Forbes, Stephen Alfred, Urbana, Ill.

Harris, J. Campbell, 119 S. 16th Street, Philadelphia, Pa.

Hay, W. P., Howard University, Washington, D. C.

Lee, Thomas G., University of Minnesota, Minneapolis, Minn.

SECTION G, BOTANY

Harris, J. Arthur, Mo. Botanical Garden, St. Louis, Mo.

Millspaugh, Charles Frederick, Field Museum, Chicago, Ill.

Penhallow, D. P., McGill University, Montreal, Canada.

SECTION I, SOCIAL AND ECONOMIC SCIENCE

Austin, Oscar P., Dept. Commerce and Labor, Washington, D. C.

Blackshear, E. L., Prairie View, Texas.

Chancellor, W. E., Supt. of Schools, Washington, D. C.

Crunden, Frederick M., St. Louis, Mo.

Emory, Frederic, Queenstown, Md.

MacCracken, John H., Syndic of New York University, Washington Square, New York, N. Y.

McKelvay, A. J., Charlotte, N. C.

Norton, J. P., Yale University, New Haven, Conn.

O'Shea, M. V., University of Wisconsin, Madison, Wis.

Payne, Bruce R., Virginia University, Charlottesville, Va.

Wallace, Henry, Des Moines, Iowa.

SECTION K, PHYSIOLOGY AND EXPERIMENTAL MEDICINE

Bancroft, Frank Watts, University of California, Berkeley, Cal.

Brinckerhoff, Walter R., Public Health and Marine-Hospital Service, Honolulu, Hawaii.

Buxton, B. H., Cornell Medical School, New York, N. Y.

Crampton, C. Ward, Public Schools of New York, New York, N. Y.

Hall, Winfield S., Northwestern University, Chicago, Ill.

Hooker, Donald R., Johns Hopkins University, Baltimore, Md.

Langmann, Gustav, 121 West 57th Street, New York, N. Y.

Macleod, J. J. R., Western Reserve Medical College, Cleveland, O.

Mendel, L. B., Yale University, New Haven, Conn. Meylan, Geo. L., Columbia University, New York, N. Y.

Soper, George A., 29 Broadway, New York, N. Y.

Stahley, Geo. D., Penn. College, Gettysburg, Pa. Stewart, C. C., Hanover, N. H.

Sullivan, M. X., Brown University, Providence, R. I

Terry, B. T., Rockefeller Institute, New York, N. Y.

SECTION L, EDUCATION

Brown, Elmer E., U. S. Commissioner of Education, Washington, D. C.

THE SHEFFIELD LECTURE COURSE

Professor Chittenden, director of the Sheffield Scientific School, has just announced the Sheffield Lecture Course for 1907, Friday evenings, commencing on January 18, to be held at College Street Hall:

January 18—'The Bird Life of California,' by Mr. Frank M. Chapman.

January 25—'The Making of Empire: Nome and Dawson,' by Professor Angelo Heilprin.

February 1—'Progress in Food Production, as illustrated by Milk Supply,' by Professor Lafayette B. Mendel.

February 8—'Through the Great Lakes to the Yellowstone,' by Mr. Howard W. DuBois, M. E.

February 15—'The Life and Legends of the Blackfeet Indians,' by Mr. Walter McClintock.

February 22—'Commercial Waterways and their Economics,' by Professor Lewis M. Haupt.

March 1—'Experiences Among the Chinese,' by Mr. Bailey Willis, M.E., C.E.

March 8—'Meteorites,' by Dr. George P. Merrill.

March 15—'Whales and Whaling,' by Mr. Frederic A. Lucas.

March 22—'Earthquakes, Cause and Effect,' by Professor Herbert E. Gregory.

All the lectures are to be illustrated, and the composition of the course seems unusually attractive.

SCIENTIFIC NOTES AND NEWS

The officers of the American Society of Naturalists, elected at the New York meeting, are as follows: *President*, Professor J. Playfair McMurrich, of the University of Michigan; *Vice-President*, Professor D. P. Penhallow, of McGill University; *Treasurer*, Dr. Hermann von Schrenk, Missouri Botanical

Garden; Secretary, Professor E. L. Thorndike, Columbia University; additional members of the Executive Council, Professor W. E. Castle, Harvard University, and Dr. Charles B. Davenport, Cold Spring Harbor, N. Y. The society will meet next year at Chicago in convocation week.

Dr. Franz Boas, of Columbia University, has been elected president of the American Anthropological Association.

