that he purposed to retire from the active service of the University of California 14 months later, on July 1, 1930, will resume his residence on Mount Hamilton, following his retirement from the presidency of the university three months hence.

William H. Crocker, chairman of the board of regents, by the authority of the regents, recently extended to President Campbell the invitation of the board that he continue to serve as director of Lick Observatory and as an astronomer in Lick Observatory from and after July 1, 1930, and until, two years hence, he should attain the age of seventy years.

President Campbell was unable to accept this valued invitation to remain in active service, with responsibilities for the directing of the observatory and for the continuous pursuit of astronomical research as an active astronomer. He felt that his decision, as publicly announced in May, 1929, was a wise one; but he informed the regents through Chairman Crocker that he would be greatly pleased to continue his residence on Mount Hamilton, with principal purpose to renew his astronomical studies and to continue them so long as his physical health and mental vigor should justify.

It has been in accord with his most ardent desires that he possess the privilege of taking up again his astronomical work at the Lick Observatory, under the auspices of the University of California. The regents accordingly, and by unanimous vote, determined that following his retirement on July 1, 1930, he should bear the titles, president emeritus of the University of California, director emeritus and astronomer emeritus of the Lick Observatory.

The regents further invited President and Mrs. Campbell to occupy the residence on Mount Hamilton which was built for them in 1894, and in which they resided continuously from that date until they came to the president's house in Berkeley in 1923, and to which in the past seven years they have frequently returned for short stays. However, and largely in consequence of their period of residence in the mild climate of the Berkeley campus, they will probably not be in actual residence on Mount Hamilton during the winter months, where the storms are frequently severe.

AWARDS OF THE FRANKLIN INSTITUTE

THE medal meeting of the Franklin Institute, Philadelphia, will be held on the afternoon of May 21. On this occasion honorary membership will be conferred on Dr. Mortimer Elwyn Cooley, dean emeritus of the College of Engineering of the University of Michigan, and on Dr. Henry Leffmann, of the Franklin Institute. The Certificate of Merit will be presented to Heyman Rosenberg, of the Parker-Kalon Corporation, New York City. Medals will be presented as follows: Longstreth Medals to Ervin George Bailey, Fuller-Lehigh Company, Fullerton, Pennsylvania, and to Charles Weyl, assistant professor of electrical engineering, University of Pennsylvania; the Wetherill Medals to Charles Sumner Chrisman, West Chester, Pennsylvania, and to William Nicholson Jennings, Philadelphia, Pennsylvania; the Levy Medal to Dr. Floyd Karker Richtmyer, professor of physics, Cornell University; Henderson Medals to George Hannauer (posthumous award), represented by George Hannauer, Jr., Chestnut Hill, Massachusetts; Edgar Marvin Wilcox, Hannauer Car Retarder Company. Gibson, Indiana; the Clark Medal to Henry Latham Doherty, Cities Service Company, New York City; Cresson Medals to Norman Rothwell Gibson, The Niagara Falls Power Company, and to Irving Edwin Moultrop, The Edison Electric Illuminating Company, Boston; the Franklin Medals and Certificates of Honorary Membership to Dr. John Frank Stevens, former chief engineer of the Panama Canal, and to Sir William Henry Bragg, director of the Royal Institution of Great Britain. The two Franklin medalists will present papers. Dr. Stevens will speak on "A Momentous Hour at Panama" and Sir William on "The Meaning of the Crystal." A dinner in honor of the medalists will be given in the evening at the Bellevue-Stratford Hotel.

SCIENTIFIC NOTES AND NEWS

PROFESSOR EDMUND BEECHER WILSON, of Columbia University, and Professor Sir John Bretland Farmer, of the Imperial College of Science and Technology, have been elected honorary fellows of the Royal Microscopical Society, London.

DR. L. O. HOWARD, on the nomination of the Entomological Society of Washington, has been elected an honorary member of the Washington Academy of Sciences. This action was taken in recognition of his distinguished contributions to entomology, his intimate connection with scientists and scientific work in Washington and his services to the academy as member and officer since its foundation.

THE Trudeau Medal for meritorious service will be awarded to Dr. Henry Sewall, of Denver, according to an announcement made at the opening meeting at Memphis, Tennessee, of the convention of the National Tuberculosis Association. THE Gary Medal awarded by the American Iron and Steel Institute was presented to Mr. Charles M. Schwab for his services to the iron and steel industry at a dinner given in New York City on May 9. Among the speakers announced were Dr. Michael Pupin, Dr. John Johnston, Charles W. E. Clarke, W. A. James, Dr. F. M. Becket, Charles McKnight, Lee H. Miller and Arthur D. Little.

