Part II—After a short historical introduction the report presents some original chapters on the anatomy and physiopathology of the spinal marrow. These up-to-date chapters are based on anatomopathological researches and on the revision of the extensive material in the Orthopaedic Department of the University of Pisa and the Centre for Paraplegics in Rome.

The possibility of a bony, discal or simply haemorrhagic external compression with integrity of the cord is to be considered exceptional; the medullary damage occurs at the very moment of the trauma together with the vertebral fracture followed by necrosis and the disappearance of the nerve cells, or the demyelination of the fibres in the various columns. A precise and accurate description of the initial and late tropographic neurological syndromes and of the different troubles connected with them is reported.

As to treatment, the more or less precocious laminectomy not being able to eliminate a compressive factor—which does not exist—or to promote nervous regeneration, will only help to increase the damage to the medulla. On the other hand a closed reduction could in some cases usefully restore the canalisation of the vertebral foramina but the subsequent immobilisation in plaster often provokes circulatory complications, meteorism and decubitus ulcers.

At the present time the best general line of treatment is the postural reduction of the fracture together with early re-education. The best results from the point of view of functional re-education and social re-integration can only be realised in specialised centres with the cooperation of the whole staff. The number of paraplegics in Italy amounts to about 20,000 and for them the organisation of three specialised centres, respectively in the north, the centre and the south, is necessary.

An exposition of the personal results, concerning 521 vertebral fractures, seventy-three of them with nervous complications, and a complete international bibliographical review conclude the report.—O. SCAGLIETTI.

Radiology of Bone and Joint Tuberculosis with Special Reference to Tropical Countries. By Prafulla Kumar GANGULI, M.B., D.M.R.D., D.M.R.T., Consultant Radiologist, Pontypridd and Rhondda Hospital Management Committee and Merthyr and Aberdare Hospital Management Committee, Welsh Hospital Board. Foreword by P. H. WHITAKER, M.D., F.F.R., M.R.C.S.(Eng.), D.M.R.E., Department of Radio-diagnosis, University of Liverpool. 9×6 in. Pp. xii+180, with 98 figures. Index. 1964. London: Asia Publishing House. Price 50s.

This monograph is based upon a personal collection of over a thousand cases of bone and joint tuberculosis. It is divided into two parts; the first part is script and is contained in sixty-three pages; the second part contains ninety-eight figures. This makes reading difficult, and it is a pity that modern practice could not be followed. The text is studded by reference to authors' names which the bibliography ignores. The spelling of some of the authors' names is inaccurate, Shancis-Olimos and Diechamps being examples, whilst other well known authorities appear to have changed their christian names. Whilst these deficiencies may jar the reader from time to time, there is a lot of good, sound advice in the text. The presence of sequestra, sclerotic changes, intervertebral disc narrowing, bony bridges, multiple lesions and the advice to radiograph the whole spine is very sound. So also is the caution that radiographic evidence of fusion and healing may be very misleading in spinal films. The author discusses abscess behaviour in detail but does not mention lung penetration, empyema and other organ penetration which one would have expected to be present in such a large number of cases. Turning to the figures, which are all reproductions of x-rays, there is a well selected and extensive representation of the characteristic radiographic changes of bone and joint tuberculosis which, to my knowledge, has not been bettered. The quality of some of the figures leaves a little to be desired but then in the best of hands so do some radiographs.

This is an important addition to the literature on the radiology of bone and joint tuberculosis and should be available to all orthopaedic surgeons dealing with this condition.—A. R. HODGSON.

The Recovery from Poliomyelitis. A Study of the Convalescent Phase. By Martin SINGER, M.B., Ch.B.(Cape Town), F.R.C.S.(Eng.), Orthopaedic Surgeon, Groote Schuur Hospital, Cape Town; and Peter ROSE-INNES, M.B., Ch.B.(Cape Town), Senior Neurosurgical Registrar. Foreword by J. H. S. GEAR, B.Sc., M.B., D.P.H., D.T.M.C.H., Dipl. Bact. 10×6½ in. Pp. viii+106, with 30 figures and 17 tables. Index. 1963. Edinburgh and London: E. & S. Livingstone Ltd. Price 25s.

This monograph is based on the experiences of the authors during the poliomyelitis epidemic in the Cape Town district during 1957. The first part gives a historical and pathological account of the disease amounting almost to a condensed bibliography and is not particularly easy reading; at the end of the book is a full list of references.

