

ores to be worked successfully, and it may be expected that these ores, such as those of the Rand, will be the most important source of gold in the future.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

WE record with deep regret the death of Professor Edward D. Cope, professor in the University of Pennsylvania, editor of the *American Naturalist*, President of the American Association for the Advancement of Science, and eminent for contributions to paleontology, zoology and a wide range of natural science. Professor Cope became seriously ill on Tuesday of last week and died on Monday from uræmic poisoning. In his death science has suffered an irreparable loss, and for many the personal loss is equally severe.

THE German Zoological Society proposes to hold its seventh annual meeting at Kiel on June 9th-11th, under the presidency of Professor O. Bütschli, of Heidelberg. Reports are expected from Professor Brandt on the fauna of the Baltic Sea, and by Professor Chun on the *Siphonophora*. The report of the editors of *Das Tierreich*, which is published under the auspices of the Society, will also be presented. Lectures and demonstrations are announced by Professor B. Henson on the North Sea Expedition of 1895, by Dr. Apstein on the Methods and Apparatus of Modern Marine Biological Investigations, and by Dr. Vanhöffen on the Marine Fauna of Greenland.

MR. C. H. TOWNSEND has been appointed Chief of the Division of Fisheries, U. S. Fish Commission, while Dr. H. M. Smith is assigned to the Division of Scientific Inquiry. Mr. Townsend has been connected with the U. S. Fish Commission for fourteen years and has for a long time held the position of Naturalist on the Albatross which he now relinquishes. He is especially familiar with the fisheries of the Pacific Coast, including the many problems connected with the salmon canning industry, which is prosecuted under such varying conditions in the United States and Alaska that no one law can be made applicable to all localities. Mr. Townsend also has a long acquaintance with

the fur seal question, and it is to his investigations that we owe most of our knowledge concerning the food, breeding habits and migrations of this animal.

A SECOND circular of the Committee of Arrangements for the International Geological Congress has been issued and the Committee announces a most attractive program. As we have already stated, three excursions are arranged before the Congress: to the Ural region, to Esthonia and to Finland. After the Congress the chief excursion is to the Caucasus, leaving St. Petersburg on the 24th of August in three groups, each under special directors. All the details have been worked out with the greatest care, and expenses are reduced to a very low figure by practically free transportation and by hospitality offered by many of the large cities. The Finland excursion, for example, is estimated at only fifty francs, while the very extensive excursion to the Caucasus is estimated at six hundred and sixty-five francs. The sessions of the Congress take place at St. Petersburg between the 17th and 23d of August, in the rooms of the Imperial Academy of Sciences.

AT a meeting in the rooms of the Royal Society in 1893, the Prince of Wales in the chair, it was unanimously resolved "that the eminent services of the late Sir Richard Owen in the advancement of the knowledge of the sciences of anatomy, zoology and paleontology should be commemorated by some suitable memorial." A fund was collected for a bronze statue, which has been executed by Mr. Thomas Brock. This statue has just been placed in the Central Hall of the Natural History Museum, where it stands facing Boehm's statue of Darwin.

THE annual meeting of the American Institute of Electrical Engineers will be held in New York on May 18th. The Council have nominated Professor Francis B. Crocker, of Columbia University, for President. The Institute will hold a general meeting at Greenacre, Maine, beginning on July 26th.

THE Women's National Science Club met in the lecture room of the National Museum, Washington, on April 7th, 8th and 9th. Many

papers were presented covering a wide range of scientific subjects.

WE regret to record the death of Dr. Edson S. Bastin, professor of materia medica and botany at the Philadelphia College of Pharmacy, from cerebral hemorrhage, at the age of fifty-four years. Professr Bastin's text-books, 'Elements of Botany' and 'College Botany,' are extensively used, and he was the author of numerous researches in pharmaceutical botany.

THE biological laboratory of Cold Spring Harbor, L. I., conducted under the auspices of the Brooklyn Academy of Arts and Sciences, will again this year be under the direction of Professor H. W. Conn, of Wesleyan University. The laboratory will be open for research work after the middle of June, and the regular courses will begin on July 7th and continue for six weeks.

PROFESSOR JOHN M. MACFARLAND, of the University of Pennsylvania, has arranged an Easter botanical excursion for his students, who will camp in the neighborhood of Savannah, Ga.

MR. E. P. SHELDON, lately instructor in botany at the University of Minnesota, has accepted a commission from the National Herbarium to organize a field party for the exploration of the Blue Mountains in Oregon. He expects to devote at least six months to the field work.

PROFESSOR A. F. VON WALDHEIM, of Warsaw, has been appointed Director of the St. Petersburg Botanical Garden.

