

different chapters are copiously illustrated, largely by means of half-tone reproductions or photographs of stages of actual autopsies. Indeed, the book is much more fully illustrated on the side of macroscopic technique than are most manuals; there are only a few pictures, however, representing anatomical lesions. The index is full and well-arranged.

The fact that a second edition has been called for within two years of initial publication indicates that the book has met a distinct need in the country. Several improvements over the first edition have been introduced, including the chapter on the bones and joints, and nearly thirty new illustrations. Important changes have also been made in various chapters during the revision. The parts of the book dealing with the more modern and refined methods for microscopic examination of the tissues might with advantage be expanded in another edition; room for this could be obtained, perhaps, by omission of some of the chapters on pathology proper, as the latter will be thought by some to be too long for a book on autopsy-making and yet they are not full enough to serve as a textbook of pathology. There are but few things connected with autopsies that will not be found mentioned in the volume. Some professors of pathology may be inclined to use smaller manuals in connection with their practical teaching, urging that more than Dr. Cattell thinks desirable should be left to the intelligence of the student; instructors who desire a full account of all the technical processes, helped out by a large number of good illustrations, will find what they want in this book.

The publishers, too, have done their work well. The volume is satisfactorily made and is attractive in appearance. It deserves, and will undoubtedly acquire, a wide distribution among American medical students.

LEWELLYS F. BARKER.

Orchidaceæ: Illustrations and Studies of the Family Orchidaceæ, issuing from the Ames Botanical Laboratory, North Easton, Massachusetts. Fascicle I., by OAKES AMES, A.M. Boston and New York, Houghton, Mifflin

& Co., The Riverside Press, Cambridge. 1905. Pp. viii + 156. Royal octavo.

From the preface we learn that the purpose of this work 'is to illustrate from type material, when possible, new or recently described orchid species, and species heretofore inadequately figured; to publish the original descriptions of all species so figured, with additional characterizations, full synonymy and geographical distribution; to furnish descriptions and descriptive lists of orchidaceous plants, which may prove useful in the study of regional floras; and to communicate the results of critical investigations among special genera.' This is certainly an ambitious undertaking, reminding us of a number of similar botanical projects undertaken during the last half-century, such as Gray's 'Genera' (1848-9); Gray's 'Forest Trees of North America' (begun in 1849, but never completed; published as a mere fragment in 1891, after the author's death); Goodale's 'Wild Flowers of America' (1879); Eaton's 'Ferns of North America' (1879-80); Sargent's 'Silva' (1891-1902) and Sargent's 'Trees and Shrubs' (1902-5). It is reassuring to know that the present undertaking is not dependent upon popular support, and that it is certain to have a reasonable permanence.

This fascicle includes descriptions and plates of five new and fourteen old species, a descriptive list of orchids collected in the Philippine Islands by United States Government botanists, a description and figure of a hitherto unrecorded orchid in the United States, and a paper entitled 'Contributions toward a Monograph of the American Species of *Spiranthes*.' We note with pleasure that all new descriptions are in Latin, as recommended several years ago by Professor Robinson as a corrective for the shocking illiteracy of some systematists. Following the Latin descriptions are somewhat more voluminous descriptions in English, followed by general notes, also in English. The plates are beautifully drawn, and illustrate the anatomical details with great clearness and fidelity.

The author shows a commendable conservatism in regard to specific distinctions, as is shown by the fact that he describes only five

new species, all from the Philippine Islands, and also by his treatment of *Spiranthes*, in which he distinguishes thirteen species for all of North America north of Mexico. That this promises a reduction in the number of catalogued species in North America is suggested by the fact that in the last edition of Gray's 'Manual' (covering only the northern United States east of the 100th meridian) there are six species; in Britton's 'Manual' (covering but little more territory) eight; and in Small's 'Flora of the Southeastern United States,' sixteen.

In regard to nomenclature the author says, 'the first specific name of each species under the correct generic interpretation, wherever this could be determined with reasonable surety, or employed without leading to complications, has been revived.' While this is probably too lax an application of the law of priority, the carefulness of the author in verifying every citation and in studying herbarium material will enable every orchid student to make any corrections that might be necessary under a stricter construction. Taken all in all this work is one which must be very highly commended, and which all botanists who are interested in orchids must look upon as a welcome addition to botanical literature.

CHARLES E. BESSEY.

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SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for April has but two articles, an annotated list of 'Birds of the Isle of Pines,' by Outram Bangs and W. R. Zappey, and 'Studies on the Plant Cell—V.,' by Bradley Moore Davis, dealing with cell unions and nuclear fissions in plants.

The Zoological Bulletin for April tells of 'Further Improvements at the Aquarium' and of 'Photography at the Aquarium,' this being illustrated by many reproductions of photographs of fishes, that of the large spotted moray being particularly good.

The Museums Journal of Great Britain has articles on 'The Relationship existing between Statue and Pedestal in Classical and Renaissance Times,' 'Educational Museums

as Schools' and 'The Management of National Museums.' In the 'General Notes' is noticed the gift to the British Museum of a collection of 10,000 specimens of eggs of Palæarctic birds, and to the United States of the collections of etchings and paintings by Whistler, presented by Charles L. Freer, of Detroit. As the United States is the only great nation without a picture gallery it will be interesting to see what disposition will be made of this collection. The sale of a mounted specimen of great auk to an American museum is recorded, the price being £450, or about \$2,200. This is the highest price ever paid for a specimen of the great auk.

The Popular Science Monthly for May contains:

E. RUTHERFORD: 'Present Problems of Radio-activity.'

FRANK WALDO: 'The Harvard Medical School.'

A. D. MEAD: 'Alpheus Spring Packard.'

WM. E. RITTER: 'The Organization of Scientific Research.'

T. H. MORGAN: 'The Origin of Species through Selection contrasted with their Origin through the Appearance of Definite Varieties.'

EDWARD S. HOLDEN: 'Galileo,' continued from the February number.

CHARLES E. BESSEY: 'Life in a Seaside Summer School.'

The Museum News for April contains a number of short articles referring to exhibits recently added to the collections of the Museums of the Brooklyn Institute.

SOCIETIES AND ACADEMIES.

THE BIOLOGICAL SOCIETY OF WASHINGTON.

THE 401st regular meeting of the Biological Society of Washington was held April 8, 1905, with President Knowlton in the chair and 43 persons present.

The first paper of the evening was by Professor W. P. Hay, on 'A Class of Arthropoda New to the District of Columbia.'

The paper began with a brief description of a new species of *Macrobiotus*, a genus of *Tardigrada*, discovered in December, 1904, in an aquarium at Howard University. Attention was called to the fact that this is the first