February 10—"Phylogeny," Professor S. W. Williston.

February 17—"Variation and Heredity," Professor W. L. Tower.

February 18—"The Interpretation of Environment," Professor H. C. Cowles.

February 24—"Darwinism and Political Science," Professor C. E. Merriam.

February 25—" Human Evolution—Physical and Social," Dr. Geo. A. Dorsey.

March 3—"The Influence of Darwinism on Psychology," Professor J. R. Angell.

March 4—"The Theory of Individual Development," Professor F. R. Lillie.

March 10—"The Evolution of Religion," Professor Shailer Mathews.

March 11—"Darwinism and Experimental Methods in Botany," Professor D. T. MacDougal, Carnegie Institute.

March 17—" Evolution in Language and in the Study of Language," Professor C. D. Buck.

March 18—" Selection Mutation and Orthogenesis," Professor C. O. Whitman.

SCIENTIFIC NOTES AND NEWS

DR. James B. Angell proposes to present his resignation as president of the University of Michigan on February 17. It is understood that the office of chancellor will be created and that he will be the first to occupy this position.

DR. WILHELM TRABERT, professor of cosmical physics at Innsbruck, has been appointed director of the Austrian Bureau of meteorology and geodynamics, vacant by the death of Professor Pernter.

Dr. Frank Wigglesworth Clarke, chemist, U. S. Geological Survey, and professor of mineral chemistry in the George Washington University, has been invited by the Chemical Society of London to deliver a memorial lecture on Dr. Wolcott Gibbs. As Professor Clarke is to attend the International Congress of Applied Chemistry, which meets in London on May 27, this lecture will follow shortly after the adjournment of the congress.

THE Academy of Natural Sciences of Philadelphia has elected as correspondents the following: Dr. Albert Calmette, of Lille; Dr. Sven Hedin, of Stockholm; Dr. Robert F.

Scharff, of Dublin, and Dr. John M. Clarke, of Albany.

SIR JAMES DEWAR and Dr. Ludwig Mond have been elected honorary members of the German Chemical Society.

M. P. VILLARD has been elected a member of the Paris Academy of Sciences in the Section of Physics to succeed M. Mascart.

On the recommendation of a committee of the Royal Society of Arts and the Royal College of Physicians, the Swiney prize, of the value of \$1,000, has been awarded to Dr. C. A. Mercier, for his work on "Criminal Responsibility."

A NEW portrait of President Eliot, of Harvard University, by Mr. Charles Hopkinson has been hung in the Harvard Union, where it will remain for the next few days. The portrait represents President Eliot seated at his desk.

Mr. H. F. Newall, assistant director of the Observatory, Cambridge, has been elected a fellow of Trinity College.

WE regret to learn that the illness of Professor G. D. Louderback, of the department of geology of the University of California, has made it necessary for him to take an indefinite leave of absence.

Professor F. W. Blackmar, head of the department of sociology in the University of Kansas, who has spent four summers in investigating the chief irrigating plants in western states, has finished a report on the development of irrigation and the reclamation service of the government in the arid west. This report will be published by the Carnegie Institution of Washington.

Professor Trevor Kincaid, of the department of zoology, University of Washington, will leave Seattle about the first of April for Simferopol, Crimea, Russia, where he will undertake, for the U. S. Bureau of Entomology, the collection and shipment of parasites of the Gypsy moth. During the absence of Professor Kincaid, Professor A. D. Howard, Ph.D. (Harvard), formerly of Westminster College, Pennsylvania, will have charge of the department.

Mr. L. F. Noble, graduate student in geology at Yale University, has returned from a six-months' trip in the Lower Colorado Canyon, where he has been pursuing studies in structural geology, particularly with reference to the Algonkian.

Nature states that Professor E. A. Minchin has left England for three months, accompanied by his assistant, Dr. Woodcock, on a visit to the zoological station at Rovigno, in order to carry on researches on the development of the trypanosome of the little owl (Athene noctua).

DR. CHARLES WILLIAM ANDREWS, F.R.S., assistant in the Geological Department of the Natural History Museum, London, has returned from Christmas Island, in the Indian Ocean, where he has been making scientific researches.

Dr. Sven Hedin delivered at Stockholm on January 22 a lecture upon his travels in Central Asia before a large audience, which included King Gustav and the royal family, and the members of the Anthropological and Geographical Societies. The Wahlburg medal of the latter society has been conferred on Dr. Sven Hedin, and the society has raised a fund of over \$2,500 to be known by the explorer's name, which will be devoted to geographical research.

