

all the other frequent procedures such as carotid endarterectomy and renal artery stenosis receive attention. There is also a wide review of venous problems, including the many complications of varicose veins and the approach to venous thrombectomy and vena caval occlusion. Good descriptions of the methods of interfering with sympathetic outflow are followed by the surgical management of lymphoedema. This is a most useful book which should find a place in every medical library.

W. T. IRVINE.

Discussing Death

Man's Concern with Death. By Arnold Toynbee, C.H., Litt.D., D.C.L., F.B.A., and others. (Pp. 280. 45s.) London: Hodder & Stoughton Ltd. 1968.

The advances of medicine have caused a shift of the role of death in the life of the community. Fewer children and young people die from disease than in the past, while the proportion of the old and sick has greatly increased. Today death is seen more than ever as a natural process rather than as a failure of medical intervention. The doctor can no longer disappear from the scene and leave the patient to the nurse and the minister of religion when death becomes inevitable.

This book deals with the change in modern man's concern with death. Only three of the 17 chapters have been written by medical men. Keith Mant discusses the medical definition of death. John Hinton contributes a thoughtful essay about the doctor's relationship to and the treatment of his dying patients. He discusses lucidly the psychological reasons for the doctor's reticence and warns against hard and fast rules. Once the patient has become aware of the nearness of death the doctor has to be prepared to spend a good deal of time with him. This is what some doctors find difficult, but caring for the dying may be a rewarding experience. The late Simon Yudkin wrote a brief but charming article about the child's understanding of death today. Arnold Toynbee contributed four articles and the epilogue. He deals with past and present attitudes to death in various parts of the world. Ninian Smart, who is professor of religious studies, discusses the role of religious notions about death and its conquest in the Western world, and the influence of the decline of religion on those beliefs. Eric Rhode contributes an essay about death in 20th-century fiction. Three chapters are devoted to "out-of-the-body experiences," and to the belief that some component of the human being can survive the death of his body. No new evidence is produced. The book concludes with a moving personal essay by Professor Toynbee about the relation between life and death, and between the living and the dying. To him, the octogenarian, the bereaved seems to suffer more than the dying.

No book on a subject of such magnitude can be comprehensive and well balanced. In the historical presentation of the traditional attitudes to death the fear of the dead felt by the living is hardly mentioned, though it played an important part in funerary rites and customs. The problem of suicide receives

scant attention, despite the fact that it illuminates significant aspects of man's concern with death. Nevertheless, this is a scholarly book full of information and wisdom.

E. STENGEL.

Hand Surgery

The Surgical Clinics of North America. Practical Surgery of the Hand. Edited by Martin A. Entin, M.D. Volume 48, No. 5. (Pp. 965-1183 + viii; illustrated. No price given.) Philadelphia, London, Toronto: W. B. Saunders. 1968.

Hand surgery has acquired a place of respect in recent years. Surgeons of various disciplines now devote considerable time and thought to it, and in some countries it has become a discipline in itself. Associations, societies, and clubs of those interested have come into being the world over.

This volume is based on a symposium recently held in Canada, and includes notable contributions from surgeons of that country, the United States, France, Sweden, and Switzerland. The surgical challenge of this unique human instrument is first to understand its functional anatomy, and next to devise surgical techniques for its restoration after injury or disease, or at worst to retain the best working hand from the mutilations of both trauma and disease.

Excellent editing has produced a readable and well-illustrated volume. The sections on new studies of the functional anatomy of the hand have general interest. Not all those on treatment will be followed blindly by surgeons experienced in this field.

WILLIAM GISSANE.

Anaesthesia for Medical Auxiliaries

Anaesthetics. By A. B. Vaughan, M.B., F.F.A.R.C.S., with a chapter by P. V. Cole. (Pp. 306 + xiii; illustrated. 40s.) London: Oxford University Press. 1969.

In many parts of the world in which the services of a medically qualified anaesthetist are rarely if ever available, the vast majority of anaesthetics are administered by medical auxiliaries. Whether or not this state of affairs is desirable it is an undoubted fact, and therefore every effort must be made to ensure that the standard of training of these auxiliaries is as high as possible. The appearance of Dr. Vaughan's book in the series of Oxford *Handbooks for Medical Auxiliaries* will do much to assist in the achievement of this aim. While theoretical discussion is kept to a minimum, there is a wealth of practical advice and knowledge such as is rarely found collected in a single volume.

As is almost certain to be the case in a didactic textbook, there are occasional statements with which one might disagree, usually as a matter of opinion rather than of fact. On one or two occasions there are apparent contradictions within the text itself. For example, in the section on "Anaesthesia for

Bronchoscopy" the author recommends the use of ether and says that "where the EMO inhaler is being used ether, air, and oxygen can be pumped down the tube (an endotracheal tube passed down the bronchoscope) by means of the bellows." This conflicts with the safer advice which she gives elsewhere that no electrical instrument should be used in the presence of ether. It is to be regretted that the author has seen fit to refer to drugs "by the name most commonly used rather than by the one most pharmaceutically correct." If confusion is to be avoided it is surely better to train people from the very beginning to use the correct name.

