

BOOK NOTICES.

ELEMENTARY ENTOMOLOGY, by E. Dwight Sanderson and C. F. Jackson, Ginn and Co., Boston. Price \$2.00.

The appearance of this work so soon after the senior author's excellent book on "Insect Pests of Farm, Garden and Orchard" comes as a surprise but a very welcome surprise to students of entomology. The book is intended primarily as a text book for short courses in entomology, but covers the systematic side of the work so well that it will probably be used by many teachers for all but their most advanced classes.

The book contains three hundred and seventy-two pages with four hundred and ninety-six illustrations of a very superior character. It is divided into three main divisions. Part I, consisting of sixty-six pages, deals with the structure and growth of insects. A few pages of this section are given to a description of the differences between insects and closely allied invertebrates; the remainder is devoted to a concise and clear account of the external and internal anatomy of insects, and to their growth and transformations, the latter being illustrated by the life history of a few common species. The section throughout shows abundant evidence of skilful handling of a somewhat difficult subject. The only criticism that suggests itself is that instead of taking two examples of complete metamorphosis from Lepidoptera, it might have been better to have chosen one of these from some other order. However, this is a minor point.

Part II, which contains two hundred and two pages, deals with the classes of insects. For convenience these have been divided into nine groups: Aptera, Orthoptera, Neuroptera and Pseudoneuroptera, Platyptera, Hemiptera, Coleoptera, Lepidoptera, Diptera, and Hymenoptera. The various orders which have been put into one group, such as, for instance, the Neuroptera and Pseudoneuroptera, are mentioned and their characteristics briefly given. In each order a large percentage of the families are described, those of economic importance being given the preference. In bringing out the characteristics of the different families, copious illustrations have been used. One can scarcely give this side of the work too much credit as the photographs and drawings are not only excellent works of art in themselves but in a very large proportion of cases show the different stages in the life history of the insect described and thus enable the student to understand and remember them much better.