

of the Atomic Energy Commission. While the reactor operates primarily on thermal neutrons, it also can produce neutrons of higher energies, thus providing a means for determining the effects of radiation of different intensities on materials considered for use in the structures, cooling systems, and shields of new reactors. An enriched uranium reactor, it uses water circulating at high velocity as a coolant. Excavation for the reactor was started at the station in May 1950 and on March 31st of this year it became critical.

New Geomagnetic Station

To be Built in Virginia

The Senate adopted a House-passed bill early in May authorizing construction of a \$1,575,000 geomagnetic station to replace a Commerce Department station at Cheltenham, Maryland which has been described as obsolete. The new station will be built on the A. P. Hill Military Reservation near Fredericksburg, Virginia, and will be operated by the Coast and Geodetic Survey.

New Signal Corps Laboratory

Research Center Will Consolidate Work

The Army Signal Corps has announced plans to consolidate all scientific work now carried out in four widely separated laboratories in a single research and development center at Eatontown, N. J. The new laboratory, to be housed in a \$22,000,000 hexagonal building, will centralize research and development work now conducted at the Signal Corps' Watson Laboratories, Coles Signal Laboratory, Squier Signal Laboratory, and Evans Signal Laboratory. Construction of the five-story, six-wing research center will provide more than 700,000 square feet of laboratory space.

National Science Foundation

Grants in Aid of Basic Research

The second group of research awards to be announced this year under the National Science Foundation's program for the support of basic research brings the total number of NSF research grants to sixty-nine. On April 23rd the Foundation reported that forty-one grants, amounting to \$406,660, had been approved for aid in research in the physical and biological sciences. Additional proposals are being evaluated by the staff of the Foundation with the help of advisory panels of outstanding American scientists.

The most recent grants were made to institutions in California, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Vermont, Wisconsin, and Hawaii. The research fields included are biochemistry (2 grants), biophysics (4), chemistry (11), comparative physiology (1), developmental biology (1), endocrinology (1), engineering (1), enzyme chemistry (1),

experimental plant biology (2), genetics (2), microbiology (2), oceanography (1), physics (5), pharmacology (2), and systematic biology (5). Duration of research grants in the group ranges from one to five years, with an average length of 1.8 years. The average grant amounts to \$9,919 per year.

In physics, a \$31,700 grant has been awarded to the University of Missouri for a program of acoustic cavitation research; Arthur R. Laufer of the Missouri physics department is listed as the "principal scientist", and the project is to last two years. The Pennsylvania State College is to receive \$12,800 for a one-year project in upper atmosphere research using long radio wave pulse techniques to be conducted under Arthur H. Waynick of the Ionosphere Research Laboratory. At Reed College in Portland, Oregon, \$3500 has been made available for one year's research on conduction and trapping processes in ionic crystals under Frederick C. Brown, and an additional \$6200 has been awarded for a two-year cosmic-ray study under Kenneth E. Davis. St. Olaf College, Northfield, Minnesota, is to receive the fifth grant in physics (\$4300) for a one-year research program to study the mechanism of transport through living and nonliving membranes. Marvin E. Wyman of the department of physics is principal scientist.

In biophysics, St. Louis University is to receive \$3960 for research on the survival of vitrified and dried tissues and organisms under the direction of Basile J. Luyet of the Institute of Biophysics; Brooklyn College is awarded \$3600 for a study under biologist George S. Tulloch of the nature of certain ultramicroscopic bodies associated with insects; and Bryn Mawr College is to be granted \$3400 for a research program under Rosalie C. Hoyt of the physics department to examine the bioelectric behavior in filamentous algae, to be investigated with the aid of a new analogue computer. Each of the foregoing grants has been awarded for one year. A two-year grant of \$13,300 has been given to the California Institute of Technology for a biophysical study of the central nervous system of lower animal forms. The program is under the direction of C. A. G. Wiersma of Caltech's division of biology.

The single engineering grant is for a two-year program of research in three-dimensional photoelastic techniques to be conducted at Brown University under the guidance of Daniel C. Drucker of applied mathematics. NSF has set aside \$10,000 for the project.

A program of research education in the sciences, scheduled to continue for eight months, is to be supported by a \$7200 grant to the Woods Hole Oceanographic Institution, Woods Hole, Massachusetts. Alfred C. Redfield, associate director of the Institution, is the principal scientist for the program, which will be concerned with research and training in oceanography.

