

printed in full in the *Chemical News*. The discovery of the element, to which at first the name monium was given, resulted from photographic researches on phosphorescent spectra, it giving a very characteristic group of lines in the ultra-violet. The concentration of victorium is accomplished first by the fractional decomposition of the mixed nitrates of the yttrium metals by heat. The nitrates of the earths of the cerium group decompose more readily, and those of the yttrium group less readily than that of victoria, so that after a large number of fractionations the victoria collects in the middle portions. These middle fractions are then submitted to fractional precipitation with oxalic acid, many times repeated, and finally the portions richest in victoria are converted into sulfates and fractionally precipitated with potassium sulfate. In the purest condition thus far obtained, victoria is a pale brown powder, less basic than yttria and more basic than most of the oxides of the terbia group. Assuming the oxide to be Vc_2O_3 , the atomic weight of victorium is about 117. The most marked characteristic of victoria is its spectrum.

J. L. H.

ZOOLOGICAL NOTES.

IN the annals of the South African Museum, Mr. L. Péringuey describes a method, discovered by Rev. J. A. O'Neil, for capturing both sexes of the members of the hymenopterous genus *Mutilla*. By seizing the female in such a way as to induce her to produce her well-known stridulation, the males immediately appear and are easily secured, at times even settling on the hand of the captor. As the sexes are certainly known in but 16 out of the 169 South African species, the practice of this 'sembling' method, as it is styled, is to be recommended.

THE report of the Australian Museum for 1897 records the mounting of a specimen of the Galapagos tortoise *Testudo nigrita* brought to Sydney, New South Wales, by the American whaler *Winslow*, in 1853. At that time it weighed 53 pounds, while at the time of its death, in 1896, its weight had increased to 368 pounds, a more rapid rate of growth than such animals are usually credited with.

ACCORDING to Mr. Etheridge of the Colombo, Ceylon, Museum, by far the largest cobra ever recorded is one measuring 7 feet 9 inches taken at Jaffna, but as the measurement was made on a skin, it is possible that the maximum length attained by this deadly snake is not far from 7 feet 6 inches.

MR. ETHERIDGE discusses the use of formol at some length, stating that its great fault is its bleaching property, and that pure glycerine can alone be trusted to keep color, because it excludes those great destroyers of animal colors, air and water. Formol in combination with various salts will preserve color for a greater or less length of time, but not permanently. Thus a three per cent. solution of formol, saturated with common salt, preserved the color of *Oreastes turitus* for about eighteen months, and then the specimen faded completely in a few days. Epsom salt in combination has the curious property of keeping the fugitive blues, greens and violets of the wrasses for at least a year, although destructive to the colors of other fishes.

IT will doubtless surprise many to be told that the mastodon is far more common in American museums than is the African elephant. The skeleton of Jumbo in the Am. Mus. Nat. Hist., New York City, is almost the only specimen of this animal in the country, while there are at least ten mounted skeletons of mastodon and teeth and bones without number. It is not too much to say that not a week elapses without some published account of the discovery of mastodon remains and while most of the specimens are poorly preserved, or consist only of individual teeth, yet in the aggregate their number is very considerable. Orange and Ulster counties, N. Y., appear to have been favorite burying places for the mastodon, and from the character of the ground it is evident that many specimens will yet come to light from these localities.

F. A. L.

SCIENTIFIC NOTES AND NEWS.

THE Astronomical and Astrophysical Society of America, which, as we have already stated, was recently established at the third Conference of Astronomers and Astrophysicists held at the

Yerkes Observatory, has elected officers as follows :

President, Simon Newcomb ; Vice-Presidents, C. A. Young, George E. Hale ; Treasurer, C. L. Doolittle ; Councillors for two years, E. C. Pickering, J. E. Keeler ; Councillors for one year, E. W. Morley, Ormond Stone ; Secretary for three years, George C. Comstock.

We hope to publish in an early issue a full report of the meeting at the Yerkes Observatory together with abstracts of the papers presented.

It is expected that the New York Zoological Park will be formally opened to the public during the second week in October. Only a few of the buildings will be completed, but there is already a fairly representative collection of animals in the Park.

THE United States Fish Commission steamer *Albatross* sailed from San Francisco on August 23d, with a scientific party under Professor Agassiz bound for the South Pacific. The objects, itinerary, and personnel of the expedition were noticed in the issue of SCIENCE for June 9. The voyage will occupy eight or nine months, and is expected to yield much valuable information pertaining to the fauna of the little-known regions that will be visited.

