

one hundredth anniversary of Darwin's birth and the fiftieth anniversary of the publication of the "Origin of Species," the following addresses were delivered: "Biographical Sketch of Darwin," by Professor W. C. Curtis; "Darwin's Contribution to Evolution," by Professor C. Stuart Gager; "Pre-Darwinian Evolution," by Professor A. O. Lovejoy; "Post-Darwinian Evolution," by Professor George Lefevre; "The Influence of Darwin's Work on Ethics," by President A. Ross Hill; "The Influence of Darwin's Work on Sociology," by Professor C. A. Ellwood; "The Influence of Darwin's Work on Psychology," by Professor Max Meyer; "The Influence of Darwin's Work on Theology," by Rev. Dr. W. W. Elwang. Mr. F. A. Sampson, secretary of the State Historical Society of Missouri, read a most interesting series of letters written by Darwin about 1878 to Mr. R. A. Blair, of Sedalia, Missouri, concerning what was at first supposed to be a case of the inheritance of a mutilation in a flock of geese.

ON Thursday evening, February 11, Dr. J. M. Reade, of the University of Georgia, delivered a lecture on "Charles Darwin," before the University Club. Commemoration exercises were held at the home of Professor H. C. White, of the University of Georgia, on Friday, Feb. 12, in honor of Darwin. The program consisted of: "Biographical Sketch," by Dr. H. C. White; "Organic Evolution," by Dr. J. P. Campbell; "Evolution in History," by Dr. J. H. T. McPherson; "The Church and Evolution," by Rev. Troy Beatty.

A SPECIAL meeting of the Boston Society of Natural History was held on the evening of February 12, in commemoration of the centenary of Charles Darwin's birth and of the fiftieth anniversary of the publication of his "Origin of Species." After introductory remarks by Vice-president R. T. Jackson, the following brief addresses were made: By Professor W. H. Niles on the "Early Life of Darwin and his Contributions to Geology"; by Professor E. S. Morse on "The Factors of Darwinism"; by Professor G. H. Parker on "A Mechanism for Correlated Characters," and by Professor W. M. Wheeler on "Pre-Darwinian and Post-Darwinian Biology."

AT the general meeting of the American Philosophical Society on the evening of Friday, April 23, a Darwin celebration will be held. Charles Darwin and his grandfather, Erasmus Darwin, were members of the society, and his son, Sir George Darwin, is at present a member. On this occasion there will be three special addresses by members of the society: The first by the Right Hon. James Bryce, the British ambassador, who will give some personal reminiscences of Darwin and of the impression made by the appearance of the "Origin of Species" in 1859; the second by Professor Goodale, of Harvard University, on "The Influence of Darwin on the Natural Sciences," and the third by Professor James Mark Baldwin, of Johns Hopkins University, on "The Influence of Darwin on the Mental and Moral Sciences."

SCIENTIFIC NOTES AND NEWS

PROFESSOR CHARLES B. RICHARDS, professor of mechanical engineering at Yale University since 1884, and Dr. W. G. Sumner, professor of political and social science since 1872, will retire from active service at the close of the present academic year.

THE Rumford Committee of the American Academy of Arts and Sciences has recently made the following grants: To Director W. W. Campbell, of the Lick Observatory, \$250, for the purchase of a Hartmann photometer; to Professor R. W. Wood, of the Johns Hopkins University, \$150, in aid of his research on the optical properties of mercury vapor.

MR. O. J. R. HOWARTH has been appointed assistant secretary of the British Association in succession to Mr. A. Silva White.

SIR DANIEL MORRIS, K.C.M.G., late British commissioner of agriculture for the West Indies, has been selected for the newly-created office of scientific adviser to the secretary of state for the colonies on matters relating to tropical agriculture.

DR. R. PILGER has been appointed custodian of the Botanical Garden in Dahlem, Berlin.

THE committee of the Athenæum Club has elected, under the provisions which empowers the annual election by the committee of nine

persons "of distinguished eminence in science, literature, the arts, or for public services," Mr. Horace T. Brown, F.R.S., LL.D., and Sir David Bruce, F.R.S.

SIR WILLIAM WHITE was the guest of the Sheffield Society of Engineers and Metallurgists at their biennial dinner on February 26.

DR. F. A. DIXEY has been elected president of the Entomological Society of London.

PROFESSOR RAMÓN Y CAJAL, of Madrid, and Professor Emil Fischer, of Berlin, have been elected honorary members of the Paris Biological Society.

A SWISS Neurological Society has been formed, the headquarters of which are at Zürich and the first president of which is Professor von Monakow.