Professor A. G. Webster, of the department of physics at Clark University, is giving three lectures under the auspices of the Sigma Xi Society at each of the universities of Missouri, Kansas, Nebraska and Iowa, and one each at Wisconsin and Northwestern, speaking on the present outlook in physics and on his researches in acoustics.

Dr. R. S. Woodward, president of the Carnegie Institution of Washington, lectured to the students of the University of Wisconsin on the evening of February 2 on the work of that institution.

Dr. Wm. A. Noves, professor of chemistry in the University of Illinois and editor of the Journal of the American Chemical Society, delivered an address before the Saint Louis Chemical Society, on January 29, on "Lavoisier." After the meeting an informal dinner was held in honor of the speaker.

Professor Wm. J. Gies, of the department of biological chemistry of Columbia University, is conducting a course of public lectures on "The Chemistry of Digestion" on Monday evenings at Cooper Union. The lectures are illustrated by zoetrope figures, and by chemical and digestive demonstrations.

SIGMA XI lectures at the University of California have been given as follows: "The Effect of Solutions on Plant Growth," by Professor W. J. V. Osterhout; "Some Recent Discoveries in Solar Physics," by Professor E. P. Lewis; "The Origin and Distribution of Shell Mounds in the San Francisco Bay Region," by Mr. N. C. Nelson.

At the meeting of the American Naturestudy Society held at Baltimore the following officers were elected for 1909: President, Professor C. F. Hodge, of Clark University, Worcester, Mass. Vice-presidents—Professor V. L. Kellogg, of Stanford University, Cal.; Professor F. L. Stevens, North Carolina College of Agriculture and Mechanic Arts, Raleigh, N. C.; Professor W. Lochhead, Macdonald College, Quebec: Professor O. W. Caldwell, The University of Chicago; Professor B. M. Davis, Miami University, Oxford, O. Directors (for two years)-G. H. Trafton, Public Schools, Passaic, N. J.; Professor F. L. Holtz, Brooklyn Training School, N. Y.; Professor J. Dearness, Normal School, London, Canada; Mrs. Anna Botsford Comstock, Cornell University, Ithaca, N. Y., and Dr. Ruth Marshall, Milwaukee High Schools. Directors D. J. Crosby, C. R. Mann, S. Coulter, H. W. Fairbanks and M. F. Guyer and Secretary M. A. Bigelow were elected in 1908 to serve two years.

A SCIENCE CLUB has been organized among the members of the agricultural department of Delaware College and the Agricultural Experiment Station staff. The following officers were elected: *President*, Professor C. A McCue; *Vice-president*, Professor C. O. Houghton; *Secretary*, Professor A. E. Grantham. Weekly meetings will be held.

The executive council of the British Science Guild has considered the matter of naming London streets after distinguished men of science. The members of the executive committee were requested to send in names which were reduced to the following thirty-one: Newton, Darwin, Harvey, Jenner, Huxley, James Watt, Gilbert, Kelvin, Faraday, Joule, Clerk Maxwell, Stokes, Tyndall, Captain Cook, Livingstone, Franklin, Ross, Bruce, Mungo Park, Cavendish, Dalton, Priestley, Boyle, Andrews, Halley, Herschel, Horrocks, Adams, Bradley, Howard, Piddington.

At the meeting of the American Philosophical Society, on February 5, Professor E. G. Conklin, of Princeton University, offered a minute in commemoration of the centenary of the birth of Charles Darwin.

The Botanical Society of Pennsylvania has arranged a special meeting to commemorate the one hundredth anniversary of Darwin's birth and the fiftieth anniversary of the publication of the "Origin of Species." This will be held on Friday evening, February 12, in Biological Hall, University of Pennsylvania. The program consists of "A Short Sketch of Darwin's Life," by Dr. Henry Leffman; "Pre-Darwinian Theories of Plant Life," by Dr. Louis Krautter; "Darwin's Contribution to Botany," by Dr. J. W. Harshberger; and "Present Day Views on Organic Evolution," by Dr. C. H. Shaw.

The deaths are announced of Dr. Hermann Minkowski, professor of mathematics at Göttingen, and Dr. Otto Rupp, professor of geometry at Brünn.

The U. S. Civil Service Commission announces an examination on February 24, to fill a vacancy in the position of scientific assistant, \$720 per annum, in the Bureau of Fisheries, and vacancies requiring similar qualifications as they may occur.

The next meeting of the Physical Society will be held at Columbia University, New York, on Saturday, February 27.

