will be held this winter. The courses, with laboratory work, lectures, and seminars, will be a continuation of a series offered at Oak Ridge and will run from January 2-27, January 30 to February 25, and March 6-31, 1950. Thirty-two participants will be accepted for each course, and there will be a registration fee of \$25.00 for each. Application forms and additional information on the courses may be obtained from Dr. Ralph T. Overman, Chairman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee.

## ESTABLISHED

#### RADIO PROPAGATION LABORATORY

A new laboratory group, known as the Radio Propagation Laboratory, has been formed at the Pennsylvania State College. The seventeen members of the laboratory are directing their primary attention to studies of the effect of the ionosphere on frequencies below five hundred kilocycles. Two field stations are maintained in the State College area.

#### CENCO

Central Scientific Company has announced the opening of a new office in New York City to facilitate service in that area on scientific instruments, laboratory supplies, and chemical reagents.

#### TIN RESEARCH INSTITUTE

Tin Research Institute, Incorporated, a corporation providing free technical consultation service and assistance to users of tin in the United States, has established offices at 492 West Sixth Avenue, Columbus 1, Ohio according to a recent announcement. R. J. Nekervis and R. M. MacIntosh, both formerly members of the nonferrous division staff of Battelle Memorial Institute, have been appointed supervisors for the new organization.

## NEW GULF LABORATORY

A large and carefully designed laboratory building, intended to be the center for all geophysical research activities of the Gulf Oil Corporation, was dedicated in October at Harmarville, Pennsylvania. The new building is to be known as the Leovy Laboratory of Geophysics, in memory of the late Frank Adair Leovy and in tribute to his role in the scientific development of the oil industry.

# NEW EQUIPMENT

## BARTOL VAN DE GRAAFF

A new high voltage Van de Graaff generator, similar to those under construction at MIT and at Los Alamos, is to be added to the physics equipment of the Bartol Research Foundation of the Franklin Institute. Ground was broken early in October for a building to house the accelerator. According to W. F. G. Swann, director of the Foundation, it will take more than two years to complete the Van de Graaff and put it in operation.

#### HARVARD'S MARK III

Over six hundred physicists, mathematicians, economists, engineers, and industrialists from all parts of the

country and abroad attended a four-day symposium on large-scale digital calculating machines at the Harvard Computation Laboratory on September 13. The occasion marked the first public demonstration of Harvard University's new Mark III calculating machine, which will be used by the U. S. Navy Bureau of Ordnance.

## IOWA SYNCHROTRON

Preliminary tests have been made of the new eighty million volt synchroton now nearing completion at the Iowa State College Institute for Atomic Research at Ames. Built in Schenectady by the General Electric Company, the accelerator has been assembled in Iowa by members of the physics department and is housed in a specially designed building near the campus. The synchroton should be ready for operation within the next few months, it has been announced.

# HONORS AND AWARDS

#### AID TO RESEARCH

Grants in aid of scientific research amounting to \$235,000 have been announced by Research Corporation, New York City, a nonprofit organization which distributes its total net income in grants. They will be used to initiate or continue sixty-four research projects (mostly in physics, chemistry, mathematics, and engineering) administered by American colleges, universities, and scientific institutions in twenty-eight states. The latest grants bring to about \$650,000 the total distributed by Research Corporation this year for scientific research.

#### IES GOLD MEDAL

Ward Harrison, retired director of the engineering division of General Electric Lamp Department, has been awarded the 1949 Illuminating Engineering Society's Gold Medal, the highest award of the Society. The medal is awarded each year "for meritorious achievement conspicuously furthering the profession, art, and knowledge of illuminating engineering."

## DISTINGUISHED SERVICE AWARD

Grote Reber, radio physicist in charge of the U. S. government radio observatory at Sterling, Virginia, has been given the annual distinguished service award of the Alumni Association of Illinois Institute of Technology for outstanding professional achievement.

## NATURAL SCIENCE FELLOWSHIPS

National Research Fellowships for 1949 have been awarded to Edwin E. Moise of the Institute for Advanced Study, Charles M. Stein of the Institut Henri Poincaré in Paris, Carl B. Seligman of Physikalisches Institut der Eidgenössische Technische Hochschule in Zurich, Marshal H. Wrubel of the Princeton University Observatory, and Sydney C. Wright of the Institute of Nuclear Studies at the University of Chicago. Norman M. Kroll of the Institute for Theoretical Physics in Copenhagen received a renewal of his present fellowship for an additional year. The above fellowships were awarded in the fields of physics, mathematics, and astronomy;

nine additional fellowships in other fields of the natural sciences were also presented by the National Research Council, which administers the program. The fellowships are supported by the Rockefeller Foundation.

