lasting friendships among his associates. His official work in the State of Virginia was untiring and he represented that wonderful spirit of the New South, which put behind it all the disappointments of the Civil War, and always looked forward, devoting his energies to bringing about a renaissance of leadership and development. He was active in the founding of the present Virginia Geological Survey, and established its scientific work on a high plane as the true basis for industrial development. He was known and loved in every county of his native state and responsibility for much of its present industrial growth was rightly laid at his door.

As a teacher in the State University he upheld all its finest traditions, and added to it vision and inspiration.

Born on a plantation at Chatham, Virginia, 53 years ago, he was just in the prime of a vigorous life devoted to the upbuilding of his state along all lines. It is hard to realize that he has completed his life work, but he has set a mark for those that follow to emulate.

Be it resolved that this resolution be spread on the minutes of the association, and that copies be sent to his family and official associates in Virginia.

The Association of American State Geologists

M. M. LEIGHTON, Secretary

URBANA, ILL.

SCIENTIFIC NOTES AND NEWS

Dr. Arthur R. Cushny, F.R.S., professor of pharmacology in the University of Edinburgh, will give the Charles E. Dohme memorial lectures for 1925 at the medical school of the Johns Hopkins University on May 8, 9 and 11. The title chosen by Professor Cushny for his three lectures is "Optical isomers in biology."

Among those receiving honorary degrees at the special commemorative exercises at the University of Pennsylvania on February 23 are Dr. Hubert Work, secretary of the interior, doctor of laws; Dr. Ray Lyman Wilbur, president of Stanford University, doctor of laws, and Dr. Charles Harrison Frazier, professor of surgery at the University of Pennsylvania, doctor of science.

WILLIAM H. BASSETT, metallurgist of the American Brass Company, has been awarded the James Douglas medal of the American Institute of Mining and Metallurgical Engineers, given for distinguished scientific achievement in the brass industry.

SIR HUMPHREY ROLLESTON, president of the Royal College of Physicians of London, was the recipient of the honorary fellowship of the Royal College of Physicians of Ireland, at a meeting of the college on February 7.

AT a meeting in the Pasteur Institute, December 20, the director of the institute, Dr. Roux, presented M. Paul Strauss, a member of the Academy of Medi-

cine, with a medal for his services, as minister of hygiene, to social welfare.

Professor Fulleborn, of the chair of tropical diseases at Hamburg, has been presented with the Japanese gold Katsurada medal.

Dr. Murk Jansen, instructor in orthopedics at Leyden, was tendered a banquet recently on his twentyfifth professional anniversary, and substantial additions were made to the Jansen Foundation by former patients and the Netherlands Orthopedic Society.

THE REVEREND R. R. STEBBING, F.R.S., British zoologist, celebrated his ninetieth birthday on February 6.

Dr. Addleh Barkan, professor emeritus and one of the first members of the faculty of the Stanford University Medical School, celebrated his eightieth birthday in Rome, Italy, on January 8.

Dr. Vernon Kellogg, of the National Research Council, has been elected president of the Washington Academy of Sciences for 1925.

THE reappointment of General Amos A. Fries as chief of the Chemical Warfare Service for another term of four years has been confirmed by the United States Senate.

Dr. E. D. Ball, director of scientific work in the United States Department of Agriculture, has tendered his resignation, to take effect March 4, 1925, to the incoming Secretary of Agriculture, President William M. Jardine, in order to give the new secretary the freest opportunity to select his immediate associates.

J. S. REICHERT, formerly professor of chemistry at the University of Notre Dame, has been appointed chemist in the Chemical Warfare Service, Edgewood Arsenal.

ROBERT REED, chemist for the du Pont Dye Works, has resigned, to take charge of the research work of the Lithographic Technical Foundation of the University of Cincinnati.

Dr. John C. Merriam, president of the Carnegie Institution of Washington, has left for Mexico to visit the ruins of the ancient Maya capital at Chichen Itza, Yucatan, where the institution is preparing for a thorough study of the civilization founded there. In Havana, Dr. Merriam will meet Dr. Clark Wissler, of the American Museum of Natural History, and Dr. A. V. Kidder, of Phillips Academy, members of the institution's advisory committee. The three then will sail for Progreso.