THE occasion of the eightieth birthday of Dr. David Bryson Delavan, known for his work in laryngology, was celebrated on May 3 by a dinner given in his honor by the New York Academy of Medicine at which more than a hundred members were in attendance.

THE Boston Society of Natural History held its annual meeting at the museum building on May 7 when the following officers were elected: Charles H. Taylor, president; Nathaniel T. Kidder, Glover M. Allen and William M. Wheeler, vice-presidents; Clinton V. MacCoy, secretary; Augustus P. Loring, Jr., treasurer, and Thomas Barbour, Joseph A. Cushman, William L. W. Field, Laurence B. Fletcher, Frederic H. Kennard and John C. Phillips, trustees.

DR. LUDWIG KAST, of New York City, was elected president of the American Gastroenterological Association at the thirty-third annual meeting recently held in Atlantic City. Other officers elected are Dr. Clement R. Jones, of Pittsburgh, first vice-president; Dr. Burrell H. Crohn, New York, second vice-president; Dr. Charles J. Lucas, Louisville, secretary, and Dr. Thomas Wray Grayson, Pittsburgh, treasurer.

THE prize for the best paper on scientific instruments, other than optical, to appear in The Journal of the Optical Society of America and Review of Scientific Instruments during 1929 has been awarded to Dr. K. C. D. Hickman, of the Eastman Kodak Company Research Laboratory, for his paper, "On Some Vacuum Recording Gauges," which appeared in April, 1929. The committee of award consisted of Professor H. W. Farwell, chairman; Dr. H. C. Rentschler and Professor F. W. Loomis. The committee made honorable mention of two papers by Dr. R. V. Baud, of the research department of the Westinghouse Electric and Manufacturing Company, East Pittsburgh, on "Experimental Methods of Studying Stress Distribution" and "Further Developments in Photoelasticity," which appeared in May, 1929.

THE Committee for Scientific Research of the American Medical Association has made a grant of \$700 to Dr. E. Brand, research associate in chemistry, New York State Psychiatric Institute and Hospital, New York City, for further research on Cystinuria.

THE J. T. Baker Chemical Company Research

Fellowship in Analytical Chemistry, mid-western division, has been awarded to Mr. A. C. Shead, now at the University of Oklahoma, who will work at the University of Illinois. Dr. I. M. Kolthoff, of the University of Minnesota, has been added to the committee administering the fellowship.

DR. AUSTIN M. PATTERSON, professor of chemistry in Antioch College, was elected vice-president of the college at the annual meeting of the board of trustees on May 2.

DR. ARTHUR E. RUARK, at present physicist with the Gulf Production Company, has accepted a professorship in the department of physics of the University of Pittsburgh beginning next September to succeed Dr. J. J. Weigle, who leaves to take charge of the department of physics at the University of Geneva, Switzerland.

PROFESSOR WITHROW MORSE, who for the past seven years has directed the department of physiological chemistry and toxicology in the Jefferson Medical College and the work in chemistry of the Jefferson Hospital, retires from the chair and will devote his time to investigation.

MAX A. McCALL, for the last six years assistant head of the Office of Cereal Crops and Diseases in the Bureau of Plant Industry, U. S. Department of Agriculture, has been named principal agronomist, in charge of this office. Mr. McCall has been acting in charge of the office for the last three months.

DR. LEON A. HAUSMAN, head of the department of zoology of the New Jersey College for Women, has been appointed consulting ornithologist for the experiment station. In this capacity Dr. Hausman will prepare a number of publications on bird life in New Jersey.

ACCORDING to The Experiment Station Record, Walter Toenjes, research assistant in horticulture at the Michigan Experiment Station, has been appointed superintendent of the Graham Horticultural Substation near Grand Rapids. Franklin Sherman, Jr., was recently appointed research assistant in entomology, vice L. G. Gentner, resigned, and Glenn L. Ricks assistant in horticultural research.

