

the phenomena of the outflowing squall. A. L. Rotch contributes a short account of a meteorological balloon ascension in which he took part at Strassburg last July. Professor R. E. Dodge describes some diurnal winds in northwestern New Mexico, which are developed on very faint gradients. A translation, by Professor Cleveland Abbe, of the introduction to Marcel Brilouin's recent volume 'Mémoires Originaux sur la Circulation Générale de l'Atmosphère,' brings before American readers an excellent brief historical summary of the various important contributions made by Ferrel, Thomson, Siemens, and others, to the subject of the general circulation. 'Yukon Weather' is the title of a paper by U. G. Myers, Section Director of the Weather Bureau in Alaska. Professor Abbe, in his 'Notes by the Editor,' discusses the relation between the scientific work of the Weather Bureau and the long-range forecasts made by those who believe in lunar or stellar influences, and in this connection gives a translation of the paragraphs of Angot's 'Traité de Météorologie' which deal with this subject. An account of the Milwaukee convention of Weather Bureau officials concludes this number of the *Review*.

GEOLOGICAL CHANGES OF CLIMATE IN THE EASTERN CORDILLERAS.

A RECENT paper by Professor N. S. Shaler, on 'Broad Valleys of the Cordilleras' (*Bull. Geol. Soc. Amer.*, Vol. 12, 271-300), explains certain features of these valleys by an increased erosive action due to an ancient temporary increase of rainfall in preglacial time. The source of the larger part of the rainfall in the Mississippi valley drainage area is evidently in the basin of the Gulf of Mexico and the Caribbean Sea. When these waters were of greater extent, the evaporation from them might well have produced a much heavier rainfall over the Cordilleras than is now found there. There is evidence in the broad valleys of several oscillations of climate. At the present time the conditions of the eastern section of the Cordilleras indicate a recent return to an arid climate. The taluses are evidently increasing. "Unless the Gulf of Mexico," Professor Shaler concludes, "should again be brought over a considerable part of the southern lowlands, there seems to be no

reason to expect that there will be any increase of rainfall in this area."

TREE PLANTING ON THE PRAIRIES.

WILLIAM L. HALL, assistant superintendent of tree planting in the Division of Forestry, believes that the time has come for an extensive development of forest plantations throughout the Middle West, in consequence of the rapid diminution of the supply of natural timber in the Mississippi valley (Yearbook Dept. of Agriculture for 1900). Over extensive areas the prices of posts, telegraph poles and cross-ties much exceed the cost of growing them. This difference promises profit in timber growing. Ten years ago the area for profitable tree planting was, chiefly for climatic reasons, thought to be much smaller than it is now known to be. The past year has seen the establishment of nearly 100 plantations by individuals in co-operation with the Division of Forestry, and during the present year more trees will be planted than ever before. Mr. Hall believes that if 500,000 acres of timber, well distributed throughout the Middle West, were planted annually, the production would still be inadequate to meet the demand, and liberal profits could still be hoped for. R. DEC. WARD.

PROPOSED AMERICAN ELECTRO-CHEMICAL SOCIETY.

A MEETING was held on November 1 at the rooms of the Engineers' Club in Philadelphia, to discuss the question of the advisability of organizing a national electro-chemical society on the same general plans as the American Chemical Society and the American Institute of Electrical Engineers. Some twenty or thirty persons from different parts of this country, who were thought to be interested in the subject of electro-chemistry, had been asked to be present or to express their views by letter. Among the communications received, the majority, especially from the electrochemical industries, were in favor of the formation of such a society; the minority thought the time had not come yet for such a society, that the American Chemical Society and the American Institute of Electrical Engineers filled the needs, that there were already a number of other societies at which papers on this subject could be read, etc.

Those present included representatives from New York City, from the Cornell, Lehigh and Johns Hopkins Universities, from the American Chemical Society, the American Institute of Electrical Engineers, the Franklin Institute, etc. Professor J. W. Richards, vice-president of the American Chemical Society, acted as chairman, and Carl Hering, past president of the American Institute of Electrical Engineers, as secretary. All those present were heartily in favor; the only doubt expressed was whether a sufficient number of members could be obtained to make such a society a success. A committee was appointed, with Dr. Chas. A. Doremus, of the College of the City of New York, as chairman, to canvass for members; and if seventy-five or over pledge themselves to join, the society will be formed. In that case, certain committees which were appointed will arrange for holding a formal meeting at which the society will be founded and papers read and discussed. Anyone desiring to become a member is asked to communicate with Dr. Doremus at the above address.

It was furthermore decided to be the expression of those present that the name of the organization should be the American Electro-chemical Society; that the dues should not exceed \$5.00 per year, and that at first only a few meetings of a few days each should be held per year, and that they be held in different cities, as the society is to be a national one.

The fact that papers on the subject of electro-chemistry are now scattered over a half dozen or more existing national societies was thought to be in itself a very good reason for bringing them all together into one, where they could then be properly discussed, which is not now the case. Attention was also called to the fact that the annual electro-chemical products of this country already amount to nearly \$100,000,000, which is far greater than in all the other countries combined. Germany, which comes next with \$14,000,000, has a flourishing electro-chemical society with about 40 members in the United States.

THE UNITED STATES NAVAL OBSERVATORY.

THE board of visitors of the U. S. Naval Observatory, consisting of Professors C. A. Young,

C. F. Chandler, Asaph Hall, Jr., E. C. Pickering and Ormond Stone and President W. R. Harper, have recently held a meeting and submitted a report to Secretary Long. Extracts from the report published in the *Washington Evening Star*, are as follows:

"It is recommended that no astronomical director be appointed at present, as a dual headship has been found to work unsatisfactorily, and under the existing law the appointment of an astronomer as sole director of the observatory—which the board considers the proper solution of the question—is impracticable. Vacancies should not be filled among assistant astronomers nor among professors of mathematics in the navy without examination for each vacancy occurring. No distinction should be made between employees of the observatory and other applicants. The responsibilities of the positions of assistant astronomer and professor of mathematics are distinctly different from those of computer, although much of the required experience may properly be gained in connection with the latter position and be credited in the examinations for the higher positions. As far as is consistent with the routine needs of the institution, the duties of the computers should be so arranged as to encourage them to prepare for advancement within the observatory itself. In no case should appointments be made to the observatory merely by transfer from other bureaus or offices in the service, nor should appointments ever be made even temporarily without competitive examination."

Applying these principles to practice the board declines to name a person to fill the vacant office of assistant astronomer at the observatory and instead recommends that the appointment be made after a civil service examination under the auspices of the commission.

Coming to the more important subject of the actual head of the observatory, which involves the issue between the scientists and the line officers, the board says:

"As every other prominent observatory is under the direction of an astronomer, we wish to record our deliberate and unanimous judgment that the laws limiting the superintend-