

chief towns of Kelantan and Trengganu, proceeded by steamer to Penang, whence Mr. Evans paid a visit to Pulau and Bidan, Messrs. Yapp and Laidlaw ascending Gunong Inas. Mr. Skeat proceeded to Kedah to study the aboriginal Jungle-tribes of the interior.

It is understood that the expedition has been eminently successful, and has brought back very extensive zoological, botanical, and ethnological collections. The results obtained should be of value for purposes of comparison with the results of the recent successful Cambridge Anthropological Expedition of Dr. Haddon to the Torres Straits, Sarawak, and New Guinea.

The party was under the leadership of Mr. Skeat, of Christ's College, Cambridge, and comprised Messrs. Evans and Annandale, of Oxford, and Messrs. Yapp, Laidlaw, and Gwynne-Vaughan, of Cambridge.

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*SCIENTIFIC NOTES AND NEWS.*

MR. O. H. TITTMANN will succeed to the superintendency of the United States Coast and Geodetic Survey, filling the vacancy caused by Dr. H. S. Pritchett's election to the presidency of Massachusetts Institute of Technology.

LORD RAYLEIGH has been appointed by the British Government chairman of a committee which is to investigate gunpowders and designs of guns with which they may be used to the best advantage.

DR. ED. SUESS, professor of geology in the University of Vienna, has been elected a foreign associate of the Paris Academy of Sciences in the place vacant by the death of Sir Edward Frankland, and Sir John Burdon-Sanderson a correspondent in the place of the late Sir James Paget.

DR. S. L. TORNQUIST, of Lund, has been elected a foreign member, and Professor F. Sacco, of Turin, a foreign correspondent, of the Geological Society of London.

THE Paris Academy of Medicine has elected Professor Röntgen, of Munich, a foreign associate.

PROFESSOR W. C. BRÖGGER, of the University of Christiania, at the invitation of the University of Chicago, delivered in Chicago his lec-

tures on the 'Principles of a Genetic Classification of Igneous Rocks,' recently delivered at the Johns Hopkins University. The lectures were attended by geologists from Illinois, Michigan, Wisconsin and Minnesota.

MR. CECIL B. CRAMPTON, assistant in the museum at Owen's College, Manchester, has been appointed an assistant geologist on the Geological Survey of Scotland.

COLUMBIA UNIVERSITY will confer its LL.D. on President Arthur T. Hadley, of Yale University, on Lord Pauncefoot, the ambassador of Great Britain, and on Mr. Thomas B. Reed, late speaker of the House of Representatives.

PROFESSOR JACOB E. REIGHARD, professor of zoology in the University of Michigan, will deliver the address at the dedication of the new museum building of Alma College, Alma, Mich., on June 27th.

DR. WALTER J. SWINGLE, agricultural explorer for the United States Department of Agriculture is in Algeria. He is about to forward date palms to Arizona, in order that they may be tested there.

THE prizes offered by the National Geographical Society for the best essays on Norse discoveries in America have been awarded to Mr. Charles B. Dalton, of New York City, and Mr. K. F. Murray, of Norfolk, Va.

GENERAL W. A. GREELY, Chief Signal Service Officer, has given directions for the establishment of stations for wireless telegraphy in the harbor of San Francisco, in Porto Rico and the Philippines.

THE death is announced at the age of 87 years of M. Ravaisson Mollien, formerly professor of philosophy at Rennes, inspector general in the Department of Higher Education and curator in the Department of Antiquities at the Louvre. He was the author of many works on philosophy and æsthetics. The death is also announced of M. Hippolyte Stupuy, at the age of seventy years. He was curator of the artistic collections of the City of Paris and the author of works on philosophy and of a biography of the mathematician, Sophie Germain.

A DONOR, who wishes not to have his name mentioned, has presented to the American Mu-

seum of Natural History the collection exhibited by Messrs. Tiffany & Co. at the Paris Exposition, consisting of American and foreign cut and uncut precious stones and other objects. The value of the gift is over \$50,000.

WE learn from *Nature* that by the will of the late Mr. G. J. Symons, F.R.S., a valuable bequest is made to the Royal Meteorological Society. He bequeathed to the Society all his books, pamphlets, maps and photographs, a copy of which is not already in its library. He also bequeathed the testimonial album presented to him by the Fellows of the Society in 1879 and the sum of 200*l*.

THE Brooklyn Institute of Arts and Sciences has received from an anonymous friend \$5000, to be added to the endowment fund of the Institute.

WALTER S. DICKSON, of Salem, Mass., has bequeathed \$10,000 and a fifth of his residuary estate to the public library of that city and \$10,000 conditionally to the Essex Institute. John Curtis has bequeathed \$15,000 for a public library building at Hanover, Mass. The Hon. E. J. Lawrence has offered to give \$8000 for a library building at Fairfield, Me.

