CURRENT NOTES ON METEOROLOGY.

METEOROLOGY OF THE NILE BASIN.

A VALUABLE report on 'The Physiography of the River Nile and its Basin' (1906, 4to, pp. 411), by Captain H. G. Lyons, Director-General of the Survey Department of Egypt, shows how rapidly our knowledge of the physiographical and meteorological conditions of northern Africa is being enlarged. This volume, of over four hundred pages, illustrated by means of nearly fifty charts, diagrams and maps of various kinds, is very effective evidence of the energy and ability of the present chief of the Egyptian Survey Department. A second smaller publication, 'The Rains of the Nile Basin in 1905' (Cairo, 1906, pp. 40, pls. IX.), deals with the rainfall of one year. It includes monthly rainfall maps, and some interesting diagrams of Lake Victoria levels; of gauge readings for Lake Albert, Bahr el Ghazal, White Nile, Blue Nile, Atbara and Nile, and also an instructive comparative diagram of Nile floods. Much popular interest has always been excited by the famous Nile overflows. With each succeeding year the factors concerned in these overflows are more carefully worked out and more thoroughly understood.

COLD WAVES IN THE UNITED STATES.

BULLETIN P of the Weather Bureau, by Professor E. B. Garriott, deals with 'Cold Waves and Frost in the United States' (1906, 4to, pp. 22, charts 328), and is a very useful collection of charts which teachers will be able to put into the hands of classes in meteorology. In the text there is a chronological account of historical cold periods in the United States, and a summary and classification of the more important cold waves and frosts in the period 1888–1902, inclusive. A considerable body of material is here collected, in very convenient form for study, and it is to be hoped that some competent person who has the necessary time at his disposal will give these charts the attention which they merit, and will deduce from them various important conclusions which have not yet been reached concerning both cold waves and frosts.

CLIMATE OF ALASKA.

A REPORT on 'The Climate of Alaska,' by Cleveland Abbe, Jr., forming part of a recent publication on the geology and physiography of that territory, appears separately as an extract from *Professional Paper No. 45,* U. S. Geological Survey, pp. 133–200. The available records have been carefully studied and summarized, and although the conditions of observation were in many cases not all that could be desired, so far as accuracy, exposure of instruments and regularity are concerned, yet this volume presents a valuable body of information which was much needed in many quarters. The discussion in the text is clear and concise. The tabulations are well arranged and in several cases unusually complete. And there is a satisfactory recognition of the human relations which is all too rarely found in climatic reports.

COLORADO COLLEGE OBSERVATORY.

THE semi-annual *Bulletin* of the Colorado College Observatory (June, 1906) contains the meteorological statistics, with an introductory explanation, by Professor F. H. Loud, the director; 'Colorado Springs Weather Records,' by Chester M. Angell, being a table of meteorological statistics for 1872–1903, and a second paper on the 'Evolution of the Snow Crystal,' by J. C. Shedd.

NOTES.

AT a meeting of the Scottish Meteorological Society held on July 12, 1906, a paper by Dr. Alexander Paterson, of Hebron, Syria, was read, in which, on the basis of ten years' recent observations at that station, it was held that the climate is now much the same as the scriptures show it to have been 3,000 years ago.

THE Fourteenth Report of the *Sonnblick-Verein* (1905) contains an account of the observatory Reina Margherita on Monte Rosa, with a view of the royal party, including Queen Margherita, on its ascent of the Gnifettispitze.

THOSE who wish to keep up with the progress that is being made in kite meteorology will need to consult 'The Vertical Temperature Gradients on the West Coast of Scotland and

at Oxshott, Surrey,' by W. H. Dines (*Proc. Roy. Soc.*, Vol. 77, 1906, 440–458). This work was done under a grant from the British government and from the British Association.

R. DeC. Ward.

RESEARCH LABORATORY OF PHYSICAL CHEMISTRY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

The Research Laboratory of Physical Chemistry has opened with a staff consisting of seven research associates and four research assistants. The new members of the staff are Herbert T. Kalmus, M. I. T. '04, Ph.D. (Zurich), Ledyard W. Sargent, A.M. (Harvard), E. B. Spear, A.B., Manitoba, and Fred C. Mabee, A.M. (McMaster University). In addition, researches are being pursued in the laboratory by five candidates for the degree of Doctor of Philosophy and one candidate for that of Master of Science. All the members of last year's staff remain.

To one of the research workers, Mr. Richard C. Tolman, a grant of three hundred dollars has been made during the summer from the C. M. Warren Fund of the American Academy of Arts and Sciences, to enable him to construct what will probably be the most powerful centrifugal machine ever made for experimental purposes, to be used in connection with an investigation of the electromotive force produced at the two ends of a rapidly rotating solution of any ionized substance. A grant of three hundred dollars from the Rumford Fund of the American Academy has also been made to Professor A. A. Noyes, which is to be used for the construction of a calorimeter adapted to direct thermochemical measurement with solutions up to 100°.

A gift has just been made to the laboratory of a large diamond valued at three hundred and fifty dollars by the Ansonia Brass and Copper Company. This is to be used in insulating the electrode within the bomb used in the conductivity investigations at high temperatures, and will entirely eliminate the error due to contamination which has been involved in the previous work where it was necessary to use quartz insulators.

A series of twelve articles on the electrical conductivity of aqueous solutions, describing the investigations on this subject made during the last three years in the laboratory, is in process of publication by the Carnegie Institution at Washington. A large part of a revised scheme of qualitative analysis for the common elements, which has been worked out during the past year by A. A. Noyes and W. C. Bray, has just appeared in the September number of the *Technology Quarterly*.

THE PERKIN LIBRARY.

Professor Chandler, who presided at the Perkin Jubilee banquet in New York, made the following statement with regard to the proposed Perkin library:

In order to honor the name of our distinguished guest for all time, it is proposed by the committee of 150 chemists and other prominent citizens who have organized this jubilee celebration, to establish in New York City a complete chemical library in duplicate; one set of books to constitute a permanent reference library always available for any one who wishes to consult it at the home of the Chemists Club, and one set equally complete for circulation throughout the country among the members of the chemical profession.

It can be truly stated that there is not a complete chemical library in the United States. Several of our larger universities have fair libraries, but each one of them lacks something that the searcher is sure to want. Moreover, these libraries are not accessible to many of the chemists. There are now about 8,000 professional chemists in the United States—teachers in our universities, colleges and high schools; professional consulting chemists and chemists in manufacturing establishments, water works, experiment stations, etc. Very few of them have access to even a respectable chemical library.

It is proposed that the circulating library shall be cared for by two or more thoroughly educated chemists to whom any chemist in the United States may apply for information on any chemical subject. The chemists in charge will keep reference lists of the best books and