these contributions possess the merit and freshness of having been written by the men who actually did the field work on which they are based. The authors are Joseph Grinnell, the able and energetic director of the museum, and several assistants, past and present, namely, Harold C. Bryant, Joseph Dixon, Edmund Heller, Frank Stephens, Harry S. Swarth, Walter P. Taylor, and Miss Louise Kellogg.

The museum has adopted a most liberal policy in regard to the loaning of specimens, so that responsible naturalists engaged in revisions of groups may have the benefit of its material. In my own case, particularly in my studies of the big bears of Alaska, of which Miss Alexander has amassed the largest and most important collection in existence after that of the United States Biological Survey, I have enjoyed such unusual courtesies in the unrestricted use of specimens and field notes that I feel it a privilege as well as a duty to make this slight acknowledgment of the generosity and spirit of cooperation shown both by the founder and the director of the museum.

C. HART MERRIAM

SCIENTIFIC NOTES AND NEWS

The American Society of Naturalists, in affiliation with the American Society of Zoologists, the Botanical Society of America, and the Society of American Bacteriologists, will hold its thirty-second meeting at Philadelphia, under the auspices of the University of Pennsylvania, on Thursday, December 31. The morning session will be open for papers on evolution, genetics and related subjects from members or invited guests. The program of the afternoon will be a joint symposium with Section F of the American Association for the Advancement of Science on "The Value of Zoology to Humanity." The annual dinner will be held in the evening of the same day.

The American Physiological Society, the American Society of Biological Chemists, the American Society for Pharmacology and Experimental Therapeutics, the American Society for Experimental Pathology and the Society of American Naturalists, will meet

in the laboratories of the Washington University, St. Louis, on December 28, 29 and 30.

THE New York Academy of Sciences and its affiliated societies had a general meeting at the American Museum of Natural History, on Monday, November 2, when Professor Reginald A. Daly, of Harvard University, gave a lecture on "Problems of Volcanic Action," which was followed by a reception.

Professor William Henry Bragg, who holds the chair of physics at the University of Leeds, is giving a course of four lectures on X-rays and crystals at Brown University, as part of the celebration of the hundred and fiftieth anniversary of its foundation.

Dr. Felix von Luschan, director of the Royal Museum of Ethnology in Berlin, and professor of anthropology in the University of Berlin, who was a guest at the Australian meeting of the British Association, is at present in this country, having been unable to return to Germany. He lectured last week at the University of Chicago.

Professor David Todd has returned to Amherst College, having made successful photographs of the corona of the recent solar eclipse from the estate of Count Bobrinsky, about a hundred miles southeast of Kieff. Owing to the mobilization, his instruments did not arrive in time, but he was able to obtain a camera and lenses that could be used.

Dr. Cyril G. Hopkins, head of the department of agronomy of the University of Illinois, has returned to his work after a year's leave of absence. Dr. Hopkins during the last year has been working for the interests of the south with the "Southern Settlement and Development Association," with headquarters at Baltimore.

PRESIDENT A. C. HUMPHREYS, of the Stevens Institute of Technology, will act as president of the International Gas Congress, which meets in San Francisco next September.

THE Alvarenga Prize for 1914 has been awarded by the College of Physicians of Philadelphia to Dr. Herman B. Sheffield for an essay entitled "The Fundamental Principles

involved in the Use of the Bone Graft in Surgery."

SIR ALMROTH WRIGHT has been appointed consulting physician to the British army in the field.

Mr. Herbert K. Job, who for the past four years has been state ornithologist of Connecticut and lecturer on ornithology at the Connecticut Agricultural College, has resigned to take up work along similar lines for the National Association of Audubon Societies.

Dr. Grace L. Meigs has been appointed by Miss Julia Lathrop, chief of the children's bureau of the U. S. Department of Labor, as expert on sanitation on the staff of that bureau. Dr. Meigs has recently been attending physician in children's diseases in Cook County Hospital, and will act in a general advisory capacity to the bureau in matters of child health and hygiene.

Professor W. K. Hatt, of Purdue University, has been appointed by the county commissioners of Marion County, to report on the design of the West Washington Street bridge over White River at Indianapolis.

Dr. M. A. Rosanoff, professor of research chemistry in the Mellon Institute of Industrial Research, University of Pittsburgh, will give a series of about twenty-five lectures on the general subject "Equilibria in Heterogeneous Systems" beginning Tuesday evening, November 3, 1914.

Professor Vernon L. Kellogg, of Stanford University, is giving in November a series of four lectures on "Heredity" before the Associated Charities of San Francisco.

