

watched the spouts carefully through the telescope of his theodolite, and obtained some definite measurements as to the height of the largest spout. According to his calculations the height above the sea of the top of the inverted cone was 5,014 ft. The cones at the top and bottom of the spout were about 100 ft. in diameter, and the length of each cone from its base to the points at which the sides of the spout appeared parallel was about 250 ft. Mr. H. C. Russell, the Government Astronomer of New South Wales, has published an admirable, illustrated account of this remarkable series of waterspouts, together with a record of previous waterspouts, and some observations as to the conditions under which these phenomena occur. (Journ. Roy. Soc., N.S.W., Vol. XXXII., 1898.)

ANNUAL REPORT OF THE CHIEF OF THE WEATHER BUREAU.

THE *Annual Report* of Professor Willis L. Moore, Chief of the Weather Bureau, emphasizes once again the wide scope of the work of the Bureau and the value of this work to the public at large. The extension of the meteorological service to include observations at various stations in the West Indies, Mexico and Colombia has already been referred to in these Notes. The observations made during the International Cloud Year are under discussion and will soon be published. The total number of forecasts distributed during the year, exclusive of those published in the daily papers, was, approximately, 23,531,500. Sixty-four per cent. of this distribution was by logotype cards, sent through the mail or carried by messengers; 23% by maps and bulletins; 10% through cooperation of railroad, telegraph and telephone lines; 3% by telegraph and telephone lines at the expense of the Bureau. Weather maps to the number of 5,239,800 were distributed. A section of the Climate and Crop Service has been established in Alaska. A meteorological chart of the Great Lakes has been issued monthly during the season of navigation.

METEOROLOGICAL CHART OF THE GREAT LAKES.

THE *Meteorological Chart of the Great Lakes*, dated January 4th, contains a summary, for the year 1898, of the storms on the Lakes, the

number of disasters and of lives lost, the values of the vessels lost, and the causes of the disasters. Thirty-nine vessels were totally lost, all as the result of gales. Of the partial losses (104), 22 were due to fog and 82 to gales. The number of lives lost was 96. The relative frequency of fog over the Lakes during the season of navigation (April 1st to December 15th) is shown by five different styles of shading.

NOTES.

A NOTABLE work on the physiological effects of high altitudes has recently been issued. It is an English translation—entitled ‘Life of Man on the High Alps’ (London, 1898)—of a book originally written in Italian by Professor Angelo Mosso, of Turin. According to *Nature* (January 26th) this “is the first attempt that has been made to present the various complex physiological phenomena which man exhibits at high altitudes in such a form as to be easily understood by those who are not trained physiologists.”

IN his Presidential address before the Royal Meteorological Society on January 18th, Mr. F. C. Bayard stated that in the British Isles only two shillings and sixpence per square mile is voted by the government for the support of meteorology. This amounts to one-third of a farthing per head.

R. DEC. WARD.

HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

MEGALITHIC MONUMENTS.

AT the last meeting of the German Anthropological Society, Professor Virchow delivered a long and elaborate address on the ‘megalithic monuments’ of Europe. He rejected all theories so far advanced as to their builders, and left it as a question for the future to settle.

Mr. W. C. Borlase, probably the best authority on the subject, is the author of a work in three volumes on ‘The Dolmens of Ireland.’ His descriptions are excellent, but in his search for their constructors he loses himself in the maze of Irish legendary lore, and falls into the common error of supposing that because the same stories are told and the same superstitious practices obtain concerning these monuments in Ireland, Spain, France and Germany there must have been relations and borrowing. This

mistake in his reasoning is well pointed out by Mr. Alfred Nutt in a review of the work in the *Folklore Journal* (March, 1898). Identity of psychology, he justly insists, is the true explanation.

THE MEANING OF PRIMITIVE ORNAMENT.

ON few questions in ethnology is there wider diversity of opinion than about the intention of primitive decoration. Does it arise from a mere love of imitation, without further idea? Is it mystical and symbolic, in some way an expression of the religious sentiments? Is it due to utilitarian aims, a sort of graphic method? Or is it the expression of the sense of the beautiful, genuinely artistic?

Each of these opinions has its defenders. In the *Internat. Archiv für Ethnographie* (1898, Heft II.) Van Panhuys caustically reviews the question, and concludes with the pertinent inquiries: Cannot the same decorative designs arise among peoples who have had no relations with each other? Why must the meaning or origin of these designs be everywhere the same? These are, indeed, pointed and pertinent interrogatories and hint at the true solution of the inquiry.

GENEALOGY AS A BRANCH OF ANTHROPOLOGY.

IN his opening address before the last meeting of the German Anthropological Society, Professor Johannes Ranke emphasized the value of genealogical investigation as an aid to anthropology. By it we learn the facts of heredity, the influence of kinship, the consequences of intermarriage of relations, the permanence or variation in family traits, psychical and physiological peculiarities and their transmission, the tendency to reversion of types, the effect on the children of marriages at different ages, and many more points of very great interest.

For genealogy, however, to be thus promoted to the dignity of a science it is necessary that those who cultivate it should be willing to tell the truth about the family trees in which they are interested; and in America, notably in Philadelphia, they are yet a long way off from taking this position.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

SCIENTIFIC NOTES AND NEWS.

THE Berlin Academy of Sciences has conferred its Helmholtz medal on Professor Virchow. It was established on Helmholtz's birthday in 1892, and has since been conferred on Du Bois-Reymond, Weierstrass and Lord Kelvin.

DR. ROUX, of the Pasteur Institute, has been elected a member of the Agricultural Section of the Paris Academy of Sciences, in the room of the late M. Aimé Girard. M. Risler, Director of the Agricultural Institute, received fourteen votes, and M. Maquenne, professor of the applications of physics to agriculture in the Paris Museum, received two votes, as compared with forty-one for M. Roux.

AT the last meeting of the British Institution of Electrical Engineers, Lord Kelvin was elected an honorary member. Lord Kelvin is the oldest surviving past President of the Institution, having held the office of President in 1874.

THE Hungarian Society of Natural History has elected M. de Freycinet a corresponding member, and has translated into Hungarian his essay, 'Sur la philosophie des sciences.' This translation is distributed among the members of the Society, which, we are glad to learn, number 8,000.

INVITATIONS have been issued for the celebration, at Cambridge, of the jubilee of Professor Sir George Gabriel Stokes, to the plans for which we recently called attention. Sir George Stokes was elected Lucasian professor of mathematics on October 23, 1849. The ceremonies will take place on June 1st and 2nd of the present year.

M. PICARD, Commissioner-General of the Paris Exposition of 1900, has been elected an honorary member of the British Institution of Civil Engineers.

PROFESSOR E. B. WILSON, of Columbia University, after visiting the Naples Zoological Station, has gone to Egypt, and is endeavoring to follow up the work of Messrs. Hunt and Harrington in pursuit of the life-history of *Polypterus*.

THE Berlin Academy of Sciences, with the assistance of the Heckmann-Wentzel foundation, has undertaken to explore Lake Nyassa and the