volume. Present-day insect physiology, biochemistry, genetics, and the research on pesticides require experimental colonies of insects and related arthropods, and how to establish and maintain such colonies constitutes a major part of the book. The rearing of more than 50 different species is discussed in detail by scientists who have had often life-long experience in propagation and handling of insects.

Two final sections are devoted to rearing and mass production of insects which at least in one respect can be called beneficial: they either attack other insects (parasites and predators) or they can be used to destroy their own species (sterile insect release method). In distinction to insect colonies for research purposes, parasites, predators, and sterile insects have to be reared in tremendous quantities and formidable obstacles had to be overcome before the first "insect factory" became operational. In the successful campaign of eradication of the screw-worm fly by means of sexually sterile adults of the same species up to 150 million flies had to be reared, sterilized, and liberated every week. Although no other insects have ever been released in such numbers, the success of the sterility control method demonstrated the need for research on large-scale rearing of other insects. Procedures for mass rearing of screw-worm flies, tephritid fruit flies, and yellow fever mosquitoes are included in special chapters but the possibility of extending the scale of laboratory rearing of house flies, codling moths, pink bollworms, boll weevils, and cabbage loopers to mass proportions is mentioned in chapters on colonization of these insects.

Control of insects by artificially induced diseases or with specific toxins derived from insect pathogens requires mass rearing of a different nature. Insect viruses which cannot be cultivated in nonliving media need live insects for their propagation and a special chapter on this problem has been included.

This book is a required reading for all entomologists and biologists engaged in rearing of insects but it also provides a valuable support for the proponents of control and eradication methods involving mass rearing and release of insects.

U. S. DEPARTMENT OF AGRICULTURE ALEXEJ B. BOŘKOVEC
BELTSVILLE, MARYLAND

Handbook of Non-Prescription Drugs. Edited by GEORGE B. GRIFFENHAGEN. American Pharmaceutical Association, Washington, D. C. 1967. 108 pp. 28.5 × 22 cm. Paperback, $4.00.

This handbook is to give pharmacists an insight into the composition of over-the-counter drug products, more than 1000 being listed. There are 22 categories according to use, and 2 pages of product index. For many, but not all, materials, generic and trade names and manufacturers are listed. The articles about each category were written, for the most part, by staff members of colleges of pharmacy and include hints concerning uses and recommendations to both pharmacist and patient.

UNIVERSITY OF VIRGINIA ALFRED BURGER
CHARLOTTESVILLE, VIRGINIA

Mass Spectrometry of Organic Compounds. By HERBERT BUDZIKIEWICZ, Technische Hochschule, Braunschweig, CARL DJERASSI, Stanford University, and DUDLEY H. WILLIAMS, Cambridge University. Holden-Day, Inc., San Francisco, Calif. 1967. vii + 690 pp. 18.5 × 25.5 cm. $17.95.

The importance of mass spectrometry as an analytical tool for the organic chemist practicing his craft in these exciting days cannot be overemphasized. The near future will certainly accentuate this condition to the extent that a working knowledge of the elements of mass spectrometry will be considered an essential skill possessed by all organic chemists regardless of when their formal training was completed.

This book serves an important purpose in presenting a clear, complete, and timely account of what can be expected from mass spectral analysis of a wide variety of organic compounds. The general format is for each chapter (there are twenty-seven) to deal with a certain functional group in respect to modes and rationalizations of the major fragmentation processes. The types of compounds discussed include all of the common functionalities plus oxygen, nitrogen, and sulfur heterocycles and organophosphorus and organometallic compounds. The Introduction (49 pages) is excellent in its presentation of the basics of organic mass spectrometry, what to look for, and the need for caution in interpretation.

An admirable feature of this book, as in others in the Holden-Day series, is the short period of time between completion of the manuscript and publication. In this case, the manuscript was completed in April 1967 and the book published in August 1967. The text, photographed directly from the typescript, is large and easy to read, the diagrams are clear, and the book is free from typographical errors. There are abundant references to the original literature and the copious use of bar-graph representations of the data is effective.

All organic chemists should be familiar with this book. It is a bargain at $17.95 and well worth owning.

DEPARTMENT OF CHEMISTRY FRANCIS A. CAREY
UNIVERSITY OF VIRGINIA
CHARLOTTESVILLE, VIRGINIA

1,4-Cycloaddition Reactions. The Diels–Alder Reaction in Heterocyclic Syntheses. Edited by JAN HAMER, Department of Chemistry, Tulane University, New Orleans, La. Academic Press Inc., New York, N. Y. 1967. xii + 500 pp. 16 × 23.5 cm. $22.00.

This book, representing Volume 8 in the generally excellent series "Organic Chemistry—A Series of Monographs," edited by Alfred T. Blomquist, is not up to the standards of its predecessors. Part of the trouble appears to be faults common to multiauthor works dealing with a narrow field. One of these is for topics to overlap so that one gets a feeling of *déjà vu* in going from one chapter to the next. A second failing is the enormous amount of time required to prod authors to complete their manuscripts (there are thirteen chapters and seventeen authors), collect, edit, and publish the manuscripts as a readable book. In this case there are no references later than 1964; the book was published in March 1967. This is not acceptable for a book at any price, and especially so for one as expensive as this.

Finally, a very subjective criticism: I did not think some of the subject matter either urgent or interesting enough to warrant review at this time.

DEPARTMENT OF CHEMISTRY FRANCIS A. CAREY
UNIVERSITY OF VIRGINIA
CHARLOTTESVILLE, VIRGINIA

Lipids and Lipidoses. Edited by G. SCHETTLER. Springer-Verlag, Inc., New York, N. Y. 1967. xiv + 622 pp. 17 × 25 cm. $30.00.

This volume has its origins in the desire of the editor and a group of distinguished contributors to present an up to date, comprehensive review of the lipidoses, defined as hereditary disorders of lipid metabolism, in conjunction with an account of the current development of lipid chemistry and biochemistry pertinent to understanding these complex disease states. On the whole, the authors have admirably succeeded in presenting a readable and interesting account, which covers the subject in reasonable depth and/or provides ample references to original sources.

Part I, sub-edited by W. Stoffel and designated "Lipids" contains chapters entitled The Chemistry of Mammalian Lipids (W. Stoffel), Biochemistry of Triglycerides (B. Shapiro), Biochemistry of Steroids (D. Kritchevsky), Biochemistry of Phosphatides (R. J. Rossiter), Biochemistry of Sphingosine Containing Lipids (R. M. Burton), Lipoproteins (D. G. Cornwell), and Methods for Separation and Determination of Lipids (H. Wagener). This section, by far of greatest practical interest to the medicinal chemist, comprises less than half the book (210 pp).

The treatment of subject matter in these chapters ranges from what amounts to a cataloging of structures with brief commentary in the Chemistry of Mammalian Lipids chapter (*e.g.*, total of one