

continuation of the high water of 1904, although this will probably rank as a season of relatively high water, especially on the upper lakes.

'The Diurnal Periods of the Temperature,' by Professor F. H. Bigelow. One of Professor Bigelow's studies on the diurnal periods in the lower strata of the atmosphere, in which he undertakes a critical discussion of the results obtained from balloon and kite ascensions during the past ten years.

'Mathematical Theory of Ice Formation,' by S. T. Tamura. A highly mathematical paper, summarizing what has been done along this line by mathematical physicists and also suggesting new lines of investigation.

'The Fourth International Conference on Aerial Research,' being an account of the meeting in St. Petersburg in September, 1904.

'The *Meteorologia Generale* of Luigi de Marchi.' A review of de Marchi's recent book, which is really a short treatise on physical meteorology.

## NOTES.

It is interesting to note the receipt of the First Report of the Transvaal Meteorological Department, containing the observations for July, 1903, to June, 1904, inclusive.

HARROW, as reported in the London *Standard* of June 8, 'has been alone among the public schools in the non-registration and in the non-publication of an annual series of weather observations.' Recently a full equipment of meteorological apparatus, as well as a meteorological library, have been presented to the school. This should serve as an incentive to persons in the United States, where, in spite of much that is encouraging in the situation as regard meteorological instruction, there is still a great deal that needs attention.

DR. W. J. S. LOCKYER, who has been paying special attention to the relation between solar changes and weather, has recently said (*Nature*, June 8, 1905), in a summary of recent work along these lines: 'There is \* \* \* no reason why we should take a pessimistic view of the attempts made to solve this fascinating riddle of the relationship between changes of solar activity and the vagaries of the weather.'

In the *Meteorologische Zeitschrift*, No. 4, 1905, O. V. Johansson has a paper entitled 'Ueber den Zusammenhang der meteorologischen Erscheinungen mit Sonnenfleckenperioden.'

*Ciel et Terre*, Vol. 26, 1905, No. 5, publishes a useful tabular summary of the temperatures (mean monthly) observed during recent Antarctic expeditions. This is the first summary of the kind which we have seen. It is accompanied by some notes on meteorological phenomena observed during these different expeditions.

The preparation of an index of weather maps illustrating typical conditions, as an aid in forecasting, is discussed by Captain W. Kesslitz in the *Meteorologische Zeitschrift*, 1905, No. 4.

THE actinometrical observations made by A. Hansky, on Mont Blanc, during 1900, are p. 422. Crova apparatus was employed. The value of 3.29 for the solar constant is given as probably the most accurate, on the basis of these observations.

R. DEC. WARD.

## SCIENTIFIC NOTES AND NEWS.

DR. NICHOLAS MURRAY BUTLER, president of Columbia University, has received the doctorate of letters from Oxford University and the doctorate of laws from the University of Manchester. While in London Dr. Butler has been entertained by the chairman of the London County Council, the principal of London University, and at a banquet presided over by the minister of education.

THE University of Edinburgh has conferred its honorary doctorate of laws on Professor W. S. Halsted, surgeon in chief of the Johns Hopkins University of Baltimore; Professor I. H. Cameron, of Toronto; Professor Francis J. Shepherd, of Montreal, and Professor W. W. Keen, the Philadelphia surgeon, all of whom are attending the celebration of the quarter-century of the Royal College of Surgeons.

LORD KELVIN and Sir William Christie have been elected honorary members of the Optical Society.

THE Society of Chemical Industry held its annual dinner in London on July 12, Dr. William H. Nichols, of New York City, presiding. Speeches were made by Lord Alverstone, Professor C. F. Chandler, of Columbia University, Sir William Huggins and others. Among the Americans present were Dr. H. W. Wiley, of the U. S. Department of Agriculture, and Professor Charles Baskerville, of the College of the City of New York.

MR. JOHN HYDE, chief of the Bureau of Statistics of the Department of Agriculture, has resigned. In his letter accepting the resignation, Secretary Wilson said: "I am familiar with your devotion to your work and with the untiring efforts you have made to render the bureau of the highest service to growers, manufacturers and consumers of farm products in our country, and I regret that failing health should compel you to bring your work to an end."

THE Baly gold medal of the London College of Physicians, which is awarded every second year for the most distinguished work in physiology, has been conferred on Professor Pavlov, of St. Petersburg.

THE Mary Kingsley medal of the Liverpool School of Tropical Medicine has been awarded to Dr. Laveran, of the Pasteur Institute, Sir Patrick Manson, F.R.S., and Sir D. Bruce, F.R.S.

