

Elsevier's Encyclopædia of Organic Chemistry

Edited by F. Radt. Series 3: Carboisocyclic Condensed Compounds. Vol. 14: Supplement; Tetracyclic and Higher-Cyclic Compounds except Steroids and Triterpenes. Pp. xxxi+938S+Ind. 113. (Amsterdam and New York: Elsevier Publishing Co., Inc.; London: Cleaver-Hume Press, Ltd., 1951.) To subscribers, £23.

THIS is the first of the supplementary volumes of "Elsevier's Encyclopædia". It is mainly concerned with the polycyclic aromatic hydrocarbons and their derivatives, and summarizes the literature of the decade 1937-46. There are also references to some of the more important publications of later years, up to and including 1951. The size of this volume bears witness to the large amount of attention which has been devoted to polycyclic aromatic hydrocarbons in recent years; it is pointed out in the preface that the number of ring systems known has undergone a 60 per cent increase, having risen from 233 to 378. The original Vol. 14 consisted of 611 pages, excluding indexes, and included also the steroids and triterpenes which will form the subject of a second part of the supplementary volume.

In general, this supplement follows the pattern of earlier volumes, although a useful novel feature is the inclusion of references to the patent literature. The ring systems dealt with include those of the benzfluorenes and fluoranthene, 1:2-benzanthracene and naphthacene, chrysene, pyrene, cholanthrene, pentacene, dibenzanthracenes, picene, benzopyrenes, perylene, and coronene. Recent work on some of the vat dyes is also summarized; these include anthranthrene, pyranthrene, dibenzanthrone and *iso*-dibenzanthrone. There is also reference to some natural products, such as the diterpene phyllocladene and related compounds, and the photodynamic pigment hypericin.

The volume conforms to the customary standard of excellence in production, and will be of particular interest to those who have occasion to consult the literature of carcinogenic hydrocarbons and their derivatives. There are extensive references to their biological properties as well as to preparation and reactions. The volume will also be welcomed by the increasing body of chemists who make regular use of the "Encyclopædia". Unfortunately, only a relatively small area of the field of organic chemistry has been covered by the volumes which have been published so far.

Notions fondamentales sur les vernis et peintures
Par Louis Kientz. Deuxième édition revue et corrigée. Pp. xxi+234. (Paris: Libr. Gauthier-Villars, 1952.) 1300 francs.

M LOUIS KIENZ has written this work with the express purpose of providing a modern text-book to which all those who are connected with the different branches of the paint and varnish industry may refer if they wish to learn about recent scientific and technical developments in the industry. He therefore starts by outlining a few basic ideas of chemistry and physics appertaining to paints and varnishes, and discussing the chemistry of the raw materials used, namely, resins, oils, solvents and pigments. He then describes the processes involved in the different stages of the manufacture of various types of paints and varnishes, which are grouped into families under a system of classification introduced during the War by the Comité d'Organisation des

Peintures et Vernis (C.O.P.V.). There is a final chapter devoted to a survey of methods used for testing both raw materials and the finished paints and varnishes.

The subject-matter dealing with the actual manufacturing processes is clearly and logically presented, but the earlier chapters discussing the purely chemical aspects of the subject are open to a certain amount of criticism. Thus, the drying of oils is discussed without any reference to recent work on the hydroperoxide theory, and the polymerization reactions involved in the formation of stand oil are inadequately treated. It is also misleading, in a modern text-book, to give wood distillation as the only source of acetone. Furthermore, there are a large number of irritating misprints in simple chemical formulæ and equations, and the structural formulæ of compounds such as abietic acid, dipentene and pinene are quite unintelligible and show a complete disregard for the tetravalency of carbon. It is regrettable that these errors occur in what purports to be a revised and corrected edition; they reduce the value of this book, which in other respects may be regarded as a welcome addition to the technical bibliography of the paint and varnish industry.

A. E. A. WERNER

A Guide to Bird Finding East of the Mississippi

By Olin Sewall Pettingill, Jr. Pp. xxi+659. (New York and London: Oxford University Press, 1951.) 30s. net.

THE title of this book is rather misleading, since it is really a guide-book to the best places to see birds in the twenty-six States east of the Mississippi. The volume is arranged under States, with each locality printed in capital letters, followed by the size in acres, or square miles, in brackets, and a statement whether it is a reserve or park under Federal or State management.

After a brief description of the type of country found in the reserve, some of the more interesting birds are mentioned and directions given how to get to the place. Visitors are warned always to call at the headquarters of a park or reserve before entering, and in the case of a private reserve to make sure of getting the owner's permission. Towns which have museums where there are collections of birds are referred to with a brief description of their contents.

As the author points out, this work was a co-operative undertaking, in the compiling of which three hundred people contributed information. It contains a great deal of interesting information regarding the reserves in the eastern United States, and might well be copied in a modified form in Great Britain.

Dyeing with Coal-Tar Dyestuffs

The Principles Involved and the Methods Employed. By Dr. C. M. Whittaker and C. C. Wilcock. Fifth edition. Pp. vii+375+17 plates. (London: Baillière, Tindall and Cox, 1949.) 21s. net.

THOUGH essentially technological, this book makes an approach to a synoptic view of the subject, and should be of value to students of textile chemistry. Theoretical treatment of the subject is notably lacking, however. Thus no adequate attempt is made to show how dyeing-rate depends upon a diffusion process, or how dyeing-rate and dyeing-equilibrium are affected by temperature and by salt addition. In view of the well-known pioneer work of the senior author, these omissions are surprising.

S. M. NEALE