

of dust particles is not yet solved, but it seems certain that where these particles are present they are the effective cause of the precipitation.

METEOROLOGICAL CONDITIONS OF THE KLONDIKE REGION.

IN the 'Klondike Number' of the *National Geographic Magazine* (April) General Greely has collected, in a brief article, what little is known about the climatic conditions of the Klondike district. The observations of most interest are those made at Dawson between August, 1895, and November, 1896. From December 1, 1895, to February 1, 1896, the temperature fell below zero every day. It was below -40° on 28 days; below -50° on 14 days, and below -60° on 9 days. The January, 1896, mean was -40.7° and the February mean -35.4° . Bright weather is the rule in winter, and from October 1, 1895, to May 1, 1896, snow fell only on one day in seven. During June, July and August, 1896, the temperature rose above 70° on 29 days and above 80° on 3 days. July was the only month in which the minimum did not sink below freezing. In June it rained on 12 days. Observations at Fort Reliance, near Dawson, made in 1880-81, gave December, January and February means of -31° , -7° and -29° respectively. The thermometer registered between -40° and -66° on 35 days. Snow fell on but one day in February, and 25 days were perfectly clear.

CLIMATE AND COMMERCE.

THE control of the severe winter cold of Russia and Siberia over the commerce of those countries is well known, the blockading of their great ports by ice during the winter being one of the serious drawbacks in the development of their import and export trade. But now the ingenuity of man comes into play, and by means of huge steam rams it is found possible to keep open many of the important harbors throughout

the cold season. Vladivostok now has a steam ram which is effective in keeping open its harbor. In Finland the port of Hangö is also kept open by a steam ram, and Admiral Makarof, of the Russian navy, thinks it perfectly feasible to maintain communication, through the winter, between the sea and the port of St. Petersburg. The struggles of man to overcome the difficulties which nature, through climate, puts in his way are among the most interesting of his many activities.

RECENT PUBLICATION.

FRANK H. BIGELOW: *Abstract of a Report on Solar and Terrestrial Magnetism in their Relations to Meteorology*. U. S. Department of Agriculture, Weather Bureau, Bulletin No. 21. Washington, 1898. 8vo, pp. 176, Chs. 39.

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CURRENT NOTES ON ANTHROPOLOGY.

MEXICAN ARCHÆOLOGY.

IN the *Journal of American Folk-Lore* (Vol. X., No. 39), Mrs. Zelia Nuttall has an article on 'Ancient Mexican Superstitions' containing much information from early and scarce authorities relating to the beliefs current among the natives at the time of the conquest. Her conclusion is that most of the superstitions were simple and harmless and sprang from the same mental sources as those which prevail in civilized countries to-day.

A full description of the remarkable temple-pyramid of Tepoztlan, south of the City of Mexico, is published by Dr. Seler in *Globus* (Bd. 73, No. 8). It is illustrated with twenty-two engravings, plans and views, and contains the identification of a number of the hieroglyphic inscriptions. The gods to whom the temple was dedicated appear to have been those connected with agriculture.

THE SMITHSONIAN REPORT FOR 1895.

THIS report, which has just been issued, contains two lengthy articles of unusual value to the student of American anthropology.

The first is by Dr. Franz Boas, on 'The Social Organization and Secret Societies of the Kwakiutl Indians.' It covers 430 pages, is abundantly illustrated, and the material, personally collected by the author, is presented with care and accuracy. Many songs are given, with the original text, an interlinear translation and the accompanying music. It is a contribution of rare worth to our knowledge of aboriginal thought.

The second article, of 230 pages, is by Dr. Walter J. Hoffman, on 'The Graphic Art of the Eskimos.' This is a subject on which the author has been collecting for many years, and his descriptions seem to be exhaustive. The illustrations are abundant and beautiful, and the development and connections of the Eskimoan cultures are set forth with detail.

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NOTES ON INORGANIC CHEMISTRY.

THE *Chemical News* for April 1st contains a paper read by Professor Andrew Gray and Professor J. J. Dobbie before the Royal Society 'On the Connection between the Electrical Properties and the Chemical Composition of Glass.' Previous experiments had shown that resistance in flint glass was greater than in potash- and soda-lime glass. Two of the glasses in the present series were specially made flint glasses with very high content of lead. Previously a glass with 40.5% lead oxid showed specific resistance of $8,400 \times 10^{10}$ ohms. Of the new glasses, one with lead oxid 42.14% gave a resistance too high to measure, but certainly over $18,000 \times 10^{10}$ ohms at 130° , while one with 46.6% lead oxid gave above

$35,000 \times 10^{10}$ ohms at all temperatures to 135° . A barium crown glass, which was a borosilicate of barium and aluminum showed a specific resistance above $59,000 \times 10^{10}$ ohms up to 140° . A 'Jena' glass, which is essentially a borosilicate of zinc, sodium and magnesium, showed a resistance of 596.5×10^{10} at 43° and 0.2×10^{10} at 140° . This low resistance was to be anticipated from the high percentage of soda, but the very high resistance of the barium glass was unexpected, as this glass might have been supposed to resemble a lime glass rather than a lead glass. While it is possible this may be influenced by the boric acid present, it may also prove true that the resistance is rather affected by the high atomic weight of the barium. The 'Jena' glass showed very considerable polarization effects, and the same was true of the lead glass, while the barium glass showed little or no sign of polarization.

THE same number of the *Chemical News* contains an article by P. Truchot, taken from the *Revue générale des sciences* on the occurrence of thorite, monazite and zircon. The monazite in western North Carolina is richest in thorium and occurs in sands from a coarse mica rock. The monazite crystals are plainly seen disseminated in the rock. When the rock contains gold the monazite constitutes a very valuable by-product. Monazite is found in Idaho, where it is one of the original constituents of Idaho granite. Sands from the lakes of Idaho City have yielded, after washing, monazite sand containing 70% monazite. The European supply comes almost exclusively from the sea-shore sand in southern Bahia, Brazil. The sand is loaded directly and with very little expense on board ships. It contains 4 or 5 per cent. of thorium. Deposits of monazite are also found in Canada (Villeneuve mine, Ottawa), in several different States of Brazil, and in several other countries of South America. Zircon is