deep valleys and entirely change the aspect of the country. The lakes all stand lower than their ancient shore lines; many small basins of to-day having formerly united in large confluent water bodies. This narrative, like many of its class, indicates great courage and endurance on the part of the explorers, but abounds with personal incidents rather than with geographical matter. (London Geogr. Journal, May.)

DANGER FROM THUNDERSTORMS IN ARABIA.

An excursion of twelve years ago in Oman, southeast Arabia, lately described by S. B. Miles, gives once again an impressive picture of the immediate independence of desert tribes on the wadies or water courses, which determine the place of all the villages and of nearly all the roads. A canyon, six miles long and 1,000 to 1,500 deep, between neighboring valleys, was luckily passed through a day before a heavy thunder storm; less fortunate travellers are not unfrequently overwhelmed in it by the sudden rise of the stream, from which there is no escape. "The huge walls of rock give the appearance as if the mountain range had been suddenly split in twain from the base to the summit by some convulsion of nature." If a real, convulsively split canyon is some day found, what an agreeable change it will be to read: "The huge walls of the fissure formed by this convulsion of nature look just like the walls of ordinary gorges that have been slowly cut down by streams." (London Geogr. Journ., May.)

HILL ON CENTRAL AMERICA AND ANTILLES.

The May number of the National Geographic Magazine has an article by R. T. Hill on the geographic relation of the three Americas, North, Central and South, contending that the North American cordilleras terminate with the line of Mexican volcanoes west of Vera Cruz, that the Andes terminate south of the Isthmus of Panama, and that Central America is to be associated with the transverse deformations of the Antilles; the latter lying on lines of east-west corrugations "which have persisted without continental connection or union with each other since their origin." Thus interpreted, these islands belong to a class that should be welcomed by the physiographer as desiderata, long ago deduced as possibilities, and prepared for in his scheme of classification, but of rare occurrence on this small earth during the brief epoch in which we know it.

W. M. Davis.
Harvard University.

CURRENT NOTES ON METEOROLOGY.

INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY.

The Fourth Session of the International Congress of Hydrology, Climatology and Geology will be held at Clermont-Ferrand from September 28 to October 4 of this year. Scientific societies in all parts of the world are invited to take part in this Congress. The French railroad companies have reduced their fares 50% for those who attend the meeting, and the *Compagnie Générale Transatlantique* has given a reduction of 30% to those who travel by its steamers. Among the meteorologists who have charge of the meeting are Angot, Teisserenc de Bort and Plumandon. The list of questions to be considered in the section on climatology is the following: Meteorological observations, their part in the study of climates; What is meant by mountain climate?; Investigation on the proper means of determining the degree of clearness of the sky, of its color, and of these influences in hygiene; The prevalence of winds in certain regions, and their influence on sanitary conditions. Membership in the Congress costs 20 francs, and subscriptions may be sent to M. Doin, 8 Rue de l'Odeon, Paris.

ATLAS OF THE PACIFIC OCEAN.

A PUBLICATION of more than usual interest and importance is the large Atlas of the Pacific Ocean, recently issued by the *Deutsche Seewarte*, at Hamburg, under the direction of Dr. Neumayer. The previous volumes in the same series are an Atlas and a Handbook of Sailing Directions for the Atlantic and for the Indian Oceans. Although primarily intended for the use of ship captains, these publications should be studied by all meteorologists. The data on which the charts are based are the most complete and most authentic obtainable. The charts include among others the following: depths; ocean currents from January to March and from July to September; water surface temperatures for February, May, August and September; isotherms and isobars for the same months; winds for winter and summer; wind districts; relative frequency of winds for January, April, July and October; rainfall by districts; magnetic variation; sailing routes. For the minute study of the general meteorological conditions of the Pacific Oceans there is nothing that can approach these new German charts. The *Sailing Directions*, to accompany the *Atlas*, are now in press.

R. DEC. WARD.

HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

AMERICAN CRANIOLOGY.

PROF. HAMY, the distinguished successor to de Quatrefages, has an article in *L'Anthropologie*, for April on the Malayan and the American races. Following older authorities, he treats both as offshoots from the Mongolian variety or subspecies. When he comes to the difficult task of classifying the refractory red men he relies wholly on craniology and his results are, to say the least, sweeping. He groups as one all the mound builders, cliff dwellers and Pueblo Indians. The same group 'extends from the Atlantic to the Pacific, and from the Great Lakes to the Isthmus of Tehuantepec.' They are all brachycephalic, short in stature, with narrow noses and prominent cheek bones. It is needless to say that the researches of Boas, Virchow, Matthews and others lend no support to this statement, and indeed contradict it. Nor is Prof. Hamy's discussion of the South American skull-forms in accordance with the measurements adduced by Ehrenreich and others.

The skull is as variable among the American aborigines as it is among the Aryan nations to-day, and no classification of stocks can be founded upon it. The linguistic classification is the closest to an exact one that we can have for the race of the new world, and has been accepted by all modern American authorities.

MAN AND THE MEGALONYX.

THE Megalonyx was a hugh sloth who lived about these parts for some time after the Champlain depression of the pleistocene. His remains abound in what are are called the 'Megalonyx layers,' a horizon which Gilbert has offered evidence to place post-glacial. In these layers no trace of man has yet been found; but in April last Mr. Henry C. Mercer, exploring for the University of Pennsylvania, found in a cave in Tennessee bones of this sloth, fresh in appearance, and with remains of attached tissue and ligaments, mingled with fragments of reeds used as torches by the Indians. Along with these were other bones of living fauna, cave rats, porcupines, etc. Mr. Mercer has issued a brief announcement of this discovery, with an illustration of the bones. Copies can be had by addressing him (University of Pennsylvania, Philadelphia).

This does not necessarily remove man to remote antiquity. The sloth might have survived to comparatively recent centuries