petrographic thin sections cut from parts of 14 concretions. The grains recorded as "polished" are either circular or elliptical in section. If they were originally formed in the interiors of the foraminiferal shells the shells had been entirely removed and the grains rounded prior to their inclusion within the concretions.

FREDERICK A. BURT
A. AND M. COLLEGE OF TEXAS,
COLLEGE STATION, TEXAS

PEAT UNDER A DELAWARE BEACH

THE article by Dr. Richards on the occurrence of sod under the New Jersey beaches, which appeared in SCIENCE for June 19, interested me very much. Similar material was found in 1911 on the beach at Rehoboth, Del. This was reported and figured in an article published in 1913.[1]

The material, a mass of peat several feet long, was exposed twice during the summer, after severe storms. It was embedded in the sand and appeared to continue landward as it disappeared under the sloping beach. A piece approximately a foot and a half in diameter was broken from the mass and is now in the Museum of the Department of Botany, Wellesley College. Other deposits, one described by a fisherman as "turf with stumps in it," were reported to have been exposed during winter storms.

The occurrence of peat in this situation was interpreted at that time as the remains of a marsh flora, developed from a lagoon formed by an old fringing bar. As the bar was pushed inland the sand overwhelmed the marsh and continued retreat of the shore line again exposed the buried vegetation.

LAETITIA M. SNOW
WELLESLEY COLLEGE

SPECIAL CORRESPONDENCE

A FLORA OF MEXICO

OUR knowledge of the flora of Mexico is scattered through a multitude of systematic papers and a relatively small number of local floras, with only very few general works. The fundamental work for the study of the flora as a whole, Hemsley's four volumes of "Botany" (1879–88) in Salvin and Godman's great "Biologia Centrali-Americana," enumerates 12,233 species of vascular plants growing in the region from Mexico to Panama, with the citation of synonyms and specimens examined (the latter almost confined to the material in the Kew Herbarium). There are no keys, no vernacular names and no account of uses, and the botanist who does not have access to a large botanical library can derive little profit from it. Paul C. Standley's "Trees and Shrubs of Mexico" (1920–26) covers the woody plants very satisfactorily, giving keys, brief descriptions, synonymy and range, but its greatest value, perhaps, lies in the condensed accounts of uses and lists of vernacular names which the author has brought together under each species. The approximately 5,700 species included in this work represents perhaps half the known flora. The floras of several of the islands on the west coast have been published by Sereno Watson, E. L. Greene, J. N. Rose (partly in collaboration with George Vasey), Alice Eastwood and Mrs. R. S. Ferris. L. A. M. Riley's "Contribution to the flora of Sinaloa" (1923–24) was left incomplete at the death of the author and covers only the Polypetalae. A flora of the same state, the descriptive part of which, containing various new species, is unfortunately printed on unnumbered pages so as to be almost impossible to cite, is in process of publication by J. G. Ortega in the "Boletín de Procultura Regional" of the Sociedad Cooperativa Limitada of Mazatlán. Millspaugh's "Plantae Yucatanae," mostly written in collaboration with Mrs. Agnes Chase, was suspended nearly thirty years ago, after only five families had been covered. This gap has been filled by Standley's "Flora of Yucatan" (1930), the only complete flora of any Mexican state. The very interesting flora of the peninsula of Lower California, an area not included in Hemsley's "Botany," has been pretty thoroughly covered by T. S. Brandegee, especially as to the "Cape Region," and additional lists of value have been published by E. A. Goldman and I. M. Johnston.

The participation of United States botanists in the investigation of the flora below the present northern boundary of Mexico practically began with Asa Gray's papers on Charles Wright's second Texan and New Mexican collection (1853) and on Thurber's New Mexican and Sonoran collections (1854), and Torrey's "Botany of the [Mexican] Boundary" (1859), in which Gray collaborated. Into these works occasional species collected within the present limits of Mexico were introduced. Gray's papers on Xantus' plants from Lower California and L. C. Ervendberg's from Wartenberg, near Tantoyuca (both in 1861), were the first papers devoted entirely to Mexican plants published in this country. After a gap of fifteen years, Sereno Watson's two papers (1876) on

[1] Laetitia M. Snow, "Progressive and retrogressive changes in the plant associations of the Delaware coast," *Bot. Gaz.*, 55 (1): 45–55, fig. 6, 1913.