THE British Iron and Steel Institute held its annual meeting at London on May 9th and 10th. Mr. Carnegie announced his intention of founding a scholarship in connection with the Institute for the advancement of research in connection with iron and steel.

THE anniversary meeting of the Royal Geographical Society was held on May 21st. In accordance with the arrangements we have already in part announced, the Founder's medal was awarded to Captain H. H. P. Deasy, for the exploring and survey work which he has accomplished in Central Asia during two expeditions lasting three years altogether. The Patron's medal was awarded to Mr. James McCarthy, for his great services to geographical science in exploring all parts of the kingdom of Siam, for his laborious work during 12 years in collecting materials for a map to form the basis of a survey system, and for his admirable map of Siam just completed. The Murchison award for 1900 was made to M. H. Arctowski, for his work on the Belgian Antarctic expedition. The

Gill memorial for 1900 was awarded to Mr. Vaughan Cornish, for his researches on sea-beaches, sand-dunes, and on wave-forms in water. The Back grant for 1900 was awarded to Mr. Robert Codrington, for his journeys in the region between Lakes Nyasa and Tanganyika, during which he removed a section containing the inscription from the tree under which Livingstone's heart was buried. The Cuthbert Peek grant for 1900 was awarded to Mr. T. J. Alldridge, for his journeys in the interior of Sierra Leone. The president, Sir Clements Markham, said in the course of his address that £30,000 was still required for the Antarctic Expedition, but that the keel of their exploring ship had been laid at Dundee.

THE New York State Museum will conduct during the summer a station on Lake Saranac for the study of aquatic insects. It will be under the direction of Dr. Charles Needham.

THE University of the State of Missouri is to send an entomological expedition into southern Mexico this summer. It will be in charge of Professor J. M. Stedman, head of the Entomological Department, and will have for its object the making of a biological, largely entomological, survey of the region from Vera Cruz on the Gulf, which is in perpetual tropics, to the top of the volcano Popocatepetl, which is far above the perpetual snow line, and down to Acapulco on the Pacific. This will give all the temperature variations from perpetual tropics to perpetual snow, and will allow of the study of life zones under conditions not to be found elsewhere in North America. The collection will become the property of the University, which is to furnish half the expenses, the other half to be borne by Professor Stedman.

M. A. CARLETON, of the Division of Vegetable Physiology and Pathology, U. S. Department of Agriculture, is now in Paris installing the exhibit illustrating cereal production in the United States. Early in June Mr. Carleton will visit Russia for the purpose of collecting new varieties of cereals for introduction into the United States.

MR. ALBERT F. WOODS, of the Division of Vegetable Physiology and Pathology, U. S. Department of Agriculture, has prepared an ex-

tensive paper on a disease of carnations which hitherto has been known under the name 'bacteriosis.' Mr. Woods's studies, which have been carried on for several years, seem to prove conclusively that the disease is due to the punctures of insects, principally aphides, and thrips. For this reason he suggests the name 'stigmomose' for the malady. The paper is illustrated by plates and text figures and will be ready for distribution early in June.

THE work on tobacco inaugurated last year by the Division of Vegetable Physiology and Pathology, U. S. Department of Agriculture, is being continued. The work is in charge of Dr. Oscar Loew, and has for its principal object the study of fermentation of the tobacco leaf. Some important results bearing on the changes which take place in the fermentation of the leaf have already been obtained. A paper giving the results of the work in detail will soon be published by the Department.

THE second annual meeting of the Astronomical and Astrophysical Society of America (Fourth Conference of Astronomers and Astrophysicists) will be held in conjunction with the meeting of the American Association at Columbia University beginning on June 26th. In addition to papers which may be presented to the Society, arrangements are being made for a series of open discussions upon the following topics: The Eclipse of May 28, 1900; Observations of Eros to be made at the next Opposition; Spectroscopic Determinations of Motion in the Line of Sight.

ANNOUNCEMENT is also made of the meeting of the American Forestry Association at the same time and place. It is expected that the Hon. James Wilson, Secretary of Agriculture will preside at the sessions.

THE Millinery Merchants' Protective Association which, it is said, controls ninety per cent. of the millinery trade of the country, has proposed to the various Audubon Societies to cease killing or buying any North American birds, except such as are edible and killed in their season, if the societies will undertake not to interfere with the use of these birds or with skins imported from countries not in North America.

THE British Ornithologists' Union has passed the following resolution: "That any member of the union directly or indirectly responsible for the destruction of nests, eggs, young or parent birds of any species mentioned below should be visited with the severest censure of the Union and Club." The birds referred to are the chough, golden oriole, hoopoe, osprey, kite, white-tailed eagle, honey buzzard, common buzzard, bittern, and ruff.

