Negroes, and Basques. His comments show him as a man of his time. 'In India and many of our Colonies the absence of satisfactory means of identifying persons of other races is seriously felt. The natives . . . in too many cases are characterised by a strange amount of litigiousness, wiliness and untruthfulness.' But he also saw anthropological value in fingerprints, for instance 'in the hill tribes of India . . . for the chance of discovering . . . a more monkey-like pattern'.

This reprint will be of value to anyone interested in the development of dermatoglyphics. The introduction by Dr. Cummins lists all Galton's publications on the subject and assesses the part played by him in its development. The book does not compete in comprehensiveness or in price with the paperback reissue in 1961 of Cummins and Midlo's own (1943) volume, *Fingerprints, Palms and Soles*, but has a unique historical flavour.

JAMES SHIELDS

Humangenetik. Ein kurzes Handbuch in fünf Bänden. Edited by P. E. Becker. Band V, Teil I, Krankheiten des Nervensystems. (Pp. xii + 577; 177 figures + tables. DM 174, subscription price DM 139.20.) Stuttgart: Georg Thieme. 1966.

The present volume is the work of two contributors: the editor himself and Gerhard Koch of Erlangen-Nürnberg. In an extensive chapter running to nearly 100 pages, Becker has dealt with the hereditary ataxias, and he has devoted an almost equally extensive chapter to the spastic palsies, muscle dystrophies, and the bulbar palsies. Dr. Koch's contribution consists of four shorter chapters dealing, respectively, with the diffuse scleroses, the phakomatoses, syringomyelia, and affections predominantly involving the extrapyramidal systems. Typical of the wide range of these surveys, by both the editor and Dr. Koch, is the fact that the chapter on phakomatoses deals with no less than some 10 affections other than the four classical disorders originally delineated by van der Hoeve, and that this chapter carries more than a thousand references. These surveys are, however, more than reviews of literature; they incorporate much original work, particularly on twins. Throughout the text, stress is laid on the fact that the apparently consistent clinical entities of the older literature often covered a mass of affections with individual features of their own. As few of these newer entities are widely known, neurologists no less than geneticists will be grateful for this outstanding volume.

ARNOLD SORSBY

Monographs in Human Genetics, 2. Karyotype, Meiosis and Spermatogenesis in a Sample of Men Attending an Infertility Clinic. By B. Kjessler. (Pp. 74; 19 figures + 15 tables. 23.50 F.) Basel and New York: S. Karger. 1966.

As Dr. Kjessler notes in his Introduction, any examination in human beings of the ability to produce functioning gametes as opposed to the ability to produce offspring in terms of live births, still births, and abortions, is at present limited in practice to the male sex. It is perhaps all the more surprising that there have been relatively few studies of cytogenetic factors and impaired fecundity in men since the first successful demonstrations in 1956 of the normal number of human chromosomes and of the behaviour of autosomes at diakinesis and metaphase I.

The present study is a greatly expanded, and more detailed account of a paper originally published in the *Lancet* in 1965. The author describes a comprehensive survey carried out on 135 men who attended the infertility clinic at the University Hospital in Uppsala over a period of one year. Karyotype determinations were made on peripheral blood cultures for all patients, and testicular biopsy material was obtained from all those patients who were found to have aspermia or a count of less than one million sperms per ml. Of the 135 patients, 12 were found to have an abnormal karyotype, and in 6 patients some form of mosaicism was detected. In only one of the 12 patients was a translocation (D/D) demonstrated and the suspected origin of the translocation was confirmed from meiotic preparations. It is no doubt significant that in the remaining 11 patients, the karyotype anomaly in some way concerned the sex chromosomes.

The text contains some peculiarities of expression—pp. 2, 5, 56—and it is not clear whether, 'the classification of sperm abnormalities which is used for clinical purposes', and which is regarded as inadequate for a genetic investigation (p. 64) refers only to the author's simplified classification or to all other systems of sperm classification on a morphological basis. In view of some recently published findings of McIlree and others one might wish that it had been possible to obtain more meiotic material from the karyotypically normal males, but the thoroughness of Dr. Kjessler's study is impressive and he makes a number of interesting and important observations. These include the finding that, 'clinical examinations do not give any clear indications as to which patients might have a deviate karyotype', and that normal karyotypes may be associated with all levels of sperm count, and forms of testicular histology. No significant difference could be detected between the proportions of spermatocytes with XY bivalents and X and Y univalents for individuals with normal and abnormal karyotypes. Similarly there was no important difference in chiasma formation frequency for those with normal karyotypes and those with sex chromosomal anomalies, though there was some indication that the presence of the autosomal translocation interfered with chiasma formation. Examination of 'several hundred cells' failed to supply any evidence for the occurrence of a real chiasma between the X and Y chromosomes of the sex-bivalent. The publication provides a number of detailed tables of data in the Appendix and a helpful list of references.

D. J. BARTLETT