DURING the present season the U. S. Fish Commission has had a number of field parties, in various States, engaged in ichthyological and other investigations. A camping party under the direction of Dr. Charles H. Gilbert has systematically examined the coastal streams of Oregon, with reference to their fish fauna ; the eastern tributaries of the Sacramento have been visited by Mr. Cloudsley Rutter ; a comprehensive study of the biological and physical features of the Wabash basin has been begun under the direction of Professor B. W. Evermann, who is assisted by Dr. J. T. Scovell, Dr. C. H. Eigenmann and others ; a party in charge Mr. W. P. Hay has explored the Monongahela basin in West Virginia ; Dr. P. H. Kirsch has been collecting and studying the fishes of the San Pedro River, Arizona ; in connection with the biological survey of Lake Erie, Professor Jacob Reighard and assistants have cruised along the northern and southern shores of the lake in a

special steamer ; Dr. H. M. Smith has visited Seneca Lake, N. Y., for the purpose of determining the character of its fish fauna ; a study of the variations of the mackerel of the east coast has been conducted by Mr. M. C. Marsh, and in the interesting Sebago and Cobscooksee lake regions of Maine, Dr. W. C. Kendall has made some special investigations regarding salmon and other fishes.

WE regret to learn that Professor E. W. Hilgard, of the University of California, and Director of the California Agricultural Experiment Station, has been seriously ill during the summer. It is feared that he will not be able to resume his duties at the beginning of the academic year.

MR. W. T. SWINGLE, agricultural explorer for the Department of Agriculture, has returned from an extended trip to the Mediterranean countries, undertaken for the Department, with the view of finding new agricultural industries capable of being introduced into the United States. He made a special study of viticulture and of the date and fig industries, and for some months will be at Washington, engaged in preparing for publication the results of his trip.

PROFESSOR G. S. FULLERTON, who holds the chair of philosophy at the University of Pennsylvania, has returned to Philadelphia after a year's absence in Europe.

PROFESSOR C. H. HITCHCOCK, of Dartmouth College, will resume his work this month after a year's leave of absence spent in Australia and Hawaii where he has been carrying on geological work.

DR. THURSTON, of Cornell University, has been requested to serve on a number of the Congresses, to be held in connection with the Paris Exposition, including those for mining, metallurgy, testing materials of construction and applied mechanics. He has been appointed a member of the *Comité de patronage*, and has been invited to prepare the reports on 'Mechanical Laboratories,' as *rapporteur* or editor and the introductory paper. He particularly desires full accounts of all laboratories of that character in the United States. Men of science, interested in the subject, either through their

connection with the physical sciences, pure or applied, or as engineers interested in research in these departments, who wish to join this Congress may apply either to Dr. Thurston or to the Secretary of the American Society of Mechanical Engineers for circulars giving the form of organization and a statement of the questions to be discussed, as well as for cards of 'adherence' to the several divisions of this Congress.

DR. R. BURCKHARDT, professor of paleontology at Basle, and Dr. V. Uhlig, professor of geology in the German Technical Institute of Prague, have been elected members of the academy of sciences at Halle.

THE Physiological Institute of the University of Berlin, has been presented, by his widow, with a marble bust of Emil Dubois-Reymond.

AMBROSE P. S. STUART died at his residence in Lincoln, Nebraska, September 13, 1899. He was born November 22, 1820, in Sterling, Worcester county, Mass. He graduated from Brown University in 1847, with the degree of A.B., and spent three years subsequently at Heidelberg. He taught school for a number of years, and in 1865 became instructor in chemistry in the Lawrence Scientific School of Harvard University. Later he was professor of chemistry in the Pennsylvania State College, and still later in the University of Illinois. He removed to Lincoln, Nebraska, in 1875, where he engaged in business, amassing a considerable fortune. Throughout his life he maintained his interest in scientific matters, and despite his advancing years was a familiar figure in the meetings of scientific societies.

THERE will be, on October 17th, civil service examinations for the position of nautical expert in the Hydrographic Office of the Navy Department with a salary of \$1000, and for the position of ornithological clerk in the division of Biological Survey, Department of Agriculture, with a salary of \$660. Candidates for the latter position should be between 20 and 25 years of age.

THE late Richard B. Westbrook of Philadelphia has made a bequest of \$10,000, taking effect on the death of his widow, to the Wagner Institute of Science. The sum is to be used as an endowment of a special lectureship to "secure

the full and fearless discussion by the most learned and distinguished men and women in our own and other countries of mooted or disputed questions in science, and especially the theories of evolution."

MR. ANDREW CARNEGIE has given \$50,000 to the City of Oakland, Cal., the city having undertaken to guarantee at least \$4,000 annually for its support.

