

securing fine surface prospects are very remote. The bones weather out in pure white color, are very conspicuous and can be seen a long distance. In fact, the halcyon days of easy collecting have passed, just as they have passed in our western tertiaries. A party will only succeed through thorough, systematic and prolonged search and excavation. On these lines and with this expectation the work of the American Museum has been established by Professor Osborn on a two or three months' footing or as long as the weather is tolerably cool. A train of eight camels is constantly moving to and fro, keeping the camp supplied with water, a three to four days' round journey. Mr. Walter Granger, assisted by Mr. George Olsen, is left in charge. It is hoped that with the aid of fifteen selected workmen, not only a representative collection of these very important mammals may be secured, but considerable additions may be made to our knowledge, especially of the smaller mammals of the Upper Eocene period in Northern Africa.

H. F. O.

CAIRO, February 25, 1907

#### SCIENTIFIC NOTES AND NEWS

M. PIERRE EUGÈNE MARCELLIN BERTHELOT, the eminent chemist, died in Paris on March 18, at the age of eighty years. M. Berthelot was permanent secretary of the Paris Academy of Sciences. He was a life member of the French senate and had been minister of public instruction and minister of foreign affairs. The Chamber of Deputies, after making an appropriation for a public funeral, adjourned in his memory.

MR. C. G. ABBOT, who had been for a number of years Secretary Langley's principal assistant in the Astrophysical Observatory of the Smithsonian Institution at Washington, and latterly its acting director, has been appointed director of the observatory, and Mr. F. E. Fowle, Jr., hitherto junior assistant, has been appointed aid.

PROFESSOR W. K. BROOKS, of the Johns Hopkins University, will join Dr. A. G. Mayer, the director of the Tropical Marine Laboratory of the Carnegie Institution, at

Nassau in April, for zoological research in the deep waters of the Bahamas.

THE organizing secretary of the Section on Embryology of the Seventh International Zoological Congress is Professor E. G. Conklin, of the University of Pennsylvania. Pending his return from a short trip to the Bahama Islands, he desires to call the attention of workers in the fields of normal and experimental embryology to the opportunities which will be offered for the presentation of important papers in these subjects, and to request their cooperation in making the meetings of this section highly successful.

DR. FRANCIS HENRY SMITH, professor of natural philosophy in the University of Virginia since 1853, has retired from active service.

PROFESSOR G. ETANO LANZA, head of the department of mechanical engineering of the Massachusetts Institute of Technology, has received a decoration from the king of Italy, conferred by the Italian consul at Boston, Dr. Gustavo Tosti, at a banquet given in his honor.

THE London Society of Dyes and Colors has founded in honor of Sir William Perkin a Perkin medal to be conferred for scientific and industrial work connected with the dyeing industries.

THE centenary of the Imperial Operating Institute, a department of the University of Vienna, was celebrated on March 15. Many distinguished surgeons attended the evening proceedings, which took the form of a Lister festival, in honor of Lord Lister's eightieth birthday.

M. HENRI POINCARÉ has been appointed a member of the council of the Observatory of Physical Astronomy at Meudon, in the room of the late M. Moissan.

THE Technological Institute in Vienna has conferred an honorary doctorate of engineering science on Baron Auer von Welsbach.

THE University of Glasgow will confer its doctorate of laws on Sir George Watt, author of the 'Dictionary of the Economic Products of India'; M. Emile Boutroux, professor of philosophy and director of the Fondation

Thiers, Paris; John Norman Collie, Ph.D., F.R.S., professor of organic chemistry, University College, London; Signor Ulisse Dini, professor of mathematics in the University of Pisa; Professor Adolf Harnack, director of the Royal Library, Berlin, and author of many works on ecclesiastical history; M. Henri Poincaré, professor of mathematics and astronomy at the Sorbonne; emeritus Professor of Physiology John Gray McKendrick, and Principal Donald Macalister, of the university, and recently lecturer in medicine at Cambridge University.

PROFESSOR F. W. PUTNAM, of Harvard University, has recently received word from Dr. W. C. Farabee, head of the Peabody Museum South American Ethnological Expedition, which started December 17, 1906, of its safe arrival at Arequipa, Peru, where the Harvard Observatory is situated. The expedition will make its headquarters at Arequipa, from which place the members will make excursions of several months' duration in order to study the manners and customs of the South American Indians of that region.

