

that future volumes of the authors will follow English terminology more closely, since, without regard to race prejudice, it appears vastly superior to that of other languages. The lack of a generally accepted precise terminology in French and German appears to have led the authors to attribute a similar indefiniteness to English terms wherein such defect does not exist. Thus, on page 81, they say: "Gewöhnlich wird in den englischen Büchern statt Impuls das etwas farblos wort momentum benutzt; die Komponenten des Impulses heissen dan 'the moments of momentum.' (!)"

R. S. W.

An Illustrated Flora of the Northern United States, Canada and the British Possessions, from Newfoundland to the parallel of the southern boundary of Virginia, and from the Atlantic ocean westward to the 102d meridian. By NATHANIEL LORD BRITTON, PH.D., and HON. ADDISON BROWN. Vol. III., Apocynaceae to Compositae; Dogbane to Thistle. New York, Charles Scribner's Sons. 1898. Large 8vo. Pp. xiv + 588.

A little less than two years ago (August 22, 1896) the first copies of Volume I. of this important work were distributed; less than a year later (June 15, 1897) a copy of Volume II. reached the writer; now (July 5) the third and last volume is at hand. When we bear in mind that these three volumes include descriptions of 4,162 species, and that every one of these is illustrated by outline drawings, one-half to three-fourths natural size, with many additional figures somewhat enlarged, we are able to realize the great amount of labor involved in their preparation and publication. The authors and publishers are to be congratulated upon such prompt completion of this work, whose value is greatly increased by the fact that so short a time has elapsed between the appearance of its volumes.

It is not necessary here to speak of the peculiarities of these volumes, since every working botanist in this country is familiar with them. The modern nomenclature, following the famous 'Rochester Rules,' and the modern sequence of families, following the system of Engler and Prantl, distinguish this from every other syste-

matic work on the plants of North America. It follows that those who do not like the Rochester Rules will not like this book, nor will those who persistently adhere to the Candollean sequence of families. However, it is inevitable that one result of its publication will be that the number of those actively opposing these modern features will rapidly grow less. It will soon be much easier to follow the modern innovations along the plain highway here made than to continue in the less and less frequented paths of the conservatives.

The General Key to the Orders and Families will be helpful, not only as a key, but also as affording a synoptical view of the system adopted. While necessarily keys are all much alike, this one shows in many ways the influence of the modern ideas in regard to plants. Here and there a slip occurs, and now and then there is a patch of old cloth used in the new garment. But these are to be expected, and they are not serious blemishes. In a second edition, for example, we may have a correction on page viii of the statement which makes embryo-sac synonymous with macrospore, and of the description of the leaves of Isoetaceae as 'tubular.'

Having accomplished so good a work the authors now owe it to the botanical public to bring out a small, thin-paper edition, without illustrations, so that all the descriptions may be brought within the limits of a small book. If the publishers will then give it a flexible binding, with narrow page margins, they will make a most useful book, which will be a fine adjunct to the fine large three-volume edition now before us.

CHARLES E. BESSEY.

THE UNIVERSITY OF NEBRASKA.

SCIENTIFIC JOURNALS.

THE contents of the *American Journal of Science* for August are as follows: 'Jurassic Formation on the Atlantic Coast—Supplement:' By O. C. MARSH. 'Mineralogical Notes:' By C. H. WARREN. 'Origin and Significance of Spines—A Study in Evolution:' By C. E. BEECHER. 'Prehistoric Fauna of Block Island, as indicated by its Ancient Shell-Heaps:' By G. F. EATON.

'Registering Solar Radiometer and Sunshine Recorder.' By G. S. ISHAM. 'Tertiary Elevated Limestone Reefs of Fiji.' By A. AGASSIZ. 'Iodometric Determination of Molybdenum.' By F. A. GOOCH and J. T. NORTON, JR. 'Sölvbergite and Tinguaita from Essex County, Mass.' By H. S. WASHINGTON. 'Occurrence of Native Lead with Roebbingite, Native Copper and other Minerals at Franklin Furnace, N. J.' By W. M. FOOTE. 'Position of Helium, Argon and Krypton in the Scheme of Elements.' By W. CROOKES.

THE *American Naturalist* for July opens with the first part of an article by Mr. C. R. Eastman on the 'Dentition of Devonian Ptyctodontidæ.' Mr. Outram Bangs contributes a list of the mammals of Labrador supplementary to that prepared by Mr. A. P. Low. There are short articles on variations in the number of ray-flowers in the White Daisy by Mr. F. C. Lucas and on the development of Mantis by Mr. T. D. A. Cockerell.

SOCIETIES AND ACADEMIES.

ENGELMANN BOTANICAL CLUB.

THE Club met July 14th, ten members present.

Mr. C. H. Thompson discussed the distribution, pollination and dissemination of North American *Lemnaceæ*. In opposition to the current view of wind pollination, Mr. Thompson adopts Ludwig's theory of insect pollination as most consistent with *Lemna* structure. Local dissemination is by means of currents of water and wind and by aquatic insects. Fronds are carried to greater distances by adhering to water fowls.

Dr. Joseph Grindon presented a list of plants observed by him in Forest Park with their time of flowering.

Mr. J. B. S. Norton mentioned finding *Helianthus petiolaris*, *Sesbania macrocarpa*, *Salsola Kali* *Tragus* and other plants introduced about East St. Louis, and *Stenanthium robustum* in Forest Park, where it was collected by Dr. Engelmann many years ago, but west of the range usually given for that species. He also spoke briefly of Darwin's recent observations on stomata.

The meeting of July 28th was devoted to informal talks on botanical topics of interest to the members present.

J. B. S. NORTON,
Acting Secretary.

ACADEMY OF NATURAL SCIENCES, OF PHILADELPHIA, JULY 26, 1898.

MR. WILFRED H. HARNED, alluding to the report that clay was eaten in certain places in the Southern States, read a letter from a correspondent intimating that the practice could not be met with there.

MR. BENJAMIN SMITH LYMAN remarked that on the Island of Yesso he had been shown a white clay which was said to be eaten by the natives.

PROFESSOR HENRY A. PILSBRY exhibited a number of shells of the genus *Cerion*, illustrating the fact that each of the Bahama Islands has its own peculiar species. He had been told that in Cuba the habitats of the species of this genus are almost as well defined as are those of the islands. No one species is generally distributed over the entire island nor along any great extent of sea-board. Specimens of *Cerium incanum* from the Florida Keys were also exhibited. The speaker suggested that an examination of the Keys would probably reveal a similar definition of local forms.

A paper entitled 'A New Land Snail from Clarion Island,' by Henry A. Pilsbry, was presented for publication.

EDW. J. NOLAN,
Secretary.

NEW BOOKS.

L'Année Psychologique. ALFRED BINET. Paris, Schleicher Frères. 1898. Quatrième Année. Pp. 849.

Electricity and Magnetism. FRANCIS E. NIPHER. St. Louis, J. L. Boland. 1898. 2d Edition. Pp. xi + 430.

Special Report on the Beet-sugar Industry of the United States. Washington, Government Printing Office. 1898. Pp. 239.

The Birds of Indiana. AMOS W. BUTLER. From the 22d Report of the Department of Geology and Natural Resources of Indiana. 1897. Pp. 516-1187.