WE learn from *Nature* that Dr. F. H. Hatch has been appointed by the government of Natal to make an examination of the mineral resources of the colony, and will shortly proceed to South Africa for that purpose.

DR. SVEN HEDIN lectured before the Royal Geographical Society on February 7, and proposed to give a number of lectures in England in the course of the following month on "My Recent Expedition in Tibet."

CONVOCATION DAY was observed by the University of Pittsburgh on February 12, Lincoln's birthday. An address was made by Colonel Samuel Harden Church upon Lincoln, by Dr. W. J. Holland upon Darwin, and by Dr. J. A. Holmes, of the United States Geological Survey, upon "The Conservation of Our National Resources." Vice-president-elect James S. Sherman was present and made a brief address. The honorary degree of LL.D. was conferred upon Hon. James S. Sherman, Colonel S. H. Church and Judge William Waugh, of Greenville, Ohio, who graduated from the university seventy years ago in the class of 1839. The degree of Sc.D. was conferred upon Mr. F. A. Lucas, curator-in-chief of the Brooklyn Institute of Arts and Sciences, Dr. J. A. Holmes, of the United States Geological Survey, and Mr. Edward Goodrich Acheson, the electrical engineer.

A SUM of over \$10,000 has been subscribed to a monument to be erected in honor of Berthelot, the eminent chemist.

DR. CARROLL D. WRIGHT, the first president of Clark College, U. S. Commissioner of Labor from 1885 to 1905, president of the American Association for the Advancement of Science in 1904, eminent for his contributions to statistics and sociology, died at Worcester, Mass., on February 20, at the age of sixty-eight years.

DR. ERNEST S. WHEELER, lecturer on tropical medicine in the Dartmouth College Medical School, died on February 15, at the age of forty years.

AT the suggestion of the North American Conference on the Conservation of Natural Resources, in session in Washington last week, President Roosevelt has determined to issue, through the state department, invitations to all nations to send delegates to an international conference on conservation, to be held at The Hague.

MR. ANDREW CARNEGIE has given \$100,000 for branch buildings to the Cincinnati public library.

DR. GEORGE GORE, F.R.S., formerly lecturer on chemical and physical science at King Edward's School, Birmingham, who died on December 20, aged eighty-two years, left an estate valued at £6,802. The testator left £500 in personal bequests and £100 to the Birmingham University. All his other property he left equally between the Royal Society and the Royal Institution of Great Britain.

THE Gordon Wigan income for 1908 at the disposal of the Special Board of Biology and Geology, of Cambridge University, has been applied as follows: (a) £50 to D. Sharp, M.A., the curator in zoology; (b) £50 to A. G. Tansley, M.A., to enable the Botanic Garden Syndicate to continue to offer special facilities for plant-breeding experiments; (c) £50 to Professor Hughes, being £30 for the purchase of a projection lantern for the geological department and £20 for the expenses of research on Pleistocene deposits in the neighborhood. The prize of £50 from the fund for

an investigation in chemistry was awarded to Leonard Angelo Levy, B.A., Clare, for his essay entitled "Investigations on the fluorescence of Platinocyanides." Grants out of the balance on income account amounting to £180 were made to the departments of physics, mineralogy and engineering, to defray the cost of special apparatus.

By arrangement with the Bermuda Natural History Society, the Station for Research at Agar's Island will be open for about seven weeks this summer. There are accommodations for a limited number of instructors or research students in either zoology or botany. Members of the expedition will sail from New York on one of the steamers of the Quebec Steamship Company's Line (probably the *Bermudian*) about the middle of June, or, for those who can not sail so early, about the first of July. Further information may be obtained from Professor E. L. Mark, 109 Irving Street, Cambridge, Mass.

A PLAN of cooperation between the United States Bureau of Plant Industry and the department of pharmacy of the University of Wisconsin has been adopted, the purpose of which is to provide for the cultivation of medicinal plants. Investigation and research work is to be carried on in connection with the growing of those plants used in the preparation of drugs and medicines.

A TUBERCULOSIS exhibit consisting of the Wisconsin exhibition at the International Tuberculosis Congress, together with reproductions of the best features of all the other exhibits at that congress, has been prepared by the department of bacteriology of the University of Wisconsin and the Wisconsin Anti-Tuberculosis Association, and is to be sent out to cities throughout the state by the university extension division of the state university. The exhibit shows in graphic and striking forms the great losses resulting from the ravages of tuberculosis, the best preventive measures and the most effective and economical means of cure. An experienced demonstrator will be in charge of the exhibit

to explain the various charts, doors of houses, sleeping bags, window tents, photographs, etc.

