BODY FLUIDS IN SURGERY. By A. W. WILKINSON, Ch.M., F.R.C.S.E., Senior Lecturer in Surgery, University of Aberdeen. 8½ × 5½ in. Pp. ix + 212, with 7 figures and 29 tables. Index. 1955. Edinburgh and London: E. & S. Livingstone Ltd. Price 16s.

For many years all surgeons, particularly those engaged in traumatic work, have recognised the importance of maintaining the blood-volume in cases of haemorrhage and shock. Similarly, in recent years it has become increasingly clear that the replacement of abnormal losses of water and electrolytes is an integral part of the care of many patients, especially those requiring abdominal surgery. It is now clear that these two aspects of treatment are not, as often implied in both thought and practice, separate entities, but just two facets of the wider problem involved in the maintenance of the equilibrium of the entire system of body fluids. Mr Wilkinson sets out to consider this problem in all its many aspects; and in its scope and comprehensiveness—compressed, none the less, to most manageable proportions—lies this book's greatest value.

In the early chapters there is a full description of the normal water and electrolyte content of the body, the effects of depletion of water and the various electrolytes, and disturbances of acid-base balance. Throughout these chapters the simple, basic facts are stressed; there is in addition much detailed biochemical information which may well be hard reading for many surgeons but which will prove of interest and value to those specifically interested in these problems. There follow chapters on the metabolic response to injury and on shock, this latter being an admirable review of the etiology, manifestations and treatment of this condition.

Disturbances due to losses of gastro-intestinal secretions are discussed and their treatment is described; this chapter includes a most useful account of the biochemical changes that may follow transplantation of the ureters into the colon, and outlines the measures to prevent such troubles. The influence of associated renal disease on fluid and electrolyte balance in surgical patients is described in some detail, and there is a particularly valuable account of the etiology of anuria, due to tubular necrosis, and its management. The final chapters are devoted to the diagnosis of electrolyte disturbances, and the control of fluid equilibrium in the normal patient undergoing surgery and in those requiring specific replacement therapy. As might be expected from this author, there is a particularly full and lucid account of the use of plasma-expanders.

Throughout the book there is emphasis on the value and importance of simple clinical observations in the management of these complex problems. Whilst discussing the intricate biochemical details Mr Wilkinson makes it clear that in most cases therapeutic success can be achieved by concentration on essential observations within the compass of all but the smallest surgical unit, and throughout he stresses the importance of not overburdening the patient by excessive investigation or treatment. Further, the author's approach to the problems is not narrowly biochemical, and in all sections of the book there is much useful general advice about the management of shock, peritonitis, intestinal obstruction, etc., so that the book covers a wider field than the title suggests.

In a book covering so wide a field it is inevitable that any single reader should find statements and views with which he is not in agreement. Thus, it seems confusing to find a full account of water intoxication in the chapter devoted to sodium metabolism, and no mention of this condition in the section on the therapeutic implications of the metabolic response to injury. However, such individual criticisms in no way detract from the merit of this monograph, which constitutes a valuable addition to British surgical literature. This book is not for those seeking a quick, easy guide to fluid and electrolyte problems, but will prove invaluable to all those seriously concerned to understand the metabolic changes occurring in their patients, and to such students the value of the book is enhanced by a good index and full references.—L. P. Le QUESNE.

HUMAN LIMBS AND THEIR SUBSTITUTES. By Paul E. KLOPSTEG, Ph.D., Sc.D., and Philip D. WILSON, M.D., with thirty other contributors. Prepared under the sponsorship of the Advisory Committee on Artificial Limbs, National Academy of Sciences and National Research Council. 9½ × 6½ in. Pp. xiv + 844, with 400 figures. Index. 1954. New York, Toronto, London: McGraw-Hill Book Company Inc. Price 90s.

The subtitle of this book well sums up its contents: “. . . results of engineering and medical studies of the human extremities and application of the data to the design and fitting of artificial limbs and to the care and training of amputees.” Its contributors number thirty-two.

After the war the Americans decided that the limbs available for their veterans were not good enough. And they set about improving them in a fashion reminiscent of the jingoism of 1900: "We've got the ships, we've got the men, and we've got the money too." They had the machines, the brains and the money; and they have made good use of all three. Aircraft and other firms have built prototypes at the instigation of the men of science, the universities have lent their professors, and the American Government, as always for a good cause, did not stint the money. What has been learnt is recorded at length in this book. That the results so far have been meagre does not detract from the magnificence of the effort. It may be some time before a cure is found for cancer but who would wish to call off the search?

A book teeming with engineer's drawings and calculus equations does not commend itself at first sight to a mere doctor, but intermingled with the chapters on mechanical details are many on subjects of interest such as the present status of cineplastic amputations, the physiology of walking and the function of the hand. Nobody will read the whole of the book, but many different people—engineers, limb makers, limb fitters, physiotherapists and physiologists—will find something to interest and stimulate them, not least the orthopaedic surgeon.

The whole world owes a debt of gratitude to the Americans for their efforts to alleviate the lot of the limbless. May their work continue.—George PERKINS.

TREATMENT OF RESPIRATORY EMERGENCIES INCLUDING BULBAR POLIOMYELITIS. By Thomas C. GALLOWAY, M.D., Professor Emeritus of Otolaryngology, Northwestern University Medical School; Attending Otolaryngologist, Evanston Hospital, Evanston, Illinois. 9×6 in. Pp. viii+94, with 5 figures. 1953. Springfield, Illinois: Charles C. Thomas, Publisher. Oxford: Blackwell Scientific Publications. Price 21s. 6d.

In this monograph two introductory chapters on the mechanics and pathological consequences of respiratory obstruction prepare the way for a full account of the respiratory complications associated with acute bulbar poliomyelitis. The author believes that one of the primary disorders that occur in bulbar poliomyelitis is a deficiency in the swallowing mechanism, with consequent accumulation of secretion and food in the air-way. This in turn leads to laryngeal spasm, and it is laryngeal spasm rather than flooding of the lungs by secretions that causes death from asphyxia. Treatment therefore is directed towards removing the secretions by postural drainage and aspiration or, if necessary, maintaining a free air-way by tracheotomy. The indications for tracheotomy are clearly given, and some special points in technique are described. Not everyone will entirely agree with the statement, "It is certainly much better to perform such an easy and safe procedure as tracheotomy many times too early or unnecessarily than to have failed to do it once in time to prevent serious consequences." This book goes a long way to clarify the pathology of acute bulbar poliomyelitis, and to rationalise treatment. It is well produced and the diagrams are clear.—Donal BROOKS.

LOCAL ANALGESIA: HEAD AND NECK. By Sir Robert MACINTOSH, D.M., F.R.C.S. (Edin.), F.F.A.R.C.S., Nuffield Professor of Anaesthetics, University of Oxford; and Mary OSTLER, M.B., M.R.C.P.E., F.F.A.R.C.S., Research Assistant, Nuffield Department of Anaesthetics, University of Oxford. Illustrated by Marjorie BECK. 9×6 in. Pp. viii+138, with 145 figures. Index. 1955. Edinburgh and London: E. & S. Livingstone Ltd. Price 27s. 6d.

This is an example of all that is best in a medical monograph. It covers its subject fully and clearly, yet succinctly. It is liberally illustrated by diagrams which are always clear and to the point, and the quality of illustration and of presentation is superb. Though most of the book deals with topics outside the field of orthopaedic surgery, it is to this book that the orthopaedic surgeon should turn if he wants the clearest account of simple techniques for stellate ganglion block, cervical plexus block or for local anaesthesia anywhere in the head or neck.—D. LI. GRIFFITHS.