LONDON UNIVERSITY has awarded the Rogers prize of £100 to Mr. B. J. Collingwood, M.B., B.C., for his essay on 'Anesthetics, their Physiological and Clinical Action.' The essay submitted by Dr. A. G. Levy, M.D., was highly commended, and the senate awarded him an honorarium of £50.

DR. FRED NEUFELD, assistant in the Berlin Institute for Contagious Diseases, has been given the title of professor.

DR. BARTON W. EVERMANN, chief of the Division of Scientific Inquiry and ichthyologist of the U. S. Bureau of Fisheries, has been appointed curator of the Division of Fisheries, U. S. National Museum. He still retains his connection with the Bureau of Fisheries.

THE commencement address of the Case School of Applied Science, at Cleveland, was delivered by Dr. George T. Moore, of the Department of Agriculture, upon 'The Creation and Development of Plant Industries by the Government.'

IT is proposed to collect a fund in memory of the late Professor G. B. Howes, F.R.S., professor of zoology in the Royal College of Science, London, the fund to be used to purchase an annuity for his widow and daughter. Americans who wish to join in this memorial may send subscriptions to Mr. Frank Crist, 17 Throgmorton Avenue, London, E. C.

A CORRESPONDENT writes to *The Nation*: "I have been watching for some notice in the *Nation* of the death of Dr. Washington Matthews. Among American ethnologists he ranked not lower than second. Without the horizon of genius to put him on a par with Bandelier, he had a distinction all his own. In all American history, no other one man has known so intimately much about any aboriginal tribe as Matthews did. His studies of the Navajo are the most exhaustive thing of their sort in all our anthropology. He was an extremely modest man, without the gift of popularity, either in his writings or in his intercourse. Of an extremely sweet and unselfish disposition, and much beloved by those who knew him, there was not a bit in him of self-seeking or pushing to the front. He accepted, with a whimsical patience, but with his eyes open, his latter-day function as the original source from which a hundred 'popularizers' built up notoriety for themselves, without credit to him. He was a real martyr—using that abused word without abuse—both to his duty as an army surgeon and his duty as a scientist; and the great mass of accurate and intimate research that he has left to us will always remain among the chiefs of the corner in our scientific edifice."

SIR WILLIAM MUIR, principal of the University of Edinburgh from 1885 to 1903, died on July 11, at the age of eighty-six years.

DR. THEODOR CLEVE, professor of chemistry at Upsala, died on June 18.

DR. JOHANN HERMENEK, professor of hydro-mechanics at the Vienna School of Technology, died on June 15, at the age of forty-one years.

THE U. S. cruiser *Minneapolis*, conveying Rear-Admiral Chester, superintendent of the Naval Observatory, and the other members of the American expedition which will observe the eclipse of the sun at Bona, Algeria, and Valencia, Spain, on August 29, which sailed from New York on July 3, arrived at Gibraltar on July 15. The auxiliary cruiser *Dixie* and the supply steamer *Cæsar*, having on board the instruments and materials for the observation stations, have also reached Gibraltar.

THE French Association for the Advancement of Science will meet during next week at Cherbourg.

THE Royal Institute of Public Health announces that a congress on that subject will be held in London from July 19 to 23, and that papers will be read on discussion held under the various sections of (A) preventive medicine, (B) municipal administration of the Education Acts, (C) child study and school hygiene, (D) engineering and building construction, (E) bacteriology and chemistry, (F) veterinary hygiene, (G) tropical hygiene, and (H) naval and military hygiene.

THE American Medical Association, at its recent Portland meeting, adopted a resolution drawn up by Dr. Liston H. Montgomery, of Chicago, advocating the creation of a new cabinet position to be known as the Department of Public Health, the secretary of which is to rank with other cabinet officers.

THE French minister of public instruction has proposed a grant of 35,000 francs to enlarge the meteorological observatory on Puy de Dôme.

*Nature* states that it learns from the Royal Society that as an adjunct to the International Laboratory of Physiology on Monte Rosa a lower laboratory, with a hostel, has been established at Col d'Olen. This lower laboratory is mainly intended for biological research, but it is understood that provision

has also been made for the study of terrestrial physics and meteorology. The Royal Society has the permanent nomination to two posts, each of which includes a living room in the hostel, a bench in the laboratory and the use of apparatus; but the expenses of living and of special researches must be borne by the investigators. The laboratory is especially connected with the University of Turin, but is under the immediate direction of a committee.