Dr. Vaughan has indeed produced a unique book. Without doubt it will become the standard anaesthetic textbook for the medical auxiliaries in developing countries for whom it has been written. Its usefulness, however, is unlikely to end here, since many others will find it an excellent introduction to the practical aspects of anaesthesia.

PETER W. THOMPSON.

Biological Data

Metabolism. Edited by Philip L. Altman and Dorothy S. Dittmer. (Pp. 737 + xix. \$20.) Bethesda: Federation of American Societies for Experimental Biology. 1968.

This useful work is modestly described by its publishers as a "biological handbook," but it is a handsome, weighty volume. It is packed with information, mostly in tabular form, of interest mainly to biologists, biochemists, and nutritionists. Over 300 outstanding authorities in the fields of biology and medicine have verified the 117 tables, diagrams, and graphs. Based on a handbook published in 1954, and now long out of print, it has kept pace with expanding knowledge by the inclusion of 23 entirely new tables and diagrams. Citations from the literature run into thousands; a commendable feature is the authentication of every figure entered in every table by reference to original work. Thus if the reader requires further information on any point he knows at once where to get it.

With such a profusion of data covering such a wide range of subjects it must be virtually impossible for a single reviewer to pronounce on the reliability and relevance of all parts of the work. He can only focus his critical powers on topics familiar to him, thinking perhaps that the sources of information might sometimes have been chosen differently, but that on the whole the editors and contributors deserve warm praise for their care, industry, and discrimination. An index covering 126 pages is included, and is preceded by extensive lists giving the common and scientific names of numerous animals and plants. Referring to page 620 we may learn, for example, the names of 26 kinds of mice, including house, meadow, woodland, jumping, and little pocket, with their scientific equivalents. Information about the remarkable milk of seals, which contains 42% of fat, may be found on page 2.

The medical seeker for information is not given specially favoured treatment, and must follow the zoologist and botanist in looking out those parts that are important to him.

Over 400 entries on the respiration rates of vascular plants, for example, may fail to rouse his interest. He may, however, find the extensive tables on the composition of foods given in the first section, with values for protein, carbohydrates, fat, minerals, and vitamins, to be of real use. The numerous diagrams showing metabolic pathways, and tables listing vitamins, trace minerals, antibiotics and hormones, with summaries of their effects on metabolism, have all medical implications. Tables also list 276 substances which may be excreted in urine, and 64 substances in sweat. Information for the geneticist is kept up to date by a summary of recent fundamental discoveries about the R.N.A. "codons" which dictate the formation of various amino-acids by *Escherichia coli*.

Perhaps the greatest difficulty of the medical user of this book will be to decide whether the particular information that he requires falls within its scope, or does not. For the hunting down of obscure facts, however, this book makes a valuable addition to the shelves of medical libraries.

T. MOORE.

Fellows of the Royal Society

Biographical Memoirs of Fellows of the Royal Society. Volume 14. (Pp. 467; illustrated, 85s.) London: The Royal Society. 1968.

I find the annual perusal of these definitive memoirs—produced at leisure after the warping effects of immediate post-mortem grief on sober judgement have passed away—a fascinating though humbling experience, as they reveal to the reader the mental development, the difficulties, mistakes, and turning-points of the gifted subjects on their various paths to distinction.

This volume deals with the lives of 18 scientists and of the Lords Attlee and Iveagh, who "contributed beneficially to the development of science." The whole spectrum of science is represented, from mathematics and physics to geology and genetics. One accidental death on duty at the age of 59 mars the general picture of elderly or old married men living to look back on lives of great accomplishment. Three medical men are included in this year's list. One is K. J. Franklin, whose contributions to the physiology of the venous system and to our understanding of the crush syndrome were matched by his fine classical scholarship, by his contributions to medical history, and by his new translation of Harvey's masterpiece. Sir Roy Cameron, that lovable Australian bachelor, is another. His death marked the end of an era in morbid anatomy and experimental pathology, his personality spread radiance throughout the University College Hospital medical school in London, where he spent most of his working life, and he graced the new College of Pathologists as its first president. His policy of delegating research projects to Ph.D. students had a marked effect throughout the world in the filling of university chairs, and a list of those who collaborated in his published papers reveals the care he lavished on his Oriental students. The third is Lord Brain of Eynsham. The Master of Pembroke College, Oxford, has contributed a fine essay on Russell Brain—for that is how we remember him—showing his subject's extraordinary capacity for performing a variety of quite different tasks to a uniformly high standard and apparently without effort. But for the first world war Brain would have become a lawyer, and the Woosack would certainly have claimed him. Sir George Pickering appropriately reminds us of the great, lonely, and unpopular part played by Lord Moran in getting the N.H.S. off the ground, and of his selection of the yet untried Russell Brain as the man most likely to succeed him in his task.

The account of the physicist Sir John Cockcroft, first Master of Churchill College, Cambridge, who combined engineering ability with profound knowledge of mathematics and nuclear physics, will enthral all who read his memoir, for he touched the lives of us all. He first observed the nuclear transformation produced by bombardment with accelerated particles, and did his best to disprove by his own activities his observation that British inventors are unsurpassed at the basic stages but are ineffective in subsequent industrial development and exploitation.