Professor J. H. Comstock, of Cornell University, has been elected president of the American Entomological Society, which was organized in New York City during convocation week.

Marston Taylor Bogert, professor of organic chemistry at Columbia University, has been elected president of the American Chemical Society for the year 1907.

DR. WILLIAM BATESON, fellow of St. John's College, Cambridge, well known for his work on variation and heredity, will give the Silliman memorial lectures at Yale University next year. The preceding lecturers on this foundation have been Professor J. J. Thomson, of Cambridge; Professor C. S. Sherrington, of Liverpool; Professor Ernest Rutherford, of McGill, and Professor Walther Nernst, of Berlin.

Dr. Otto Lummer, professor of experimental physics at Breslau, will begin his course of ten lectures at Columbia University on February 15. Dr. Joseph Larmor, of St. Johns College, Cambridge, will begin a course of six lectures on March 27.

Professor Ernest W. Brown, who goes at the end of the present academic year from Haverford College to Yale University, has been awarded the gold medal for 1907 by the Royal Astronomical Society for his work on the movements of the moon.

The council of the Geological Society of London has made the following awards: The Wollaston medal to W. J. Sollas, F.R.S., professor of geology at Oxford; the Murchison medal to A. Harker, F.R.S. of Cambridge; the Lyell medal to J. F. Whiteaves, paleontologist to the geological survey of Canada;

the Bigsby medal to A. W. Rogers, director of the geological survey of Cape Colony; the Wollaston fund to A. Vaughan, for his work on zoning the Carboniferous Limestone of England; the Murchison fund, to F. Oswald, for his book on the geology of Armenia; the Lyell fund, divided between T. Sheppard, of Hull, Yorkshire, and T. C. Cantrill, of the Geological Survey of England.

An oil portrait of Dr. J. C. Branner, vice-president of Leland Stanford Jr. University, and lately state geologist of Arkansas, has been presented him by the members of the former survey as an expression of their high regard and of their appreciation of his example and inspiration as a geologist and as a man. The portrait was painted by Mrs. Richardson, of San Francisco.

It appears from the daily papers that a vote has been taken in Germany on the twelve greatest Germans now living: Dr. Robert Koch, Professor Ernst Haeckel, Professor Konrad Röntgen and Professor Ernst von Behring occupy, respectively, the third, fourth, fifth and eleventh positions in this list.

THE Carnegie Institution of Washington has made a grant of \$3,000 a year for a period of four years to Dean W. F. M. Goss, of Purdue University, for the purpose of determining the value of superheated steam in locomotive service; first, in connection with single expansion engines; and second, in connection with compound engines. This is the second grant which the institution has made to Dean Goss. While given to him personally, its effect will be to stimulate and to make more effective the work of the Purdue Locomotive Laboratory. Funds thus received will be employed in supplementing the resources of the laboratory as derived from all other The results of Dr. Goss's previous research under the auspices of the Carnegie Institution, which was for the purpose of determining the value of different steam pressures in locomotive service, are now in press.

KING EDWARD has granted to Professor Sir Rubert William Boyce, Professor Major Ronald Ross, C.B., and Mr. John Lancelot Todd license and authority to accept the cross of commander of the Order of Leopold II., which decoration has been conferred upon them by the King of the Belgians, in recognition of their valuable services to the cause of medical science.

Mr. E. H. Wilson has been sent by the Arnold Arboretum of Harvard University to make collections in central and western China.

Major C. F. Close and Captain G. R. Frith, Royal Engineers, have come to this country on behalf of the British government to study the methods of the U. S. Coast and Geodetic Survey.

Dr. Hugo Münsterberg, professor of psychology in Harvard University, has returned to Cambridge after a visit to Germany.

MR. ERNEST CHUBB, employed in the collection of recent mammals at the British Museum (Natural History), has been appointed assistant curator of the Buluwayo Museum, Rhodesia.

Dr. M. X. Sullivan, instructor in physiology in Brown University, has been appointed an expert in fertility investigations in the Bureau of Soils, U. S. Department of Agriculture.

Professor A. Lawrence Rotch delivered a lecture on the 'Exploration of the atmosphere over land and sea' before the Canadian Institute at Toronto, on January 12. Mr. Stupart, the director of the Canadian Meteorological Office, expects to establish a sub-station at Toronto, and may be able to carry out the wish of the International Committee for Scientific Aeronautics by creating stations for aerial soundings in Newfoundland and Bermuda.