Professor William E. Ritter, of the department of zoology of the University of California and director of the Scripp's Institute for Biological Research, addressed on November 4 members of the zoological department, graduate students and faculty members at the University of Illinois on the work of the institute.

Mr. G. R. Mines, fellow of Sidney Sussex College, Cambridge, and professor of physiology in McGill University, died on November 7, at the age of twenty-nine years. Professor Mines died while making experiments in his laboratory on the action of the heart, apparently as the result of some failure in the apparatus.

Dr. Henry Gannett, geographer of the U. S. Geological Survey since 1882, president of the National Geographic Society, the author of contributions to typographical surveying, statistics and geography, died in Washington on November 5, aged sixty-eight years.

Dr. Friedrich von Graner, director of the Forestry Bureau in Stuttgart, has died at the age of sixty-eight years.

At the meeting of the Association of American Universities, held at Princeton University last week, papers were presented by President George E. Vincent, of the University of Minnesota, on "The Granting of Honorary Degrees"; by Mr. George Parmly Day, treasurer of Yale University, on "The Function and Organization of University Presses," on "State Agencies of University Publication," prepared by Professor John C. Merriam, University of California, and presented by Dean Armin O. Leuschner, and on "Economy of Time in Education," by President A. Lawrence Lowell, of Harvard University.

The seventh annual meeting of the American Institute of Chemical Engineers will be held in Philadelphia, Pa., from December 2 to 5. A program of excursions to a number of the large chemical manufacturing plants in and around Philadelphia is being arranged. A number of addresses and papers on "The Present Opportunities for American Chemical Industries" will be delivered by prominent chemical engineers and business men.

THE New England Geological Excursion, which was announced for October 16-17, was given up on account of rain.

GOVERNOR EBERHART, of Minnesota, has issued a proclamation setting aside the week of November 29 to December 5 for the study of general health problems.

In accord with the unanimous vote of the first Pennsylvania Industrial Welfare and Efficiency Conference held in Harrisburg last year, John Price Jackson, commissioner of labor and industry, has issued a call for a sec-

ond conference to be held in the State Capitol at Harrisburg on November 17, 18 and 19, 1914. This conference is held under the auspices of the Pennsylvania Department of Labor and Industry and the Engineers' Society of Pennsylvania. The purpose of the conference is to enable the employers and employees to work out together the problems before them with reference to increasing the welfare of the employees and the prosperity of the industries. The conference last year was attended by approximately two thousand persons, many of whom were leaders in the labor and industrial world. The first session of the second conference will be called at 10 A.M. on November 17, and the meetings will close at 5 P.M. on November 19. The various sessions of the conference will be held in the State Capltol, Harrisburg. In connection with the conference proper, will be held a Safety, Welfare and Efficiency Exhibition which will open on the morning of November 16 and close on the evening of November 20.

WE learn from the Journal of the American Medical Association that the Wesley Memorial Hospital of Chicago has established five fellowships to be given yearly to those graduates in medicine who have clinical scientific problems that they wish to solve. The work will be done under a joint board made up from the staff of the Wesley Hospital and the laboratory departments of the Northwestern University Medical School; the clinical work to be done in the hospital and the laboratory work in the laboratory of the medical school. The problems are restricted to those having direct application to clinical medicine and surgery or the specialties. The fellowships are open to any graduate in medicine. The recipient of the fellowship will be required to devote his entire time during the first year, at least, to the prosecution of his investigation.

Professor I. W. Bailey, of the Harvard Forest School, has returned to the Bussey Institution after an absence of several weeks spent in visiting a number of the middle western universities. The following papers, prepared in collaboration with Dr. E. W. Sinnott, were read by Professor Bailey:

University of Chicago, October 12: "The Effects of Decreasing Temperatures upon the Form and Structure of the Angiosperms."

Meeting of Central Botanists, St. Louis, October 17: "The Origin and Dispersal of Herbaceous Angiosperms."

Missouri Botanical Garden, October 21: "Some Problems in Phytogeography."

University of Wisconsin, October 26: "The Effects of certain Changes in Climate upon Arborescent Angiosperms."

University of Michigan, October 30: "Recent Educational Developments in Forestry and Lumbering."

A MEETING of the New York Section of the American Electrochemical Society was held on November 10 in Rumford Hall to discuss "Contributions of Chemistry to Illuminating Engineering." The program was as follows: Milton C. Whitaker, Columbia University: "The Improved Incandescent Gas Mantle"; William C. Moore, National Carbon Co.: "Chemistry in the Development and Operating of Flaming Arc Lamps"; Ralph E. Meyers, Westinghouse Lamp Co.: "The New Tungsten Lamps"; R. D. Maily, Cooper Hewitt Electric Co.: "The Quartz Mercury Lamp"; D. McFarlan Moore, Edison Lamp Works: "The New Moore Tubes."