Guggenheim Fellowships

Five Physicists Receive Awards

Grants totaling \$860,000 have been awarded to 191 scientists, scholars, writers, and artists by the John

Simon Guggenheim Memorial Foundation in its most recent contribution toward the advancement of original research and creative endeavor. This year's list of Guggenheim fellows, announced on April 20th, includes five fellows in physics, seven in the earth sciences, fourteen in the mathematical sciences, and twenty in chemistry and biochemistry.

Physicists named by the Foundation are Theodore H. Berlin, associate professor of physics at The Johns Hopkins University (theory of the mechanism of condensation of gases); Herbert P. Broida, National Bureau of Standards research physicist (mechanism of gaseous combustion); Richard G. Fowler, associate professor of engineering physics at the University of Oklahoma (radiation processes in gas discharges); Darragh E. Nagle, assistant professor of physics at the University of Chicago (interactions between mesons and nucleons); and Hertha D. E. Sponer, professor of physics at Duke University (structural properties of complex molecules).

Awards under the category of "Applied Mathematics" were given to Samuel Herrick, professor of astronomy at the University of California at Los Angeles, for studies of rocket navigation; Chieh Chien Chang, of Johns Hopkins, for applications of mathematics to aeronautical problems; Howard W. Emmons, professor of engineering sciences at Harvard, for research in the formation and rate of growth of turbulent bursts; Harold A. Freeman, professor of statistics at MIT, for the application of statistical methods to industrial problems; and John I. S. Sokolnikoff, professor of mathematics at UCLA for studies in the theory of elasticity.

Earth Science fellowships were awarded to Farrington Daniels, professor of chemistry at the University of Wisconsin, for studies of the utilization of solar energy; Perry Byerly, professor of seismology at the University of California at Berkeley, for studies of West Indian earthquakes; Konrad B. Krauskopf, professor of geochemistry at Stanford, for research on the formation of ore deposits; Harrison S. Brown, professor of geochemistry at the California Institute of Technology, for geochemistry research; Leonard N. Liebermann, associate professor of geophysics at the University of California's Marine Physical Laboratory in San Diego, for research on the absorption of sound in liquids; Daniel I. Axelrod, associate professor of geology at the University of California at Los Angeles, for studies of the late tertiary floras of western North America; and Jeffery E. Dawson, associate professor of soil science at Cornell, for peat soil research.

A single award was given under the category of "Popular Science" to John E. Pfeiffer, professional science writer of New York City, for studies of recent theories of the evolution of the universe.

The Foundation was established in 1925 by the late U. S. Senator Simon Guggenheim and his wife and was named in memory of their son, John Simon Guggenheim. Fellowship appointments, which are granted without distinction as to race, creed, or color, are ordinarily made only for one-year periods, although extensions

have been considered in exceptional cases. Stipends normally amount to about \$3000.

Folsom Scholarship

Established at Notre Dame by RCA

The Radio Corporation of America has announced the establishment of an undergraduate scholarship for students majoring in pure science or engineering at the University of Notre Dame. The award provides an annual grant of \$800 and will be known as the Frank M. Folsom Scholarship in honor of the President of RCA who is a member of Notre Dame's Advisory Council for Science and Engineering. Candidates for this scholarship will be selected by academic officers of Notre Dame and recommended to the RCA Education Committee for consideration. The first recipient of the award will be announced next fall. Other RCA Scholarships are offered to outstanding undergraduate science students at seventeen universities throughout the United States.

H. H. Goldsmith Award

Presented to Walter Gellhorn

The *Bulletin of the Atomic Scientists* has announced that the first presentation of the award established in honor of the late Hyman H. Goldsmith, one of the founders and a former editor of the *Bulletin*, has been made to Walter Gellhorn, professor of Law at Columbia University, for his book *Security, Loyalty, and Science*, published in 1950 by the Cornell University Press. The prize of \$200 was established at the time of Goldsmith's death, which occurred as the result of a swimming accident in August 1949. It was decided that a fitting commemoration would be "an annual award for the best article, book, or public pronouncement which contributes to the clarification of the right relations between science and politics." In the opinion of the Committee of Award, Gellhorn's book, a study of security policies and secrecy in the United States as they have concerned science, best fulfilled the terms of the award for the year 1950. The committee included S. K. Allison, director of the Institute for Nuclear Studies, and C. S. Smith, director of the Institute for the Study of Metals, both of the University of Chicago, and Clifton Utley, the radio commentator.

C. Laurence Warwick

C. Laurence Warwick, executive secretary of the American Society for Testing Materials, died suddenly on April 23rd. He was sixty-three years old. Recognized as an outstanding authority on materials, Mr. Warwick occupied a key position in the War Production Board during World War II. He had been active in the ASTM since 1909, when he graduated from the University of Pennsylvania, and had served as administrative head of the society since 1919.