Professor W. A. Setchell has made a gift to the University of California of his herbarium, consisting of 15,468 specimens of algæ.

Numerous requests are received by the Geological Survey from educators, publishers and lecturers for photographs and lantern slides, in most cases those desiring them being willing to defray the expense of making the prints or slides, but there is at present no provision of law under which they can be furnished by sale. Some of these views taken by members of the survey have been used in a limited way by the survey in its publications; but many of these are out of print, leaving the photographic negatives to a large extent an unused resource of the public—data belonging to the public, but not available to it. If response could be made by the survey to the demands for prints from such negatives it would be in the interest of education and the dissemination of knowledge; and the survey being willing to supply reproductions from its great collection of photographic material, Senator Flint, of California, has introduced a proposed amendment to the civil service bill which reads as follows:

That the director of the Geological Survey shall hereafter furnish to any person, concern, or institution, in the interest of education and the dissemination of knowledge, that shall pay in advance the whole cost of material and services thereof, copies of any photographs or lantern slides in the possession of the United States Geological Survey; and the moneys received by the director for the same shall be deposited in the United States Treasury to the credit of the appropriation "Geological maps of the United States" of the said Geological Survey, and this provision shall become effective immediately.

A BILL to establish a bureau in the Department of the Interior to be known as the Children's Bureau, has been introduced in the House of Representatives. It reads as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the Department of the Interior a bureau to be known as the Children's Bureau.

SEC. 2. That the said bureau shall be under the direction of a chief, to be appointed by the President, by and with the advice and consent of the Senate, and who shall receive an annual compensation of five thousand dollars. The said bureau shall investigate and report upon all matters pertaining to the welfare of children and child life, and shall especially investigate the questions of infant mortality, the birth rate, physical degeneracy, orphanage, juvenile delinquency and juvenile courts, desertion and illegitimacy, dangerous occupations, accidents and diseases of children of the working classes, employment, legislation affecting children in the several states and territories, and such other facts as have a bearing upon the health, efficiency, character and training of children. The chief of said bureau shall, from time to time, publish the results of these investigations.

SEC. 3. That there shall be in said bureau, until otherwise provided for by law, an assistant chief, to be appointed by the Secretary of the Interior, who shall receive an annual compensation of three thousand dollars; one private secretary to the chief of the bureau, who shall receive an annual compensation of one thousand five hundred dollars; a chief clerk, who shall receive an annual compensation of two thousand dollars; one statistical expert, at two thousand dollars; four clerks of class four; four clerks of class three: two clerks of class two, and six clerks of class one; five clerks, at one thousand dollars each; two copyists, at nine hundred dollars each; one messenger, at seven hundred and twenty dollars; two special agents, at one thousand four hundred dollars each, and two special agents, at one thousand two hundred dollars each.

SEC. 4. That the Secretary of the Interior is hereby directed to furnish sufficient quarters for the work of this bureau at an annual rental not to exceed two thousand dollars.

SEC. 5. That this act shall take effect and be in force from and after its passage.

COLUMBIA UNIVERSITY has arranged a series of free public lectures on Sanitary Science and Public Health which will be given in the large lecture room of the College of Physicians and Surgeons, No. 437 West 59th Street, on Mondays and Wednesdays during February, March and April. They will begin each day at 5 p.m., and the doors will be closed ten minutes later. The first lecture, "The Rise and Significance of the Public Health Movement," by William Thompson Sedgwick, professor of biology at the Massachusetts Institute of Technology, was given on February 1. Among the other lecturers and their subjects will be Professor Adami, of McGill Uni-

versity, "The Great Pathological Discoveries and their Bearing upon Public Health Problems"; Professor Burr, of Columbia University. "Water Supplies and Sewage Disposal"; "Public Health Problems of the Municipality, State and Nation," by Thomas Darlington. Health Commissioner of this city; Sanitary Superintendent; Walter Bensel,Eugene H. Porter, State Health Commissioner, and Walter Wyman, Surgeon General, Public Health and Marine Hospital Service of the United States; H. M. Biggs, Chief Medical Officer of the New York Health Department, on "The Prevention of Tuberculosis," and Professor Theobold Smith, on "Diseases of Animals Transmissible to Man."

THE Cancer Commission of Harvard University announces a course of lectures on "Tumors," to be given on Thursday afternoons, at 5 o'clock, in the medical school. The lectures will be open to members of the university and to physicians. The dates and titles follow:

February 4—"The Bearing of the Experimental Investigation of Tumors on the Tumor Problem in General," by Dr. E. E. Tyzzer, Boston.

