

HANS T. HESSELBERG recently received the annual prize of the International Meteorological Organization at a ceremony that took place at the Norwegian Meteorological Institute in Oslo. The prize was created by the World Meteorological Organization to perpetuate the memory of the nongovernmental international organization which that specialized agency of the United Nations has succeeded. The award is presented once a year to a personality who has made an important contribution to meteorology and has devoted himself to the cause of international meteorological organizations. Hesselberg was director of the Norwegian Meteorological Institute for 40 years. He also was president of the International Meteorological Organization from 1935 to 1946.

JAMES B. CONANT, United States Ambassador to West Germany, has received an honorary doctorate of natural science from the University of Hamburg.

WILLIAM H. EWING and PHILIP R. EDWARDS of the Public Health Service office in Atlanta, Ga., have received the 1956 Kimble Methodology research award for their work in developing improved methods for identifying bacterial causes of typhoid, infantile diarrhea, food poisoning, and other enteric disorders. The award, sponsored by the Kimble Glass Company, includes \$1000 and an inscribed plaque.

GEORGE E. ARMSTRONG, vice president for medical affairs at New York University, and Surgeon General of the Army from 1951 to 1955, has received the 1956 Founder's medal of the Association of Military Surgeons of the United States.

Recent Deaths

CLARENCE A. CHANT, Toronto, Canada; 91; professor emeritus of astrophysics and director emeritus, David Dunlop Observatory, at the University of Toronto; 18 Nov.

SIEGWART HERMANN, New York, N.Y.; 70; research chemist and consultant; 27 Nov.

ANDREW H. HOLT, Worcester, Mass.; 66; head of the department of civil engineering at Worcester Polytechnic Institute; 22 Nov.

WALDEMAR B. KAEMPFERT, New York, N.Y.; 79; science editor of the *New York Times*; 27 Nov.

FRANK W. REED, Athens, Ohio; 75; former professor of mathematics at Ohio University; 22 Nov.

BERNHARD J. STERN, New York, N.Y.; 62; lecturer in sociology at Columbia University; 22 Nov.

LIONEL WHITBY, London, England; 61; bacteriologist and hematologist; 24 Nov.

DERWENT S. WHITTLESEY, Boston, Mass.; 66; professor of geography at Harvard University; 25 Nov.

Education

■ Wellcome Trustees, London, England, has awarded a \$69,000 grant to the School of Medicine of the University of Pennsylvania. This will support for a period of 5 years a Wellcome associate research professorship in the department of anesthesiology. The first appointee to the new chair is Henry L. Price.

(The Wellcome Foundation was established by the late Sir Henry S. Wellcome who was born in Almond, Wis., 100 years ago and who died in England in 1936. The Wellcome Trust, holder of all the shares of the Wellcome Foundation, is headed by Sir Henry H. Dale, English scientist and Nobel prize winner. The Burroughs Wellcome and Company, Tuckahoe, N. Y., is a part of the Wellcome Foundation.)

■ Federal support for 81 educational programs totaled more than \$1.6 billion during the 1954-55 school year, according to a new biennial report of the Office of Education, Department of Health, Education, and Welfare. Entitled *Federal Funds for Education*, the new publication also lists many statistics for the 1955-56 school year and for several earlier years. Values of commodities and services as well as funds are included in the tabulations.

The new total of \$1,616,654,000 is less than half of the 1948-49 sum, which was \$3,500,817,000. A significant factor in the decrease was veterans' education and training. Federal support of this program was \$2,700,184,000 in 1948-49, or about four times the amount for 1954-55.

A significant increase in Federal assistance for school construction in federally affected areas is shown. Whereas \$122,767,000 was expended for this program in 1954-55, only \$2,956,000 was disbursed 4 years earlier. The affected areas include districts in which Federal ownership of property has reduced taxable valuations appreciably, or Federal activities have caused burdensome school enrollments through the influx of workers and their families.

