will convince any one at all familiar with such features that he is on the crest of a high watershed which has been cut through in very recent times; recent, that is, in comparison with the period of the alluvial valleys up and down the stream from his point of observation.

GERARD FOWKE.

THE SENEGAL BAOBAB TREE.

IT is said by travelers that the fruit of the Senegal Baobab tree is used by the natives to curdle milk. As it is also called 'sour gourd' and cream-of-tartar tree, the curdling is probably due to an acid; and other vegetable acids are also known to be so used. But it seems that other vegetable products that are not acid will also curdle milk. In northern Mexico I was once served with a palatable dish of cooked 'cheese' that the mistress of the house told me she had herself curdled with the juice of berries, some of which she showed me. They were fruit of a *Solanum*, apparently *S. heterodoxum*. She was an intelligent woman, and spoke of that use of the berries as a common custom in Mexican families. Like other fruits of the nightshade family, they had no perceptible acid taste; and the curd which they produced had a consistence similar to that which is produced by rennet. Possibly the action upon milk of the juice of that and other non-acid fruits is similar to the action of rennet, which is thought by some investigators to be a kind of ferment.

C. A. WHITE.

SHORTER ARTICLES.

THE LARGEST DEEP-SEA FISH.

DURING the cruise of the *Albatross* in 1888 in the Pacific Ocean, a fish nearly five feet long was hauled up in a trawl cast in water of the depth of over 1,000 fathoms. Unfortunately it was thrown overboard, but happily not before a photograph was taken of it. Mr. Townsend has ever since hoped to have another chance to secure the species, but without present hope. It became desirable to make allusion to the species at this time, and he has conferred with Dr. Gill and asked to indicate its probable affinities.

The species appears to be most nearly related to *Percophis*, and for the present it may be assumed that such is the case, but it is by no means certain that it is. It is deserving of the generic name *Macrias* with reference to its length as well as bulk, and the specific name *amissus* is appropriate for it as an estray from its relatives as well as to indicate the loss of the type. It is definable as follows:

MACRIAS.

A genus of Percophoid fishes with moderately oblong head, eyes in the second fourth of the head's length, slightly projecting lower jaw, thick lips, small teeth, small jugular ventrals and anal with origin behind that of second dorsal.

MACRIAS AMISSUS.

The body is elongate and between five and six times longer than high; the head forms more than a fourth (1 : 3 4/5) of the extreme length; the caudal about a seventh. The head is oblong conical in profile, with the forehead nearly rectilinear; the eyes are in the third eighth of the length, with the diameter equal to about an eighth of that length, and nearly midway between the preoperculum and the front of the jaw; the mouth is quite oblique and the supramaxillary extends scarcely behind the front of the eye; the teeth appear to be cardiform; the lips thick. The dorsal rays are not sufficiently defined to count exactly, but they approximate the following formula: *DXI*—19.

The specimen was obtained at the *Albatross* dredging station 2788, off Chonos Archipelago, southern Chili, S. A. (Lat. S. 45° 35′, Long. W. 75° 55′), at the depth of 1050 fathoms; bottom green mud; bottom temperature, 36° F.; surface temperature, 58° F.; from an 11-foot beam trawl, Feb. 11, 1888. The dredge haul lasted three hours.

The fish was about five feet long, and is the largest deep-sea fish taken by the *Albatross*—probably the largest ever taken by beam trawl or dredge. Its color was grayish. It had the softness of flesh characteristic of deep-sea fishes, settling down on the deck so that its natural contour does not show in the large 8 x 10 photograph that was at once made of it.

There being no receptacle available for preserving it in alcohol, it was placed in a cask and salted. Later the cask and specimen were un-

fortunately thrown overboard with some rubbish from the ship laboratory.

The exact measurements of the specimen will be given later when the photograph is reproduced by the Fish Commission.

THEO. GILL,
C. H. TOWNSEND.

CURRENT NOTES ON METEOROLOGY.

HAIL PREVENTION BY CANNONADING.

THE hail prevention cannonading craze has gone very far in Windisch-Feistritz (Steiermark), the home of this newest undertaking for artificially controlling weather phenomena. In *Das Wetter* for October Dr. Friedrich Stengel, who has recently visited the locality, gives an enthusiastic account of the somewhat remarkable arrangements which have been made for this work. The huts containing the firing apparatus are 1 km. apart, in four long parallel rows, the rows also being 1 km. apart. There are three groups of stations, containing twelve, thirteen and fifteen stations each, respectively. Each section has a central station, under the charge of a *schiessmeister*, and each *schiessmeister* is directed by the general superintendent. Cannonading begins when a thunder-storm is within two or three kilometers. Sometimes only one of the sections fires; at other times all the stations participate. Firing continues until the sky begins to clear overhead, or, if this does not happen, until thunder and lightning cease and a general rain sets in. The central station of each section regulates the time of the beginning and ending of the firing, as well as the rapidity of the discharges.

THE DUST STORM OF MARCH, 1901, AND GLACIAL STUDIES.

IN the October number of the *Meteorologische Zeitschrift*, Richter calls attention to the use that may be made of the fall of red dust which occurred over most of Europe on March 11 last. It was suggested some time ago that studies of glacial movements and phenomena might be facilitated by coloring a considerable portion of the surface of a glacier, and then noting the rapidity of movement, and the folding and fracturing of this particular colored stratum. The dust storm of last March colored the European glaciers on a grand scale, and thus an excellent opportunity of making critical studies of these glaciers has been provided, which could never have been brought about by artificial means.

THE CLIMATIC CONTROL OF GOVERNMENT IN THE TROPICS.

MR. W. ALLEYNE IRELAND, who is well known in this country through his writings on the settlement and government of tropical possessions, read a paper on the influence of geographical environment on political evolution before the British Association at its Glasgow meeting. In this paper the possibilities of native government within the tropics are discussed. The conclusion is reached that while the natives of the tropics are not deficient in intellectual power, their 'climatic discipline' renders them unfitted to play the part of legislators or responsible administrators, or to maintain a government sufficiently stable to admit of proper commercial development.

UNDERGROUND TEMPERATURES AT OXFORD.

THE volume containing the meteorological observations made at the Radcliffe Observatory, Oxford, from 1892 to 1899, presents some notable facts regarding soil temperatures. The observations were made with platinum resistance thermometers, placed at various depths. The thermometers on the whole were found to work much more satisfactorily than the common spirit thermometers with long stems. It appears that the annual variation in temperature is reduced to 0.1° at a depth of 45.3 ft., and to 0.01° at 66 ft. The semi-annual wave has these same limits at 21.4 and at 36 ft., respectively.

R. DEC. WARD.

BOTANICAL NOTES.

IMPORTANT PHILIPPINE WOODS.

UNDER this title Captain George P. Ahern, of the Ninth Regiment of United States Infantry, has issued a small quarto volume of 112 pages, illustrated with forty-two colored plates. The author, who is in charge of the Forestry Bureau at Manila, candidly states that it is a compilation undertaken in response to numer-