

Montana willows, with *Salix rotundifolia* from the island of Unalaska, are the smallest shrubs of *Salicaceæ* in the world. Two of these pygmies are new to science; one of which, growing often only half an inch high, is believed to be the smallest species of willow ever known.

Dr. Britton remarked that Mr. Rydberg's Montana trip of last summer was the first expedition sent out officially by the New York Botanic Garden; to which his collection of alpine plants will return.

Professor Burgess referred to a supposed age of thirty-four years for a dwarf willow of about six inches stem from Alaska, and Dr. Rydberg mentioned twelve years as perhaps the age reached by the dwarfs of his present paper, their stems dying along the rooting base too rapidly to permit great age.

Dr. Rusby spoke of Arctic willows as part of the food of beavers in northern Russia, and of reindeer.

The second paper was by Dr. John K. Small, 'On the Genus *Eriogonum* North of Mexico,' a genus founded by Michaux upon a single species in 1803, and increased to ninety-five in its fourth monograph, that by Dr. Sereno Watson, in 1870.

In discussing this paper, Dr. Allen contributed an entertaining description of his difficulties in bringing growing specimens of *Eriogonum Alleni* from near White Sulphur Springs to the Botanic Garden here.

Dr. Britton reported that the specimens then secured have done well in cultivation at Bronx Park, and have matured seeds.

Dr. Allen spoke of finding two or three species of *Eriogonum* in the Grand Cañon of the Colorado last summer, and described his descent of the cañon by mule trail, and also his journey to California in search of *Characeæ*.

Dr. Britton reported two cases of naturalization of escapes from greenhouses; the first that of a creeping form of *Ovalis corniculata*, now becoming a noxious weed at Whitestone, L. I.

The second case is that of a fern, apparently an *Asplenium* from a temperate habitat.

Other cases of fern naturalization which have been previously reported include that of an *Adiantum* in Rhode Island, by Mr. Davenport, and a *Pteris* in a rock-cut near the New York

Central Railroad tunnel in our own city, noted by Mr. W. A. Clute.

EDWARD S. BURGESS,
Secretary.

SCIENTIFIC JOURNALS.

American Chemical Journal, December. 'Decomposition of Heptane and Octane at High Temperatures,' by R. A. WORSTALL and A. W. BURWELL: A study of the decomposition of these substances when heated in the Pintsch gas plant. The chief products of the decomposition are the olefines, methane, acetylene and the aromatic hydrocarbons. All hydrocarbons, under the same conditions of temperature, seem to yield the same products. 'Anethol and Its Isomers,' by W. R. ORNDORFF, G. L. TERRASSE and D. A. MORTON: Preparation and study of properties and molecular weight of nine isomeric substances. 'Action of Sulphur on Silicides, Production of Silicon,' by G. DE CHALMOT: Conditions under which the silicon is replaced by sulphur. 'Acetylene Diiodide,' by G. DE CHALMOT. 'The Action of Sodium upon Methylpropylketone and Acetophenone,' by PAUL C. FREER and A. LACHMAN. 'Solubility of Lead in Ammonia,' by H. ENDEMANN. 'The Decomposition of Sulphonic Ethers by Water, Acids and Salts,' by J. H. KASTLE, PAUL MURRILL and J. C. FRAZER: A study of the rate of decomposition. 'A Study of Zinc Hydroxide in Precipitation,' by V. J. HALL: Effect of chlorides and sulphates on the precipitation.

J. ELLIOTT GILPIN.

NEW BOOKS.

Repetitorium der Chemie. C. ARNOLD. Eighth edition. Revised and enlarged. Hamburg and Leipzig, Leopold Voss. 1898. Pp. xii+616.

Les végétaux et les milieux cosmiques. J. COSTANTIN. Paris, Alcan. 1898. Pp. 292. 6 fr.

Suggestions for Laboratory and Field Work in High School Geology. RALPH S. TARR. New York and London, The Macmillan Co. Pp. 100.

Memory and its Cultivation. F. W. EDRIDGE-GREEN. New York, D. Appleton & Co. 1897. Pp. 311.