PROFESSOR E. C. JEFFREY, of Harvard University, will leave the United States for a visit to Australia and

New Zealand some time during the summer. He will devote his attention to the finding of fossil material illustrating the evolution of the Conifers of the Southern Hemisphere. During his stay in Australia, he will be the guest of the University of Sydney, New South Wales.

KNUT RASMUSSEN, the Norwegian explorer, is leaving Copenhagen for a visit to Canada. Later he will go to New York, Chicago and other cities in the United States.

Dr. E. V. McCollum, of the Johns Hopkins School of Hygiene and Public Health, will give on March 16, at the American Museum of Natural History, a lecture under the auspices of the New York Academy of Sciences, on "The application of laboratory studies in nutrition to human progress."

DR. Francis G. Benedict, of the Carnegie Nutrition Laboratory, Boston, gave the first of three lectures provided by the John Howard Appleton Fund at Brown University, on February 27. The subject of the address was "Alcohol and human efficiency."

DR. HERBERT E. IVES, of the Research Laboratories of the Western Electric Company, read a paper on "The transmission of photographs by telephone," before the American Philosophical Society, Philadelphia, on March 6.

Professor James F. Norris, president of the American Chemical Society and chairman of the division of chemistry and chemical technology, National Research Council, addressed the Chemical Society of Washington, on February 12, on "The reactivity of atoms and groups in organic compounds."

Dr. William M. Clark, of the Hygienic Laboratory, Washington, D. C., addressed the scientific staff of the Rockefeller Institute for Medical Research, January 23, on "Oxidation-reduction indicators."

PROFESSOR DAYTON C. MILLER, of the Case School of Applied Science and president of the American Physical Society, delivered three lectures on the subject of "Relativity," at Amherst College, on March 2, 3 and 4.

Dr. C. S. Hudson, of the Bureau of Standards, will present a paper entitled, "Relations between rotatory power and structure in the sugar group," at a joint meeting of a number of the divisions of the American Chemical Society at Baltimore, April 7.

PROFESSOR P. DEBYE, professor of theoretical physics at the University of Zurich, addressed the scientific staff of the Rockefeller Institute for Medical Research, New York, on February 26, on "Hydration and neutral salt action."

DR. RICHARD HAMER, of the department of physics of the University of Pittsburgh, gave an address to the Chiron Club on February 5, on "The application of X-rays to medical science."

PROFESSOR KURT KOFFKA, of the University of Giessen, will give two courses during the first term of the summer quarter of the University of Chicago. His courses will deal with various aspects of the Gestalt psychology. In one course he will emphasize the experimental treatment of this topic, in the second, the genetic treatment.

Dr. J. H. Jeans gave the sixteenth Kelvin Lecture to the Institution of Electrical Engineers, England, on February 6, on the subject of "Electrical forces and quanta."

J. W. T. Walsh, of the National Physical Laboratory, Teddington, England, read a paper at the meeting of the Illuminating Engineering Society, London, on January 27, dealing with some little-understood aspects of the effect of shadows in lighting problems.

THE Hunterian oration in connection with the Royal College of Surgeons of England was delivered at the college on February 14, by Sir D'Arcy Power.

A STATUETTE of the late Joseph Swan, executed by his daughter, has been presented to the Institution of Electrical Engineers, of England, by R. K. Morcum,

Dr. Joel Hastings Metcalf, Unitarian minister of Portland, Maine, and known for his work in photographic astronomy of the minor planets, died on February 21, aged fifty-nine years.

PROFESSOR FREDERICK CRABTREE, head of the department of mining and metallurgical engineering at the Carnegie Institute of Technology, died on February 14, aged fifty-eight years.

Dr. CHARLES BINGHAM PENROSE, president of the Philadelphia Zoological Society and formerly professor of gynecology at the University of Pennsylvania, died on February 27, aged sixty-three years.

SIR EDWARD THORPE, the distinguished British chemist, emeritus professor of general chemistry in the Imperial College of Science and Technology, has died in his eightieth year.

Dr. Horace T. Brown, F.R.S., of England, known for his work on the chemistry of carbohydrates, died on February 6, aged seventy-six years.

Dr. E. E. Klein, of England, a pioneer worker in bacteriology and histology, died on February 9, at the age of eighty years.

