

DISCUSSION AND CORRESPONDENCE.

THE TELEPATHIC QUESTION.

TO THE EDITOR OF SCIENCE: When a scientific discussion degenerates into protest and imputation of motive it is probably time for the discussion to stop. But I wish to state, in self-defence, that I do not 'seek to leave upon the reader's mind' the two impressions to which Professor James refers. I do not say that Lehmann first considered whispering; I say that he was the first *thoroughly to investigate* it. There is a difference. I do not imply that Lehmann introduced number-habits; I say that the next step in advance beyond him is an exhaustive study of number habits. Again, there is a difference.

E. B. TITCHENER.

CURRENT NOTES ON METEOROLOGY.

CLIMATIC CHANGES ON THE PACIFIC COAST.

In the *National Geographic Magazine* for May the question of climatic changes on the Pacific coast is discussed by J. B. Leiberger, under the title: '*Is Climatic Aridity impending on the Pacific Slope? The Testimony of the Forest.*' The most important results of the study are as follows: The arid, non-forested plains of eastern Oregon yield silicified remains of arborescent vegetation nearly or quite identical with existing species on adjacent areas, thus proving the presence of forest growth on these timberless lands at no very remote period. On the semi-arid tracts the forest, although consisting of species capable of enduring dry climatic conditions, show everywhere a persistent and gradual dwindling in extent and density. In the subhumid forest there is a slow and apparently ineffectual adaptative evolution of smaller forms of the various species to replace the larger ones which require more moisture for their growth. In the humid forest the same phenomena are found. So far as the evidence derived from a study of the forest conditions is concerned, there seems to be a fairly well defined change of climate in progress on our Pacific coast, from a more humid to a less humid.

In the same number of the *National Geographic Magazine*, Ganett, in a paper entitled '*The Redwood Forest of the Pacific Coast*,' states that

"everything appears to indicate that for some reason, probably a progressive drying of the climate, the present environment is not favorable to the growth of redwood, and that with the clearing away of the present forests the end of the species as a source of lumber will be at hand."

WAVE CLOUDS.

THE formation of waves between different strata of the atmosphere was carefully studied and described by von Helmholtz. These waves become visible only when clouds are formed in them at those points where condensation takes place, but undoubtedly invisible waves occur very commonly in our atmosphere. The appearance of clouds in parallel lines across the sky is an indication of the presence of atmospheric waves. In the February number of the *Monthly Weather Review*, A. J. Henry, of the U. S. Weather Bureau at Washington, presents five excellent views, reproduced from photographs, of alto-cumulus cloud rolls, observed at on November 23, 1898, and on January 27, 1899. The views of November 23d are especially interesting as showing the gradual dissolution of the clouds.

METEOROLOGICAL WORK IN ALASKA.

THE Central Station of the Alaskan Section of the Climate and Crop Service of the Weather Bureau has been transferred from Sitka to Eagle, on the Yukon, near the British line. The Chief of the Weather Bureau hopes, by this change, to facilitate the establishment of meteorological stations in the region of the upper Yukon, where, owing to poor facilities for communication, it was found impossible to establish such stations when the headquarters of the Service were at Sitka.

RECENT PUBLICATIONS.

Measurement of Precipitation. C. F. MARVIN, U. S. Department of Agriculture, Weather Bureau. Circular E, Instrument Division. 8vo. Washington, D. C., 1899. Pp. 28.

A pamphlet of instruction for the measurement and registration of precipitation by means of the standard instruments of the Weather Bureau.

Ninth Annual Report of the Board of Directors of the New Jersey Weather Service, 1898. E. W.

MCGANN. 8vo. Trenton, N. J., 1899. Pp. 205.

This Report contains a relief map of New Jersey, prepared by the Geological Survey of the State, with the note: "The influence of the diversified topography of New Jersey upon its climate is apparent by comparing this relief map with the temperature and rainfall charts which follow." This plan of publishing topographic maps of the different States in the Annual Reports of the Weather Services is an excellent one, and should be generally adopted.

Rivers of Oregon, Washington, Idaho and Western Montana. B. S. PAGUE. River Bulletin No. I., 1899, U. S. Department of Agriculture, Weather Bureau. Portland Ore., 1899.

This valuable Bulletin, the first of its series, concerns the precipitation over the Pacific Northwest and the possibility of high water from the melting snow in the mountains. It contains a general forecast of the probable height of the Columbia River in May and June, as dependent upon the temperature conditions and the resulting more or less rapid melting of the snow on the mountains.

Monthly Rainfall Chart for Fifty Years at San Francisco. Compiled by HERMAN SCHUSSLER, C. E. Published by the Central Pacific Railroad Company.

A graphic representation of the monthly rainfalls for each year during the past fifty years.

R. DEC. WARD.

HARVARD UNIVERSITY.

A BRYOLOGICAL MEMORIAL MEETING.

COLUMBUS was the home for many years of William S. Sullivant and Leo Lesquereux, two names which will awaken love and reverence from all students of North American mosses and hepatics. It is twenty-six years since Sullivant died, and this last quarter of a century has seen a marked extension of the limits of bryological study and a large increase in the number of students. It seems a fitting time and place to take a survey of the field, review the past and make plans for the future. Hence it is proposed to make the coming meeting of the American Association for the Advancement of Science, which is to be held at Columbus, the occasion for a Memorial Day in honor of the

Nestors of American Bryology and to call on all botanists and scientific magazines to help to make the occasion a memorable success. It is proposed to present a series of papers, illustrated by photographs, specimens and microscopical slides, books and pamphlets under the following topics:

Historical papers and collections showing the bryological work of Hedwig, Palisot de Beauvois, Michaux, Muhlenberg, Bridel, Torrey, Drummond, Hooker and Wilson, Greville, Sullivant and Lesquereux, James and Watson, Austin, Ravenel, Wolle, Eaton, Faxon and Müller; supplementing these there will be shown collections of specimens, macroscopic and microscopic, illustrating the monographic work of recent American students.

If foreign students who have worked on North America bryophytes can be persuaded to cooperate with us the following will be asked to contribute: Bescherelle, Brotherus, Cardot, Dixon, Kindberg, Mitten, Pearson, Roll, Stephani and Warnstorff.

An effort will be made to secure the loan of type specimens and illustrations from the following sources: The Academy of Natural Sciences of Philadelphia, Academy of Sciences of New York, Columbia University, The National Museum, The Ohio State University, The University of Wisconsin and Yale University, as well as from private collections. It is also intended to exhibit any portraits, autograph letters and type specimens and drawings of special interest, which may be loaned for the occasion, as well as presentation copies of books and pamphlets.

The following committee of organization will gladly answer questions and give assistance to those who wish to contribute: Professor Charles R. Barnes, University of Chicago; Mrs. N. L. Britton, New York Botanical Gardens; Professor W. A. Kellerman, Ohio State University; Dr. George G. Kennedy, Readville, Mass.; Professor L. M. Underwood, Columbia University.

SCIENTIFIC NOTES AND NEWS.

THE Royal Institution of Great Britain, in commemoration of its centenary, has elected a number of honorary members, including Professors S. P. Langley, Carl Barus, A. A. Michel-