

and in some cases misleading. Dr. Daglish is first an artist and enthusiastic natural historian, for neither book will bear close scrutiny for its biological truths. As examples chosen at random, we read that a corm is "an underground stem which differs from a bulb in being solid and showing no leaves" and that an ovary is "the lower part of the pistil containing the seeds". Tendrils are loosely described as "growths from the stem which enable plants to climb", and transpiration as "the process whereby water and gases are given off through the stomata". The dahlia tuber is a modified root, not a stem as Dr. Daglish states.

It is a pity that the text of these books does not conform more to the exactitude demanded by science, because the author has a charming style of writing which undoubtedly goes far in stimulating the enthusiasm of the lay reader; besides, the books are beautifully produced. But neither of them can be recommended without reserve to the discriminating reader.

Some American Trees:

An Intimate Study of Native Ohio Trees. By William B. Werthner. Pp. xvi+398. (New York: The Macmillan Co., 1935.) 21s. net.

THE preface and foreword, both very brief, indicate that this attractive book is the work of a life-long lover of trees: a work he unfortunately did not live to finish, but it has been completed by his widow. Although dealing with the trees of a comparatively small area, the book is of wide general interest. The quotation from Kingsley which faces Mrs. Werthner's preface that "He is a thoroughly good naturalist who knows his own parish thoroughly" is very apt.

Two introductory chapters deal with trees in general and the forests of Montgomery County. The richness of the United States in native trees—more than 700 compared with 85 in Europe (exclusive of the U.S.S.R.) is discussed and reasons for it given.

The main part of the book deals with the 89 trees of Montgomery County. Each is described fully, but in non-technical language, and information given concerning distribution, soil preferences, uses of its wood and also any other parts of economic value, historical associations, etc. The author was evidently not merely a skilled but also an artistic photographer; the book containing 302 excellent illustrations of habit, bark, foliage, flowers and fruit of the trees he studied so closely.

Applied Entomology:

An Introductory Text-Book of Insects in their relations to Man. By Prof. H. T. Fernald. (McGraw-Hill Publications in the Zoölogical Sciences.) Third edition. Pp. x+405. (New York and London: McGraw-Hill Book Co., Inc., 1935.) 21s. net.

NINE years have elapsed since the appearance of the second edition of this text-book. In its present edition the work has been re-written in places in order to bring it up to date, while a certain amount of new matter has been incorporated. Great advances have been made in knowledge of pest control, certain

new pests have appeared in the United States and sundry other problems in applied entomology have come into prominence. The chief facts respecting these and other subjects are referred to in the text, but the important subject of the insect transmission of plant viruses seems to have been almost overlooked. Of the introductory chapters, those on pest control provide a good elementary statement of the position. In the rest of the book, the method of dealing with the chief pests, order by order, is followed as in the previous editions. The book is a useful elementary treatise for North American students, in that it provides the essential facts and thereby paves the way for more detailed study.

South African Butterflies:

A Monograph of the Family Lycaenidae; with a Description and Illustration of every Species and Figures of many of the Larvae. Edited and drawn by Desmond P. Murray. Pp. viii+195+18 plates. (London: John Bale, Sons and Danielsson, Ltd., 1935.) 25s. net.

THE usefulness of the volume under review rests on the additions to our knowledge of the life-histories of the Lycaenidae, and the excellent and beautifully reproduced illustrations. The inadequacy of references detracts from its value as a systematic work, and the manner in which many of the author's statements are presented leaves much to be desired. There are too many misprints for a treatise of this size, and had the author taken the trouble to consult a taxonomist he would have avoided committing himself to such unfortunate solecisms as: No. 49a. *Phasis clavum* var. nov.; and No. 131a. *N. Major* var. nov.

Chemistry

A Comprehensive Treatise on Inorganic and Theoretical Chemistry

By Dr. J. W. Mellor. Vol. 14: Fe (Part 3), Co. Pp. viii+892. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1935.) 63s. net.

THIS new volume completes the chapter on iron and includes also a chapter on the element cobalt. Two more volumes, already in the Press, will complete the series. The concluding portion of the chapter on iron includes the halides, sulphides, sulphates, nitrates and phosphates. It is characteristic of the author's method that, although the space-lattice of iron pyrites is reproduced, and its structure as a ferrous disulphide is thereby demonstrated in the most convincing way, more than a page is given up to the speculations of an earlier period, most of which depend on the hypothesis of "highly polymerised molecules". Indeed, the conclusion finally reached by modern workers is stated so briefly, in less than four lines of text, and is wedged so tightly between the purely speculative formulæ $Fe=S=S$ and $S=Fe=S$, that the casual reader who did not know the correct answer would be unlikely to discover it, or even to recognise its correctness when reading through the text.