

REVIEWS

THE MITOTIC CYCLE. The cytoplasm and nucleus during the interphase and mitosis. Arthur Hughes, M.A., Ph.D., 1952. London: Butterworths Sci. Publns. Pp. i-viii, 1-132. 35s.

This book is concerned with the animal and plant cell in relation especially to mitosis. Dr Hughes has done a conscientious piece of work. So also have his two collaborators, Dr Swann and Dr Waymouth. Dr Hughes approaches the problem from the point of view of his own excellent studies on living cell division and of the physical and chemical properties of the cell constituents. He skirts the fringe of the genetical and physiological sides of the problem. He comes nearer to them, however, than any of his predecessors in this field for he is interested in the nucleus and he gives it a central position in the cell. Why he gives it this position however is not clear. He often refers, for example, to meiosis but what happens at meiosis, and what experiments have been applied to meiosis, he does not tell us. Nor does he realise what he has missed.

Dr Hughes appreciates that it is somehow unsatisfactory to have discovered bodies and processes so rich in form but so poor in function. The thousand references which he and his collaborators painstakingly quote leave him, as he explains, knowing very little about the cell. At the end the reader may also feel that he knows more about the authors and the papers than about the things they discuss. This state of ignorance is nothing new. It must be very common among those who teach this subject. But if it is to be the basis of writing a book, even a specialist's book, the author should indicate what the little is that he knows or believes. He should explain what foundations he is attempting to build on. This Dr Hughes omits to do.

Bound up with these accustomed difficulties of theory, Dr Hughes encounters a novel difficulty of technique. The method of dividing a book into sections of a similar length but a different subject matter, was no doubt invented for epic poetry. But it has proved useful in all kinds of writing. In science, it has sometimes enabled authors to reach positive conclusions—even in regard to the cell. But Dr Hughes dispenses with this helpful practice. One of his six chapters fills nearly half the book and most of his chapters cover, not the same papers of course, but the same things. He has thus failed to learn what he might have learnt from writing this book. He has also made it into a serious exercise for the reader who wishes to do better.

C. D. DARLINGTON

EUGENICS: Galton and After. C.P. Blacker, M.C., G.M., M.A., M.D., F.R.C.P., 1952. London: Duckworth. Pp. 349. 25s.

The importance of Galton in the founding of Genetics is not generally understood. This book provides the evidence of what he did, and of its consequences down to the present day, in a convenient form for the student of heredity. The bibliography of Galton's works seems to be complete except for the most curious and inaccessible of all, the popular article in Frazer's Magazine in which he first distinguished between one-egg and two-egg

twins: it was in 1875, the year in which Hertwig discovered the nature of fertilisation.

INQUIRIES INTO HUMAN FACULTY AND ITS DEVELOPMENT. Sir Francis Galton. 1883. Reprinted 1951. London: Dent & Sons. Pp. 261. 7s. 6d.

THREE MEMOIRS. Supplementary pamphlet. Sir Francis Galton. 1951. London: Cassell. Pp. 23. 1s. 6d.

Galton's Human Faculty first appeared in 1883. It represents his pioneer contributions to the foundation of biometry, genetics and psychology.

This book is the edition of the Everyman library now reprinted with a supplementary "Three Memoirs" being the part previously purged from it. It is published for the Eugenics Society by Messrs Dent & Sons through Messrs Cassell.

A HUNDRED YEARS OF BIOLOGY. Ben Dawes, D.Sc., 1952. London: Duckworth. Pp. 429. 30s.

An historical abstract sometimes distorted by condensation but with a compendious index and a bibliography of 1800 references. Dr Dawes is Reader in Zoology, King's College, London.