DR. OTTO LUMMER, professor of physics in the University of Breslau, who came to this country to give a course of lectures at Columbia University, gave an address before the Philosophical Society of Washington on March 21. The subject of the address was 'The Determination of the Temperature of the Sun, and Recent Solar Theories.' The meeting was held at the Bureau of Standards and was followed by a reception.

THE annual lecture of the Michigan chapter of the Society of the Sigma Xi was given on March 22, by Professor W. E. Castle, of Harvard University, his subject being 'The Experimental Study of Heredity.'

DR. WILLIAM R. BROOKS, director of the Smith Observatory and professor of astronomy at Hobart College, Geneva, N. Y., delivered an illustrated lecture at Clark University on March 15, his subject being 'Other Worlds than Ours.'

At the meeting of the Botanical Seminar of the University of Nebraska, on March 22,

Dr. Roscoe Pound delivered an address on the life and work of the late Dr. Otto Kuntze, whose death at San Remo, Italy, occurred on January 28, 1907. The address, which was of the nature of an 'appreciation,' will be published in an early number of SCIENCE. The second paper read was by Dr. Edith Clements, on 'Stability and Evolution,' and was based on her studies of particular species in the Rocky Mountains.

MISS CRUICKSHANK has presented to the University of Aberdeen a handsome window in the Library at Marischal College, in memory of her father, the late Dr. John Cruickshank, professor of mathematics from 1817 to 1860, and librarian from 1844 to 1860; and two portraits in oils—one of Sir Archibald Simpson, the architect of Marischal College; the other of James Ferguson, the astronomer.

PROFESSOR W. H. BAKHUIS-ROOZEBOOM, who carried forward to an important extent the work on physical chemistry inaugurated by Willard Gibbs, and who succeeded Professor van't Hoff at Amsterdam in 1896, died on February 8, at the age of fifty-three years.

M. MARCEL BERTRAND, professor of geology in the Paris School of Mines, died on February 25, at the age of sixty years.

DR. GUIDO KRAFFT, professor of agriculture in the Technical Institute at Vienna, died on February 22 at the age of fifty-two years.

MR. NOBLE HARTER, known to psychologists for an important piece of research work on the telegraphic language, carried on in conjunction with Dr. W. L. Bryan, died in South Pasadena, Cal., on February 23.

THE deaths are also announced of Dr. Mathias Marie Duval, professor of histology at the Paris Faculté de Médecine and at the Ecole d'Anthropologie; of Professor Y. Y. Tswetkoff, professor of mathematics at the Moscow Forestry School, and of Professor Karl Mayer-Cymar, the paleontologist of Zurich.

THERE will be a civil service examination on April 17-18 for the position of scientific assistant in the Department of Agriculture,

at salaries ranging from \$600 to \$2,000 per annum, depending upon experience and qualifications. As a result of this examination certification will be made to fill a vacancy in the position of scientific assistant qualified in seed testing, in the Bureau of Plant Industry, at \$900 per annum.

THERE will be a civil service examination on April 24-25 to fill positions as assistant geologist and geologic aid in the Geological Survey, at salaries ranging from \$1,000 to \$1,600 a year. The department estimates that ten appointments will be made at an early date as a result of this examination, the salary depending upon qualifications and experience. In certain cases where only a portion of the time of the appointee can be given to the work of the department, the compensation will be upon a per diem basis for the service rendered. Appointments to the position of temporary field assistant will also be made from the resulting eligible list as far as possible. The compensation of such positions ranges from \$60 to \$100 per month, and the length of employment from three to seven months. At the same time there will be an examination for the position of geologist in the Philippine service at a salary of \$1,800.

FUNDS have been donated by Mr. William C. Sproul, state senator, of Chester, Pa., for the purchase of one of the largest telescopes on the Atlantic Coast for Swarthmore College. The exact amount of the gift or the size of the telescope is not known, but the instrument will be quite as efficient as the government's telescope at Washington or the University of Virginia's telescope at Charlottesville, which are the two largest instruments in the east. The telescope will be in charge of Dr. John A. Miller, professor of mathematics and astronomy. Senator Sproul is a member of the board of managers and has been active in the advancement of the institution since his graduation in 1891.

