

BOOK REVIEWS

British Medical Bulletin. Vol. 18, No. 3, 1962. Published by The Medical Department, The British Council. 35s.

Electron Microscopy

THE bulletin comprises fourteen articles and an introduction and the contributors are among those British electron microscopists who have made important advances in their particular fields. The studies discussed are those on viruses, animal cells and bacteria.

The articles show clearly the sort of information that can be obtained by using modern techniques with the electron microscope and although these techniques are not described, adequate references are invariably given. In most cases the authors point out clearly the advantages of the experimental methods they use and their limitations.

As would be expected in such a volume the photographs are excellent and show the tremendous impact that this type of investigation is having on the biological sciences. A whole new field of study has been opened whereby a correlation between structure and function can be made at the cellular level so that the biochemical and metabolic events of the cell are related to the details of its fine structure.

It is reasonable that contributors for the *Medical Bulletin* should be principally chosen from those investigators concerned with animal tissue, viruses and bacteria but it is to be regretted that no contribution at all is made by any worker concerned with the large field of investigation using plant cells which by their very nature show in some cases details of fine structure which are not always clearly apparent with animal cells.

The volume gives a clear and concise account of the range and scope which the use of the electron microscope can provide for biologists and forms an excellent introduction for the interested general reader or the potential research worker in the field.

D. H. NORTHCOTE

Comparative Biochemistry: The Constituents of Life, Part B: edited by M. FLORKIN and H. S. MASON, Vol. 4. Academic Press, New York and London, 1962, 841 pp.

THE fourth volume of *Comparative Biochemistry* is the second book of the series that deals with the "constituents of life". Included in this volume are chapters on nucleic acids, porphyrins, amino acids, carotenoids, pteridines, and carbohydrates, to name just a few. Most of the contributions have been prepared by distinguished investigators in their respective fields. Each of the contributors provides a comprehensive, well-documented, up-to-date review of a selected biochemical topic. A commendable effort has been made in each chapter to encompass as much of the available knowledge from as wide a variety of sources as possible. This is especially difficult, but of enormous value, in a treatise on a subject that is so broad in scope.

Living systems carrying out the same biochemical reactions are amply illustrated, and the differences that do exist from one form to another are presented in great detail. The inclusion of phylogenetic charts is a valuable aid in understanding some of the evolutionary bases for these differences; the reader can make his own comparisons of structure and distribution with metabolism.

There is one weak spot in this book. The first chapter, dealing with optical activity, should have been placed in an earlier volume. Although many readers may find it to be the most interesting and most thought-provoking study, some of the material presented in this chapter is of questionable scientific validity, and should be examined with great caution.

To the biochemist, microbiologist, zoologist, pharmacologist, and others, this treatise will prove a most useful reference work and an important member of the series.

H. FELSENFELD