THE schooner *Julia E. Whalen*, Captain Noyes, has arrived from a cruise to the Galápagos Islands and to Cocos and Clipperton Island west of Ecuador. The vessel had not touched any inland port since she sailed from San Francisco, October 30th, last. She carried members of a scientific expedition under direction of Robert E. Snodgrass, assistant in entomology and Edmund Heller, student in zoology, sent by Stanford University, under the patronage of Timothy Hopkins, of San Francisco. A large collection of specimens, including birds, mammals, invertebrates, and fish, was obtained. Aboard the vessel were eighteen live land tortoises taken from Duncan and Albemarle Islands, some of them weighing four hundred pounds; also 220 fur sealskins and 2,300 skins of hair seals.

A CABLEGRAM states that the British Association for the Advancement of Science at its present meeting has granted £1,000 toward the expenses of the British antarctic expedition.

THE steamer *Antarctic*, which left Helsingborg, Sweden, on May 25th last with an expedition under Professor A. G. Nathorst, was spoken off The Skaw, the northern extremity of Jutland, Denmark, on the 11th ult., on her return from her search along the northeast coast of Greenland for Andrée. No traces of the missing aeronaut had been found.

INFORMATION has been received from the captain of the icebreaker *Ermack*, arrived in the Tyne, to the effect that he met the Prince of Monaco's yacht *Princess Alice* on August 21st, in Advent Bay, Spitzbergen. The yacht had been aground six days in the Red Bay, and after discharging 200 tons of coal and stores was floated. There is no leakage, but the vessel has received some small damage.

THE death has taken place at Leith of Mr.

John Ramsay, one of the survivors of the expedition sent out to search for Sir John Franklin. He joined the Navy in 1849, and formed one of the crew of the *Resolute*, which sailed from Woolwich in 1852.

On the 20th of August last an International Conference met at Berne to study the glaciers of the Rhone and Aar, to which extended excursions were made. Among those present were Professors Penck of Vienna, Reid of the Johns Hopkins University, von Drygalski of Berlin, Fürsterwalder of Munich, Baron von Toll of St. Petersburg, and other students of glaciers.

THE Intercolonial Medical Congress of Australasia will hold its fifth session in Brisbane from September 18th to 23d.

THE tenth congress of Italian Alienists will be held in Naples from the 10th to the 14th of October, under the presidency of Professor Tamburini. We learn from the *British Medical Journal* that the following are the subjects proposed for discussion: Practical methods of individual psychological investigation in asylums and clinics; the light which has been, and may be, thrown by anatomical data on normal and pathological psychology; psychiatry and the study of the individual and his activity in social relations; intoxications and infections in the pathogenesis of mental diseases and neuropathies.

THE German Government has sent Professor Kossel, of the Board of Health, to Lisbon and Oporto to study the plague and the methods adopted to combat it. He is accompanied by Professor Frosch, of the Berlin Institute for the Study of Infectious Diseases, who is being despatched on the same mission by the Prussian Government.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Rose Polytechnic Institute will shortly receive \$50,000 from a bequest of the late Joseph Collett, the payment of which has been delayed through litigation.

It is reported that the German technical schools will be authorized to confer the degree *Doctor rerum technicarum*, and that the degree will be conferred for the first time on the oc-

casion of the celebration of the centenary of the Charlottenburg Technical School.

THE Regents of the University of Texas have provided a psychological laboratory which has been placed under the charge of Professor Caswell Ellis, of the department of pedagogy.

At the University of West Virginia the following appointments have been made: Edward D. Copeland, A.B. (Stanford), Ph.D. (Halle), lately assistant professor of botany at Indiana University, to be assistant professor of botany; J. B. Johnston, Ph.D. (Michigan), to be assistant professor of zoology; Otto Folin, B.S. (Minnesota), Ph. D. (Chicago), to be assistant professor of chemistry, and J. D. Thompson, M.A. (Cambridge) of Trinity College, Cambridge, and University College, Sheffield, to be assistant professor of mathematics.

At the Ohio State University, W. E. Henderson has been appointed assistant professor of analytical chemistry and C. B. Morrey, assistant professor of anatomy and physiology.

A. KIRSCHMANN, Ph.D., lecturer in philosophy at the University of Toronto since 1894, has been appointed professor of philosophy and director of the psychological laboratory.

PROFESSOR RICHARD PFEIFFER has been called from the Berlin Institute for infectious diseases to the University of Königsberg as successor to Professor von Esmarch.

It is reported that Dr. Arons, Privat-Docent for physics in the University of Berlin, has been called to a chair of physics at Würzburg. It will be remembered that Dr. Arons has been prosecuted by the Government for being a socialist, but that the philosophical faculty of the University of Berlin refused to take any action disciplining him.

ROLLO KENT BEATTIE, B.Sc., 1896 and A.M., 1898, of the University of Nebraska, has been elected to the instructorship in botany in the Agricultural College at Pullman, Washington, and John Lewis Sheldon, B.Sc. (Nebraska), recently appointed assistant in botany in the same university, has accepted the instructorship in biology in the Nebraska State Normal School.