of plausibility alone. This may be a quibble but on stronger ground one feels that quite inadequate attention has been paid to the design of parts of appliances especially of plate holes and the screws by which they are fixed to bones. Badly shaped screw heads which inaccurately fit countersunk plate-holes offend first mechanical principles. Lately we have heard much about the corrosion of stainless steel screws as a result of the deposition of minute metal fragments from the unsuitable martensitic steel of screwdrivers; but in this book little is said upon the very real danger of the breakdown of screws from the application of too great a torque by the surgeon through the screw-driver because the hole in the bone has been made with a drill of too small a calibre.

In the past there has been a great lack of animal experimental work before materials have been inserted into the human body. The continuing need for this experimental work is emphasised.

In the discussion of standard materials it is advisable to use a standard nomenclature. Several of the writers in this book use confusing descriptions such as F.S.T., F.M.B., E.M.S., which are all steel manufacturers' trade names and should be avoided. The use of adjectival eponyms is unavoidable: there is no other way of describing a "Judet prosthesis." What, however, is a *worn Judet* (page 90)? Neither of the distinguished surgeons of that name could ever be "worn": or wan!—Norman CAPENER.

RECENT ADVANCES IN CEREBRAL PALSY. Edited by Ronald S. ILLINGWORTH, M.D., F.R.C.P., D.C.H., Professor of Child Health, University of Sheffield; Paediatrician, Children's Hospital and Jessop Hospital for Women, Sheffield. Foreword by Norman B. CAPON, M.D., F.R.C.P., F.R.C.O.G. 9½ × 6¼ in. Pp. 404, with 136 figures and tables. Index. 1958. London: J. & A. Churchill Limited. Price 50s.

Historically, orthopaedics has been closely linked with the treatment of cerebral palsy: in fact the development of orthopaedics owes much to W. J. Little who himself made a considerable study of the disease and whose influence led to the foundation of the Royal National Orthopaedic Hospital. Until twenty-five years ago almost the only treatment available for this condition was in orthopaedic departments by physical therapy and occasional operative surgery. Since then, fresh interest has been aroused by the work of Phelps and Carlson in the United States. According to Phelps cerebral palsy includes "All those conditions in which interference with the control of the motor system arises as a result of lesions within the brain." It is, however, recognised that, although at one end of the scale such lesions will be associated with severe mental deficiency, at the other end will be found many examples of physical disability more or less severe in children of high and even normal mental capacity. While charitable bodies having a large parent membership have allowed themselves to be over-impressed by the mental potentialities, nevertheless the stimulus of such bodies has caused renewed study of a subject that had previously been relatively neglected. The importance of this new work is far greater than its results in the treatment of cerebral palsy, for undoubtedly it has led to fresh neurophysiological, psychological, physical therapeutic and educational inquiries affecting other fields. As in many new branches of medicine, there has been a tendency to discredit entirely and to neglect the older disciplines. So it has been with the orthopaedic aspects of the care of cerebral palsy. The condemnation of operative orthopaedics and the abandonment of splintage went too far, and the new workers failed to realise that, led by McCrae Aitken and such physiotherapists as Miss Isabel Ainger of Oxford, there were many of us who had come to realise that the correction of deformity and its maintenance with re-education were largely to be achieved without surgical intervention, but that surgery still had a place.

The present work is a most valuable guide to the present knowledge upon cerebral palsy. Professor Illingworth has assembled a good team of experts, and each writes with authority and is interesting: furthermore, each gives a comprehensive bibliography of recent work. Illingworth begins with a classification based upon that of Phelps and discusses incidence and causation. In his careful analysis he draws attention to a little-recognised group of patients in whom the disease is progressive, a circumstance that is most embarrassing in a special school when a child is discovered at the end of its time to be actually worse than when it entered: fortunately a relatively rare thing. Spasticity compared with athetosis is in most reports far the commonest type of case; but in Phelps's group the incidence of the two conditions is equal (40 per cent). In all cases of cerebral palsy there is a high incidence of premature birth, and the principal single etiological factor is anoxia. Cyril B. Courville gives a fine account of the great variety of pathological changes in the brain. The clinical picture and handicaps of affected children are discussed by Illingworth. In the latter connection he quotes other workers upon the relation of eye dominance and handedness; one had thought that Russell Brain had sufficiently discounted any such relationship. A good deal of attention is paid to the sensory defects which are