SIR THOMAS CLIFFORD ALLBUTT, the distinguished! English clinician, died on February 22, aged eightysix years.

Dr. N. Kulchitsky, lecturer in histology at University College, London, and formerly professor of anatomy in the University of Kharkov, died on January 29.

JEAN CAMUS, agrégé professor of physiology and physician to the hospitals of Paris, has died, at the age of fifty-two years, as he was about to become the successor of his teacher, C. Richet, as the occupant of the chair of physiology.

At the annual meeting of the Washington chapter of the American Institute of Chemists, held January 9, the following officers were elected for the ensuing year: President, J. F. Couch, Bureau of Animal Industry; vice-president, H. E. Patten, consulting chemist, Washington Loan and Trust Building; secretary, J. N. Taylor, Bureau of Animal Industry; treasurer, H. L. Lourie, U. S. Tariff Commission. Dr. C. E. Munroe was elected honorary president.

THE thirty-fifth annual meeting of the Ohio Academy of Science will be held at the College of Wooster, Ohio, April 3 and 4.

The twentieth International Congress of Anatomy will be held at Turin from April 6 to 8 under the presidency of Professor G. Romiti. Titles of papers should be sent to Professor G. Levi, Istituto Anatomico, Corso M. d'Azeglio 52, Turin.

PORTLAND, OREGON, will be the place of a regional meeting of the American Society of Mechanical Engineers from June 22 to 25, 1925. The meeting will occupy four full days. There will be two technical sessions in that time at which papers will be presented on the utilization of wood waste, the new 3-inch suction Diesel dredge, the mechanical engineering features of the Long Bell Lumber Company's new saw mill at Longview, Washington, electric logging, steam logging, cable systems in recent logging developments, and the new hydroelectric plant of the Portland Electric Power Company. Excursions have been planned for the last three days of the meeting.

The Sigma Xi Alumni Association of the University of Pittsburgh held a meeting on February 16, at which the staff of the Mellon Institute presented the following program: Dr. Leonard H. Cretcher, "Derivatives of quinine and acridine of interest to medical science"; E. R. Harding, "New ideas concerning the dietary"; Dr. W. B. Burnett, "Chemistry of accelerators used in vulcanizing rubber"; Dr. Thomas H. Swan, "Vapor pressure measurement of organic solids of low volatility."

THE International Health Board of the Rockefeller Foundation has given the sum of \$300,000 to the Danish National Vaccine Institute at Copenhagen,

for the purpose of extending the building and laboratories.

The population of Poland is preparing to raise funds for a national gift to Mme. Curie, the discoverer of radium, according to press dispatches. The gift will take the form of a radium institute in Warsaw, her native city.

THE annual exhibition of the Physical Society of London and the Optical Society was held on January 7 and 8 at the Imperial College of Science and Technology, South Kensington, England.

A GIFT of \$20,000 has been made to the University of Pennsylvania by F. M. Kirby, of Wilkes-Barre, Pa., to establish a fellowship in scientific research.

GEORGE EASTMAN, of Rochester, N. Y., has made a gift of \$5,000 to the Eugenics Society of the United States of America for promotion of its eugenical undertakings.

The late Lord Abercrombie, who was himself a distinguished authority on prehistoric archeology, bequeathed to the University of Edinburgh a sum of £17,000 to found a chair in that subject. He also bequeathed to the university certain books to form the nucleus of a special section of the library, together with any other of his archeological and anthropological books and photographs that the library committee of the university might select.

THE San Fernando Nursery Company, of San Fernando, California, has established a department of plant research, for the purpose of studying problems of identification, propagation and improvement of ornamental plants. The work has been placed under the direction of Dr. Arthur D. Houghton, of the University of California.

The American Institute, of the City of New York, intends to form committees of experts to investigate such problems as government control of radio and the management of the Patent Office as a part of its activities. In connection with these investigations there will be public lectures and open forums for the purpose of informing the public. An exposition of inventions is to be held at the Engineering Societies' Building in New York in the coming spring. This is designed to afford inventors and companies owning or having developed inventions the opportunity of showing the results of their work to the public.