THERE has been placed in the case in the paleontological museum of the University of Kansas a fine skeleton of the extinct *Bison occidentalis*. This unique specimen was col-

lected by Mr. H. T. Martin in Give County, Kans., and mounted by him. It has an extreme length of 122 inches and a height of 79½ inches.

IT is said that a compromise has been effected by which the city of Philadelphia will receive \$1,000,000 from the estate of Dr. Thomas W. Evans for the establishment of a dental institute and museum.

THE commissioners for the 1851 Exhibition have appropriated a site on their estate at South Kensington for the Institute of Medical Sciences. It is understood that the site will be reserved for one year, during which it is hoped that the additional sum of about £30,000 required to build and equip the institute may be obtained.

THE fourth International Congress of Mathematicians will meet at Rome, from April 6 to April 11, 1908. The membership fee is twenty-five francs, and the general secretary on organization is Professor G. Castelnuovo.

THE eighth meeting of the Association of Teachers of Mathematics of the Middle States and Maryland will be held at Teachers College, Columbia University, New York, on April 6, under the presidency of Professor Edwin S. Crawley, of the University of Pennsylvania.

THE House of Commons on March 23, by 150 to 118 votes, rejected the bill proposing to introduce the metric system into Great Britain.

ACCORDING to the daily papers, letters from Messrs. Ernest Leffingwell and Elmar Mikkelsen, containing the first news from the Anglo-American polar expedition since the expedition left Alaska, have been received at Portland, Ore., by Mr. H. A. Andree, assistant in the local weather bureau. The letters were dated November 21 and November 23 and were carried over the ice fields to Point Barrow, where they were delivered to the Canadian mounted police. Mr. Leffingwell states that the ship, the *Duchess of Bedford*, was frozen in solid ice, about 200 miles off Point Barrow and that the preparations were at that time almost completed for starting the expedition into the unknown country lying to the north.

It is the purpose of the Geological Survey of Canada to distribute a number of surplus volumes of its publications. In so doing, it is proposed to allow all persons, libraries, societies, etc., now on the distribution list, the opportunity of completing their sets of these publications. The number of each publication in stock varies, and the volumes will be distributed in order of the receipt of the applications, until exhausted. Applications should be addressed to Mr. A. P. Low, director, Ottawa.

THE Biological Laboratory of the Brooklyn Institute of Arts and Sciences at Cold Spring Harbor, Long Island, will hold its eighteenth session, beginning on July 3, and continuing for six weeks. Courses are offered in field zoology by Dr. Chas. B. Davenport, Dr. H. E. Walter, of Brown University, and Dr. W. M. Wheeler, of the American Museum of Natural History; in bird study, by Mrs. Walter; in comparative anatomy, by Dr. H. S. Pratt, of Haverford College, and Mr. D. S. Hartline, of the Pennsylvania State Normal School; in invertebrate and general embryology, by Dr. A. L. Treadwell, of Vassar College, and Mr. H. E. Jordan, of Princeton University; in cryptogamic botany by Dr. D. S. Johnson, of Johns Hopkins University, and Mr. H. H. York, of the University of Texas; in plant ecology by Dr. E. N. Transeau, formerly professor of botany at Alma College and now of the Carnegie Institution of Washington, and Mr. W. S. Cooper, of Johns Hopkins University; in microscopic methods by Mrs. Davenport. Opportunity is afforded for original investigators who wish to work in private rooms. Persons who wish to make use of the laboratory should correspond with the director, Dr. C. B. Davenport, Cold Spring Harbor, N. Y.

THE Biological Survey of Michigan in charge of the state geologist has just issued a report covering the Terrestrial Pulminata of the state by Bryant Walker, copiously illustrated.

