to the osteoclastomata, if they arise in the young vascular bone which replaces calcified cartilage, why should they be so rare below the age of twenty?

In the reviewer's opinion this tendency to dogmatise about the histogenesis of bone tumours is regrettable in a book which has so many excellent qualities and whose compilation has so clearly involved the authors in so much fruitful labour. For the surgeon who undertakes the heavy clinical responsibility of cases of bone tumour there is no better book of reference.—Geoffrey HADFIELD.


This popular book, which is in nearly every house-surgeon's collection, contains an extract from the original preface stating the author's aim to illustrate those practical methods of surgical treatment which are rarely covered in textbooks of general surgery. Apart from two sections on infusion and transfusion and an appendix on instruments and appliances, the teaching is entirely on fractures and orthopaedics. It is pertinent to ask whether Mr Farquharson's selection reflects faithfully modern British practice. The casual reader cannot fail to be enchanted with the sight and sound of every page, but the critical reader misses a description of those truly conservative and partially foolproof methods of treatment which do not lend themselves to photographic record. For example, a number of hyperextension manoeuvres to reduce compression fractures of the lumbo-dorsal and even dorsal spine are shown, but there is no mention of the renaissance of simplicity in the treatment of fractured spines, so ably sponsored by Nicol from a mining area and by Guttmann from a paraplegic centre. In this chapter the teaching is of a choice pre-war vintage which nevertheless has become unpalatable to those who remember vividly the deplorable effects of hyperextension jackets applied during the stress of the bombing raids. Fractures of the os calcis are reduced by various means, such as hammering, the redresseur, screw-traction and the axial pin, but there is no appreciation of the results obtained by early active movement with freedom from weight-bearing. Possibly undue stress on the full reduction of bone deformity is seen in the treatment of sub-capital femoral fractures. Before pinning, the femur is manipulated into the fullest internal rotation and held there with the foot almost horizontal. The posterior gap opened up in the neck and the stretching of retinacular vessels must on occasion be considerable. Again, impacted fractures of the base of the first metacarpal bone are disimpacted, if need be by taps with a hammer.

Some minor criticisms are that continuous pulp traction by a suture is not in general use; that Denis Browne's "nut-crackers" for club feet do not appeal to most orthopaedic surgeons; that a walking sandal to control claw toes is impractical; and that anterior flat foot and metatarsalgia are by no means synonymous. The illustrations of surgical instruments include a number of museum pieces. The two pages devoted to eight tourniquets, for example, omit the two in everyday use, namely the Esmarch bandage and some variety of pneumatic tourniquet. Though the author's portable traction table, Braun's frame, Böhler's screw-traction apparatus, and Böhler's iron have each been seen in ten figures already, all four make a final appearance in the appendix.

Mr Farquharson's book is entirely admirable for the clear and concise text and for the excellent photographs and line drawings, but to a considerable extent it must be regarded as a lucid exposition of his own practice in fractures and orthopaedics. With some revision it would have an even wider appeal and could easily be the finest work of its kind.—K. I. NISSEN.


How does a muscle cell differ from a bone cell or from a fibroblast? What factors have been at work controlling the development, from indifferent mesenchymal tissue, of such contrasting and specialised types of cell? For many years such problems of "cell differentiation" have fascinated those who study tissues under the microscope. The appearance of different cell types during early embryonic development provides striking examples of progression from unspecialised to specialised cells, and it is in the embryological field that the processes of cell-differentiation have been most closely studied.

Early embryologists regarded the fate of any part of the developing embryo as determined only by the inherent properties of the cells themselves, but experimental analysis has revealed that very often the differentiation of a particular tissue is brought about by outside influences acting on the cells concerned. An important task of experimental embryology has been to explore the nature of these controlling influences,