

succinct, factual style used throughout has produced a book reminiscent of the well-known Houben-Weyl "Die Methoden der Organischen Chemie", of which this publication may indeed be regarded as a modern corollary. It is thus a reference work rather than a text-book and as such it performs its function admirably. It is a mine of well-arranged and well-chosen information documented by leading references characterized by their up-to-dateness; the text is remarkably free from errors, the printing clear and the binding admirable.

It should be emphasized, however, that this book is not suitable for the beginner in organic chemistry who is not completely familiar with the fundamental framework of the subject as usually taught. In my opinion the optimum usefulness of the book would accrue to graduates or near-graduates who are being initiated into research.

R. A. RAPHAEL

### Industrial and Safety Problems of Nuclear Technology

Edited by Prof. Morris H. Shamos and Prof. Sidney G. Roth. Pp. xiii+368. (New York: Harper and Brothers; London: Hamish Hamilton, Ltd., 1950.) 4 dollars; 28s.

THIS book collects the contributions made at a three-day conference sponsored by the United States Atomic Energy Commission and Division of General Education of New York University. The subjects cover a very wide field, including a general talk by the chairman of the Atomic Energy Commission, together with an account of its contractual and patent arrangements. There are a section on radiochemistry and isotopes, one on the design and equipment of radiochemical laboratories, and finally six articles on radiation hazards, their evaluation and control.

Many of these articles are too short and scrappy to have justified publication. For example, a single article of five and a half pages on electronuclear apparatus describes particle accelerators and their protective shielding. The articles on general hazards of nuclear radiation and evaluation of radiation hazards and their control give no table of agreed tolerances.

The only articles of any substantial value are one by P. C. Aebersold on the present and potential uses of isotopes, and another by C. Rosenblum on what isotopes can mean to industry. Industry in Great Britain has been slow to realize the potentialities of isotopes as a research tool. These articles give some very interesting examples of work which has been carried out in the United States, particularly on the mechanism of synthesis of hydrocarbons and on the role of polymerization catalysts.

J. D. COCKROFT

### Mothproofing

By R. W. Moncrieff. Pp. 200+10 plates. (London: Leonard Hill, Ltd., 1950.) 17s.

THE damage caused to wool and related fibres by certain kinds of moths and beetles has been known since the dawn of history, but it is only within comparatively recent years that a systematic study has been made of the habits of these pests and of methods for combating them. The economic importance of moth-proofing is reflected in the very large number of substances recommended for the purpose, and the appearance of a book on this subject at a time of world shortage of wool is particularly appropriate.

The first three chapters deal with the life-history of the various insects, their habits and the damage they do and, logically, should have been followed by Chapter 12 on the nutritional requirements of the larvæ. The chemistry and methods of application of the more important classes of moth-proofing substances are then described in some detail, many extracts and examples being quoted from the relevant patent specifications; the cost and fastness to washing of the various processes are also discussed. Another line of approach to the problem is one based on modification of the structure of the wool molecule, and an interesting account is given of Harris's pioneer work and of the author's glyoxal process. For the care of materials which have not been moth-proofed, special infestation precautions and remedies are called for, and the directions given in Chapter 15 will be of general interest. The concluding chapters give details of standardized procedures for breeding and rearing moths and for the larval and chemical testing of moth-proof efficiency.

The book is written in a lively and stimulating fashion and will appeal not so much to the specialist as to the general reader who wants to get a detailed picture of the progress made in this field of research. The illustrations and index are good, and there are ample references to scientific and patent literature.

### British Birds

By F. W. Frohawk. Pp. 256+31 plates. (London and Melbourne: Ward, Lock and Co., Ltd., 1951.) 17s. 6d. net.

THE late F. W. Frohawk was well known not only as a sound and careful naturalist but also as no mean bird and insect artist. His accurate and beautiful sketches of British butterflies told us that. Now we have in this volume 105 colour illustrations of birds on the British list, accompanied by excellent letterpress, in which the information is given under the headings of "Distribution", "Description", and so on. It is easy to look up any species and any detail concerning it. This will be a very useful volume to the novice needing help in identification and information about habits. He will find in it all the birds normally met with in our countryside and many not ordinarily found there.

If the author and artist had lived a little longer, we may surmise the book would have been yet more comprehensive and that he would have included such species as the Scottish crested tit, which is somewhat surprisingly omitted. There are a large number of useful black-and-white sketches included in the text; there is also a helpful appendix dealing with recognition, a number of tables being given in which species are arranged alphabetically under "Haunts", "Size and Colour (General Impression)", "Head", "Wings", "Flight", etc.

Reverting to the colour plates, colour reproduction is notoriously tricky, and it may be doubted if every reproduction does justice to the originals, for in some cases the tints are a little hard; however, the volume as a whole is excellent and it will form an admirable present for the young person with bird-watching aspirations, who should read the paragraph on "Record Keeping" and mark the last sentence concerning the value of accurate notes . . . "This type of record-keeping forms the only alternative to the destruction of many of our finest and rarest birds whose skins are kept for 'identification purposes'".

FRANCES PITT