WE learn from *Nature* that on March 5 a deputation representing the Anthropological

Institute, the British Science Guild and other scientific bodies, waited upon the Prime Minister to urge the establishment of a national anthropometric survey. Mr. R. C. Lehmann, M.P., who introduced the deputation, said that, in the first instance, the survey should have for its object the periodic measurement of children and young people in schools and factories. Besides this, a comprehensive survey of the general population of the whole country should be undertaken. The sum asked for is £4,000 or £5,000. The need for such a survey was described by Dr. D. J. Cunningham, Mr. J. Gray, Dr. Gow, Sir Lauder Brunton and Dr. A. C. Haddon. In his reply to the deputation, Sir Henry Campbell-Bannerman confessed that he has been much impressed by the arguments adduced as to the great lack that there is in this country of knowledge of the quality of the population. It is obviously desirable to have a record of the kind proposed in order to be able to study the changes in the condition of the people at large as a guide to action in administration and in legislation regarding it. Any test applied to the condition of the inhabitants of any district is a test of their surroundings, of the mode in which they live, and the circumstances which affect their health and utility, and therefore this can not be an unimportant thing. It is very desirable to avoid any impression that a sort of experiment is to be practised upon the poor children in the common schools. Whatever is done to the poor ought to be done also to the rich, and the application of the system ought to be universal. In fact, it will cease to have its proper value if it is confined to the poor schools, which are a little more at the disposal of the government and the authorities than the great schools, such as Westminster and others. Results are wanted referring to the whole population, so that comparison may be made between different districts and different occupations. The sum mentioned for the survey is a modest amount, but a great many modest sums make up a large sum. But the mere question of cost is not likely to stand in

the way of a great scheme of this sort if the government is satisfied on full consideration—which shall be given to it—that the time is ripe for this new enterprise.

THE Royal Academy of Sciences of Turin, in accordance with the will of its former associate, the late Senator Thomas Vallauri, will award a prize to the scientific investigator, of Italian or any other nationality, who between January 1, 1907, and December 31, 1910, shall have published the most important work in the domain of physical science, taking that term in its largest sense. The prize will be of the value of \$5,500.

#### UNIVERSITY AND EDUCATIONAL NEWS

By the will of Francis P. Furnald, of New York City, Columbia University will receive on the death of his widow \$300,000 for a dormitory, to be called Furnald Hall.

By the will of the late Captain Thomas P. Salter, of Portsmouth, New Hampshire, Dartmouth College will, on the death of his sister, receive the residue of his estate, estimated at about \$250,000.

By the will of the late Mrs. James W. Queen \$10,000 is bequeathed to Princeton University to found two scholarships in memory of the late James W. Queen.

By the will of the late General Samuel E. Merwin, of New Haven, \$5,000 has been bequeathed to Yale University for the uses of the medical school.

The removal of the Connecticut Agricultural College at Storrs to a position nearer the center of population is being considered.

The Massachusetts Agricultural College will hold a Teachers' Summer School in Agriculture with Professor F. A. Waugh as dean.

THE New York *Evening Post* states: In the Museum of Natural History of Vassar College much work is being done in rearranging and remarking the collections. A special collection illustrating all species of birds found in the southeastern part of New York State has been arranged in the interest of the mem-

bers of the college who wish to study the local birds.

THERE is a movement to establish a second Danish University at Aarhus, the capital of Jutland.

THE council of the University of Manchester have decided to institute two new lectureships—one in economic zoology and one in economic botany.

THREE hundred teachers from Toronto and a hundred from Brantford, London, Hamilton and other points will visit New York, Washington, Philadelphia and Baltimore during Easter week.

At the University of Virginia appointments have been made as follows: Dr. Stephen H. Watts, of Johns Hopkins University, professor of general surgery and director of the University Hospital; Dr. Thomas L. Watson, of the Virginia Polytechnic Institute, professor of economic geology; Dr. R. M. Bird, of the University of Missouri, collegiate professor of chemistry, and Dr. Arthur E. Austin, of Boston, adjunct professor of physiological chemistry.

PROFESSOR A. M. SOULE, dean and director of the Virginia Polytechnic Institute at Blacksburg, has accepted a similar position in the Agricultural College of Georgia.

MR. CLARENCE G. DERICK, of the Massachusetts Institute of Technology, has been appointed laboratory and research assistant to Professor Noyes, for the coming year, at the University of Illinois.

THE Alice Freeman Palmer fellowship at Wellesley College, which is of the value of \$1,000, has been awarded to Miss Helen B. Cook, who will study psychology in Germany.

MR. A. P. PARSONS, formerly of the University of Minnesota, has been appointed lecturer in mineralogy and petrography in the University of Toronto.

DR. HERMANN KLAATSCH, who is at present in Australia, has been appointed associate professor of ethnology in the University of Breslau.