now being recognised as important contributory features in motor handicaps. This is discussed by A. W. G. Ewing in respect of hearing, and Norah Gibbs deals with the psychological aspects. Eleanor Schonell discusses intelligence testing and educational problems and methods. H. M. Cohen reviews some British institutions for treatment and education, and Alexander Innes describes some of the special equipment that has been developed to facilitate living and education. A very small chapter by Winthrop Phelps deals with physical therapy which is of interest in view of the large scope claimed by physiotherapists. The scope is often that obtained through peculiarly coloured spectacles—and there is little agreement between the various groups about the methods used, though all agree that by frequent intensive individual care they do get results. The question is: how long does it last after the extra brain has been removed from the case? Speech therapy is well discussed, and it is refreshing to find how much emphasis is given to posture, gesture and manual activity as manifestations of speech. G. A. Pollock and W. J. W. Sharrard give an excellent and well balanced account of the orthopaedic surgical possibilities, both in general principles and detailed discussion of particular problems: the correction of deformity, the reduction of overactivity in groups of muscles, the treatment of pathological dislocation. They emphasise the importance of splintage and other methods of overcoming contractures rather than by neurectomy: they also prefer that splintage shall be rigid. Russell Meyers reviews the present position of neurosurgery. The great difficulty is that of localising anatomically the lesions responsible for different types of cerebral palsy, particularly in relation to the newer knowledge of the physiological processes of cerebration. He recalls that during sleep the hyperkinetic and myotonic phenomena of certain disorders are suppressed. We need to know more about the physiology of sleep. "Can we divine what the state of the organism is during sleep and soon after awakening, and, if so, can we duplicate that state in our patients by the use of drugs and/or surgery? These are intellectual challenges as exciting as ever confronted a frontiersman." One feels that in contributing to this and other aspects of neuropathology there is justification for the vast cost of special institutions for the care of such children.

This volume is a worthy addition to the publishers' series of "Recent Advances." Everyone having to deal with children suffering from cerebral palsy must have it.—Norman CAPENER.

REHABILITATION OF THE HAND. By C. B. WYNN PARRY, *M.B.E., M.A., D.M., D.Phys.Med.*, Specialist in Physical Medicine, Royal Air Force; assisted by N. R. SMYTHE, *M.A.O.T.*, Chairman of the Occupational Therapy Association, Head Occupational Therapist, Medical Rehabilitation Unit, Royal Air Force, Chessington; and L. E. BAKER, *M.C.S.P.*, Superintendent Physiotherapist, Medical Rehabilitation Unit, Royal Air Force, Chessington; with contributions from D. A. BREWERTON, *M.D., M.R.C.P., D.Phys.Med.*, and D. BROOKS, *F.R.C.S. (I.)*. 10×7 in. Pp. vii+290, with 101 figures. Tables. Index. 1958. London: Butterworth & Co. (Publishers) Ltd. Price 45s.

The author in his preface calls this volume a cookery book, and it is a good description. It covers the whole field of surgery of the hand, giving an outline of the surgical treatment, and a detailed description of the physiotherapy, occupational therapy, methods of splinting, mobilising and exercising of the hand, and ending with a review of the resettlement programme available for a permanently disabled patient.

There is a valuable chapter explaining the theory of electro-diagnosis. This is unfortunately made difficult to read by an erroneous figure reference number. For the physiotherapist there are detailed instructions, clearly illustrated, for carrying out specific activities with the hand. For the occupational therapist there is a mass of classified suggestions for obtaining and encouraging activity by work and games.

Mr Donal Brooks has written a clear exposition of the principles governing reconstruction of the hand, based on the types of treatment available for each particular cause of disability. There is an excellent section contributed by Dr D. A. Brewerton on the hand in rheumatoid arthritis, in which he outlines the deformities and disabilities, attempts to explain them and lays down rational lines of treatment for each. The surprising point which comes out of the sections on surgery in this chapter is the repetition of the phrase "There are no detailed accounts of the results of such surgery."

The book is well produced and well illustrated, almost entirely with photographs; their quality is good, and the arrangement varied enough to aid the memory. This will be a valuable addition to the libraries of physiotherapy and rehabilitation departments, for it is a real dictionary of information on all aspects of the after-care of hand injuries. Any surgeon who is making the hand his special interest will find it of great value.—H. Graham STACK.