Pennsylvania so far exceeds all the rest of the states in the value of its mineral products as to stand almost alone. Exclusive of the value of pig iron, coke and other derived or secondary products not included in the total, the value of Pennsylvania's mineral production is nearly one fourth that of the entire country; and in 1913, according to figures of the United States Geological Survey computed in cooperation with the Pennsylvania Topographic and Geologic Survey Commission, it equaled the combined value of the production of West Virginia, Illinois, Ohio and California, the next four states in the value of their mineral product. Pennsylvania derives its mineral wealth almost entirely from nonmetalliferous mining operations. Except for a small amount of copper it produces none of the precious or semiprecious metals, and the only other metal which figures in the total production of

the state is iron, of which a small quantity (less than 500,000 tons of ore in 1913) is mined. In addition, however, to being the premier state in the production of coal, Pennsylvania leads also in the manufacture of cement, the burning of lime, and the production of mineral paints, sand, slate and stone. It is second in the value of clay products and natural gas, and sixth in the production of petroleum. Although not an iron-ore state, Pennsylvania is by far the leading producer of pig iron, which is obtained from the Lake Superior ores. The production in 1913 was 12,871,349 long tons, valued at \$197,726,314. If the value of the pig iron made in Pennsylvania were added to the value of the other products of the state, the total values for 1913 would have exceeded \$700,000,000, which is more than one fourth of the value of the total mineral production of the United States. The production of coal in Pennsylvania in 1912 amounted to 246,227,086 short tons, valued at \$346,993,123; in 1913 the value was \$388,220,-933, an increase of \$41,227,810, or 12 per cent., over 1912. Second in importance among Pennsylvania's mineral industries is the manufacture of Portland cement, closely followed by the clay-working industry. The production of cement in 1913 was 28,060,495 barrels, valued at \$24,268,800, against 27,625,340 barrels, valued at \$18,945,835, in 1912. value of the clay products, exclusive of raw clay mined and sold, increased from \$21,537,-221 in 1912 to \$24,231,482 in 1913. Although ranking second in the total value of its clay products, Pennsylvania is first in the production of brick and tile. A large part of the fire clay is mined in connection with coal mining and becomes in reality a by-product of that industry.

UNIVERSITY AND EDUCATIONAL NEWS MR. W. K. VANDERBILT has given \$135,750 toward the purchase by Columbia University of a half block of land on 117th Street adjoining other land owned by the university.

THE University of Pennsylvania receives \$50,000 by the will of Miss Anna Blanchard of Philadelphia.

The late Dr. Morris Longstreth, who at one time held the chair of pathological anatomy in Jefferson Medical College and later was in practise at Cambridge, Mass., and Barcelona, Spain, made the College of Physicians of Philadelphia his residuary legatee.

The annual dinner of the faculty and managers of Haverford will be held on November 23, when questions relative to the curriculum and the general policy of the college will be discussed.

Dr. WILLIAM WADDELL BOYD was inaugurated president of the Western College for Women, Oxford, Ohio, on November 4. His inaugural address was entitled "The Intelligent Use of the Intellect."

A CABLEGRAM to the N. Y. Sun states that M. Henri Bergson, presiding at a meeting of the Academy of Moral and Political Sciences on November 7, announced that Arthur Raffalovitch, Russian privy councillor and attaché of the Russian Embassy in Paris, a correspondent of the academy, has given his library, which he has been collecting for thirty years, to the University of Louvain. M. Bergson added that a committee is being formed to reconstitute the library's funds. It is known that the Germans removed the most precious manuscripts before burning the library, so it is hoped that the treasures eventually will be restored to Louvain.

THE Medico-Chirurgical College of Philadelphia has, according to the Journal of the American Medical Association, made the following faculty changes: Dr. Herbert H. Cushing, professor of practical anatomy; Dr. Ardrey W. Downs, professor of experimental physiology; Vernon K. Suydam, professor of physics; Charles E. Vanderkleed, professor of analytical chemistry; Dr. John H. Small, assoiate professor of bacteriology; Dr. Eugene A. Case, associate professor of pathology; Dr. Philipp Fischelis, associate professor of histology and embryology; Dr. Guy Hinsdale, Hot Springs, Va., associate professor of climatology; Dr. Arthur C. Morgan, associate professor of medicine, and Dr. John Stewart Rodman and Dr. John J. Gilbride, associate professors of surgery.