the three-dimensional structure of insulin, by D. F. Waugh. A speculation on insulin, by Dorothy Crowfoot Hodgkin and Beryl Oughton. Insulin and glucagon, by W. Schulze. Chemical and biological characteristics of glucagon, by O.K. Behrens, A. Staub, Mary A. Root and W. W. Bromer. The action of glucagon on liver phosphorylase, by E. W. Sutherland, W. D. Wosilait and T. W. Rall. Inhibitory effect of glucagon on the insulin glucose uptake of the isolated diaphragm of the rat, by J. L. R. -Candela and R. R. -Candela. The hepatic action of insulin, by C. de Duve. Some problems of permeability of tissue cells to sugars, by E. Helmreich and C. F. Cori. The transport of glucose and other sugars across cell membranes and the effect of insulin, by C. R. Park, R. L. Post, C. F. Kalman, J. H. Wright, Jr. L. H., Johnson and H. E. Morgan. Pancreatic islets and growth, by C. Cavallero. Chairman's closing remarks, by F. G. Young.

The Ciba Foundation symposia are really not suitable for review in the ordinary way. This one, like the rest, represents the highly specialized recent work of well-known experts together with the impromptu discussion which follows each presentation.

A very large part of the present volume concerns glucagon and the alpha cells of the islets. It seems to be generally accepted now that glucagon is in fact the hyperglycaemic factor produced by the alpha cells. There is a chapter on the relation of glucagon to growth (Cavallero), which shows it to be a true growth-stimulator in the embryo and in pituitary dwarf mice.

Randle summarizes the reasons for believing that pituitary growth-hormone stimulates the beta cells to produce insulin and describes his own relevant work on the estimation of plasma insulin activity in various circumstances.

Sanger discusses his brilliant work on the chemical structure of insulin, followed by Waugh and Hodgkin on the geometrical arrangement of the amino-acid chain.

The participants in this Ciba Conference, as stated in the chairman's opening remarks, were physicists, chemists and biologists. The reviewer imagines, therefore, that this book will have a limited appeal to most readers of this journal, though it does represent the very best in the field.

W.P.U.J.

ATLAS OF SURGERY

Atlas of General Surgery. By Joseph R. Wilder, M.D. Pp. 222. With 101 Plates. £5 14s. 9d. St. Louis: The C.V. Mosby Company. 1956.

Contents: Foreword. By Frank Glenn, M.D. Preoperative Considerations. Surgical Technique in the Operating Room. Cardiac Arrest. Ventricular Fibrillation. Tracheostomy. Venous Cut-Down Procedure. Thyroidectomy. Excision of the Parotid Gland. Excision of the Submaxillary Gland. Excision of Thyroglossal Duct Cyst. Excision of Branchial Cleft Fistula. Radical Neck Dissection. Simple Mastectomy. Minor Procedures on the Breast. Radical Mastectomy. Ventral Herniorrhaphy. Umbilical Herniorrhaphy (in Children). Umbilical Herniorrhaphy (in Adults). Repair of Indirect Inguinal Hernia. Repair of Direct Inguinal Hernia. Repair of Inguinal Hernia (in Children). Hernia Repair Using Cooper's Ligament. Femoral Herniorrhaphy. Repair of Sliding Hernia. Repair of Hydrocele (of the Tunica Vaginalis). Cholecystectomy (Chronic Cholecystitis). Cholecystectomy (Acute Cholecystitis). Cholecystostomy. Cholangiography. Common Methods of Surgical Injury to Common Duct. Choledocholithotomy. Duodenotomy. Transduodenal Sphincterotomy. Repair of Stricture, Distal Portion of Common Duct. Choledochojunostomy With Roux-Y Anastomoses for High Common Duct Strictures. Cholecystojejunostomy. Pylorotomy for Congenital Hypertrophic Pyloric Stenosis. Gastrostomy. Closure of Ulcer Perforation. Gastrojejunostomy. Types of Gastric Resection. Partial Gastric Resection. Partial Vagotomy. Total Gastric Resection. Splenectomy. Resection of the Head of the Pancreas. Resection of the Body and Tail of the Pancreas. Resection of Small Intestine. Excision of Meckel's Diverticulum. Ileostomy. Appendectomy. Appendectomy (Retrocecal Location). Transverse Colostomy. Closure of Colostomy. Cecostomy. Right Colectomy. Left Colectomy. Total Colectomy. Anterior Resection of the Colon. Abdominal Perineal Resection. Pull-Down Operation. Hemorrhoidectomy. Excision of Anorectal Fistulas. Excision of Pilonidal Sinus. Lumbar Sympathectomy. Phlebectomy. Embolectomy Aortic Embolectomy. Amputation. Supracondylar Tendoplasty. Amputation. Supracondylar. Tenorrhaphy. Neurorrhaphy. Salpingectomy. Salpingo-oophorectomy. Total Hysterectomy. Subtotal Hysterectomy. Nephrectomy. Excision of Adrenal Gland.