THE Scientific Society of Danzig has offered a prize for a research on fungus epidemics in insects which are harmful to the forests. The thesis must be presented before the end of the present year.

THE State subsidy to the fresh-water Biological Laboratory at Plön, under the Directorship of Dr. Otto Zacharias, may be withdrawn next year. Several German societies are, however, urging the Ministry to continue the subsidy, and special subscriptions for the laboratory have been opened.

THE public meeting, which we have already announced, for the purpose of raising a fund for a national memorial to Edward Jenner in celebration of the centenary of his discovery of

vaccination was held in the theater of the University of London, on March 31st. The chair was taken by the Duke of Westminster, who made some introductory remarks. Lord Herschell, the Chancellor of the University, proposed the first resolution, which was: "That the present is an appropriate time to inaugurate a work of national utility in honor of Edward Jenner." Lord Lister proposed: "That a subscription be set on foot with a view of promoting, in connection with the British Institute of Preventive Medicine, but in a manner distinguished by Jenner's name, researches on the lines which he initiated." Lord Lister intimated that the name of the Institute of Preventive Medicine might be altered to that of the Jenner Institute.

THE annual dinner of the Chemical Society, London, was held on March 31st, with Mr. A. G. Vernon Harcourt, the retiring President in the chair. Speeches were made by Lord Lister, Sir John Evans, Prof. Michael Foster and others. Professor Dewar is President-elect of the Society.

THE annual dinner of the Institution of Civil Engineers, London, was also held on March 31st. Mr. J. Wolf Barry presided and addresses were made by Sir F. Bedford, Mr. St. John Brodrick, Lord George Hamilton, the Lord Chancellor, and the Speaker of the House of Commons. According to the report in the *London Times*, the president stated that the institution was only about 70 years old, and even the name civil engineer was not very much more than 100 years old. The institution now numbered about 6,000 members, associate members and associates, and about 1,000 students, making in all an industrial army of about 7,000 persons. Their members labored in all parts of the world, and some of them were doing excellent pioneer work in the colonies. By a unanimous vote of the general meeting of the Institution held on the previous day a new departure had been taken. From the present time forward admission to the institution would be gained either by scientific examination or by the submission of some valuable paper or thesis. He thought that would be found of great value to the outside world, since it would be a guarantee that

a. member of the institution wherever found possessed that amount of scientific knowledge on which all civil engineering must be based. It would also be of great value to the institution, raising it as a body to its proper position and enabling it to keep pace with those great developments of scientific research which were continually being brought to light.

A BILL before the German House of Representatives appropriates about two and a-half million dollars for rebuilding the hospitals and clinics of the University of Berlin, and about two million dollars for the establishment of the Botanical Gardens with its museum and the pharmaceutical laboratory at Dahlem.

THE interest of the Frohschammer fund of the University of Munich, amounting to \$400, is offered for an essay on 'A Psychological Analysis of the Facts of Volition,' which must be presented before October 1st, 1899.

THE Academy of Sciences and Arts of Bordeaux offers a prize of \$600 for a paper on the culture of fresh-water fishes.

THE University of St. Petersburg has received a gift of 100,000 roubles from M. Ssimin for a bacteriological observatory.

THE Boston Museum of Fine Arts receives \$50,000 through the will of the late Miss Mary G. Morrill.

WE learn from the *Revue Scientifique* that the Geographical Society of Paris has awarded its gold medal to Dr. Nansen; the Ducros-Aubert prize, 14,000 frs. and a gold medal to Lieutenant Hourst for his expedition to the Niger, and gold medals to M. Flamand for his studies in the south of Algeria, to M. Versepuy for his expedition across Africa, to M. Chaffanjon for his journey from the Caucasus to Mandjourie, to commander Koch for his maps of French colonies, and to M. de Flotte for his map of Morocco.

THE library of the late Professor G. vom Rath, the mineralogist, has been presented by his widow to the University at Bonn.

DR. KUNO FISCHER, of Heidelberg, the well-known writer on the history of philosophy, celebrated on the 19th of March the fiftieth anniversary of his doctorate.

PROFESSOR A. BASTIAN has asked for leave of absence for another year from the University of Berlin to continue his anthropological investigations in the East.

ACCORDING to the latest reports there has been a decided decrease in the prevalence of the plague at Bombay, the number of deaths for the last week of which reports are at hand numbering only 360, with 323 new cases. Dr. Yersin reports that flies as well as rats play an important part in the dissemination of the plague.

