petroleum products and extraction and the professional and scientific instruments industries each accounted for 4 percent. The remaining industries, separately reported in the foundation's preliminary report, each accounted for less than 3 percent.

Copies of Reviews of Data on Research and Development, No. 10, May 1958, may be obtained by writing to the National Science Foundation, Washington 25, D.C.

## Scientists in the News

AGNES CHASE, 88, one of the most distinguished of American botanists, received her first college degree on 14 June when she was presented with an honorary degree during commencement ceremonies at the University of Illinois. With no formal training in botany, she became senior botanist of the Smithsonian Institution, Washington. She has spent a life-time studying grasses, and at the Smithsonian she helped build one of the world's most important collections of grasses. She has written extensively.

Retirement in 1939, with the honorary title of research associate, has not stopped her scientific work. She has just finished an index of grass nomenclature and bibliography containing more than 80,000 references that will probably be the standard international authority on this subject for years to come.

KIMBALL ATWOOD, senior biologist at the Oak Ridge National Laboratory, Oak Ridge, Tenn., has been named to head the work in medical genetics at the University of Chicago. The appointment is effective as soon as Atwood can conclude his responsibilities at Oak Ridge.

JOHN T. DAILEY, formerly technical director of research with the Bureau of Naval Personnel, has joined the staff of the American Institute for Research, where he will act as program director for research on the identification, development, and utilization of human talents. He will be working at the Washington office of the institute.

HENRY C. HARRIS, agronomist in charge of the biochemistry laboratory at the Florida Agricultural Experiment Station, has received the Distinguished Service Award of the University of Florida Chapter of Gamma Sigma Delta.

JOHN S. RINEHART, assistant director of the Smithsonian Astrophysical Observatory, Cambridge, Mass., and an astronomy research associate at Harvard University, will become a professor of mining engineering at the Colorado

School of Mines next fall. In addition to teaching courses dealing with chemical and physical make-up of explosives, Rinehart will become director of the school's Mining Engineering Research Laboratory.

Sister HILARY ROSS, biochemist Public Health Service Hospital, Carville, La. (National Leprosarium), has received the 1958 Damien–Dutton Award of the Damien–Dutton Society.

President Eisenhower in a congratulatory telegram said: "With her great record in the field of leprosy, she is eminently qualified for the Damien-Dutton Award. Her long service at the Government Hospital in Carville provides an outstanding example of inspired faith and good work."

WILLIAM C. MACTAVISH, who has served New York University for 50 years, has retired as professor emeritus of chemistry. MacTavish, senior member of the faculty, began his career at the university in 1908, when at the age of 15 he was hired as a bottle-washer in the biochemistry laboratory. During his 5 years in the laboratory he learned basic chemistry, and, with only a preliminary public-school education, he compiled enough credits to enter the university as a student. After two leaves of absence for military duty, he received his bachelor's degree in 1924. Two years later, he had earned a master's degree from Columbia University.

MacTavish was a faculty member at both Washington Square College and the College of Medicine through the 'twenties. In 1929 he was made professor at Washington Square College, and in 1930 he became chairman of the department of chemistry. He held this post until 1958.

MacTavish is now visiting toxicologist for Westchester County and special examiner in chemistry for the Civil Service Commission. After a trip abroad, he and his wife will retire to their tree farm in Jackman, Me.

JOHN S. BOYCE, professor of forest pathology at the Yale University School of Forestry since 1929 and chief pathologist of the U.S. Department of Agriculture since the same year, will retire on 30 June. Boyce, whose *Forest Pathology* has been a standard text since 1938, is engaged at present in making a third revision of the volume.

Boyce was born in Belfast, Ireland. Moving to America in early life, he received his bachelor-of-science and master-of-forestry degrees in 1911 and 1912 from the University of Nebraska and took his Ph.D. degree from Stanford University in 1917.

He joined the U.S. Forest Service for

2 years in 1910 and again in 1919, when he became scientific assistant and assistant pathologist in the Division of Forest Pathology of the Department of Agriculture. From 1920 to 1928 he was pathologist in charge of the department's Portland, Ore., branch and for the following year was principal silviculturist and director of the Northeastern Forest Experiment Station.

