early October. By the middle of June the second-floor hall can probably be turned over to the Carl Zeiss Company to begin the assembling and installation of the projection instrument which is now crated and in storage in a New York City warehouse. This installation requires at least two months, for it is a delicate job done by special engineers from the Zeiss works in Jena.

One of the most-used entrances to the planetarium will be, no doubt, through the Roosevelt Memorial, that beautiful and stately building which is to form the central unit of the American Museum of Natural History, on Central Park West. Although the Roosevelt Memorial may not be open to the public until November, doorways are now being cut through its walls into the Planetarium, and as soon as both buildings are open, the use of this entrance into the planetarium will greatly facilitate the handling of crowds.

The Planetarium building itself was made possible by a loan of $650,000 from the Reconstruction Finance Corporation, while the two planetarium instruments were given through the generosity of Charles Hayden, for whom the planetarium is named.

CLYDE FISHER,
*Curator of Astronomy*

## HONORS CONFERRED BY THE FRANKLIN INSTITUTE

AT the Medal Day Exercises of The Franklin Institute of the State of Pennsylvania, held in the Hall of the institute, the Parkway at Twentieth Street in Philadelphia, on the afternoon of Wednesday, May 15, seventeen honors which had been awarded during the institute year were presented to their recipients or representatives of them. The medalists were drawn from England as well as from the United States.

The awards were as follows:

### *Certificate of Merit*

To George Kelley, of New York City, New York, "in consideration of the invention of an apparatus for the removing of the dust produced in the drilling of rock and the resulting lessening of the silicosis hazard."

### *The Edward Longstreth Medals*

Founded in 1890 by Edward Longstreth, Philadelphia. To Edmond Bruce, of the Bell Telephone Laboratories of Red Bank, N. J., "in consideration of his design and development of antennae for short-wave communication combining superior efficiency, high directivity, simple construction and effectiveness over a broad range of frequencies. . . ." To Howard D. Colman and Burt A. Peterson, of Rockford, Ill., jointly, "in consideration of the signal advance in the art made by the Barber-Colman Automatic Spooler and of the general excellence of its design." To Peter Davey, of New York City, "in consideration of the successful and useful combination of well-known principles embodied in the vibroscope and vibrometer and especially of their combination in a portable balancing device." To Karl B. McEachron, of the General Electric Company, Pittsfield, Mass., "in consideration of his careful conduct of a series of closely controlled investigations extending over a period of six years which resulted in the successful development of a process for manufacturing thyrite."

### *The John Price Wetherill Medals*

Founded in 1925 by the family of the late John Price Wetherill. To Dr. Francis F. Lucas, of the Bell Telephone Laboratories, "in consideration of his development of a technique of microscopy and photomicrography by virtue of which objectives of the highest numerical aperture yet developed and visible light and ultra-violet light have been brought to their full theoretical resolving power, and by the use of which photomicrographs of metallurgical and biological specimens superior to any heretofore made are now being produced under his direction." To Robert E. Naumburg, of New York City, "in recognition of an invention which embodies a meritorious utilization of several well-known mechanical and physical principles to produce an apparatus original in its accomplishments and of unquestioned benefit to humanity." To W. H. Shortt, of Exeter, and F. Hope-Jones, of London, jointly, "in consideration of their respective contributions to the invention, development and production of a free pendulum type of clock of remarkable precision which is now used in standard time control in Great Britain and the United States." To Dr. James E. Shrader, of the Drexel Institute, Philadelphia, "in consideration of the design and construction of a portable and easily operated instrument for the investigation of vibrations, which affords simultaneous records of the vibrations in three mutually rectangular directions and in which the inventor displayed much ingenuity." To Dr. Louis Bryant Tuckerman, of the National Bureau of Standards, "in consideration of the fundamental improvements which he has introduced into the optical lever, making it an instrument of hitherto unrealized precision and of his ingenious application of this lever to a strain gauge." To Henry Ellis Warren, of Ashland, Mass., "in consideration of his invention of the telechron motor—a small, limited-power, self-starting, synchronous motor having strong starting torque and synchronous torque characteristics."

### *The Walton Clark Medal*

Established in 1926 by the United Gas Improvement Company of Philadelphia. To Frederick Joseph West, of Manchester, England, "in consideration of his outstanding service to the gas industry in the sphere of improved scientific development of gas works practise and technique and practical gas research as applied particularly to the carbonization of coal in vertical retorts, and for his work in the training and education of engineers and his success in promoting amicable relationships between employer and employed, all of which have been of substantial value to the manufactured gas industry."

