metallurgy at Rensselaer Polytechnic Institute, will be given the ASM's teaching award for his outstanding performance in the teaching of technical men.

Three scientists share the ASM Henry Marion Howe medal award for their joint paper on "Delayed failure and hydrogen embrittlement in steel": ALEXANDER R. TROIANO, professor and head of the department of metallurgy at Case Institute of Technology; WILLIAM J. BARNETT, former Case research associate now with the General Electric Company at Evendale, Ohio; and RICHARD P. FROHMBERG, also a former Case research associate, now a senior engineer with the North American Aviation Corporation, Downey, Calif.

SYLVAN I. COHEN has joined Olin Mathieson Chemical Corporation as an agricultural research specialist in the research and development department of the Insecticides Division at Port Jefferson, N.Y. He was formerly vice president for research of Gallowhur Chemical Corporation, Ossining, N.Y. Much of his work has concerned the development of mercurial seed disinfectants and other new organic foliage fungicides. He holds patents on several compounds developed for use in this field.

LESTER GUTTMAN, who from 1946 until 1955 was a member of the faculty at the University of Chicago, has been named to the metallurgy and ceramics research department of the General Electric Research Laboratory, Schenectady, N.Y. Prior to joining the G.E. staff, he spent a year in Harwell, England, studying neutron diffraction.

Recent Deaths

BERNARD V. CHRISTENSEN, Columbus, Ohio; 71; retired dean of the College of Pharmacy of Ohio State University; 13 Sept.

ALICE DUNBAR, Somerset, Md.; 77; one of the first women chemists in Government service; 8 Sept.

WILLIAM A. D. EVANS, Summit, N.J.; 75; electrical engineer; retired executive of the General Electric Company; 13 Sept.

IDA V. GIBSON, Ithaca, N.Y.; associate professor of food and nutrition at Cornell University; 16 Sept.

JOHN I. HAMAKER, Lynchburg, Va.; 86; biology professor emeritus of Randolph-Macon Woman's College; 24 July.

HARRY L. HOLLINGWORTH, Montrose, N.Y.; 76; professor emeritus of psychology and founder and former head of the department at Barnard College; 17 Sept.

BERNARD D. JUDOVICH, Philadelphia, Pa.; 52; associate professor at the Graduate School of Medicine of the University of Pennsylvania; founder and head of the Pain Research Foundation of the Graduate Hospital; 13 Sept.

CHARLES K. LEITH, Washington, D.C., and Madison, Wis.; 81; emeritus professor of geology at the University of Wisconsin; vice president of AAAS Section E in 1919; consultant to the foreign minerals division of the Atomic Energy Commission; 13 Sept.

JAMES P. PORTER, Swarthmore, Pa.; 82; retired editor of The *Journal of Applied Psychology*; former head of the department of psychology at Ohio University; 14 Sept.

HENRY B. SAFFORD, Garden City, L.I., N.Y.; 72; professor of gynecology and obstetrics at New York Medical College; 16 Sept.

Education

■ The Ford Foundation has announced the allocation of grants totaling $21,750,000 to strengthen instruction in the 44 privately supported medical schools now in operation in the United States. The grants are in the amount of $500,000 to each of 43 4-year institutions and $250,000 to the 2-year medical school at Dartmouth College. They were authorized by the foundation's board of trustees upon the recommendations of a special advisory committee headed by Lee DuBridge, president of the California Institute of Technology. The advisory committee was set up by the foundation to develop plans for distributing the $90 million that the foundation appropriated last December to aid the instructional programs of the private medical schools.

The grants are to be held by the recipient institutions as invested endowment for at least 10 years. During this time the income from the endowment may be expended for instructional purposes. Excluded from purposes of the grants are construction and research needs. After a 10-year period the medical schools will be free to use the principal sum as well as endowment income. In announcing the 44 grants the foundation indicated that it expects to disburse the balance of the $90-million appropriation during the current academic year.

■ The Office of Education is now accepting applications from American elementary, secondary, and junior college teachers who wish to teach abroad under the United States International Educational Exchange Program during the school year 1957–58. Three hundred awards will be made available by the Board of Foreign Scholarships.