General DON FLICKINGER has been appointed to the newly established position of special assistant for bioastronautics, deputy commander for ballistic missiles, at the Air Research and Development Command's Air Force Ballistic Missile Division, Inglewood, Calif. The new position involves the planning, control, and use of advanced scientific studies dealing with man and the problems he will encounter in the course of Air Force space studies. Flickinger adds his new duties to his present assignments as ARDC staff surgeon and ARDC director of life sciences.

HARRY E. BACON, professor and head of the department of proctology at Temple University Medical Center, has been presented the highest award given by the Belgian Government. He was made an Officer, Order of Couronne, by King Baudouin, in Brussels on 15 May.

LAURENCE H. KYLE, professor of medicine at the Georgetown University School of Medicine, has been appointed chairman of the department of medicine, effective 1 July. He succeeds HUGH H. HUSSEY, who will become dean of the School of Medicine.

JOHN C. S. PATERSON, associate professor of medicine at Tulane University Medical School, will become chairman of the department of tropical medicine and public health on 1 July.

EMMANUEL FARBER, associate professor of pathology and of biochemistry at Tulane University School of Medicine, has received the second annual Parke-Davis Award in Experimental pathology of the American Society for Experimental Pathology. The award, consisting of \$1000 and a medallion, was presented at the annual dinner of the society, held on 16 April in Philadelphia in conjunction with the annual meeting of the Federation of American Societies for Experimental Biology. The award was given to Farber for fundamental research in chemical changes in cells as a cause and basis of disease.

BERNARD L. OSER, president and director of the Food and Drug Research Laboratories, Inc., of Maspeth, N.Y., has received the \$1000 Babcock-Hart

Award for his technological services to nutrition and public health. The award was presented to him in Chicago on 27 May during the 18th annual meeting of the Institute of Food Technologists.

WILLIAM GUY has received the Distinguished Service Award of the Virginia Section of the American Chemical Society "in recognition of his outstanding contribution to the professional standing of chemists." A dinner in his honor was held at the Officers Club of Virginia in Richmond on 6 June.

LILLIAN H. MEYER has been named head of the department of chemistry at Western Michigan University, effective 1 September.

WILLIAM BRUECKHEIMER is the new head of the university's department of geography and geology.

CHESTER N. FRAZIER, head of the department of dermatology at Harvard Medical School, will retire from active service at Harvard on 30 June, when he will become Edward Wigglesworth professor emeritus of dermatology. Simultaneously, Frazier will retire as chief of the Dermatological Service at the Massachusetts General Hospital, Boston.

Frazier's contributions to research in dermatology have included studies on the relationship of skin disease to nutrition. He was the first to describe a skin disease caused by Vitamin A deficiency. During 19 years in China (1922–1941), while teaching at the Peiping Union Medical College, he carried on research in skin diseases of the Chinese, and trained Chinese doctors in the treatment of skin disease and syphilis. His studies have also included the biology of syphilis; the effects of race, sex, and hormones in resistance to syphilis; and the mode of action of penicillin.

Frazier attended Wooster College and received the S.B. (1915) and the M.D. (1917) degrees from Indiana University. In 1947 he was awarded the doctor of public health degree by Johns Hopkins University. He also did postgraduate work at the University of Munich, Germany.

AIKOH KAWAHATA, professor of hygiene, Mie Prefectural University School of Medicine, Mie–Ken, Japan, has recently completed a year as Fulbright fellow in the department of physiology and pharmacology of the Kirksville College of Osteopathy and Surgery, Kirksville, Mo. Until February 1959 he will work in the department of physiology and biophysics, University of Washington, Seattle. Kawahata's studies have been in the field of sweat gland physiology.

The U.S. Department of Agriculture honored 182 employees recently in special ceremonies at the sylvan theatre on the Washington Monument grounds in Washington. Eight of these received Distinguished Service Awards, 127 were given Superior Service Awards, and 47 were cited for 40 years or more of service. Those who received Distinguished Service Awards are:

CHARLES DRECHSLER, mycologist, Agricultural Research Service, Beltsville, Md.