DR. J. O. WAKELIN BARRETT and Dr. Warrington Yorke, members of the Blackwater fever expedition of the Liverpool School of Tropical Medicine, who went out to Nyasaland in August, 1907, have returned. The London *Times* states that the expedition was well provided and equipped for pathological and chemical research, and during their fourteen months' operations the investigators had unusual opportunities for studying the fever. According to their report, nearly all the cases occurring in the protectorate came under their observation. Every assistance was afforded the expedition by the government medical staff and the Shire Highlands Railway Company, the latter granting special facilities for the use of the line, which was a matter of great importance, seeing that the majority of attacks of blackwater fever occurred in the vicinity of the railway. The fever, however, is usually most prevalent during the rainy season, when means of communication are more or less interrupted, and movement from place to place is difficult. Hence the members of the expedition sometimes had to travel in extremely heavy rain, but even that was found preferable to the intense heat of the midday sun by the river. The expedition, the cost of which was met equally by the Colonial Office and the Liverpool School of Tropical Medicine, was from time to time in touch with the expedition sent out by the school nearly two years ago for the study of sleeping sickness in northeast Rhodesia and the south of Lake Tanganyika. The school has also a yellow fever expedition in Brazil and a malaria expedition in Jamaica.

THE Belgian Permanent Committee on Human Alimentation, which was founded on the occasion of the International Congress on Food held at Ghent in 1908, held, as we learn from the *British Medical Journal*, its first meeting at Brussels on December 23, 1908, under the presidency of Dr. A. J. J. Vandervelde, of Ghent. Among the objects aimed at by the committee are the organization in Belgium of congresses on food, and the par-

ticipation of that country in international congresses on the same subject, the study of questions relating to the prevention of fraud, the supervision of the sale and manufacture of food preparations, and the promotion of uniform international methods of analysis. The committee will also investigate the question of human food from the chemical, physiological, technical, commercial, legislative, economic and social points of view. The committee consists of fifty members representing the scientific as well as the industrial and commercial worlds. There are three vice-presidents: MM. Libotte, of Antwerp; Sohier, of Liège, and Professor van Laer, of Brussels. Dr. Schoofs, of Liège, is general secretary.

A FRIEND of the *Scientific American*, who desires to remain unknown, has paid into the hands of the publishers the sum of \$500, which is to be awarded as a prize for the best popular explanation of the Fourth Dimension, the object being to set forth in an essay the meaning of the term so that the ordinary lay reader can understand it. No essay must be longer than 2,500 words. Each essay must be typewritten, bearing only the pseudonym. With the essay should be sent a second plain sealed envelope, also labeled with the pseudonym and be sent to "Fourth Dimension Editor, *Scientific American*, 361 Broadway, New York, N. Y.," by April 1, 1909. Professor Henry B. Manning, of Brown University, and Professor S. A. Mitchell, of Columbia University, will be the judges.

ACCORDING to a special press bulletin prepared by Waldemar Lindgren, of the U. S. Geological Survey, the gold-mining industry of the United States had a prosperous year in 1908, in spite of adverse conditions of trade and finance. The director of the mint estimates the production of gold for 1908 from domestic sources at \$96,313,256, against \$90,435,700 in 1907. South Dakota, Alaska, California and Colorado show large estimated increases, ranging from \$2,000,000 to \$3,600,000. The estimates for Utah indicate a decrease of about \$1,200,000; for Nevada a decrease of \$3,300,000. The production of Montana, Arizona, Idaho, Oregon and other silver-producing

states has remained approximately stationary. The production from the Philippine Islands shows an increase, the estimate of the mint being \$306,708, against \$78,700 in 1907. As part of the Philippine gold does not reach the United States mints the showing is probably even better than these figures would indicate. Most of the gold was recovered by quartz mining in Benguet and by dredging operations in Paracale. The silver-mining industry presents a far less satisfactory condition than that of gold, owing to the low prices for silver, lead, copper and zinc. During the year the large smelters of Utah and Colorado were partly closed and partly operated on a reduced capacity.

THE following lectures will be delivered at Columbia University on The Henry Bergh Foundation for the Promotion of Humane Education, 1908-9, Wednesdays at 4.10 P.M., in Room 309 Havemeyer Hall:

February 3—"The Influence of Humane Ideals and Practises in Human Civilization," by Franklin Henry Giddings, Ph.D., LL.D., professor of sociology and the history of civilization, Columbia University.

