

Principes et Formules de Trigonométrie Rectiligne et Sphérique, by G. W. Myers; Schubert's Beispiel-Sammlung zur Arithmetik und Algebra, by G. W. Myers; Russell's Elementary Treatise on Pure Geometry, by O. Veblen; Bruns's Wahrscheinlichkeitsrechnung and Kollektivmasslehre, by H. L. Rietz; Engel's Hermann Grassmanns gesammelte mathematische und physikalische Werke, Band 2, by E. B. Wilson; Jaumann's Grundlagen der Bewegungslehre, von einem modernen Standpunkte aus, by G. W. Myers; Slocum's Text-Book on the Strength of Materials, by G. W. Myers); Notes; New Publications.

The November number (volume 14, number 2) of the *Bulletin* contains: Report of the Fourteenth Summer Meeting of the American Mathematical Society, by F. N. Cole; "On a Special Algebraic Curve having a Net of Minimum Adjoint Curves," by Virgil Snyder; "Note on Certain Inverse Problems in the Simplex Theory of Numbers," by R. D. Carmichael; "Third Report on Recent Progress in the Theory of Groups of Finite Order," by G. A. Miller; Notes; New Publications.

SOCIETIES AND ACADEMIES

THE TORREY BOTANICAL CLUB

THE first fall meeting for the year 1907 was held on October 8, 1907, at the American Museum of Natural History. The meeting was called to order at 8:30 by the secretary, and Dr. E. B. Southwick was elected chairman. Eleven persons were present.

The announced program consisted of informal reports upon the summer's work and observations. In response to calls by the chairman the following members made remarks:

Remarks on the Absence of Undergrowth in a Hemlock Forest: C. STUART GAGER.

Hemlock seeds germinate freely under the parent trees, but seldom attain a height of more than three or four inches. It was suggested that there may be present in the soil a substance or substances secreted by the hemlock roots, and deleterious to the germination and growth of hemlock seedlings. This, as well as poor insolation, must be considered in

attempting to explain why the seedlings fail to develop.

Botanical Observations made in Pownal, Vt.: M. A. HOWE.

Dr. Howe reported his attendance at the annual summer field meeting of the Vermont Botanical Club, which was held in Pownal, the extreme southwestern township of Vermont. In this town are the only known Vermont stations for *Liriodendron tulipifera*, *Morus rubra*, *Aster sagittifolius* and several other species of interest.

Plant Studies on the Northern Coast of the Gulf of St. Lawrence: C. B. ROBINSON.

Dr. Robinson had spent the first two or three weeks of August at Seven Islands, on the northern coast of the Gulf of St. Lawrence, about 325 miles below the city of Quebec. The coast to the east of the bay of Seven Islands is a nearly level sandy plain, but the western side, and the islands across the mouth, are formed of steep crystalline rock, a kind of feldspar. A range of hills attaining 1,700 feet in height runs parallel with the coast about ten miles inland. With the exception of a few plants like *Sibbaldiopsis tridentata*, *Empetrum nigrum* and *Achillea millefolium* the rocks and the sand bore strikingly different floras. There was a tendency in some cases for the species of the woods to invade the sand, bringing there species like *Linnæa americana*, *Moneses uniflora* and *Peramium ophioides*. Three species of *Botrychium* grew in still more open places on the sand. The flora, at best a scanty one, is particularly poor in trees. The shores are lined by black spruce, and the white spruce is less common. Beginning a short distance from the shore, the sand plain becomes a pine barren, with *Pinus Banksiana* as practically the only tree. Two species of paper birch, the fir, larch, aspen and mountain maple are the only other real trees. It had been hoped that the higher latitude would sufficiently compensate for altitudes lower than those of the hills of Gaspé, and thus give a flora comparable with that of the latter. A few such species were found, among them *Diapensia lapponica*, *Vaccinium ovalifolium*, *V. uliginosum*, *Comandra livida*, *Euphrasia Ran-*

dii and *Selaginella rupestris*, but the general results in this respect were distinctly disappointing.

Experiences at the Biological Laboratory of the U. S. Bureau of Fisheries at Beaufort, N. C.: W. D. HOYT.

An account was given of the excellent equipment of the station, and the facilities for research. The richness of the local fauna and the varied flora was noted. The locality abounds in epiphytic plants of numerous species. The speaker's investigations indicate a local algal flora that compares favorably with that of the New England and the Florida coast. Over 100 species have been found. The latitude of Beaufort appears to be the northern limit of certain southern species and the southern limit of some northern ones. The predominant flora varies greatly, according to the season, southern forms predominating in summer and northern forms in winter.

A coral reef about twenty-three miles off the coast and under a depth of 13 to 14 fathoms, extends about one mile in length and one half a mile in width. This is probably the most northern of the coral reefs. It supports a rich algal flora, consisting almost entirely of southern forms, and some of them new to North America.

Remarks on the Unusual Habitats of Certain Ferns in New Jersey: MISS PAULINE KAUFMANN.

Several species have been observed growing in habitats somewhat unusual for the species.

Observations in Western South Carolina, and on the Isle of Palms: HOMER D. HOUSE.

On this island, which is off the coast of South Carolina, several species new to South Carolina, and a probably new species of *Helianthus*, were found.

Account of a Visit to the Experimental Garden of President Brainerd, at Middlebury, Vt.: TRACY E. HAZEN.

A description was given of President Brainerd's experimental pedigreed cultures of violets. In addition to remarks concerning the Mendelian studies in *Viola*, attention was called to the fact that, contrary to the general

notion, viable seeds were commonly found in the petaliferous flowers of the violet.

Discussion followed the remarks of each speaker.

C. STUART GAGER,
Secretary

DISCUSSION AND CORRESPONDENCE

SOME OBSERVATIONS ON MUSEUM ADMINISTRATION

THE two articles which recently appeared in *SCIENCE*¹ by Drs. Dorsey and Boaz on museum administration have been of more than passing interest to those engaged in the collection and exhibition of natural history material. While Dr. Dorsey's article discussed the matter from a purely ethnological standpoint, that of Dr. Boaz is of such a scope as to include broadly all branches of museum installation. The following observations are based upon an experience of thirteen years in one of the smaller museums, where the attendance averages about 350,000 per year.

Dr. Boaz states that museums may serve three purposes, viz., healthy entertainment, instruction and the promotion of research. That a museum is for the purpose of providing instruction and of promoting research all museum men will agree, but there is great danger of dwelling too much upon the idea of entertainment. All museum men desire unquestionably that their museums should afford healthy entertainment, but the installations must not be prepared for this purpose. In the writer's opinion every exhibit should be prepared with some definite purpose in view; it must, indeed, be the embodiment of an idea which may be apprehended by the visitor.

It has not been the writer's experience that the public resents to any large degree an attempt at systematic instruction, or that it dislikes to give serious consideration to the exhibits. It has been frequently noted in the Chicago museums that visitors will study or look over every case in a given hall or gallery; the more commonplace exhibits will perhaps be passed over, but where it is apparent that some idea or fact of nature has been embodied in an exhibit, this exhibit will be carefully

¹No. 641, April 12, 1907, and No. 650, June 14, 1907.