

cocoon, and also the internal anatomy of the thorax and abdomen can be fairly well seen, and in time the process may be improved for this work. With the aid of the Röntgen or X rays and the photographic plate one could make a picture of the neuration of the beautiful, rare and curiously shaped *Ornithoptera paradisea* and not disturb a scale on its superb wings. With the fluoroscope one could doubtless see all the neuration without even going to the trouble of making a picture. This is indeed a wonderful age, and in the future no entomologist will have any excuse for not studying the neuration of the lepidoptera, as he cannot say that he must denude the wings of his specimens, bleach them and mount in balsam as of old and thus destroy them.

BOOK NOTICES.

GUIDE TO THE GENERA AND CLASSIFICATION OF THE NORTH AMERICAN ORTHOPTERA. By S. H. Scudder: 8 vo., pp. 89. W. H. Wheeler; Cambridge, 1897. (Price \$1.00.)

The above work, like all of Dr. Scudder's books, is exactly what the title states. It is simply a guide for the use of students of the Orthoptera, by means of which they may determine the genera of their specimens. It consists of excellent and most carefully prepared tables of the seven families into which the Orthoptera of North America are divided. These are followed by most valuable bibliographical notes, in which the student is referred under the head of each family of insects to all the works which refer to it. Then follows a full list of all the works which refer to North American Orthoptera, arranged alphabetically by authors and a complete index. All who have attempted to study Orthoptera know how badly such a book was wanted, and it is well for the science of entomology that the work was done by such a careful and experienced hand. J. F.

THE GENERA OF NORTH AMERICAN MELANOPLI. By S. H. Scudder. (Proc. Am. Acad. of A. and S: V. 32, pp. 195-206. Jan., 1897)

Almost simultaneously with Dr. Scudder's "Guide to the Genera of Orthoptera" two other important and extremely useful papers appeared, one on "*The Genera of North American Melanopli*" and the other on "*The Species of the Genus Melanoplus*." These are both really advance issues of chapters in Dr. Scudder's great work on the *Melanopli*, which is to be published by the U. S. National Museum. The *Melanopli* are divided into 30 genera, 17 of which are new and 4 have been previously published by the author. The genus *Melanoplus* is characteristically American and is widely disseminated. There are 131 species recognized, grouped under 28 series. The name *furcula* is given to the processes of the last dorsal segment of the male abdomen. J. F.

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