

break new ground. So also does Wettstein's distinction between the effect of mutations within plant plastids in upsetting the mature plastid while nuclear gene mutations upset their earlier development. Numerous electron microscope photographs and excellent diagrams add to the value of this study.

C. D. D.

BRITISH MEDICAL BULLETIN 15 (2) BLOOD GROUPS. British Council: Med. Dept. 1959. Pp. 89-174. 20s.

BRITISH MEDICAL BULLETIN 15 (3) CURRENT VIRUS RESEARCH. British Council : Med. Dept. 1959. Pp. 175-250. 20s.

The symposium on blood groups covers the whole of the known—and still actively ramifying—structure of blood group research. From the central enquiry into pedigrees discussed by Race, the clinical, immunological, biochemical and evolutionary themes radiate. The new problems of selection and the stability of polymorphism are dealt with by Fraser, Roberts and Sheppard. Geneticists are likely to be first impressed by the growing importance of these genetical treatments for medicine. But it is no less clear that the techniques of human genetics are here beginning to compete favourably with the experimental techniques on which fundamental advances in genetics have hitherto depended.

In the bulletin on virus research two articles are particularly important for genetics. Fenner uses the model of myxomatosis to demonstrate the interaction of selection on host and virus in the history of this disease. Burnet interprets the evolution of virulence and attenuation (especially in influenza) in terms of recombination as well as of mutation and selection.

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HISTORY OF BIOLOGY. By F. S. Bodenheimer. London: Dawson. 1958. Pp. 465. 42s.

Biology is now in the process of acquiring the unity which its name has foretold since 1800. It is natural therefore to think that one man may attempt to write a single history of the subject. But the subject, we find, is growing together from many kinds of study which have not yet converged. It is still tied up with such a wide range of ideas and conflicts of ideas that its history has little unity. And past attempts show only too clearly that the writing of its history demands the meeting of several minds.

Allowing for this difficulty it is hard to see the shape or purpose in Dr Bodenheimer's book.

Its three parts—introduction, narrative and collection of original quotations—are of unequal merit. The introduction, described as “*pererga and paralipomena*” in other words, frills (79 pages), contains personal opinions and ideas, some of them of interest. The narrative, described as “*a short factual history*” (65 pages) is indeed a short conventional history. It seems to be a collection of notes made over a period of thirty years and pieced together with little connection. It is trite and tedious. The original quotations (309 pages) are again some of them of interest. These, like the two short lists of references to works by historians, are in no order, chronological or alphabetical: again badly pieced together.

The publisher does not seem to have helped or guided the author where he might have done. There is no list of plates, no subject index, and no page references to the three lists of contents. These would have been of more use than the frills.

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