The seventh lecture in the Harvey Society Course will be given by Professor Edmund B. Wilson, of Columbia University, at the New York Academy of Medicine, on Saturday evening, January 26, at 8:30 p.m. Subject: 'Recent Studies of Heredity.' All interested are invited to be present.

On February 1, Dr. A. G. Webster, head of the Department of Physics in Clark University, will give the address on Founder's Day commemorating the anniversary of the birth of Jonas B. Clark.

DR. GEORGE H. SHULL, of the Carnegie Station for Experimental Evolution of the Carnegie Institution, spoke before the Columbia chapter of the Sigma Xi Society on January 17 on 'Recent Aspects of Plant Breeding and Variation.'

January 11 was the hundredth anniversary of the birth of Ezra Cornell. The founder's day exercises at Cornell University, however, have been postponed until April 26. It is hoped that Governor Hughes, ex-officio trustee, and formerly of the faculty, will be present and speak.

On the evening of December 31, Dr. John C. Hemmeter presented to the Medical and Chirurgical Faculty of Maryland a life size marble bust of Rudolph Virchow, and made an address on 'Virchow as an Anthropologist.'

THE Rev. Dr. James Woodrow, formerly professor of natural sciences in the University of South Carolina, has died at the age of seventy-nine years.

Dr. WILHELM KÖNIGS, professor of chemistry at Munich, has died at the age of fifty-five years.

ADVANCE proofs of the report of the director of the Missouri Botanical Garden show the customary activity and growth of that institution for the past year. Visitors numbered 117,553, an increase of 16 per cent. over the number for 1905, and 36 per cent. more than the average for earlier years—except the World's Fair year. The number of species and varieties of plants cultivated was increased about 7 per cent., to a total of 17,072. Over 300 kinds of chrysanthemums, in 4,000 specimens, were tented in the fall, and viewed by about 17,000 persons. The herbarium was increased about 6 per cent., to a total of 559,-267 specimens, valued at \$83,890.05. number of books and pamphlets in the library was increased about 7 per cent., to 54,895; and the total valuation of the library was increased about 5½ per cent., to \$89,023.26.

A LETTER to the Harvard College Observatory from the Rev. Joel H. Metcalf, of Taunton, Mass., announces that he photographed the planet Ocllo (475) on 1907, Jan. 11^d, 15^h 30^m.5 G. M. T. in

R.A. 7^h 32^m 17^s .8 (1855). Dec. + 48° 22′ 58 \dot{r} . (1855).

Note: This object is of interest since its orbit has a greater eccentricity than that of any other known asteroid. A year or two ago it was in danger of being lost. It is now very faint as its computed magnitude at opposition on January 12, 1907, was 14.2. See Harvard Circulars 63, 101 and 103. [E. C. P.]

The heirs of Dr. J. Brettauer, of Trieste, have presented to the University of Vienna his collection of medical medals. They gave with it a small endowment for the maintenance and enlargement of the collection.

THE secretaries of the American Philosophical Society announce that the general meeting of 1907 will be held on April 17, 18 and 19, beginning at 2 P.M. on Wednesday, April Members desiring to present papers, either for themselves or others, are requested to send to the secretaries, at as early a date as practicable and not later than March 20, 1907, the titles of these papers, so that they may be announced on the program which will be issued immediately thereafter, and which will give in detail the arrangements for the Papers in any department of scimeeting. ence come within the scope of the society, which, as its name indicates, embraces the whole field of useful knowledge. The publication committee, under the rules of the society, will arrange for the immediate publication of the papers presented in the Proceedings or the Transactions, as may be designated.

THE Pennsylvania Farmers' Congress has passed the following resolution:

Whereas, we the members of the Pennsylvania Farmers' Congress in our annual session at The Pennsylvania State College, realizing not only the great work now being done by the School of Agriculture and the Experiment Station, but also realizing that the demands upon these institutions in the near future will be greatly enlarged if Pennsylvania is to assume and maintain the

position that naturally belongs to her agriculturally among her sister states.

Therefore, be it resolved that we urge upon our representatives in the Pennsylvania Legislature the most careful consideration of, and the most generous response to, the needs of The Pennsylvania State College for the maintenance of these institutions for the coming two years.