DAVID J. PRICE, Harry E. Roethe and Dr. Lawrence H. James, of the Bureau of Chemistry and Soils, U. S. Department of Agriculture, were named by Secretary Hyde to represent the department on a national committee to study spontaneous heating and ignition of agricultural products, which met in Atlantic City, N. J., on May 13, to formulate plans for and to correlate the various parts of a national research program for dealing with this subject. The committee included representatives of the Bureau of Mines and of the Bureau of Standards in the Department of Commerce, and representatives of the fertilizer industry, the paint and varnish manufacturers, the feed manufacturers, railroads and steamship companies, insurance companies and other industries which handle stored products.

W. P. STEWART as head of the Virginia Weather Bureau Division has taken up his work as successor to the late Edward A. Evans. Mr. Stewart comes from Milwaukee and has been in the federal service for twenty-nine years.

DR. C. A. ELVEHJEM, of Dane County, Wisconsin, has been appointed to the staff of the department of agricultural chemistry at the University of Wisconsin. Dr. Elvehjem will return shortly from the University of Cambridge, England, where he has been spending the past year studying under a National Research fellowship.

DR. WILLIAM H. HOWELL, director of the Johns Hopkins School of Hygiene and Public Health, has sailed for Europe, where he will attend a meeting of directors of schools of public health in the United States and Europe at Geneva on May 20.

CLYDE C. WHIPPLE, assistant professor of electrical engineering at the Polytechnic Institute of Brooklyn, has been granted leave of absence for one year to serve as visiting professor in electrical engineering at the Green School of Engineering of Princeton University.

DR. LUCIUS H. MERRILL, professor of biological and agricultural chemistry at the University of Maine, has been granted leave of absence and will devote himself largely to his work as state geologist.

DR. C. B. FAWCETT, of University College, London, will be visiting professor in geography at Clark University during the fall semester of 1930-31. He will offer special work on "The Political Geography of the British Empire," and another series of lectures on "The Geography of Continental Europe."

PROFESSOR W. G. WOOLNOUGH, geological adviser to the Commonwealth government of Australia, is spending several months in the United States for the purpose of observing American methods and practices in the petroleum industry and in the administration and technique of official surveys.

DR. JAMES G. NEEDHAM, head of the department of entomology at Cornell University, has recently returned from a 5,000 mile airplane trip to the West Indies and the Guianas with thousands of specimens of dragonflies and their larvae, many of them new to science. In fifty hours of flying, during the two weeks he spent away from the university, Professor Needham visited regions which in the normal course of such an expedition would have required from two to three months to complete and would have entailed hardships and inconveniences which might well have made the trip an impossible one.

A WIRELESS dispatch to The New York Times from Adelaide, Australia, dated May 4, reports that Sir Douglas Mawson has announced that with the necessary funds in sight he is now organizing a second Antarctic cruise. He expects to leave Hobart, Tasmania, early in November with members of the staff of the ship *Discovery*. He intends to resume the scientific survey of the Antarctic and to cover an expanse of 1,500 miles lying between the meridian of 160 degrees east and the point farthest east which was reached on his last voyage. Part of this field came within the scope of his expedition of 1911–14. On the forthcoming voyage particular attention will be paid to fishery potentialities, including edible fish, seals and whales.

PROFESSOR DART, of the Witwatersrand University, has, according to the Johannesburg correspondent of the London Times, completed arrangements for joining an Italian scientific expedition on its journey through Equatorial Africa and the Nile Valley to Egypt and to Mesopotamia. The expedition is expected to elucidate the relationship between European and African fauna. Professor Dart will also endeavor to throw further light on the question as to whether man appeared first in Africa. The program of the expedition includes visits to the pygmies of the Ituri forests and to the Kivu gorilla country, as well as investigations at Zimbabwe. Professor Dart will examine independently the diseases prevalent in equatorial territories and the circumstances which young medical students might have to face in the equatorial regions.

THE University of Buffalo held its annual scholarship dinner on May 10. Professor Arthur H. Compton, of the University of Chicago, spoke on "Science as a Stimulus to Civilization." Dr. Compton also addressed the Physical Science Club in the afternoon on "Some Aspects of X-ray Scattering."

A SERIES of lectures on the circulation was delivered at the College of Medicine, University of Illinois, by Dr. Walter J. Meek, professor of physiology at the University of Wisconsin, from April 29 to May 1, the titles being, respectively, "Cardiac Output," "Automaticity and Conduction" and "Some X-ray Studies of the Heart."

THE 234th meeting of the Washington Academy of Sciences was held on May 15, when Professor Maynard M. Metcalf, of the Johns Hopkins University, delivered an address on "The Origin and Evolution of the Higher One-celled Animals." This is the sixth of a number of lectures proposed by the academy on various phases of genesis and development or origin and evolution.