IN the Bulletin of the American Museum of Natural History, Dr. J. A. Allen describes a new species of mountain sheep from the British Northwest Territory, which he calls *Ovis stonoi*. It is very closely related to *O. dalli*, from which it differs chiefly in the darker coloration and restriction of the white to well defined areas, and, in fact, it would seem entirely probable that *O. stonoi* may prove to be merely a subspecies whose darker coloration is correlated with its more southern and less elevated habitat.

THE Committee on Units and Standards of the American Institute of Electrical Engineers has recommended that Hefner-Alteneck Amyl-Acetate Lamps furnished with test certificates from the Physikalisch-Technische Reichsanstalt at Charlottenburg, Berlin, should be temporarily adopted as concrete standards of luminous intensity, or candle power. It ought not to be necessary to go to Germany for a photometric standard. The existence of the Reichsanstalt at Charlottenburg has an undoubted influence on the great increase of exports from Germany. Figures for 1896 are not at hand, but in the course of the preceding five years the annual exports from Germany increased in value by nearly \$250,000,000, while in the same period those in England decreased to the extent of \$100,000,000.

AT the annual general meeting of the fellows of the Royal Horticultural Society, London, it was reported that in order to celebrate the Queen's long reign the Council had decided to strike a special medal or medallion, to be called the Victoria medal of horticulture, and to be awarded *honoris causa* in the domain of horticulture. The Society has now £4,000 and wishes to increase this amount to £40,000 in

order that it may erect a horticultural hall in London.

ACCORDING to the London *Times* Sir Claude Macdonald has published, in China, a report from Mr. Bourne, of the British Consular Service there, on an extraordinary landslip on the banks of the upper Yang-tsze, which has created a new and dangerous cataract in that river. Mr. Bourne describes the cataract as being situated in latitude $30^{\circ} 54' 30''$, and in estimated longitude $109^{\circ} 16'$, and about half a mile above a small rapid called Tachang. It is now much the worst rapid in the Yang-tsze, over which junks can only go empty and even so with the greatest danger. The rapid was formed at 10 p. m. on the 30th of September last by a landslip that occurred after 40 days of rain. While the water was high the extent of the obstruction was not apparent; as the river sank the rapid became impassable to upward-bound junks, and remained so for about a month. On the 4th of December the first upward-bound junk was hauled over, and there seems a great probability that as the river drops further the rapid will become again impracticable to the upward traffic. A block of ground, measuring 700 yards north and south by 400 yards east and west, has fallen down from the slope of the mountain on the north bank, a distance of 150 yards, reducing the breadth of the river from 250 to 80 yards.

IN France the manufacture of matches is a state monopoly and under state control, and in view of the numerous cases of illness among the workers and the many complaints which have been made in the press the Minister in charge has asked the Academy of Medicine to draw up rules for the regulation of the government factories. According to the *Lancet*, the Academy has agreed to the following answer being sent to the Minister: 1. It is necessary to put a stop to the unhealthy conditions which exist in many of the match factories in France. 2. The suppression of the use of white phosphorus is the only certain way of insuring health to the workers in this manufacture. 3. The employment of perfected automatic machinery is a costly matter and carries with it the condition that all dangerous operations

should be done under glass. 4. Until these recommendations can be carried out as a whole the present unhealthiness can be diminished by thorough ventilation, short shifts for those men working in the dangerous shops, careful selection of healthy hands, and periodical medical inspection, with power to prohibit the labor, either for a time or altogether, of anyone with lesions of the mouth or whose general health is impaired.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Medical College of the New York University and the Bellevue Hospital Medical College have been consolidated under the control of the New York University. The enrollment of students last year in the two schools was 1,057.

THE Sheffield Scientific School of Yale University receives \$25,000 by the will of Mrs. Sarah Van Nostrand.

THE department of natural history of Vassar College will receive about \$25,000 through the settlement of the will of the late Jacob P. Giraud.

A BILL before the Texas Senate appropriates for the State University \$35,000 for 1897 and \$85,000 for 1898, and in addition \$42,000 annually for the medical department.

THE trustees of the Teachers' College have appointed Mr. George P. Krapp associate professor of the biological sciences, in conjunction with Professor F. E. Lloyd.

DR. BECKENKAMP, teacher in the Chemical School at Mühlhausen, has been called to the chair of mineralogy at Würzburg; Professor L. Claisen, of Aix, to the chair of chemistry at Kiel. Dr. Gaupp has been promoted to an assistant professorship of anatomy at the University of Freiburg. Dr. Boldinger has qualified as docent in analytical chemistry in the University of Amsterdam, and Dr. v. Buchka as docent in chemistry in the Polytechnic Institute at Charlottenburg.

PROF. v. KRIES, of Freiburg, has declined a call to the chair at Berlin vacant through the death of Du Bois-Reymond.

It is proposed to take powers to transfer the