To qualify for an award under this program, a candidate must be a United States citizen, have a bachelor's degree, and a minimum of 3 years of successful teaching experience. The deadline for receipt of applications is *15 Oct.* Requests for the bulletin, *Teacher Exchange Opportunities, 1957–58,* and application forms should be addressed to the Teacher Exchange Section, Office of Education, U.S. Department of Health, Education, and Welfare, Washington 25, D.C.

■ The Atomic Energy Commission, Oak Ridge National Laboratory, and the Oak Ridge Institute of Nuclear Studies have announced that 102 scientists from Oak Ridge laboratories will be available on request to lecture, conduct seminars, and participate in colloquia at university campuses throughout the country. This arrangement is made possible through the Oak Ridge Traveling Lecture Program, which is being presented for the ninth consecutive academic year.

A brochure has just been issued on the program for 1956–57; it lists the speakers who will participate and names some 165 different lecture subjects. Ninety of this year's lecturers are from ORNL, two represent the University of Tennessee–AEC Agricultural Research Program; three are with the ORINS, and seven are members of the AEC staff at Oak Ridge. Additional information and brochures may be obtained by writing the chairman, University Relations Division, Oak Ridge Institute of Nuclear Studies, Box 117, Oak Ridge, Tenn.

■ In an effort to meet its increasing demand for high-caliber technical graduates, the National Bureau of Standards is giving students an opportunity to become acquainted with a government research laboratory during their undergraduate summers and to discover the advantages of a professional career at the bureau. Open to physical science and engineering majors and also to selected high-school graduates who have displayed unusual scientific ability, the Student Trainee Program is proving mutually beneficial to the bureau and the trainees. Approximately 150 students have been employed annually since the program was initiated in 1948. Besides carrying their share of the work load during the summer, many fulfill the ultimate aim of the program and later return to the staff in a permanent capacity.

To gain eligibility on the register from which appointments to the program are made, college men and women must pass a written Civil Service examination for student trainees. At the high-school level a limited number of direct appointments are offered to winners in the Westinghouse Science Talent Search and other science competitions. A student who has taken part in the program and is recommended by his supervisor may return

each summer while he is completing his education. Participating in the program at the Washington laboratories for the first time this summer were 92 students, from 50 colleges, and 15 Science Talent winners. Of last year's 148 summer scientists, 80 returned to work this summer. At the laboratory in Boulder, Colo., where the program has just been adopted, 42 trainees were employed.

Salaries are commensurate with the educational level of the applicant, starting at $2690 per year for high-school graduates entering at the GS-1 level and progressing to $3415 for GS-4 employees who have completed the junior year in college. Graduates who return to the bureau receive a GS-5 rating, $4480, and those who are employed in a permanent capacity are advanced to GS-7, $5335, after 3 months if they have qualified under a special training agreement during the preceding summer. Graduate students are also accepted for summer employment, a master's degree qualifying scientists or engineers for a GS-7; those who have completed half the required work for a Ph.D. are rated at GS-9 and receive $6250.

Grants, Fellowships, and Awards

■ The National Vitamin Foundation in the period from 1946 to 1955 has made grants for research work in the field of nutrition totaling more than $1 million. The foundation's annual report, which has just been released, discloses that during 1955 alone, appropriations in support of research and for scientific and medical educational purposes amounted to $185,079. The report shows that medical investigation supported by the foundation is helping to open new avenues of treatment in such widely diverse conditions as obesity, emotional stress, cancer, pregnancy, chemical poisoning, and diseases of the aged.

Grants-in-aid of research and fellowships have been given for work in institutions located in 24 states and the District of Columbia, and in four foreign countries. Six states, California, Illinois, New York, Ohio, Pennsylvania, and Tennessee, received more than $50,000 each and together received 73 percent of the research funds granted to 24 states. The same six states contain approximately 52 percent of the population of the 24 states receiving grants, which in turn account for about 72 percent of the total population of the United States.