The 163-page bulletin, the 13th biennial issue on Federal support of education, was prepared by Clayton D. Hutchins, Albert R. Munse, and Edna D. Booher of the School Finance Section, Office of Education. Copies are available at 60 cents each from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

■ At a banquet held on 15 Oct. to celebrate the tenth anniversary of the incorporation of the Oak Ridge Institute of Nuclear Studies, S. R. Sapiro, manager of the Atomic Energy Commission's Oak Ridge Operations Office, presented the institute with a deed for 38 acres of land in Oak Ridge. In return, he received a check from Paul M. Gross, vice president of Duke University and president of ORINS. Heretofore, the entire tangible property of the institute has been the corporation seal. All the buildings, furniture, equipment, and research apparatus used by the institute for the past 10 years belonged to the AEC. The newly acquired land is to be the site for a permanent headquarters, a \$3,250,000 project still in the planning stage.

■ Grants totaling \$4,065,000 have been awarded by the National Science Foundation to 16 colleges and universities in the United States to support academic-year institutes designed to help high-school science teachers improve their knowledge of science subject matter. An estimated 750 high-school science and mathematics teachers will be enrolled in the institutes, which begin in September 1957.

Each teacher will pursue a program of study in the sciences and mathematics planned especially for him and conducted by leaders noted not only for competence in their fields but for skill in presentation. The grants will provide stipends of \$3000 each to approximately 50 teachers in each institute. Additional allowances for dependents and travel will also be provided.

Academic-year institutes are an outgrowth and extension of the foundation's summer institute programs, now in their fifth consecutive year. Two academic-year programs are now operating—at the University of Wisconsin and at Oklahoma Agricultural and Mechanical College. These are being renewed. The other 14 grants provide for the establishment of new institutes. The institutes at the University of Chicago and the University of Illinois are for teachers of high-school mathematics only; the others will provide work in the various fields of science as well as in mathematics.

The following list of grant recipients includes the persons to whom inquiries or application should be addressed: Harvard University, Dean Francis Keppel, Graduate School of Education; Ohio State University, Prof. John S. Richardson, College of Education; Oklahoma Agricultural and Mechanical College, Prof. James H. Zant, department of mathematics; Oregon State College, Prof. Stanley E. Williamson, department of science education; Pennsylvania State University, Mr. William H. Powers, arts and sciences extension; Stanford Univer-

sity, Prof. Harold M. Bacon, department of mathematics; Washington University, Dean T. F. Hall; University of Chicago, Prof. E. P. Northrop, mathematics staff; University of Colorado, Prof. William E. Briggs, department of mathematics; University of Illinois, Prof. Joseph Landin, department of mathematics; University of Michigan, Prof. Freeman D. Miller, department of astronomy; University of North Carolina, Prof. Edwin C. Markham, department of chemistry; University of Texas, Prof. Robbin C. Anderson, department of chemistry; University of Utah, Prof. T. J. Parmley, department of physics; University of Virginia, Prof. James W. Cole, department of chemistry; University of Wisconsin, Prof. C. H. Sorum, department of chemistry.

■ The University of Michigan has dedicated the Ford nuclear reactor, a swimming-pool type of reactor built for the Memorial-Phoenix Project with a \$1 million gift from the Ford Motor Company Fund. The Phoenix Project is the university's program on the peaceful uses of atomic energy created in memory of its World War II dead. Addition of the million-watt reactor provides the institution with complete facilities for research in all fields of atomic energy.

Grants, Fellowships, and Awards

■ The deadline date for receipt of applications for the National Science Foundation's postdoctoral fellowships is 24 Dec. These awards are available to scientists who hold the M.D., the D.D.S., or the D.V.M. degree. The stipend is \$3800, with family and travel allowances. This is one of the programs with which the National Academy of Sciences-National Research Council assists the foundation. Application material may be obtained from the Fellowship Office, NAS-NRC, 2101 Constitution Ave., Washington 25, D.C.

Other fellowship programs with which the NAS-NRC is concerned are described on page 977 of the 16 Nov. issue of *Science*. In that listing, the deadline date for NSF graduate fellowships is incorrectly given as 24 Dec.; the correct date is 7 Jan.

