An Introduction to Medical Genetics. By J. A. Fraser Roberts. 5th edition. (Pp. xiv + 296; 123 figures. Boards 50s., paper covers 35s.) London, New York, and Toronto: Oxford University Press. 1970.

Dr. Fraser Roberts' book needs no introduction to medical geneticists or to interested clinicians. It has long been by far the best first textbook on its subject and the revised edition suggests that it still has no peer. The reviewer is certainly not the only medical man who first had his interest in genetics aroused by this book.

Though the author has resisted the temptation to develop the 'introduction' into a textbook, succeeding editions have inevitably become a little longer and more difficult for a novice to follow, so that possibly an earlier edition could still be preferred first reading. On the other hand, the new edition which starts with a simple exposition of molecular genetics will seem more logical to new readers, even if, as is probably inevitable at the present time, there is no real follow-up of the information imparted in subsequent sections of the book, even in the short section on biochemical genetics. The chapters on blood group genetics and chromosomal abnormalities have been brought up to date, and there is a welcome expansion of the section on multifactorial inheritance, though the author may have written on the last subject more clearly and as economically in various review articles.

As in all previous editions the format of the book is excellent, and old and new clinical photographs are of a very high quality. Possibly the photographs of karyotypes are not quite of the same high standard.

The publishers have done remarkably well to keep the price of this book so low, and at 35/- the paperback edition in particular is extremely good value.

ALAN C. STEVENSON

Endocrine and Genetic Diseases of Childhood.

Edited by Lytt I. Gardner. (Pp. xviii + 1072; illustrated + tables. 289s.) Philadelphia and London: W. B. Saunders. 1969.

Dr. Lytt Gardner has seemingly accomplished the formidable task of welding the contributions of no fewer than 56 of his colleagues, at home and abroad, into a readable whole. This is a most comprehensive book of the endocrine and genetic diseases of childhood. The opening chapters on normal and abnormal growth patterns span embryo and adolescent; these are followed by sections on diseases and abnormalities of the various

endocrine glands, and their management. Chromosomal anomalies are fully discussed, with a section on cytological techniques; and the recording and interpretation of dermatoglyphic patterns is aligned to various well-recognized syndromes. The major disorders of biochemistry and metabolism are described, along with chapters on obesity, cystic fibrosis, the psychological aspects of endocrine and genetic diseases in children, and genetic counselling.

In the section on the intrauterine growth of embryo and foetus, one is surprised to find no mention of the relative effects of reduction of cell number and cell size. It is disappointing to find starvation of the low birth-weight infant more or less condoned in the section on carbohydrate metabolism in the newborn, and no mention made of the prevention of symptomatic hypoglycaemia by adequate feeding. The differential diagnosis of ambiguous sex at birth is most clearly set out, and the importance of scrupulously careful assessment before assigning the appropriate gender role as soon as possible after birth is emphasized. The genetically determined abnormalities of biochemistry and metabolism are succinctly described, though some of the more common disorders such as cystic fibrosis get considerably less attention for instance than some of the very rare inborn errors. In his humanely written chapter on genetic counselling, Dr. Gardner has preferred to give illustrative case histories rather than 'an exhaustive tabulation of all data available', but ample references are given for those who wish to refer to the latter.

Though few will feel they can really afford this book, many will not wish to be without it; and as a reference work in a field which has seen many rapid recent advances, it seems a thoroughly worth-while investment.

P. A. DAVIES

A Study of the Early Development of Mongols. Institute for Research into Mental Retardation Monograph No. 1. By Valerie A. Cowie. (Pp. xiii + 110; figures + tables + 5 appendices; 60s.; \$8.00.) Oxford: Pergamon Press. 1970.

This book represents an excellent beginning to a series of monographs on mental retardation. Dr. Cowie organized a survey in Surrey, Camberwell, and Lewisham, thus making available to her 79 infants with Down's syndrome. Only three infants were over 6 months of age when first seen. Thirteen died, mainly during the first three weeks of life; of these, 10 were girls. Developmental testing was undertaken at 6 weeks,

6 months, and 10 months. Analysis of the results shows that the poor muscle tone in such infants improves with age, as judged by palpation, resistance to passive movement, the traction responses, and the effect of tone on posture in prone, sitting, and horizontal suspension. Significant positive correlations existed between marked hypotonia and strabismus at all three examinations. The Moro and primary stepping responses persisted longer than in normal infants: lower limb placing responses, absent in all mongols during the early months, appeared in some 20% by 10 to 12 months. The methods of eliciting and scoring these responses are described concisely, and supported by 55 illustrations with a useful selection of references.

