

amount of carbon monoxid in the end product is increased. This is interpreted to mean that the primary combustion product at  $500^{\circ}$  is not exclusively at least carbon dioxid. Dixon is of the opinion that both carbon monoxid and carbon dioxid are formed at  $500^{\circ}$  and that in each instance there is sufficient heat of formation to occasion a secondary reaction, in the one case with oxygen, in the other with carbon.

THE third paper is on the action of nitrogen monoxid on nitrogen dioxid, in which the conclusion is drawn from experiments that, contrary to the views of Lunge and others that  $N_2O_3$  cannot exist in the gaseous state, NO and  $NO_2$  do unite to a limited degree to an unstable compound, which is the more dissociated the higher the temperature. The reaction  $N_2O_3 \rightleftharpoons NO + NO_2$  is reversible and the properties of the mixed gases thus accounted for.

IN the same number of the *Proceedings of the Chemical Society* Szarvasy and Messinger describe a new compound of arsenic and tellurium. Proceeding from the fact that the difference in molecular weight of the arsenic compounds of the sixth group,  $As_2O_3$ ,  $As_2S_3$ ,  $As_2Se_3$ , is 15-16 units, they calculated that the tellurium compound should have the formula  $As_2Te_3$ , and accordingly fused together the components in this proportion under pressure and determined the properties and vapor density of the resulting compound.

J. L. H.

#### SCIENTIFIC NOTES AND NEWS.

PRESIDENT SCHURMAN, of the Philippine Commission, has returned to the United States.

DR. A. B. MEYER, Director of the Dresden Museums, is now in the United States on a commission from the Saxon government to inspect American museums before the new buildings are erected at Dresden. He is accompanied by Professor P. Wallot, who is one of the international commission of architects selected to decide on the plans of the University of California in accordance with Mrs. Hearst's arrangements.

THE Duke of Bedford has been elected President of the Zoological Society of London, in the room of the late Sir William Flower.

THE Baly gold medal of the Royal College of Physicians, London, awarded for distinguished services to physiology, has been conferred upon Dr. C. S. Sherrington, F.R.S., professor of physiology in University College, Liverpool.

MR. G. A. STONIER, formerly Geographical Surveyer for New South Wales, has been appointed specialist in mining under the Geological Survey of India.

MR. EUSTACE GURNEY, of New College, has been appointed by Oxford University to the University Table at the Naples Biological Station.

AN aid in cryptogamic botany in the Smithsonian Institution, at a salary of \$75 a month, will be appointed as a result of a civil service examination to be held on November 5th and 6th.

DR. J. WEINGARTEN, professor of mathematical physics in the Technical School of Berlin, has been elected a foreign member of the Accademia dei Lincei at Rome.

COLONEL HEINRICH HARTL, professor of geography in the University of Vienna, has been made an honorary doctor by the University.

PROFESSOR GUIDO CORA, of Rome, has been elected a member of the Italian Council of Geodesy.

W. D. HUNTER, Assistant Entomologist of the Experiment Station of the University of Nebraska, has been given a month's leave of absence in order to act as Special Agent for the Division of Entomology of the United States Department of Agriculture. He is to investigate the locusts of Minnesota and North Dakota.

AVEN NELSON, Botanist of the Wyoming Station, left Laramie early in June on an extended botanical survey of the Yellowstone National Park and the adjacent forestry reserves. In addition to large collections of the entire flora a careful study of the forage plants and range conditions is contemplated.

WE learn from the *Botanical Gazette* that the botanical plans of the University of Iowa for the summer are as follows: Professor B. Shimek will be engaged in special studies of the forestry problems in Iowa, under the direction of the

U. S. Department of Agriculture; Mr. T. E. Savage will probably complete his studies of the mosses and Hepaticæ of the State; Mr. P. C. Myers will complete a photographic record of the diatoms of Iowa, recent and fossil, and Professor T. H. Macbride will probably spend the summer in the Grand Cañon of the Colorado, studying the forest problems there for report to the United States Department of Agriculture, and incidentally collecting the fungi of the region.

THE Società Bibliografica Italiana has unanimously adopted a resolution declaring that the project of the Committee of the Royal Society of London on an International Catalogue of Scientific Literature is impracticable viewed from the financial standpoint and is open to grave objections from the bibliographic standpoint. The Society has petitioned the Italian government, in view of the new international conference, which is to decide definitely, to add to its official representative technically competent persons who would be in a position to point out the practical and technical difficulties of the present project.

DR. LEO ARONS, privatdocent for physics in the University of Berlin, against whom a complaint was lodged by the Ministry for belonging to the Social Democratic party, has been acquitted by the philosophical faculty of the University.

MR. BEREND BESSEL LORCK, of London, has presented to the Berlin Academy of Sciences a large number of letters addressed to his grandfather, Friedrich Wilhelm Bessel. There are in all 2,946 letters addressed to Bessel by 234 different men of science and artists, including the leading contemporary astronomers. The Academy already possessed 106 letters addressed by Bessel to Struve and now receives 106 letters addressed by Struve to Bessel.

WE learn from *Natural Science* that the Manchester Museum has acquired the Dresser collection of birds. It contains about 10,000 specimens and is especially rich in palearctic specimens.