The lives of two Foreign Members (both American born) are worthy of the closest study. H. J. Muller, the great experimental geneticist, opened and marked step by step the trail from the Mendelian of 1910 to the molecular biology of the 1960s. His early emphasis on the gene as the basis of life, his work on the mutagenic effects of ionizing radiations, and his tireless and successful efforts to secure a test ban agreement will ever be remembered. His forecast that primitive life commenced with a replicating system working on abiotic material evolved before protein existed or protoplasm came into being was made long before the double helix was discovered. J. R. Oppenheimer made the leadership of the world in theoretical physics cross the Atlantic. His creation of the great school of theoretical physics at Berkeley and his leadership of the group involved in the theoretical aspects of the "Manhattan District Project" in producing the atomic bomb at Los Alamos has affected all of us, and nothing can ever be the same. This great classical scholar, equally at home in ancient Greek and Sanskrit, worried about the increasing gap between specialized knowledge and common sense, and insisted that "no man should escape our universities without some sense of the fact that in the nature of things he is going to be an ignorant man—and so is everyone else."

GEORGE R. MCROBERT.

Books Received

Books noticed here may be reviewed later.

What to Do when "There's Nothing to Do." By Boston Children's Medical Centre and E. M. Gregg. (Pp. 160; illustrated. 21s.) London: Hutchinson. 1969.

Proving New Drugs. A Guide to Clinical Trials. By Ben-Zion Taber, M.D. (Pp. 182+xxi. \$12.) Los Altos, California: Geron-X Inc. 1969.

The Human Body. 2nd edition. Its Structure and Physiology. By Sigmund Grollman. (Pp. 541+xi; illustrated. 95s.) London: Collier-Macmillan. 1969.

International Symposium on Pseudotuberculosis. Edited by R. H. Regamey. (Pp. 386+xviii; illustrated. 120s.) Basle and New York: S. Karger. 1969. U.K.: Academic Press.

Aspects of Autism. Some Approaches to Childhood Psychoses. Edited by P. J. Mittle. (Pp. 89. 10s.) London: British Psychological Society. 1969.

Time, Experience, and Behaviour. By J. E. Orme, B.A., Ph.D., F.B.Ps.S. (Pp. 189. 25s.) London: Iliffe Books. 1969.

The Science of Genetics. An Introduction to Heredity. By George W. Burns. (Pp. 399+x; illustrated. 84s.) London: Collier-Macmillan. 1969.

Gynaecological and Obstetrical Anatomy. 4th edition. By C. V. F. Smout, M.D., F. Jacoby, M.D., Ph.D., and E. W. Lillie, F.R.C.O.G. (Pp. 422+viii; illustrated. 90s.) London: H. K. Lewis. 1969.

Todd-Sanford Clinical Diagnosis by Laboratory Methods. 14th edition. Edited by I. Davidsohn, M.D., F.A.C.P., and J. B. Henry, M.D. (Pp. 1308+xxix; illustrated. 204s.) London: W. B. Saunders. 1969.

Atlas of Otorhinolaryngology and Bronchoesophagology. Edited by Walter Becker, M.D. (Pp. 313; illustrated. £31 17s. 6d.) London: W. B. Saunders. 1969.

The Art of Administration. By A. Leslie Banks, F.R.C.P., D.P.H., and J. A. Hislop, F.R.C.P.Ed. (Pp. 184. 14s.) 2nd edition. London: University Tutorial Press. 1969.

A Short Textbook of Chemical Pathology. By D. N. Baron, M.D., F.C.Path. (Pp. 211+ix; illustrated. Paperback, 22s.; hardback, 35s.) London: English Universities Press. 1969.

Attachment and Loss. Vol. 1. Attachment. By John Bowlby, M.D. (Pp. 428+xx. 63s.) London: Hogarth Press. 1969.

Bacterial Physiology and Metabolism. By J. R. Sokatch. (Pp. 443+xii; illustrated. 100s.) London: Academic Press. 1969.

Cor Pulmonale in Emphysema. Mechanisms and Pathology. By D. Heath, M.D., D. Brewer, M.D., and P. Hicken, M.D. (Pp. 121+xiii; illustrated. \$9.75.) Springfield, Illinois: Charles C. Thomas. 1969.

The Scientific Basis of Medicine Annual Reviews, 1969. British Postgraduate Medical Federation. (Pp. 348+ix; illustrated. 50s.) London: Athlone Press. 1969.

Scientific Writing. By Lester S. King, M.D., and Charles G. Roland, M.D. (Pp. 133+vil. \$1.50.) American Medical Association. 1968.

Chronic Ulcerative Colitis. A Lifelong Study By J. Arnold Bargen, M.D. (Pp. 123+xi; illustrated. \$7.50.) Springfield, Illinois: Charles C. Thomas. 1969.

Genetic Engineering. Edited by David Paterson. (Pp. 72. 7s.) London: B.B.C. Publications. 1969.