This book is a welcome addition to our knowledge of Down's syndrome, and will be of value to physicians and psychologists undertaking developmental studies on select groups of children.

PETER ROBSON

Fortschritte der allgemeinen und klinischen Humangenetik. Band II. Edited by P. E. Becker, W. Lenz, F. Vogel, and G. G. Wendt. **Die Missbildungen der Arme bei der epidemischen Dysmelie (Thalidomidembryopathie).** By Dietrich Petersen. **Der diastrophische Zwergwuchs.** By Hartmut Walter. (Pp. 109; 7 tables + 45 illustrations. DM.37.) Stuttgart: Georg Thieme Verlag. 1970.

The second volume in this series of monographs on human genetics is devoted to two review articles: one on malformations of the arm in thalidomide embryopathy and the other on diastrophic dwarfism. In the first of these articles, D. Petersen draws on his own material and on reports from German sources. He classifies the defects in a descending degree of severity: at the one extreme both arms are totally lacking or an arm is represented by nothing more than a rudimentary finger attached to the shoulder, while the mildest defect in the seven listed is an anomaly of the thumb, which shows hypoplasia and triphalangy. The 32 illustrations are particularly helpful.

'*Nanisme diastrophique*' as isolated by Lamy and Maroteaux in 1960 is the subject of an extensive and most helpful review by H. Walter. 'Crooked dwarfism' is a recessive disorder which has many of the features of Morquio's disease, atypical chondrodystrophy, and in particular of achondroplasia with which latter affection it was frequently confused by earlier observers (including Lamy, Frézal, and Maroteaux, who in 1956 recorded a case as one of recessive achondroplasia). Deformities of the ear, cleft palate, anomalous calcification, various hip, knee, and foot deformities, and particularly progressive kyphoscoliosis are, however, characteristic of this form of dwarfism. A full analysis of the published cases is given together with details of 13 cases observed personally and it is clear from the family histories that the affection carries a high infantile mortality.

ARNOLD SORSBY

Human Blood and Serum Groups. By Otto Prokop and Gerhard Uhlenbruck. Translated by J. L. Raven. (Pp. xvi + 891; 163 figures + 243 tables. 315s.) London: Maclaren and Sons. 1969.

This large and expensive book is probably the most comprehensive so far produced on the subject of blood groups. Not only do the authors deal with the genetic and serological characteristics of the groups of both red and white cells, but they also deal with their medico-legal aspects and the relationships of blood groups to disease. In addition, a very large section of the book (170 pages) is devoted to the chemistry of the blood groups' substances, and the inherited groups detected in serum also receive considerable attention.

The authors have tried to incorporate in one volume what has formerly been the subject matter of several books. Even though it is useful to have one volume with such a wide spectrum, the result can be that none of the aspects are dealt with adequately. In this book, the section on the chemistry of the blood group substances is its best feature. In many of the other sections the treatment is too superficial to be of much value other than as a source of references for further reading.

The authors have tried to steer a middle course between the Rh nomenclature of Fisher-Race and that of Wiener, and, in fact, both nomenclatures are used. The result is that, to be fully comprehensible, the reader has to understand both nomenclatures, thus limiting the usefulness of the section on Rh to a highly-specialized minority, who will already be fully conversant with what is in the section.

The section on blood groups and disease takes 32 pages, and is thus one of the longest reviews of the subject. It is largely taken up with detailed criticisms of the more ridiculous associations that have been claimed. This leads the authors to a general condemnation of the whole subject. Very little space is given to the few firmly-based relationships, and only one paragraph and a table is given to the relationship with duodenal ulcer, the well-established relationship with non-secretor receiving only cursory mention. The authors find it 'interesting that there have been no definite counter-arguments disputing the increased incidence of O in duodenal ulcer subjects'. The main value of the chapter on blood groups and disease is the very full discussion on the possible relationships with various infections. Most of the research in this field has been carried out in Germany, and this review is most useful.

This book is essentially a translation of the second German edition (1966), and this is all too apparent throughout most of the text. It is mainly in the last couple of paragraphs of each chapter that there is reference to later developments. For instance, there is no mention of cytotoxic leucocyte antibodies, and the only reference to the work carried out on the prevention of Rh immunization by giving prophylactic anti-D gamma-globulin is to be found in the last paragraph of the chapter on incomplete antibodies. The work would be considerably out of date if it were not for these additional paragraphs incorporating developments up to 1968.