A DISPATCH from Bombay, reports that an unprecedentedly severe epidemic of cholera has broken out in the northern districts of Bombay Presidency, especially in the famine camps, and that the deaths had increased 40 per cent. within three days. In the Kaira District there have been 330 deaths in seven days. The government has made a special grant of £1000 to cremate the dead immediately. In Plampur State on the first day there was one death, on the second there were eighty-four, and on the third there were upwards of four hundred.

THE *Scientific American* states that progress is being made in regard to the introduction of the metric system in Russia. The bill which has been prepared by the Minister of Finance has received the approbation of the State Council, with the understanding that the University and the various scientific societies will give their assistance in the verification of the weights and measures necessary for commercial use. The details have been nearly all decided upon, and will be submitted to the Council in the near future. Since 1896 the metric system has been used by the medical service of the army in the compounding of formulas, this having been made obligatory.

THE next meeting of the International Committee of Weights and Measures will be held at Paris on September 10th of the present year.

THE committee of the Liverpool School of Tropical Diseases have decided to dispatch at an early date an expedition to the Amazon to investigate yellow fever. This is the third expedition organized by the school within the last nine months. It will probably in the first instance proceed to Baltimore to confer with the yellow fever experts at the Johns Hopkin

University, afterwards going to Para and other places on the South American coast.

THE London correspondent of the N. Y. *Evening Post* reports interesting discoveries of the Hellenic Society in the Palace of Minos at Knossos, near Candia in Crete. On the west of the palace was found a long series of stone galleries with immense decorated oil jars in position and stone receptacles for oil under the floors. A great plaster bull in relief, of artistic excellence for that period, has come to light, and the lower part of a fresco showing a long procession of white-footed ladies in richly embroidered garments and red-footed men semi-nude. In other realistic frescoes of ladies the colors are well preserved. A magnificent set of vases in marble, steatite, and other stones also has been collected, the finest being in the form of a mastiff's head of Parian marble. Clay vases unearthed include a set of perfect vases of the peculiar fantastic and highly colored style which preceded the Mycenæan in Crete. This remarkable ware was only known previously from a few fragments. There are also many remains of a stone age settlement, black geometric pottery, and stone weapons. This completes the series of objects representing the history of Crete from the stone age to about the seventh century B. C. They are said to revolutionize ideas about pre-Hellenic civilization in the Ægean, but the most important fact is the constant evidence of influence from intercourse with the Egypt of the eighteenth and subsequent Pharaonic dynasties.

MR. CHARLES ADAMS, the editor of the *Verulam Review*, an anti-vivisection journal, brought suit against the British Medical Association for damages owing to a statement in regard to him in the *Journal* of the Association. Although Mr. Adams's counsel alleged on his behalf that he was 'an old gentleman and was irritable' the jury did not hesitate to bring in a verdict in favor of the defendants requiring Mr. Adams to pay the costs.

THE director of the U. S. Geological Survey, Dr. Charles D. Walcott, has sent a notice in answer to numerous questions concerning the issue of 'Mineral Resources of the United States, 1898,' to the effect that the following

provision was included in an act of Congress approved March 2, 1895: "Provided, That hereafter the report of the mineral resources of the United States shall be issued as a part of the report of the Director of the Geological Survey." In conformity with this act of Congress, 'Mineral Resources, 1898,' containing a statement of the production of every mineral in the United States, with its value, where it is found, and where it can be sold, etc., will be published as Part VI. of the 'Twentieth Annual Report of the United States Geological Survey.' The series will continue in succeeding annual reports. Application for the report should be made to members of Congress, who will have a limited number for distribution. The small edition furnished to the office is sufficient only to meet the demands of exchanges and contributors.

FROM the *British Medical Journal* we learn that before the Académie de Médecine in Paris, M. Laveran after presenting an important report on the study of malaria concluded by proposing, first, that the Académie should appoint a committee on malaria; secondly, that it should pass a resolution calling on the Government to send an expedition to Algeria to study in some of the unhealthiest parts of that colony, the relations of mosquitoes to malaria, and the most effectual means of prophylaxis. The proposals were supported by Professor R. Blanchard, who, we understand, has already pressed on the French Government the necessity of founding a French School of Tropical Medicine. He mentioned that he had recently made a catalogue of all the species of *Anopheles* now known, which showed that the geographical distribution of these insects corresponds exactly with that of malaria. M. Laveran's proposals were adopted by the Académie. A committee for the study of malaria was appointed, consisting of MM. Kelsch, Laveran, Blanchard, Rilliet and Vallin.

#### UNIVERSITY AND EDUCATIONAL NEWS.

MESSRS. SAMUEL CUPPLES and Robert S. Brookings have each given to Washington University one-half of the total capital stock of the St. Louis Terminal Cupples Station and Property Company, which company\* owns the so-