DR. BERNARD HAGUE, principal lecturer in electrical engineering at the University of Glasgow, delivered a lecture on April 26 before the Royal Canadian Institute on "The Contribution of Scientific Research to Some Recent Developments in Electrical Engineering." In September, 1929, Dr. Hague was granted a year's leave of absence to act as visiting professor in the Post Graduate School of the Polytechnic Institute of Brooklyn, New York, to conduct advanced courses in electrical theory and measurements.

THE Oliver-Sharpey Lectures before the Royal College of Physicians of London were delivered by Professor J. J. R. Macleod at the college on April 29 and May 1. The subject of the lectures was diabetes as a physiological problem.

THE Ingleby Lecture will be delivered at the University of Birmingham on May 22 by Sir John Bland-Sutton, past-president of the Royal College of Surgeons of England. The title of his lecture is "The Blood Trail."

A CHAPTER of Sigma Xi was recently installed at the Pennsylvania State College by Dean Ellery, national secretary, of Union College. There are 82 members of the society or associates on the faculty or connected with it. After the installation, Dean Ellery presented an address on "Radio Activity and the New Chemistry," which was illustrated with moving-picture films.

THE fifty-sixth chapter of the Society of the Sigma Xi was inaugurated at the University of Rochester on May 3. The program included a closed meeting, at which Dr. Edward Ellery, professor of chemistry and dean of the faculty at Union College, and national secretary of Sigma Xi, installed new officers. A dinner in his honor was given. Officers of the new chapter are: Honorary President, Dr. Herman LeRoy Fairchild, professor emeritus of geology; President, Dr. Victor J. Chambers, Charles Frederick Houghton professor of chemistry; Vice-President, Dr. George W. Corner, professor at the School of Medicine and Dentistry; Secretary-Treasurer, Quantin D. Singewald, assistant professor of geology; Executive Committee, Dr. T. Russell Wilkins, professor of physics; Dr. Walter R. Bloor, associate dean of the School of Medicine and Dentistry, and Hazel M. Stanton, psychologist at the Eastman School of Music.

THE gift of \$1,500,000 by Cyrus H. K. Curtis to the projected Benjamin Franklin memorial and Franklin Institute Museum was announced on May 6 at a luncheon of the Poor Richard Club. Of the amount \$500,000 will go to the \$5,000,000 fund for the building and \$1,000,000 will go to the endowment fund to sustain the museum. Mr. William L. Mc-Lean, publisher of the *Evening Bulletin*, Philadelphia, has given \$100,000 to be used for erection of a heroic statue of Benjamin Franklin on the Parkway in connection with the proposed Benjamin Franklin Memorial and Franklin Institute Museum.

As a memorial to the late Charles P. Taft, Mrs. Taft has given \$2,000,000 to the University of Cincinnati.

DR. T. WAYLAND VAUGHAN, director of the Scripps Institution of Oceanography of the University of California, has given his personal scientific library for addition to that of the institution. This library includes approximately 800 bound volumes and 400 unbound volumes, together with 5,400 reprints. The books number about one ninth the present number in the library; the reprints about one third. Dr. Vaughan already had given the institution library about 150 bound volumes and 500 reprints.

A GRANT of \$10,000 a year for two years has been made by the Rockefeller Foundation to the British National Institute of Industrial Psychology. This is the third grant which the Rockefeller trustees have made to the institute. The first grant, of \$50,000, was made in 1926 for a period of five years. Most of this has been spent on research, and several reports will be published this year. The second grant was for \$22,500, and was given to enable the institute to move into its present premises at Aldwych House.

DR. GEORGE E. JOHNSON, secretary, writes that the sixty-second annual meeting of the Kansas Academy of Science was held at the Kansas State Teachers College at Hays, Kansas, April 18 and 19, 1930. Two half days were devoted to general papers and business and one half day to section meetings. Dr. Wm. B. Wilson, of Ottawa University, delivered the presidential address on "The Kansas Academy of Science, its Position and Mission." Dr. T. D. A. Cockerell, of the University of Colorado, addressed the academy in the evening on April 18. His subject was "A Naturalist around the World." An arrangement was entered into with the University of Kansas, the Agricultural College and the Teachers College at Hays, whereby these institutions would contribute annually for ten years towards the publication of the Transactions. This also involved giving these institutions copies of the Transactions for purposes of exchange. The library of the academy is to be permanently deposited at the three institutions and the exchange list of the academy will be divided among them. The fol-