ESTABLISHMENT of the Inventors' International Institute, designed to pass upon the practicability of inventions and the possibility of obtaining patents for them, has been announced. The organization will have an office at 15 Park Row, New York. Members of the institute's board of engineers will include Eustus H. Thompson, L. H. Thullen, Guy D. Collier, New

York; W. S. Richhart, Fort Wayne, Indiana, and Christian E. Brown, Newark, New Jersey.

DR. C. A. SCHENCK, former director of the Biltmore Forest School, will guide the party of students from the Pennsylvania State Forest School at Mont Alto, on their annual tour of the forests of Germany and Switzerland. Dr. J. V. Hofmann, former director of the U.S. Wind River Forest Experiment Station, will have charge of the party, which will consist of not more than twenty men, and will include as many members of other forest schools as can be accommodated. The party will sail from New York on March 28 and Dr. C. A. Schenck will conduct lectures in silviculture and management on the outward voyage, continuing the series of lectures given at Mont Alto early in January. During the tour through the German and Swiss forests with the Mont Alto forest school students last year, Dr. Schenck was able to secure the services of the forester in charge, with the history and working plans, and often invaluable historical maps. The tour will also include some of the French forests.

In conjunction with the Development Commission, the Departments of Agriculture for England and Wales and Scotland, have instituted a new class of scholarships with the object of training those who desire eventually to take up posts as agricultural organizers under county councils or as lecturers, whether at agricultural departments of universities, agricultural colleges or farm institutes. The scholarships are of two years' duration. The first year of the scholarship will be spent on investigational work in this country and the second year will be spent abroad. The scholarship allowance in the first year will normally be £200; the allowance in the second year will include provision for extra cost of travel and other expenses abroad.

PLANS have been perfected for the establishment of a Bureau of Industrial Standards in the Pennsylvania State Department of Labor and Industry, Harrisburg, to function at an early date. The bureau has been arranged to carry out a policy of having inspectors act as expert advisors in safety work in all branches of manufacture throughout the state; it will be for research, educational and similar purposes, keeping in close touch with the development of standards for health and safety, working, as well, with plant managers and superintendents. Cyril Ainsworth, secretary of the labor department, has been appointed director of the new bureau.

THE Experiment Station Record states that the first range livestock experiment station in this country has been established at Miles City, Montana, where a tract of 55,000 acres of grazing land and

2,000 acres of irrigated land formerly occupied by the Fort Keogh Military Reservation was transferred by act of Congress in April, 1924, to the U.S. Department of Agriculture. Buildings and equipment valued at more than \$200,000 are available, including two barns built in 1920 at a cost of \$12,000 each and about 75 miles of fencing. The station will be devoted to a study of range livestock problems and will be under the immediate supervision of the Animal Husbandry Division of the Bureau of Animal Industry with the cooperation of the Montana Experiment Station and other bureaus and divisions of the department interested in livestock problems. Plans have been made to maintain an initial stock of 1,000 beef feeding cattle, a band of sheep, hogs, horses and turkeys.

UNIVERSITY AND EDUCATIONAL NOTES

THE University of Chicago has received from an anonymous donor the sum of \$1,000,000, in connection with its campaign to raise \$17,500,000.

CLEVELAND H. DODGE, of New York, president of the Board of Trustees of Robert College, Constantinople, has given \$500,000 to the fund for Near East colleges.

THE sum of \$100,000 has been given to Boston University by an anonymous donor.

The governor of New Jersey, in his message to the State Legislature, has recommended appropriations to Rutgers University totalling over \$800,000. The items include \$200,000 for a new Physics Building for Rutgers College and \$200,000 for a new Recitation Building for the College for Women.

DR. LEBARON R. BRIGGS, dean of the faculty of arts and sciences at Harvard University, will resign at the end of the present academic year. His place will be taken by Clifford H. Moore.

Dr. Walter S. Hunter, head of the department of psychology of the University of Kansas, has been appointed to the G. Stanley Hall chair of genetic psychology at Clark University, established in memory of the first president of the institution, and supported by the income of funds left by him.

Dr. Henry Blumberg, of the University of Illinois, has been appointed professor of mathematics at Ohio State University.

Dr. Robert Maxwell Harbin, of Rome, Georgia, has accepted an appointment as professor of orthopedic surgery, Western Reserve University School of Medicine, Cleveland, and orthopedic surgeon to Lakeside and Rainbow Hospitals.

James McDowell, of Boston, a consultant in textile