February 11—"The Regulatory Processes of Tumor Cells," by Dr. W. T. Howard, Cleveland, O. February 18—"The Classification of Tumors," by F. B. Mallory, Boston.

February 25—"The Physiological Pathology of Intracranial Tumors," by Dr. Harvey Cushing, Baltimore, Md.

March 4—"The Etiology of Tumors considered from our Knowledge of Congenital Tumors and Tumors following Repeated Injury," by Dr. S. B. Wolbach, Albany, N. Y.

March 11—"The Problem of Cancer considered from the Standpoint of Immunity," by Dr. F. P. Gay, Boston.

Professor W. W. Campbell, director of the Lick Observatory, writes that Volume VIII. of the publications of the observatory, now issuing from the bindery of the State Printing Office, Sacramento, contains heliogravure reproductions of the late Director Keeler's photographs of nebulæ and star clusters made with the Crossley reflector. Other contents are a description of the Crossley reflecting telescope by Director Keeler, a list of the nebulæ and clusters photographed, a catalogue of 744 new

nebulæ discovered on the negatives, and new determinations of the positions of the nebulæ previously known in the regions of the sky covered. It is hoped that the regular correspondents of the Lick Observatory can be supplied promptly with copies. The cost of the volume has been unusually high on account of the expensive processes and materials employed. There are 71 full-page heliogravure reproductions, printed by hand press on suitable paper.

The Cleveland Chemical Society has organized itself into a local section of the American Chemical Society with the following officers: President, Franklin T. Jones; Secretary, Sherley P. Newton; Board of Managers, H. V. Arny, W. R. Veazey, president and secretary ex-officio; Councilor, C. F. Mabery. A charter has also been granted for the formation of a section of the American Chemical Society comprising the western portion of the state of Washington with headquarters at Seattle.

AT the recent meeting of the Southern Society for Philosophy and Psychology, held at the Johns Hopkins University, Baltimore, Md., the following officers were elected for 1909: President, Professor Albert Lefevre. University of Virginia; Vice-president, Dr. Shepherd Ivory Franz, Government Hospital for the Insane, Washington, D. C.; Secretarytreasurer, Professor Edward Franklin Buchner, Johns Hopkins University. three years as members of the council: Professor James Franklin Messenger, State Normal School, Farmville, Va.; Professor Robert Morris Ogden, University of Tennessee. Other members of the council are: Dr. William Torrey Harris, Washington, D. C.; President D. B. Purinton, West Virginia University; Professor James Mark Baldwin, Johns Hopkins University; Principal Reuben Post Halleck, Louisville, Ky.

UNIVERSITY AND EDUCATIONAL NEWS

Mrs. Esther Gowen Hood has given the University of Pennsylvania \$100,000 to estab-

lish graduate fellowships in the law department. The gift is a memorial to her father, the late Franklin B. Gowen.

MR. ADOLPHUS BUSCH, who last August promised to contribute \$50,000 towards the \$300,000 necessary for the erection of the new building for the Germanic Museum at Harvard University, has increased his gift to \$100,000.

THE General Education Board has offered to give Bryn Mawr College \$250,000 on condition that friends of the college subscribe \$280,000 by June, 1910. This is in addition to the \$100,000 recently given by the alumnæ. Of this sum \$130,000 is to be used to pay the debt of the college, and the balance is to be reserved as an endowment fund.

The building for the new California Museum of Vertebrate Zoology, at the University of California, is now under construction. Its cost, which is to be about \$14,000, is to be met in part by the regents' appropriation of \$7,000, and in part by an arrangement with Miss Annie Alexander, the patron of this new department, whereby she adds \$7,000 with the provision that her annual grant for maintenance for the next seven years shall be \$6,000 instead of \$7,000, as at first proposed by her.

THE regents of the University of Colorado have authorized the establishment of a summer laboratory for botany and zoology at Tolland, Colo., altitude 8,889 feet. The laboratory will be in charge of the regular instructing staff of the university, and there will be courses in elementary biology, plant anatomy, plant taxonomy and ecology. The location of the laboratory is such that students can study the plants and animals of all the different life zones from plains to alpine heights. Work done at the laboratory will count toward a degree in the university.

Dr. FAIRBAIRN, who will retire from the principalship of Mansfield College, Oxford, at Easter, has given to the college his valuable theological and philosophical library.

Dr. E. A. Noble was installed as president of the Woman's College of Baltimore on February 2, when addresses were delivered by