

## BOOK REVIEW.

ELEMENTARY BOTANY, by George F. Atkinson, Ph.B., Professor of Botany, Cornell University, 444 pages, illustrated; published by Henry Holt & Co., New York. Elementary Botany of to-day is vastly different from that of ten or fifteen years ago. This is largely due to the changed methods of presenting to the student the rudiments of botany. The old method introduced the pupil to the technicalities of systematic botany by way of the arbitrary rulings of the Manual. If he enjoyed puzzles of that kind he specialized in botany and the natural sciences and eventually obtained his reward by seeing the relationship of plants in a broad and comprehensive way; but if these analogies had been first observed it is probable that the "analysis" of the flower would not have appeared so tiresome. This work presented to the public generally, but to teachers particularly, marks an important step in the new direction. This newer method is, in the words of the author, "to study first some of the life processes of plants, especially those which illustrate the fundamental principles of nutrition, assimilation, growth and irritability. In studying each one of these topics, plants are chosen so far as possible from several of the great groups. Members of the lower as well as of the higher plants are employed, in order to show that the process is fundamentally the same in all plants. . . . In this way the mind is centred on this process and the discovery of the pupil that it is fundamentally the same in such widely different plants, arouses a keen interest not only in the plants themselves, but in the method which attends the discovery of this general principle."

The volume is divided into three parts. Part 1 is devoted to the life processes of the plant absorption, transpiration respiration, nutrition and the like. Part 2 discusses the morphology of the plant and the relationships of different families. Part 3, perhaps the most interesting section of the book, is devoted to Ecology or the study of plants in their mutual and environmental relationships. The author fitly points out