

BOOK NOTICES.

THE INTER-RELATION OF INSECTS AND FLOWERS.—During the last eight years there have appeared from the pen of Mr. Charles Robertson, of Carlinville, Ill., several most interesting articles on the inter-relation of insects and flowers. The titles are as follows :—

Botanical Gazette.

- 1886. Notes on the pollination of *Asclepias*.
- 1887. Insect relations of certain *Asclepiads*.
- 1887. Fertilization of *Calopogon parviflorus*.
- 1888. Effect of the wind on bees and flowers.
- 1888. Zygomorphy and its causes : I—III.
- 1889-93. Flowers and insects : I—XI.

Trans. Am. Ent. Soc.

- 1889. Synopsis of North American species of *Oxybelus*.
- 1891-93. Descriptions of new species of North American Bees.

Trans. St. Louis Acad. of Science.

- 1891, 1892. Flowers and insects: *Asclepiadaceæ* to *Scrofulariaceæ*.—*Umbelliferæ*.—*Labiataæ*.

Mr. Robertson began in 1886 to study the visits of insects to flowers, and by his persevering observations he has succeeded in collecting an enormous number of facts which he has published mostly in the *Botanical Gazette*, and in the *Transactions of the St. Louis Academy of Science*. He has studied the subject especially from a botanical point of view, and has given particular attention to the attractions offered to insects by the flowers of different species of plants, to the peculiarities of arrangement of their different parts, to their coloration, and to the modifications which many flowers seem to have undergone from their being constantly frequented by certain species of insects. Such studies have nevertheless an immediate bearing on entomology, as they give us at the same time an insight into the purposes of insects in visiting flowers, into their habits of feeding and collecting either nectar or pollen, or both at once, and into the intelligence they display in order to attain their end. The close attention thus necessarily given to insects has had besides the natural result of causing Mr. Robertson to discover that many of those insects which he was observing in his locality, Carlinville, Ill., had not even been described. Therefore, he found it "necessary at first to pay particular