

We would say that perhaps Mr. Colas was led by sentiment to make the unqualified statement that all the glory of the great mathematical computation, for that it was, rests with Le Verrier. The statement, however, is very questionable.

In glancing through the pages of the handbook, we can but admire the neatness with which the text has been arranged, and the selection of interesting objects gives a field of wide range.

We would recommend these two publications to the ambitious learner of the starry heavens as fit companions for his watches.

G. A. H.

*Missouri Botanical Garden.* Fourth Annual Report. St. Louis, 1893. Plates. 226 p.

THIS is a handsomely gotten up volume, in which we find several papers of interest. The report of the director, Dr. William Trelease, shows a flourishing condition of affairs. The herbarium now contains some 203,000 specimens, and the library over 11,000 volumes and pamphlets. The valuable library of Dr. Lewis Sturtevant was received as a donation, and included many manuscript notes. The only condition was that he retain the books during his lifetime or for so long a time as he needed them. The third annual flower sermon and the proceedings at the third annual banquet are reported in full. In the latter we find many interesting statements respecting Mr. Henry Shaw, the founder of the garden. There are also two scientific papers: "List of Plants Collected in the Bahamas, Jamaica, and Grand Cayman," by A. H. Hitchcock, and "Further Studies of Yuccas and Their Pollination," by Wm. Trelease.

Professor Hitchcock discusses in his introductory remarks various principles of nomenclature, finally taking 1753 as the starting point, in accordance with the recommendation of the Botanical Club of the A. A. A. S. The double citation plan is followed, the original author of the name being placed in parenthesis, the name of the author of the combination coming last. The original spelling of the specific name has been followed, ex-

cept in those cases where typographical errors were clearly apparent. Notes are given on many of the species and several new ones are described. The relationship of the flora to the surrounding region is also discussed, and notes are given upon geographical distribution. Dr. Trelease's paper gives descriptions of the various species of *Yucca*, and mentions the mode in which some of them are fertilized. He agrees with Professor Riley that fertilization takes place through the intervention of species of *Pronuba*. He considers *Yucca whipplei* to belong to the genus *Hespero-Yucca*, the common Spanish Bayonet of San Bernardino region being considered as var. *graminifolia*. This variety is fertilized by a new form of *Pronuba*, described as *P. maculata*, var. *aterrima*.

J. F. J.

THE lists of expectant graduates of Sibley College, Cornell University, in mechanical engineering, are just published by the registrar. The total number of candidates for the first degree is just one hundred; for the second degree, twelve come up, and are already, in most cases, through their examinations. Two or three of the first-degree men may fail; but the total will exceed one hundred. The graduating class, for the whole university, inclusive of its law school and special courses of four years' length, will be considerably above three hundred. There are about two hundred graduate students on the catalogue, a large proportion of whom take their degrees this year. Of these, many take the first degrees in Sibley College, where the custom of going through the regular "general courses" before entering the professional school is rapidly gaining ground, and is greatly encouraged by the authorities—where the student can afford the time and the expense.

—The Contemporary Publishing Co. have just issued an important work on the subject which to-day most attracts the attention of geographers: "The Arctic Problem and Narrative of the Peary Relief Expedition," by Professor Angelo Heilprin, the leader of the expedition.

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The Rev. A. C. Waghorne, New Harbor, Newfoundland, wishes to sell collections of Newfoundland and Labrador plants, all named by competent botanists. He is going on a missionary journey along the Labrador coast, from the middle of July till October, and in return for much needed aid towards (Episcopal) Church purposes in that region, will be glad to be of service to any botanists who may write to him. Letters posted in the U. S. up to July 1 will reach him at the above address, and if posted later will be forwarded.

For sale.—J. D. Dana's Report on Crustacea of the U. S. Exploring Expedition under Charles Wilkes. Text and plates well bound in three volumes, half morocco, \$75. Samuel Henshaw, Boston Society of Natural History, Boston, Mass.

For exchange.—I wish to exchange cabinet skins of Californian birds or mammals for any book on the following list, books if second-hand to be in good order. Manual of Vertebrates, fifth edition, D. S. Jordan; Nests and Eggs of North American Birds, Oliver Davis; Marine Mammals of the West Coast of North America, C. M. Scammon; The United States and Mexican Boundary Survey, Vol. II., Zoology, S. F. Baird. F. Stephens, Witch Creek, San Diego Co., Cal.

Minerals for exchange.—John Holl. Rollo, Wilmington, Delaware.

For sale or exchange.—Johnson's Universal Cyclopædia, 8 vols., ed. 1888. Binding, half-morocco. Will sell cheap for cash or would exchange for typewriter. Address W. J. McKom, Mason, Mich.

I have 500 microscopic slides to exchange in lots to suit. Want Kodak, first-class field-glass or scientific books. A. C. Gruhlke, Waterloo, Ind.

For sale or exchange.—A Telescope (36 diameters, copper barrel)—for \$20 cash or scientific books of that value. A. N. Somers, La Porte, Ind.

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THE undersigned desires specimens of North American Gallinæ in the flesh for the study of their pterylosis. These species are especially desired: *Colinus ridgwayi*, *Cyrtonyx montezumae*, *deudragapus franklini*, *lagopus velchi*, *tympanuchus cupido* and *pediocoetes phasianellus*. Any persons having alcoholic specimens which they are willing to loan or who can obtain specimens of any of the above are requested to communicate with Hubert Lyman Clark, 3922 Fifth Avenue, Pittsburgh, Pa.

A COMPETENT TEACHER of botany in college or university is open to engagement. Address L., Box 86, Rochester, Mich.

CAN any one inform me as to the age to which cats have lived? I have one twenty years old. Edward D. Webb, 132 W. Eighty-first St., New York.

WANTED.—Second-hand. Foster's Physiology, Balfour's Comparative Embryology, Claus & Sedgwick's Zoology, Flower's Osteology of Mammalia, Vine's Physiology of Plants. Please state editions and prices asked and address Richard Lees Brampton, Ontario, Canada

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