IN connection with the International Exposition to be held this year at Liège, Belgium, under the patronage of the Belgian government, there will be a second session of the International Congress of Agricultural Education on July 28 and 29.

A REUTER telegram from Paris says: The International Congress on Colonial Agriculture was opened on June 22, Great Britain, Holland, Germany, Italy, Portugal, the United States, Mexico and Brazil being represented. Various papers were read, including one by Mr. Webster, one of the British delegates, on the cultivation of tea in Ceylon. The members of the congress decided to form an international committee for the study of all questions relating to agricultural science and colonial industries. An organizing committee, with headquarters in Paris, under the chairmanship of M. de Lanessan, has been formed. In the afternoon the foreign delegates were received by the municipality at the Hotel de Ville, where a luncheon was given in their honor.

*The Journal of the American Medical Association* says: At a banquet in aid of the funds of the London School of Tropical Medicine, at which \$50,000 was subscribed, Sir Patrick Manson gave a lucid account of the work of the school and sketched a plan for systematic and coordinated research in tropical disease centers. This consists in the establishment of colonial research laboratories in places where they are likely to achieve profitable results. Already three such laboratories have been established—in Ceylon, at Kuala Lumpur, in the federated Malay states, and in Hongkong. Sir Patrick Manson suggested

that one such laboratory should be established for every group of crown colonies, the director to be in organic relation with the London school, but with a free hand to take up any special line of investigation in tropical diseases. The directors of these laboratories should be educated in their special work at the London School of Tropical Medicine; East Africa, Uganda and British Central Africa might form one group, the West Coast of Africa another, the West Indies and British Guiana a third, Fiji and the Pacific islands a fourth. Thus there would be seven laboratories affiliated with the London School of Tropical Medicine. Sir Patrick Manson also emphasized the importance of educating the natives in tropical hygiene. He suggested that tuition in the rudiments of the subject should be included in the curriculum of colonial government schools, so that when the child grows up he may be willing to submit to sanitary measures. Without the cooperation of the natives it is hopeless to try to get any scheme, however good, carried out. A necessary preliminary is the preparation of primers for the instruction of school teachers who in turn would teach children.

THE British postmaster-general has issued a notice that reads as follows: The attention of the postmaster-general has been drawn to the fact that pathological specimens are frequently sent by post by members of the medical profession and other persons in packets which have not been registered as required by the post office regulations. The postmaster-general desires to give notice that the transmission of such specimens is sanctioned only on the condition that they are handed in at a post office for transmission by registered letter post, and that they are packed in accordance with the regulations published in the Post Office Guide. These regulations, which are necessary for the protection of the post office servants and of the public, provide that any deleterious liquid or substance sent by post must be enclosed in a receptacle hermetically sealed, which receptacle must itself be placed in a strong wooden, leathern, or metal case, in such a way that it can not shift about, and

with a sufficient quantity of some absorbent material (such as sawdust or cottonwool) so packed about the receptacle as absolutely to prevent any possible leakage from the packet in the event of damage to the receptacle. The packet must also be marked 'Fragile with care.' Any person who sends by post a deleterious liquid or substance for medical examination or analysis otherwise than as provided by these regulations is liable to prosecution, even if he be a patient sending something to his medical adviser for his opinion or a medical practitioner sending something to a laboratory or elsewhere.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE British government will allocate £20,000 a year to the new College of Technology at South Kensington out of the treasury subsidy for the maintenance of the Royal College of Science and the School of Mines.

*The University Review* gives the following figures in regard to the Carnegie Trust for 1904: The trustees during the year had for distribution as grants to the universities and for the endowment of research £59,201. In addition, the income of the trust included £50,000 to be utilized in the payment of the class fees of students who applied to the trust and satisfied the necessary conditions. For this purpose £46,000 was distributed. The figures show that out of every hundred students 72 at Aberdeen received fees from the trust, 70 at St. Andrews, 50 at Glasgow and 39 at Edinburgh. To the general funds of the Scottish universities over £38,000 was granted, and £5,000 was distributed for the encouragement of research at the universities.

DR. H. W. STUART, of Lake Forest University, has been promoted to the chair of philosophy, vacant through the resignation of Professor Walter Smith on account of ill health.

DR. W. G. ADAMS, F.R.S., professor of natural philosophy and astronomy at King's College, London, is about to retire after a service of forty-two years.

PROFESSOR STEPHEN M. DIXON, of Dalhousie College, Nova Scotia, has been appointed professor of civil engineering at Birmingham.