

the articles are a useful survey of recent work which every agricultural entomologist will want to have by him.

The symposium was held under the auspices of the Comité Européen de Zoologie Agricole and the Agricultural University, Wageningen, under the presidency of Prof. B. Trouvelot. The contributors came from six different European countries and one came from Canada; their articles are in English, French and German, most of which have a summary in one of these languages. Ten of the fourteen articles have already appeared in Vol. 1 of the new journal, *Entomologia experimentalis et applicata* (*Nature*, 181, 1040; 1958).

The emphasis of the symposium was on food-plant selection and the resistance of host-plants to phytophagous insects. Six articles deal particularly with the Colorado potato beetle which has received much attention from European workers in whose countries it is a serious pest; work on host-plant resistance to the beetle among the Solanaceae and on the behaviour of the larva is reviewed. Two papers are concerned with aphids, and one, by a botanist, reviews the related subject of phloem sieve tube sap. One contributor discusses the significance of the salivary secretions of 'plant-sucking' Hemiptera, and another, in a brief summary (in German), deals with his work on the choice of food by certain lepidopterous pests. Two articles on the potato-root eel-worm are included on the grounds that the problems of the nematologist are similar to those of the agricultural entomologist, but an article on the dietetics of a blowfly appears to be somewhat out of place.

C. J. BANKS

Instrument Encyclopedia

Compiled by Edward W. Battey. Pp. xix + 292. (London: The Herbert Publishing Co., Ltd.) 63s. net.

THE purpose of this book is defined in the preface as follows: "... to provide a concise reference to the materials and equipment used and produced in the Instrument Industry ... and to define the terms employed and required by instrument users in every industry. The Encyclopedia is not in any sense intended as a text-book. ..." The compiler has realized these aims remarkably well.

The book starts with a detailed index and a short but well-planned encyclopaedic section explaining meanings of technical terms. It includes some of the near slang expressions which have found general use, and references are given, where appropriate, to British Standards specifications. The remainder of the book consists of alphabetical lists of manufacturers, complete with their addresses and telephone numbers, a list of overseas agents, a catalogue of trade names and an extremely full buyers' guide. This last section is the largest and perhaps the most useful. It permits one to discover the manufacturers of any specific instrument or component, and is divided into eight sections (Laboratory, Medical and Research; Optical and Ophthalmic; Electronic and Nucleonic; Electrical; Engineering; Automation and Process Control; Accessories and Components; Nautical, Aeronautical and Surveying.)

In order to make some kind of assessment of the completeness of the information a number of 'spot tests' have been applied, and the "Encyclopedia" survived most of them with flying colours. It defeated many attempts to think of lesser known firms or instruments which, though not included, should legitimately come within its scope.

The only real criticism to be made is of the title. One usually thinks of an encyclopaedia as a collection of explanatory information: the actual encyclopaedic section of this book is only 28 pages long and perhaps it would have been wiser to choose a title more in keeping with the remaining 264 pages. However, it will undoubtedly prove a most valuable work of reference, particularly for those needing to use apparatus and instruments not closely allied to their own field of work.

C. A. TAYLOR

Dictionary of Physics

Compiled and Edited by H. J. Gray. Pp. x + 544. (London and New York: Longmans, Green and Co., Ltd., 1958.) 84s. net.

THERE are obvious difficulties in reviewing a dictionary since the reviewer can scarcely be expected to read it from cover to cover. But 'spot' checks in several different branches of physics showed very few weaknesses; only a few items sought (synchrocyclotron, photo multiplier, Fermi surface) were not found. In general, the definitions are clear and concise, and references are given for follow-up reading. Perhaps the policy of giving only the earliest references is unwise, even if historically they are the most important.

A few mistakes were found: the diagram of the spherometer is described as that of the planimeter; the last sentence of the entry for Laue is wrong; a sign convention in optics is called the 'real position' convention. But on the whole the number of such mistakes appears to be small. The reviewer is glad to note that the dictionary insists on the correct spelling for Abbe (not Abbé) and is not caught out by Kirchhoff; it also ascribes Bragg's law to the correct Bragg.

The dictionary may thus be described as an extremely useful work. It is obviously not perfect; but it will form a handy work of reference for any physicist.

H. LIPSON

Zirconium

By Dr. G. L. Miller. Second edition. (*Metallurgy of the Rarer Metals*, No. 2.) Pp. xxi + 548. (London: Butterworths Scientific Publications; New York: Academic Press, Inc., 1957.) 70s.

FIRST published in 1954, this important work of reference on the manufacture and properties of zirconium has been considerably re-written and enlarged with an increase in the number of pages from 374 to 535. The price of the book has also increased from 45s. to 70s.

Dr. Miller has made some reconstruction to the text and the arrangement of the matter and has taken advantage of relaxation of classified information in various directions, and added a considerable amount of new data.

The principal additions are in the description of the Kroll process, in the description of the thermal properties and the tensile properties of zirconium, and in the description of the mechanical properties of certain zirconium alloys. The section on corrosion of zirconium by liquid metals has been expanded substantially and the number of pages devoted to melting practices has been doubled. There have also been additions in connexion with the fabrication processes for zirconium and in the description of the nitrides, carbides, borides and silicides.

This book represents the best compilation of information on this subject at the present time.

W. D. JONES