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BOOK REVIEWS

HORTICULTURE

In "Hortus"[1] Bailey has collected an unprecedented amount of horticultural information in one volume. Soil, climate and moisture requirements; cultural and propagation methods; botanical origin and relationship; varietal selection and regional adaptation; insect and disease resistance and control; marketing and transfer methods; and other valuable information is given for every group of plants known to be in cultivation in the United States and Canada. The volume is in no sense an abridgement of Dr. Bailey's earlier Standard Cyclopedia of Horticulture, but rather it is an entirely new undertaking from fresh and original sources and may be considered as an up-to-date supplement to the larger earlier work. Technical botanists will find a very instructive discussion on nomenclature in the preface.—R. C. F.

CACTI

In "The Cactus Book," Arthur D. Houghton[2] has prepared for the amateur and layman a discussion of the propagation, culture, care and requirements of the cacti. Their evolution by hybridization, their mutation by x-rays, their use in rock gardens and landscaping, and the acquisition of collections are discussed. A conspectus of species at the close of the volume comprises the most valuable part of the work for the scientist.—R. C. F.

MODERN SCIENCE

From the making of worlds to the intricate workings of the human mind and society, J. Arthur Thomson[3], in "Modern Science," leads his fascinated readers through a wealth of scientific lore which holds the interest and grips the imagination of both scientist and layman alike. Although the material is frankly simplified, there is no touch of pseudo-science and no effort is made to "popularize" science. There is a decided strain of philosophical humor throughout the book, an unusual thing in

[1] Bailey, L. H., and Ethel Zoe Bailey. Hortus: A Concise Dictionary of Gardening and General Horticulture. pp. 652, fig. 22, pl. 16. New York: The Macmillan Co. 1930.

[2] Houghton, Arthur D. The Cactus Book. pp. xii, 147; pl. 12. New York: The Macmillan Co. 1930.

[3] Thomson, J. Arthur. Modern Science. pp. xii, 370; pl. vi, fig. 29. New York: G. P. Putnam's Sons. 1930.

a scientific publication, but the book gains much in interest and loses none of its scientific standing because of it.—R. C. F.

GENERAL ELEMENTARY BOTANY

We have received recently a copy of the revised edition of the general botany text by Professor Elmer Campbell[4], and find many improvements in drawings and arrangement over the first edition, but are disappointed that not more drawings were replaced with better ones. The chapters on the taxonomy of the seed plants is more than adequate for many general botany courses, while the information on the lower plants deals with a considerable number of plants but gives little in detailed accounts of individual forms. That the author's "fine art of accurate verbal expression of botanical thought," see page vii, is different from that of other writers of general botany texts, is indicated in the following quotation, page 62: "In certain seasons of the year the most conspicuous object in all nature is the thing known as a leaf. In the springtime, young and tender, it appears and is hailed as the propbet of a new season; in summertime it is sought as a protection from the burning rays of the noonday sun; in the fall as it ripens it inserts a thousand hues into a glorious landscape."—C. M. P.

MORPHOLOGY AND PHYSIOLOGY

College teachers of botany will welcome the present revision of the well-known Coulter, Barnes and Cowles' texts[5]. The most important changes in Volume 1 noted by the reviewer are those in the text and figures dealing with rusts, this bringing them into agreement with more recent discoveries. It is to be regretted that tbe very recent discoveries concerning pycniospores came too late to be included. It seems unfortunate, too, that the chapter on "Organic Evolution" was not "modernized." A valuable addition is the classified list of references given under the heading "General Literature."—R. C. F.

Volume 2, on physiology, has been brought up to date by Dr. C. A. Shull, professor of physiology at the University of Chicago, without sacrificing the spirit and organization of the subject so admirably pre-

[4]Campbell, Elmer. General Elementary Botany with Practical Applications. Revised edition pp. xiii, 410, figs. 251. New York: Thomas Y. Crowell Company. 1930.

[5]Coulter, John M., Charles R. Barnes and Henry C. Cowles. A Textbook of Botany for Colleges and Universities. Vol. 1, Morphology, pp. viii, 310; fig. 619. Vol. 2, Physiology pp. viii, 307; fig. 87. New York: American Book Co. 1930.

sented by Dr. Barnes. The rapid strides made by the science of plant physiology in recent years makes this revision seem like a new book despite the fact that much of the text remains practically as written in the first edition. Abundant practical references to the literature enhance the value to both teacher and student. Space has not permitted the inclusion of more experimental data illustrative of the subjects discussed, yet the small size of the volume belies the actual content, which is adequate. This book compares most favorably with other recent plant physiologies.—S. A. C.

Volume 3, on ecology has been revised by Professor George D. Fuller and will appear soon.

EXPLORING FOR PLANTS

The romantic adventures of a scientist in search of new plants for introduction into our own country are vividly portrayed in David Fairchild's[6] recent book, "Exploring for Plants." The accounts of the friendly cooperation of foreign botanists in the collecting of seeds and living plants for experimental purposes give the reader an understanding of the true fellowship existing among people of various nations who are working in a common cause. An intimate glimpse into the personal experiences of Dr. Fairchild with his family and assistants during their travels in West Africa, the East Indies and other countries, makes the book of much interest to the nonscientific reader, while there is sufficient scientific data to hold the attention of the botanist. The author frankly strives to show his readers that there is true romance in the study of plants, and in this he succeeds.—M. M. E.

[6]Fairchild, David. Exploring for Plants. pp. xx, 591; figs. 190. New York: The Macmillan Co. 1930.