#### ROYAL SOCIETIES

A recent listing of newly elected honorary fellows of the Royal Society of Edinburgh includes the names of Enrico Fermi, of the University of Chicago, and Irving Langmuir, of General Electric's Research Laboratory.

The British Royal Photographic Society has elected Loyd A. Jones, head of the physics department at Kodak Research Laboratories, to be an honorary fellow of the Society, in recognition of his contributions to photography, particularly in the field of sensitometry. In February of this year Dr. Jones was awarded the Society's Progress Medal for the previous year, and in May he received the Society's Hurter and Driffield medal.

#### BLEININGER MEMORIAL AWARD

Edwin W. Tillotson, assistant director of the Mellon Institute, has received the American Ceramic Society's Bleininger Memorial Award of 1949 in recognition of his contributions to the field of ceramics.

#### DUDDELL MEDAL

Edwin H. Land, president and director of research of the Polaroid Corporation, Cambridge, Massachusetts, has been awarded the Duddell Medal of the Physical Society of London. Land received several invitations to address British scientific and learned societies earlier this year and the presentation was made while he was visiting London.

## ELECTED ASSOCIATE

Charlotte Moore-Sitterly of the National Bureau of Standards has been elected an Associate of the Royal Astronomical Society of Great Britain in recognition of her outstanding contributions in the fields of astronomy and astrophysics, particularly her extensive compilations of multiplet tables and her work in identifying lines in solar and sun spot spectra.

# JOHN PRICE WETHERILL MEDAL

The Franklin Institute has also announced that its John Price Wetherill Medal has been awarded to Edgar Collins Bain, vice president in charge of research and technology at the Carnegie Illinois Steel Company. The medal was given in recognition of Bain's investigation into the structure of metallic alloys and his original work in studying the transformation rates responsible for the hardening of steel.

# HOWARD N. POTTS MEDALS

Two Philadelphia scientists who have developed UNI-VAC, the electronic computing machine ordered by the United States Census Bureau for use in compiling 1950 census information, are recipients of Howard N. Potts Medals awarded by the Franklin Institute of Pennsylvania, according to a recent announcement. The two, John W. Mauchly and J. Presper Eckert, Jr., received the awards for their work in the design and construction of the ENIAC, the world's first large-scale digital electronic computing machine. Mauchly and Eckert also developed and built BINAC, and formulated the basic plans and suggested the general design for EDVAC, the electronic computor developed by the University of Pennsylvania.

Another of the Howard N. Potts Medals has been presented to Clinton Richards Hanna, associate director of the Westinghouse Electric Corporation's research laboratories in Pittsburgh, in recognition of his contributions to the development of the tank gun stabilizer.

## HONORED BY SOCIETY OF MOTION PICTURE ENGINEERS

The 1949 Progress Medal of the Society of Motion Picture Engineers has been awarded to Harvey Fletcher, who recently retired as director of physical research of the Bell Telephone Laboratories. The medal was presented at the Society's semi-annual banquet in Hollywood on October 12. Two other annual SMPE awards were made at the same time. Ralph M. Evans of the Eastman Kodak Company received the Samuel L. Warner Memorial award, and Fred G. Albin of the American Broadcasting Company received the SMPE journal award.

## RCA FELLOWSHIPS

Eight RCA fellowships in electronics awarded to graduate students for the year 1949-50 were grants, ranging from \$1,600 to \$2,100, and are to be received by: Charles K. Birdsall, David Carter, and Howard C. Poulter of Stanford University; Arthur L. Aden and B. F. Naka of Harvard; Robert W. Olthuis of the University of Michigan; William A. Craven, Jr. of Princeton University; and Gerald Estrin of the University of Wisconsin.

Other RCA fellowships have been given to Jerome L. Grever of Purdue University; Joseph P. Ulasewicz of Rensselaer Polytechnic Institute; Alan D. Sutherland of the University of Illinois; Joseph Reed of the Polytechnic Institute of Brooklyn; T. R. Williams of Princeton; and David F. Woods of Cornell.

## FRANK B. JEWETT

Frank B. Jewett, former president of the National Academy of Sciences and of the Bell Telephone Laboratories, died November 18 at the age of seventy. Dr. Jewett's death brought to a close a career of nearly half a century devoted to scientific research with the American Telephone and Telegraph Company and its affiliated companies. President of the National Academy from 1939 to 1947, he was the first engineer elected to that office in the Academy's history.

Shortly before his death he had been named to receive separate awards in recognition of his contributions to the public welfare. The Hoover Medal for 1949, one of the highest honors of the engineering profession, was to have been presented at the winter meeting of the American Institute of Electrical Engineers in New York City at the end of January, while the 1950 medal of the Industrial Research Institute, Inc. was to have been presented next April.