As part of its scientific program the foundation conducted, in cooperation with leading hospitals and universities, three major scientific meetings: A symposium on the antimetabolites, their modes of action, and therapeutic implications was held in New York; a symposium on the role of some of the newer vitamins in human metabolism and nutrition was held in cooperation with Vanderbilt University School of Medicine in Nashville, Tenn.; and a clinical symposium on nutritional and metabolic considerations in disease was held in Philadelphia, Pa., in cooperation with the commissions on nutrition of the Medical Society of Pennsylvania and the Philadelphia County Medical Society. In addition to these activities, the foundation has carried on an extensive scientific publication program.

■ The U.S. Atomic Energy Commission has announced the award of 88 unclassified physical research contracts with universities and private research institutions. Twenty-five are new contracts, and the remainder are renewals.

■ The Council of the Food and Agriculture Organization of the United Nations has decided to commemorate André Mayer, its first president and one of the founders of the organization, by creating a number of fellowships to be known as the André Mayer FAO senior research fellowships. The fellowships will be awarded yearly to experienced research workers, particularly from technically underdeveloped countries, so that they may enhance the welfare of their countries by traveling to appropriate centers of learning to conduct research in nutrition, agriculture, and agricultural economics.

■ The department of meteorology at Florida State University has announced the availability of graduate assistantships for the academic year 1957–58. Any candidate for the M.S. or Ph.D. degree in meteorology and climatology is eligible to apply. No previous meteorological education is necessary, but the applicant's undergraduate education must have included at least a year of the calculus and a year of university-level physics.

A graduate assistantship carries a stipend of $1740 per calendar year for students holding a bachelor's degree and $2040 for students holding a master's degree in meteorology. The student is permitted to carry ten semester hours of formal course work. Assistants pay resident fees (for health service, student activities, and so forth) of about $75 per semester. Out-of-state tuition is waived. Cost of room and food is approximately $900 per year for single students.

Primary research fields are synoptic meteorology, theoretical meteorology, tropical meteorology, and climatology from the analytic point of view. Applications should be filed before *15 Apr. 1957*. However, later applications will be considered if funds are available. For further information, write to Dr. Werner A. Baum, Head, Department of Meteorology, Florida State University, Tallahassee, Fla.

■ The Federal Government, through its various programs for the support of higher education, in 1954 aided more than one out of every six undergraduates in all fields of study. Nearly 390,000 undergraduate, graduate, and postdoctoral students were supported by the Government at an average cost per student of more than $1000. Of this number, more than 101,000 were preparing for careers in the sciences, including the social sciences.

These data are contained in a report entitled *Federal Support for Science Students in Higher Education* that has been released by the National Science Foundation.

The percentage of Government-supported students studying the sciences increased with the educational level. While only one-fourth (82,000) of the undergraduate group were studying in the sciences, approximately half (18,000) of the graduate students and virtually all (1300) of those receiving such assistance for postdoctoral training and research were pursuing scientific studies.

Eligibility for Federal support at the undergraduate level was determined almost exclusively by military service, either through the completion of past service or through commitment to future service. With the exception of nearly 6500 students holding 4-year scholarships awarded under the Navy's "Holloway Plan," nearly all of the 345,000 federally aided undergraduates in all fields of study were veterans of the Korean conflict receiving educational benefits under Public Law 550 enacted by Congress in 1952.

More than one out of every three students receiving Federal aid for graduate study in the sciences was employed as a research assistant on research grants or contracts awarded by Federal agencies to senior investigators at colleges and universities. Veterans' educational benefits provided support to more than a quarter of all federally aided graduate students.

In addition to these large-scale programs, four Federal agencies awarded fellowships to a select group of 1600 young men and women for graduate study, about half of whom were embarking upon science careers. These agencies, namely, the Atomic Energy Commission, the National Science Foundation, the National Institutes of Health, and the Department of State, also awarded more than 600 fellowships for postdoctoral training and research in the sciences. A copy of *Federal Support for Science Students in Higher Education* may be obtained for 30 cents from the Superintendent of Documents, Washington 25, D.C.