

author takes up the different views regarding the development of the insects of to-day and the manner in which the evolution of the highly developed insect with a complete metamorphosis may have taken place. A short bibliography will guide the student to further reading. We heartily congratulate Prof. Carpenter on the pleasing results of what has been by no means a light task, and we feel sure that it will serve to add many new recruits to our ever-increasing army.

C. GORDON HEWITT.

A SYNOPSIS OF ECONOMIC ENTOMOLOGY. By W. Lochhead, Professor of Biology, Macdonald College, Ste. Anne de Bellevue, P. Que. 113 pages.

This work, which has evidently been prepared by the author as a basis for his lectures on Entomology, will be found very useful by others with similar duties to fulfil and especially by science teachers in High Schools and Collegiate Institutes, who are unable to devote much time to the study of insects. Owing, however, to the entire absence of illustrations and the use of terms which are not explained, it will require to be supplemented by some such guide as Comstock's "Manual for the Study of Insects." For these reasons also it can hardly be recommended as a text-book for students.

The author might well have enlarged the title to a Synopsis of Systematic as well as Economic Entomology, as the book is nearly equally occupied by the consideration of both these aspects of the subject.

The work is divided into four parts. The first describes the external and internal anatomy of insects and their metamorphoses, the losses due to them, and an account of those that may be termed beneficial. Part 2 contains keys to insects injurious to farm, garden and orchard crops, including small fruits. These are arranged under the headings of attacks upon roots, trunks or branches, leaves and fruit. Part 3 occupies more than half the volume and is devoted to "a classification and description of common insects" given in the form of keys to orders and families, followed in each case by brief descriptions of the more important species from an economic standpoint. Part 4 describes the various methods, both cultural and artificial for the control of insects.—C. J. S. B.