■ Applications are now open for places in the 1957-58 Atomic Energy Commission special fellowship program in industrial hygiene, according to an announcement by the Oak Ridge Institute of Nuclear Studies, which administers the program for the commission. Industrial hygiene fellowships leading to the master's degree are open to college graduates in engineering or the basic sciences. The rapidly expanding field of industrial hygiene includes the study and

control both of the more common occupational diseases and of such other environmental factors affecting employee health as radiation, heat, fatigue, and mechanical hazards associated with plant or laboratory operations.

The industrial program provides for 9 months of graduate training at Harvard University's School of Public Health or at the University of Pittsburgh Graduate School of Public Health. Course work varies with the university selected and with the interests and undergraduate preparation of the individual. All fellows are required to take course work in public health and biostatistics; electives may include engineering, health physics, toxicology, industrial medicine, and related subjects.

Basic fellowship stipend is \$2500, with an additional \$350 allowed for spouse and \$350 for each dependent child. Fellowship awards include payment of normal tuition and fees required by the university; a travel allowance of 6 cents per mile for the fellow (not dependents) from the place of application to his assigned university; and financial assistance to attend the annual meeting of the American Industrial Hygiene Association. One or more years of graduate work or industrial experience may qualify a fellow for an additional \$200 in the basic stipend.

Applicants may designate their choice of institutions and, when possible, assignments will be made accordingly, although ORINS cannot guarantee compliance with the choice. Requirements include a bachelor's degree in engineering or a basic science, acceptability for graduate work at the assigned university, and U.S. citizenship; applicants must be under 35 years of age.

Additional information and application blanks may be obtained by writing the Fellowship Office, University Relations Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tennessee. Completed applications, supporting letters of reference, and transcripts must reach ORINS not later than 1 Mar. 1957.

■ The U.S. Atomic Energy Commission has raised the stipends for its special fellowships in industrial medicine to \$5000 for the academic year 1957-58. The other provisions in the current announcement [*Science* 124, 929 (9 Nov. 1956)] will remain the same.

■ The National Science Foundation and the U.S. Public Health Service have increased their fellowship stipends to make them more nearly comparable to awards from other sources. Stipends will be increased for all awards activated on and after 1 Jan. 1957.

The new stipends at the predoctoral

level for the first year will be \$1600; intermediate year, \$1800; terminal year, \$2000 (former stipends: \$1400, \$1600, and \$1800, respectively). The new stipends at the postdoctoral level for the first year will be \$3800; second year, \$4200; third year, \$4600 (former stipends: \$3400, \$3700, and \$4000, respectively). Allowances, which include tuition, certain travel expenses, and \$350 for each dependent, will remain unchanged.

■ The Public Health Service has allocated \$468,025 to other Federal agencies for research activities in community air-pollution work during 1957. Agreements have been concluded with the Departments of Agriculture, Commerce, and Interior, and the Library of Congress for this work.

The Weather Bureau, Department of Commerce, will continue studies started last year on the dilution and dispersal of contaminants in the atmosphere. These include the development of techniques for the survey of problem areas, including the nature and variability of the weather processes involved; climatological evaluation of existing weather data to determine air-pollution potentialities; and investigation of methods for predicting weather conditions associated with extreme levels of community air pollution, including the need for development of alert and warning systems. The Public Health Service has allocated \$185,500 for these studies for the current year.

The National Bureau of Standards, Department of Commerce, will undertake development of rapid field methods of sampling and analysis for the determination of individual substances in the atmosphere. NBS will also continue to develop methods of sampling, transporting, analyzing, and identifying various gaseous contaminants by instrumental methods; study application to particulate matter of microchemical methods, x-ray diffraction, and spectroscopy; and study reactions that take place in air among hydrocarbons and other constituents of polluted atmosphere. The PHS is providing \$125,000 for this work during the year ending next 30 June.

The Interior Department's Bureau of Mines will receive \$125,000 to continue its investigation of the causes of inadequate incineration of combustible wastes and the means of improving incineration; to continue its evaluation of sulfur dioxide removal processes; and to continue its evaluation of effects of fuel and lubricant characteristics on the composition of gases exhausted from internal combustion engines.

The Library of Congress last year began preparation of a continuing, annotated bibliography on air pollution,