After a short introduction the author goes on to describe the many procedures which are mentioned above. The drawings, which show great care in their preparation, illustrate each stage in the procedures and each is accompanied by a short but lucid explanation. The techniques employed are those considered by the author to be the most satisfactory, and he writes, 'They represent accumulated knowledge from many sources, in large part from my teachers . . . who gave freely of their time and energies to teach sound surgical principles.'

The book is well produced on excellent paper and as a reference book for students, interns and younger surgeons there is little doubt that it will take its rightful place.

A.H.T.

SYMPOSIUM ON PULMONARY CIRCULATION

Pulmonary Circulation and Respiratory Function. A Symposium held at Queen's College, Dundee. Pp. 44. 12s. 6d. net+10d. postage abroad. E. & S. Livingstone Ltd. Edinburgh and London. 1956.

Contents: Pulmonary Circulation in Health and Disease. 15th September. Pulmonary Vasomotor Nerve Activity and Its Possible Functional Significance—I. de Burgh Daly. The Pulmonary Circulation in Health and Disease—K. W. Donald. Some Applications of Basic Knowledge of the Collateral Circulation of the Lung—A. A. Liebow. Observations on Control Mechanisms in the Right Ventricle in Health and Disease—Sir Russell Brock. Cor-Pulmonale in Coal-Miners—J. Gough. Discussion. Studies of Left Auricular Pressures in Man—P. R. Allison. Vasculitis in the Lung—A. C. Lendum. Respiratory Function. 16th September. Pulmonary Function in the Newborn Lamb—G. S. Dawes. Respiratory Function Estimation for the Physician—W. Melville Arnott. Gas Diffusion and Lung Function—D. V. Bates. Breathing Machines and Assisted Respiration—L. G. C. E. Pugh. Augmented Respiration With Patient-Cycled Respirators—Ian Donald. Discussion.

When it became known that Dr. Averill-Liebow, professor of pathology at Yale University was to be the praelector in pathology in the University of St. Andrews in 1955, it was felt to be a unique opportunity to bring together those in Britain who had a special interest in the pulmonary field—physiologists, physicians, surgeons and pathologists. This book is a record of the symposium. The contributors have presented the latest in their views and have spoken as it were, off the record, so that a most valuable little

publication has been produced of great interest to anyone interested in this field.

Your reviewer was especially interested in Dr. P. R. Allison's comment on the variability of left auricular pressures as measured directly, either through the bronchoscope or at open thoracotomy. Anaesthesia and thoracotomy without valvotomy may lower the left auricular pressure appreciably, the aortic pressure drastically. For instance, in one case left auricular pressure obtained at bronchoscopy was 52/32 mm. Hg and aortic pressure 180/120, whereas after open thoracotomy, but before valvotomy the pressures were 30/13, 68/34, respectively. In this case the pulmonary artery pressure did not fall until after valvotomy.

Dr. Allison confirms the finding of many workers that the left auricular measurements made by direct puncture bear a close relation to the pulmonary wedge pressure when the left auricular pressure is high, but he emphasizes that it does not follow that the same applies when the left auricular pressure is low. Without, therefore being able to present a series of figures on an elegant, but deceptive, graph one could still say that the highest figure of left auricular pressure indicated the tightest stenosis. Most of the speakers seemed to agree that it is possible to reduce pulmonary

vascular constriction by blocking nerve-impulses to the pulmonary arterioles in a selective way. The difficulty is always to eliminate the secondary effect of the systemic response. On the clinical side it was emphasized that in patients with severe pulmonary hypertension and extensive pulmonary vascular disease, the signs of pulmonary hypertension dominate the clinical picture; it may well be impossible, without specialized investigations, to recognize such underlying lesions as atrial septal defect, ventricular septal defect, patent ductus arteriosus or mitral stenosis or to exclude idiopathic pulmonary hypertension.

Prof. Liebow's own work is of the utmost interest. His establishment of a pulmonary collateral circulation by ligaturing of pulmonary veins in the dog, is followed by a large collateral circulation that drains fully-oxygenated blood from the operated lung into azygos and other systemic veins, and thus to the right side of the heart. The application of this congenital transposition of the great vessels suggests at least its partial correction by surgery.

Sir Russell Brock on the mechanism of the infundibular muscle of the right ventricle is one of many contributions of paramount interest.

M.N