GWYNN GARNETT, administrator, Foreign Agricultural Service.

SHERMAN E. JOHNSON, advisor to Agricultural Research Service Administrator.

PAUL V. KEPNER, deputy administrator, Federal Extension Service.

NICHOLAS T. MIROV, plant physiologist, Forest Service, Berkeley, Calif.

ROBERT T. O'CONNOR, physical scientist, Agricultural Research Service, New Orleans, La.

R. LYLE WEBSTER, director of information.

DONALD A. WILLIAMS, administrator, Soil Conservation Service.

Another feature of the ceremonies was the presentation of the William A. Jump Memorial Award to ROBERT S. SHARMAN, a veterinarian of the Agricultural Research Service, for his work in the eradication of foot-and-mouth disease in Mexico following the second outbreak there within the past 11 years.

HARLOW SHAPLEY of Harvard College Observatory has completed his tour as visiting scholar to 50 American colleges and universities. Fourteen of the visits were under the auspices of the American Astronomical Society, underwritten by the National Science Foundation; most of the others were sponsored by the National Organization of Phi Beta Kappa.

RALPH E. HIATT, chief of the Antenna Laboratory at the Air Force Cambridge Research Center, has been appointed research physicist in the University of Michigan Engineering Research Institute, effective 1 July. He will be head of the experimental part of the Radiation Laboratory, which is conducting research in basic electronics, radar and associated devices, antimissiles systems, camouflage techniques, and mathematics.

ARTHUR R. CADE, a member of the L. B. Evans' Son Co. staff, has retired after 18 years of service as chief bacteriologist for the Givaudan Corporation and its subsidiary the Sindar Corporation, of Delawanna, N.J., and New York, manufacturers of organic (synthetic aromatic) chemicals.

F. W. WENT, professor of plant physiology at California Institute of Technology, has been appointed director of the Missouri Botanical Garden, St. Louis, and professor of botany at Washington University, effective 1 September.

## Recent Deaths

WILLIAM DENNIS, Middletown Township, N.J.; 85; chairman of the Atlantic Coast Section, Shell Fisheries Division, New Jersey State Department of Conservation and Economic Development, and specialist on the tides and channels of Sandy Hook Bay and the North Jersey coast; 1 June.

Rev. GUSTAVE DUMAS, New York, N.Y.; 59; dean of the Fordham University Graduate School of Arts and Sciences, 1938–51; 28 May.

WILLIAM H. EISENMAN, Cleveland, Ohio; 73; national secretary of the American Society for Metals for 40 years; former head of the chemistry department of Racine (Wis.) College; superintendent of schools in Elmhurst, Ill.; 30 May.

AARON FREILICH, New York, N.Y.; 65; lecturer at Brooklyn College and former chairman of the mathematics department at Lafayette High School, Brooklyn; author of many mathematics textbooks; 1 June.

DANIEL LASZLO, New York, N.Y.; 55; chief of the division of neoplastic diseases at Montefiore Hospital; served at the universities of Freiburg and Cologne, Germany, and the University of Vienna before coming to the United States in 1938; led an investigation of radioactive strontium for the Atomic Energy Commission and the U.S. Public Health Service at Montefiore; 1 June.

KARL PRESSER, New York, N.Y.; 60; radiologist; formerly taught x-ray diagnosis and therapy at the University of Vienna Medical School; 1 June.

GEORGE J. SHIPLE, Detroit, Mich.; 66; professor of chemistry and director of the department of chemistry at the University of Detroit; 18 May.

C. E. SKINNER, Pullman, Wash.; 61; chairman of the department of bacteriology and public health, State College of Washington; 10 May.

IEKOUSSIEL G. TCHERTKOFF, New York, N.Y.; 73; consultant and former visiting physician at the Metropolitan Hospital and at the Sea View Hospital, West New Brighton, N.Y.; specialist in lung diseases; author of many papers on pulmonary tuberculosis; 1 Iune.

Lord WEBB-JOHNSON, London, England; 77; surgeon to the late Queen Mary of England for 17 years and president of the Royal College of Surgeons for 8 years; 25 May.