MAY 16, 1930]

lowing officers were elected for the ensuing year: President. Hazel E. Branch, University of Wichita; First Vice-president, Roger C. Smith, Kansas State Agricultural College; Second Vice-president, Wm. H. Matthews, Kansas State Teachers College at Pittsburg; Treasurer, Ray Q. Brewster, University of Kansas; Secretary, George E. Johnson, Kansas State Agricultural College; additional council members, Wm. B. Wilson, Robert Taft, F. U. G. Agrelius and A. W. Barton. The section chairmen are as follows: Chemistry-Physics, Robert Taft; Biology, Mary T. Harman; Psychology, J. C. Peterson, president of the Kansas Psychological Association; Entomology, George A. Dean, president of the Kansas Entomological Society. The academy will meet at the university at Lawrence in April, 1930.

A SPECIAL health commission has been appointed by Governor Roosevelt to study the working of the public-health law of New York State and the various state and local authorities dealing with the promotion of health, as well as recent progress in public

DISCU

THE NATIONAL FOREST RESERVATION COMMISSION AND FOREST RESEARCH RESERVES

READERS of SCIENCE for May 24 and June 28, 1929, will recall that the U. S. Forest Service has announced a policy of setting aside portions of the national forests, representative of virgin or relatively undisturbed conditions in each important forest type, as "research reserves" for scientific study; and that the National Forest Reservation Commission last spring approved the purchase, for its scientific value, of one hundred acres of original growth, known as Heart's Content, as a part of the Allegheny National Forest in Pennsylvania.

The report of the National Forest Reservation Commission to the Senate for the year ending June 30, 1929, will encourage the belief that the Forest Service is now in a much improved situation to carry out its announced policy with respect to research reserves. Owing to the extremely low price at which the bulk of the lands have been purchased for national forests in the East, very little virgin forest is now in federal ownership. Here and there, however, there are within the boundaries set for federal purchases privately owned tracts of original forest growth which, provided the National Forest Reservation Commission is willing to pay the prices asked for heavy commercial stands, may be added to the national forests. The commission's recent report, from the pen of its president pro tempore, Ray Lyman Wilbur, Secretary of the Interior, indicates health in other states and abroad. The announcement of the creation of the commission stated that while New York has "one of the best public health laws of any of the states," and has a state health department which has wide recognition as a leader in its field, the great discoveries in medical science make it desirable every few years to have an appraisal to determine the possibility of a more effective application in actual practice of the latest results of scientific research in the means of preventing disease and conserving health. The governor stated that Dr. Livingston Farrand, president of Cornell University, has been asked to serve as chairman of the commission. Others invited to become members are Dr. George W. Cottis, Jamestown; Dr. Simon Flexner, Homer Folks, Dr. Edward L. Keyes, John A. Kingsbury, Mrs. Henry Goddard Leach, Henry Morgenthau, Gerard Swope, Miss Katherine Tucker and Dr. Linsly R. Williams, all of New York City; Dr. Matthias Nicoll, Jr., White Plains; John M. O'Hanlon, Troy; Dr. Thomas Parran, Jr., state commissioner of health, Albany, and Dr. William H. Ross, Brentwood.

DISCUSSION

a new attitude toward such purchases. It includes among the objectives of the acquisition program "promotion of reforestation and timber production on forest lands-by creating means for development of the principles and practices of silvicultural management necessary for successful timber-growing." What this phrase means may be inferred from the inclusion among the "outstanding features of the work of the National Forest Reservation Commission for the year" of "recognition of the desirability of the preservation of unmodified or virgin forest areas as nature laboratories for the promotion of silviculture." Further on in the report is the following reference to the purchase of the Heart's Content area:

Notwithstanding the high commercial value of the heavy stand of white-pine timber, it is deemed eminently desirable that the government should acquire this property, not as a museum site or as a recreational tract but as a laboratory for the promotion of silviculture within which to study both the physical and biological aspects of the changes which take place in such forests, the concomitant changes in the white pine-hemlock forest type and the manner in which knowledge of these changes may be of value in guiding the development and management of the several hundred thousand acres of cut-over white-pine lands eventually to be acquired as the larger part of the Allegheny National Forest.

These principles, applied to future purchase programs, ought to result in the acquisition of other tracts suitable for research reserves. Their area can