The Royal Swedish Academy of Sciences will publish early in the present year the first three volumes of Swedenborg's scientific works, edited from the original MSS. in the Library of the Royal Academy in Stockholm, by a committee of the Royal Academy, assisted by Alfred H. Stroh, of the Swedenborg Scientific Association of America. The first three volumes will be: Vol. I. Geology-Introduction by A. G. Nathorst. Vol. II. Chemistry, Physics, Mechanics-Introduction by Svante Arrhenius. Vol. III. Cosmology-Introduction by Svante Arrhenius. These volumes will be followed by others on anatomy with introductions by Gustav Retzius. The volumes are in Latin with the introduction in English. They are the result of the most notable efforts to put in the hands of the scientific world the earlier writings of Swedenborg. A new and revised edition of his Principia Rerum Naturalium in English, long out of print, is now going through the press in England, under the auspices of the Swedenborg Society of London.

THE report of the U.S. Geological Survey on the production of gold and silver during 1905, compiled by Mr. Waldemar Lindgren, has now been published. The figures showing the production of gold and silver, in approximate distribution by states and territories, are the result of conference and adjustment between the Geological Survey and the Bureau of the Mint, and are accepted as final by the two bureaus. The total production of gold was 4,265,742 fine ounces valued at \$88,180,700; the total production of silver was 56,101,600 fine ounces valued at \$34,221,-976, making an entire total value of \$122,-402,676. The production of gold in the United States for 1905 represents an increase of \$7,716,000 in value over the production of 1904. The rapid advance in gold production which began in 1892, but temporarily halted from 1901 to 1903, was resumed in 1904. This increase in 1904 over the output of 1903 was approximately \$7,000,000 and in all probability the increase in 1906 over 1905 will be at least the same amount. The chief sources of the great increase are as follows: Alaska added about \$6,000,000 to its output of \$9,160,458 in 1904, and Colorado, Nevada and Utah added about \$1,000,000 each to their product of the previous year. On the other hand, decreases are noted in Arizona, Idaho, and other states. The states producing over \$1,000,000 in gold rank at present in the following order: Colorado, California, Alaska, South Dakota, Nevada, Utah, Montana, Arizona. Oregon and Idaho. The production of silver in 1905 represents a decrease of 1,-581,200 ounces in actual output, but in spite of this the increase in the average price 4 cents an ounce (from 57 cents in 1904 to 61 cents in 1905) effected an addition to the value in 1904 of \$765,952.

UNIVERSITY AND EDUCATIONAL NEWS

The Experiment Station Record states that a new agricultural college and research institute for Madras is now in course of erection. In 1905 a grant to the presidency by the government of India of \$50,000 per annum, which was subsequently increased to \$100,000, added to the allotment made by the government of Madras, removed all financial difficulty experienced by the Madras agricultural depart-The result of this improved financial condition was the decision of the government to close the agricultural college at Saidapet and establish a new college and research institute, adequately equipped with laboratories and class-rooms and with a suitable farm near Coimbatore. The staff will consist of an expert agriculturist as the principal of the college, a superintendent of the central farm, a government botanist and an agricultural Ultimately an entomologist and chemist. mycologist may be added. The staff will combine teaching with research work. Problems connected with the agriculture of the presidency will be studied in the laboratory and

the field, while the students will be given a general education in all branches of agricultural science.

A FIRE, originating in the photographic room of Marischal College, Aberdeen, caused damage amounting to about £500.

There will be two fellowships open in the department of zoology and entomology in the Ohio State University for the coming university year. These provide a salary of \$300 and cover also tuition and laboratory fees. The holder is expected to carry on graduate work and may be called upon for assistance for laboratory work not to exceed half of the university time. Applications should be addressed to Professor Herbert Osborn, Ohio State University, Columbus, Ohio.

Dr. J. H. Wright has been appointed assistant professor of pathology in Harvard Medical School.

Mr. Bertram G. Smith, for the past three years an assistant in zoology in the University of Michigan, has been appointed instructor in biology in Lake Forest College, at Lake Forest, Ill.

Mr. Alfred Akerman, formerly state forester of Massachusetts and at present state forester of Georgia, has been given charge of the department of forestry which has been inaugurated at the University of Georgia.

The following appointments have been made at George Washington University: Isaac Wright Blackburn, M.D. (Pennsylvania), professor in Georgetown University, to be professor of morbid anatomy; George Albert Ross, A.M. (Columbian), professor of mathematics in Hardin College, to be instructor in mathematics, and Mr. Abraham Press, to be lecturer in engineering.

Mr. W. E. Colling has been placed in charge of a department of economic zoology at the University of Birmingham.

Dr. Devaux has been appointed professor of plant physiology, and Dr. Marchis, professor of physics, at the University of Bordeaux.

Mr. A. W. Andrews, M.A., has been appointed to the new lectureship in geography at University College, Aberystwyth.