The second part of the book describes clearly the organisation of the Convalescent Poliomyelitis Unit established in the Red Cross Memorial Children's Hospital in Cape Town in January 1957 when the severe epidemic occurred. At this hospital there was no orthopaedic department, yet 163 children were treated in the first year with great success. This meant that treatment had to be essentially practical, equipment simple and most efficient use made of the various grades of staff. Thus the nurses were taught to take splints on and off, to make splints and to carry out the routine positioning and passive movements; splinting was kept to a minimum and bed apparatus was notable for its simplicity and ingenuity. The last two chapters give an account of respiratory complications and their treatment and a survey of the cases treated in the convalescent phase.

Immunisation against poliomyelitis has now reduced the incidence of the disease and the liability to epidemics. If, however, these occur again, they are most likely to do so in areas where there are few facilities both for immunisation and treatment of the disease. This book should be invaluable to anyone who has to tackle the problem of a poliomyelitis epidemic such as occurred in Cape Town in 1957.—J. A. CHOLMELEY.

Modern Trends in Orthopaedics. 4. Science of Fractures. Edited by John M. P. CLARK, M.B.E., M.B., F.R.C.S., Orthopaedic Surgeon, General Infirmary, Leeds; Consultant Orthopaedic Surgeon, Pinderfields Hospital, Wakefield; Senior Clinical Lecturer in Orthopaedics, University of Leeds; with eleven contributors. 8½×5½ in. Pp. viii+254, with many figures. Index. 1964. London: Butterworth & Co. (Publishers) Ltd. Price 60s.

This is an impressive survey of the present knowledge of bone. As such it is of far greater significance than its title suggests. This is basic to all departments of medicine, as is to be seen from the following list of contents and authors: 1) *Historical Introduction*—John M. P. Clark; 2) *The Molecular Organization of Bone*—F. G. E. Pautard; 3) *Ultrastructure of Bone Formation and Resorption*—N. M. Hancox and B. Boothroyd; 4) *Calcification*—R. L. Hartles; 5) *Histology of Fracture Repair*—J. J. Pritchard; 6) *The Blood Supply of Bone*—Murray Brookes; 7) *Non-union and Delayed Union*—Robert Roaf; 8) *Biological Mechanisms in Foreign Bone Transplantation*—R. Geoffrey Burwell; 9) *Metabolic Response to Injury*—F. G. Smiddy; 10) *Metabolic Bone Disease in Relation to Fractures*—John Chalmers; 11) *Effects of Radiation on Bone*—W. H. Stephenson.

For the orthopaedic surgeon there is one important omission: the lack of a section on the reaction of bone to foreign bodies (including metallic and other implants). Nevertheless the book is fascinating in showing not only that bone holds the body together but is one of the integrating tissues for the whole of medicine. In repair the ability of bone to return to its most primitive histological characters is emphasised by Professor Pritchard: this should be remembered when considering doubtful neoplastic conditions to which healing bone bears such strong resemblance. In this connection it is surprising that the work of Charles Huggins, now of Chicago, should have been overlooked. Your reviewer had the opportunity of seeing this at first hand, and of repeating some of it, thirty-five years ago. In dogs the transplantation of bladder epithelium into connective tissue planes away from bone, results in the ectopic formation of what Pritchard calls a blastema in which all the stages from primitive connective tissue cells to osteoid and mature cancellous bone can be traced. With the modern technique described in this book, Huggins's work would be worth repetition.

This book is of fundamental importance and, with its excellent documentation, should have a wide circulation.—Norman CAPENER.

BOOKS OF ORTHOPAEDIC INTEREST

Os Calcis Fractures. By Olle THORÉN. Pp. 116. 1964. Copenhagen: Ejnar Munksgaard. Price Sw. kr. 30.

This monograph treats calcaneal fractures from the statistical point of view and is particularly unbiased as far as the method of treatment adopted is concerned. Fractures are divided up into three groups by special radiological examination of the subtalar joint. Fractures not involving the posterior articular facet are treated by non-weight-bearing exercises and early mobilisation.

In the second group of fractures, namely, intra-articular fractures with absent or moderate displacement in the posterior joint facet, similar treatment is recommended. In the fracture with more severe displacement an open reduction may give a better result, but in these cases early physiotherapy also can give sufficiently good results to warrant its use instead of operation.

This short volume is clearly written and deserves study by anyone interested in these fractures.

Radiological Aspects of Rheumatoid Arthritis. Proceedings of an International Symposium organised by the International Study Centre for Rheumatic Diseases, Amsterdam (I.S.R.A.), held at the Trippenhuis, The Royal Netherlands Academy of Sciences, Amsterdam, May 19–22, 1963. Editor and translator: Mary E. CARTER, M.D. Pp. xi+315. 1964. Amsterdam/New York/London/Milan/Tokyo: International Congress Series No. 61. Excerpta Medica Foundation.