THE British Medical Association commenced its annual meeting at Portsmouth, on August

1st. The President, Dr. J. Ward Cousins, chose as the subject of his opening address 'The Century's Progress in Medicine and Surgery.' It was reported by the Treasurer that during the year £49,000 had been paid for their new premises on the Strand; the revenue for the year amounted to £42,924.

THE Sixth International Agricultural Congress will be held at Paris from the 1st to the 8th of July, 1900. The sections will be as follows: (1) rural economy (agricultural credit, agricultural associations, land surveying, agrarian questions); (2) agricultural education (experimental stations, field experiments, etc.); (3) agricultural science (application of science to agriculture, agricultural improvements); (4) live stock; (5) practical agriculture (industrial crops and agricultural industries); (6) special crops of the south (silk production, early fruit and vegetables, perfume plants and colonial productions); (7) injurious insects and parasites (international measures for the protection of useful animals).

A CORRESPONDENT has sent us this proposed inscription for the statue of Darwin: "Charles Darwin, the great naturalist, whose book on the 'Origin of Species' revolutionized the course of human thought. His carefulness in investigation was only equalled by his genius, and only surpassed by his uprightness of character." It is also suggested that the best inscription would be simply 'Charles Darwin.'

THE Natural History Museum, London, has set aside one of the alcoves in the Central Hall for the exhibition of specimens recently acquired. According to *Natural Science* the following have been on view: Fish, mollusca and other invertebrata, from Lake Tanganyika, collected by Mr. J. E. S. Moore, illustrating the marine origin of the fauna and its antique character. Fish from the River Congo, described by Mr. Boulenger (*Annales Mus. Congo*), and presented by the Secretary of State of the Congo Free State. *Lepidosiren paradoxa*, collected in the Paraguayan Chaco by Mr. J. Graham Kerr. A collection of rare birds from Patagonia and Argentina, presented by Dr. F. P. Moreno, Director of the La Plata Museum. A fine collection of Hexactinellid sponges from Japan. A male

*Cervus sica manchuricus* in full summer coat—a splendid specimen, presented by the Duke of Bedford. And a large specimen of the Tarpon fish, *Megalops thrissoides*, captured off Florida by Mr. Otis A. Mygatt, and presented by H.R.H. the Prince of Wales.

#### UNIVERSITY AND EDUCATIONAL NEWS.

WE are informed that the following doctorates were conferred last year in addition to those published in the issue of August 4th. At Northwestern University, Mr. Charles Hill was given the degree of Doctor of Philosophy with a thesis entitled 'Developmental History of the Primary Segments of the Vertebrate Head,' and at the University of Minnesota, Mr. Francis Ramaley, now professor of biology in the University of Colorado, was given the degree for work in plant morphology.

THE two veterinary colleges situated in New York City have been consolidated under the name of the New York American Veterinary College and School, and this has been made a part of the New York University. Dr. A. F. Liantard has been appointed Dean.

Two fellowships in pathology have been established in McGill University. They are of the value of \$500 per annum, and the holders may be required to assist in directing laboratory work to the extent of 12 hours a week.

THE reorganization and separation of the faculties of the two Colleges, 'Letters' and 'Industrial,' hitherto constituting the 'General Faculty' of the University of Nebraska, has been referred to a committee consisting of the Deans of the Colleges and the Acting Chancellor of the University, to report to the Regents at the semi-annual meeting in December. Dr. Ellery W. Davis has been appointed Chairman of the Industrial College Faculty and Acting Dean of the Industrial College.

AT a recent meeting of the Regents of the University of Nebraska bids were accepted for the erection of an Experiment Station building for \$21,332 and a power plant for \$2,947. Provision has also been made for certain chemical

work in the sugar beet experiments in progress at Ames, Nebraska.

THE Council of the University of Paris has fixed the fees for those studying for the doctorate as follows: Annual matriculation, 20 fr.; library, 10 fr.; fees for laboratories, 200–800 fr.; examination, 140 fr.

PROFESSOR HENRY G. JESUP, since 1877 professor of botany in Dartmouth College, has resigned.

DR. AUGUST L. RIMBACH (Ph.D., Jena, 1887), of Jena, Germany, has been appointed instructor in vegetable physiology and pathology in the University of Nebraska. He was professor of botany and zoology in the University of Cuenca, Ecuador, from 1889 to 1894, after which he spent nearly two years in botanical travel in the Andes and along the Pacific coast of tropical South America. More recently he has given his time to botanical researches in Germany. These have been chiefly physiological and ecological, and the results have appeared in numerous papers in the German botanical journals.

PROFESSOR E. A. BURNETT, of the Agricultural College of South Dakota, has accepted the chair of animal husbandry in the University of Nebraska, and will resume the duties of his new position at the opening of the fall semester. Mr. Abel A. Hunter has been appointed botanical collector for the University.

MR. H. G. TIMBERLAKE, of the University of Michigan, has been appointed instructor in botany in the University of Wisconsin, and Mr. G. T. Moore, of Harvard University, has received a similar appointment at Dartmouth College.

DR. E. H. STARLING, F.R.S., has been elected to the Jodrell professorship of physiology in the University of London, in succession to Professor Schäfer, who, as we have already stated, has accepted a call to Edinburgh.

DR. SUTHERLAND, assistant professor of pathology at Glasgow, has been appointed professor of pathology at St. Andrews, in the place of Professor Muir, recently appointed professor of pathology at Glasgow.