

A Practical Course in Agricultural Chemistry
For Senior Students of Agriculture, Dairying, Horticulture and Poultry Husbandry. By Frank Knowles and Dr. J. Elphin Watkin. Second edition. Pp. xi+216. (London: Macmillan and Co., Ltd., 1947.) 12s. 6d. net.

LABORATORY handbooks of agricultural chemistry for students are not numerous, and the second edition of Knowles and Watkin's useful practical course is especially welcome at present, when laboratories and teachers are so hard pressed to cope with their swollen classes.

This book adequately covers the subject, and one feels that it has been written by men of experience who are used to helping students and are well acquainted with their difficulties in laboratory manipulations. While not claiming to be a textbook, this manual includes sufficient background to explain the import of the exercises described.

Since the first edition, in 1936, new commodities, concepts and methods have come into use, and the authors have revised and enlarged their text accordingly. The section on soil has been improved by additional exercises on moisture relationships, nitrogen economy and cation-exchange aspects of the soil, while the recent prominence of triple superphosphate, agricultural salt and sewage sludge is recognized in the fertilizer section. There are new exercises on vitamin C and on blood, and the section dealing with dairy products has been enriched by amplification of the pages on the freezing point of milk and on dairy detergents. The detection of mineral deficiencies in plants by leaf analysis breaks new ground here, and the concluding section on fungicides and insecticides now includes exercises on the newer products such as D.D.T. and 'Gam-mexane'.

These various additions have expanded the work by twenty-six pages, but its clear type and prominent headings make it easy to use and read.

Microfotografia e Macrofotografia

Principi e applicazioni della tecnica microfotografia al laboratorio di ricerche scientifiche e industriali. Per Prof. Edgardo Baldi. Pp. xii + 349 (18 plates). (Milano: Ulrico Hoepli, 1946.) 900 lire.

THE Italian title of this book may well prove misleading to English readers. Its subject is in the main photomicrography (not microphotography), with a relatively small section dealing with such matters as still photography and document reproduction.

The author is a biologist, and it is therefore not surprising to find that the physics of the microscope is treated from an elementary point of view. Nevertheless the first two chapters cover all that is essential to an understanding of the role of illumination and the formation of images. Brief mention is made of the phase-contrast technique, which is now enjoying such a deserved vogue. The Köhler system of illumination is given justifiable emphasis, and detailed instructions are provided for adjusting the illuminating system. The second chapter concludes with descriptions of the well-known types of condensers and vertical illuminators—these latter including that of Lieberkühn and the Leitz 'Ultropak'.

Chapters 3 and 4 deal with both ordinary and special types of equipment, including objectives and eyepieces. Chapter 5 treats the question of macrophotography, and Chapter 6 that of filters. Chapter 7

gives a general outline of the procedure for taking a photomicrograph, while the final chapter concerns itself with photomicrography in the infra-red and ultra-violet regions respectively.

There are a number of elementary errors in this book. The camera head indicated in Fig. 133, for example, is shown with a semi-reflecting prism of a type which would ensure that no image could possibly be formed on the photographic plate. A great deal of care is called for in the preparation and publication of a handbook of this type, care which in this case one feels has occasionally been lacking. The book contains little information not already available elsewhere, and is consequently not likely to be in great demand outside Italian-speaking countries.

H. H. HOPKINS

Atlas of Histopathology of the Skin

By Prof. G. H. Percival, Prof. A. Murray Drennan and T. C. Dodds. Pp. viii + 494. (Edinburgh: E. and S. Livingstone, Ltd., 1947.) 75s. net.

APART from the comprehensive and justly famous "Pathology of the Skin" of Macleod and Muende, British medical literature is lacking in works on this subject. This new book is smaller in scope than the former, the authors confining themselves, not too rigidly, to the commoner skin diseases and restricting description and discussion to an adequate minimum. Details of pathological technique are entirely omitted.

The 376 illustrations are all photomicrographs in colour, and the reproductions, with few exceptions, are most exact at all magnifications. Those dermatologists who have, in the past, decried photographs as less revealing than drawings will do well to study these pictures.

The book is intended to be a companion to textbooks of dermatology and a guide-reference for dermatologists and pathologists. In these aims the authors have been most successful. Special praise is due to Mr. T. C. Dodds, the technician and photographer, and to the printers for the excellence of this publication. It will be welcomed by everyone in the field of dermatology and may stimulate the laggards in this neglected field of investigation.

An Insect Book for the Pocket

By Edmund Sandars. Pp. 350 (36 plates). (London: Oxford University Press, 1946.) 10s. 6d. net.

THE objects of this little book are to aid its users in identifying and learning something about the larger insects in the British Isles. Owing to the number of species—more than twenty thousand—the size criterion is adopted in order to keep the subject within reasonable compass. Only species exceeding half an inch in body-length, or one inch in wing-span, are dealt with, and, in this way, the number of families to be described is reduced from more than three hundred to about 130. Groups consisting of very small insects only come in for mention if they are of special interest or of economic importance. It is surprising how well this very arbitrary standard has worked out in this manual. It is an accurate and well-written little book. The coloured plates and text-figures are adequate for their purpose and there is a useful list of works for consultation. A pleasing feature running through the pages is the indication (in brackets) of the meanings of the generic and specific names referred to: also the price of the work is very reasonable under present-day conditions.

A. D. I.