*The Louis Edward Levy Medal*

Founded in 1923 by the family of Louis E. Levy of Philadelphia. To Dr. H. L. Hazen, of the Massachusetts Institute of Technology, "for his two papers published in the September, 1934, issue of the *Journal* of the Institute and the November, 1934, issue, entitled, respectively, 'Theory of Servo-Mechanisms' and 'Design and Test of a High Performance Servo-Mechanism.'"

*The Franklin Medals*

Founded in 1914 by Samuel Insull, Esq., of Chicago, Ill. To Dr. Albert Einstein, of the Institute for Advanced Study, Princeton, N. J., "in recognition of his contributions of fundamental importance to theoretical physics, especially his work on relativity and the photo-electric effect." To Sir John Ambrose Fleming, emeritus professor of the University of London, London, Eng., "in recognition of his many contributions to the improvement of the art of communication, and especially the invention of the thermionic valve which bears his name." Sir Ambrose was unable to come to America to receive his medal in person. He was represented by the British Consul General at Philadelphia.

In the evening a subscription dinner was held in honor of the medalists at the Bellevue-Stratford Hotel.

## SEMI-CENTENNIAL OF THE AWARD OF THE FIRST ELECTRICAL ENGINEERING DEGREE IN AMERICA

THE Massachusetts Institute of Technology on August 31, 1882, announced its pioneer course, and on June 2, 1885, awarded the first electrical-engineering degree in America. The event will be celebrated at Cambridge on Alumni Day, June 3, by a Semi-Centennial Symposium in which electrical-engineering education in the United States during the past fifty years will be reviewed with particular reference to the influence that the Massachusetts Institute of Technology has had on its development.

The principal speakers will be Dr. F. B. Jewett, '03, president of the Bell Telephone Laboratories, Inc.; Dr. A. A. Potter, '03, dean of engineering at Purdue University, and Dr. Vannevar Bush, '16, vice-president and dean of engineering at the Massachusetts Institute of Technology. Professor D. C. Jackson, head of the department of electrical engineering, will preside.

Following the symposium, a testimonial luncheon will be held in the Walker Memorial for Professor Jackson, who is retiring this year after directing the electrical-engineering division for twenty-eight years. The speakers at the luncheon will include: Herbert G. Pratt, '85, president of the Samson Cordage Works; C. A. Stone, '88, chairman of the board, Stone and Webster, Inc.; Gerard Swope, '95, president of the General Electric Company; Professor W. S. Rodman, '09, dean of engineering at the University of Virginia; Professor O. G. C. Dahl, '21, representing the electrical-engineering faculty at the institute, and Dr. K. T. Compton, president, and E. L. Moreland, '07, who will succeed Professor Jackson as head of the department of electrical engineering. Professor Jackson will respond, and Alexander Macomber, '07, consulting engineer and public-utility executive, will preside.

After the luncheon Professor Jackson, attended by the electrical-engineering faculty, will hold a reception for the guests. In the electrical-engineering laboratories special demonstrations will be made of calculating machines, electrical communication, sound measurement, modern illumination, developments in electronics, stroboscopic measurement, insulation research, electro-physiological research and super high-voltage engineering. A statistical and historical exhibit will illustrate the development of electrical-engineering education at the institute.

## RECENT DEATHS

DR. CHARLES HORACE CLAPP, president of the State University of Montana, formerly of the Geological Survey of Canada and of the U. S. Geological Survey, died on May 9 at the age of fifty-two years.

DR. ALFRED E. BURTON, who joined the faculty of the Massachusetts Institute of Technology as instructor of topographical engineering in 1882, becoming professor emeritus in 1922, died on May 11 at the age of seventy-eight years. Dr. Burton served the institute as dean for a period of twenty years.

THE death is announced of H. B. Baker, lately professor of general chemistry in the Imperial College of Science and Technology, London, on April 27 at the age of seventy-three years.

PROFESSOR HECTOR MUNRO MACDONALD, since 1904 professor of mathematics at the University of Aberdeen, died on May 16. He was a fellow of the Royal Society, in whose proceedings his contributions to the mathematical theory of radio were mainly published. He received the society's Royal Medal in 1916. He was also a fellow of the Royal Astronomical Association and president of the London Mathematical Society.

HERBERT HENRY THOMAS, petrographer to the British Geological Survey, died on May 12. He was a former secretary and president of the Geological Society and a former president of Section C of the British Association. In 1925 he won the Murchison Medal of the Geological Society. He was fifty-nine years old.