February 10—"Pure Food as an Element in the Humane Treatment of Men and Animals," by H. H. Wiley, Ph.D., of the Department of Agriculture, Washington, D. C.

February 17—"The Humane Treatment of Animals," by Albert Leffingwell, M.D., of Aurora, N. Y.

February 24—"Science and Animal Experimentation," by Nathan Oppenheim, M.D., of New York.

March 10—"Hunting with the Camera," by George Shiras, 3d, of Washington, D. C.

March 17—"The Humane Treatment of Children," by Homer Folks, secretary of the New York State Charities Aid Association.

March 24—"The Humane Treatment of Criminals," by Samuel J. Barrows, D.D., president of the International Prison Commission.

March 31—"The Ethics of Punishment," by John Dewey, Ph.D., LL.D., professor of philosophy in Columbia University.

April 7—"The Economic Aspect of the Humane Treatment of Children and Animals," by Roswell C. McCrea, Ph.D., of the New York School of Philanthropy.

PROFESSORS MORTON PRINCE and George V. N. Dearborn, at the Tufts College Medical School, Boston, offer a course on psychopathology, required for fourth-year students of medicine. The course, which is said to be the first of the kind, will cover the following topics:

Mental physiology.—Mechanism of memory, including physiological (unconscious) memories (spinal cord and ganglia). Meaning of the unconscious. Formation and conservation of unconscious complexes. Meaning of the subconscious and co-conscious. Integrative action of the nervous system. Habit-formation. Emotion. Influence of psychical processes on the functions of the viscera (digestive, vasomotor, secretory, respiratory systems, etc.). Cenesesthesia. Hypnosis (theory and phenomena). Suggestion. Idea-complexes.

Dissociations of the mind.—Anesthesia. Paralysis. Amnesia. Abstraction. Hypnoidal states. Sleep. Trance states. Fatigue. Subconscious ideas and their activity. Unconscious processes. Abulia.

Syntheses.—Sensory automatisms (visual and auditory hallucinations). Paresthesia. Pain. Motor automatisms (spasms, contractures). Recurrent mental states. Obsessions. Impulsions. Fixed ideas. Delusions. Unconscious mental complexes and their influences. Dreams.

Special pathology.—Neurasthenia. Hysteria. Psychasthenia. Hypochondriasis. Phobias. Habit psychoses and neuroses. Mimicry. Psycholeptic attacks. Recurrent sensorimotor attacks. Amnesic states. Dissociated personality. Fugues. Tics.

Methods of examinations besides the ordinary clinical methods.—Psycho-analysis. Abstraction. Hypnoidization. Hypnosis. Automatic writing. Artificial hallucinations. Psychogalvanic tests. Word reaction tests.

Principles of psychotherapeutics based on psychopathology.

UNIVERSITY AND EDUCATIONAL NEWS

THE University of Virginia has completed an endowment fund of \$1,000,000 of which half has been given by Mr. Andrew Carnegie.

THE educational commission which has for the past two years been codifying and revising the school laws of Pennsylvania, has created Colleges of Education at the Universities of Pennsylvania and Pittsburgh. These colleges

will have as their specific functions the training of high school and normal school teachers, principals and superintendents of schools, supervisors of the various school grades, supervisors of special branches, and experts for service in the public school system of the Commonwealth. The code provides that the state shall pay the tuition of Pennsylvanians who are normal school graduates or who have successfully completed the sophomore year of a college. While no state aid is asked at the present session, it is provided that the legislature may make special appropriations for buildings, equipment and other needs of the Colleges of Education as from time to time may be deemed necessary.

IN accordance with the principles of university nomenclature adopted by the Association of American Universities, the University of Wisconsin has changed the title of the college of law to that of "Law School," and the name of the college of medicine was changed to that of "Medical School"; the recommendation of the Association of Universities being that the term "school" be applied to those professional departments requiring for admission at least two years of college work.

ON February 15 the University of Nebraska celebrated the fortieth anniversary of the granting of the charter under which the institution was organized. The address was given by Dr. Ellery W. Davis, dean of the College of Literature, Science and the Arts, on "A Coming Aristocracy."

THE scheme prepared by the charity commission under the will of the late Mr. John Innes, of Merton, has now been settled. The most important part relates to the institution of a national horticultural college at Merton.

THE Italian minister of education, Signor Rava, has pledged himself to the restoration in its integrity of the University of Messina, promising the students that it shall not be transferred elsewhere. Attention has been called to the fact that in view of the 16 other state universities, of which two are in Sicily—at Palermo and Catania—this concession to passing sentiment is to be deplored as only adding needlessly to the complications of the revival of Messina.