VICTOR HAMBURGER, professor of zoology at Washington University, St. Louis, gave the Mellon lecture for the Society of Biological Research at the University of Pittsburgh School of Medicine on 16 March. His subject was "The life history of a nerve cell."

RALPH BOWN, a vice president of the Bell Telephone Laboratories, retired on 1 Mar. after 37 years of service. For the past year he has been vice president in charge of patent activities and of long-range planning of laboratories programs. Previously he had been vice president in charge of research.

Bown has been honored by numerous professional societies and by the Government. In 1955 he was appointed chairman of the U.S. Patent Office Advisory Committee. He is also chairman of a technical advisory committee on electricity and electronics for the National Bureau of Standards, and a member of the Army Scientific Advisory Panel.

Bown, who has been a pioneer in communications engineering, was awarded the 1926 Morris Liebmann memorial prize by the Institute of Radio Engineers for his research in wave transmission phenomena. He served as president of the IRE in 1927, and in 1949 received the institute's annual medal of honor for his leadership in institute affairs and for his extensive contributions to the field of radio.

Much of Bown's technical work has been concerned with various aspects of radio broadcasting, and overseas telephony and microwave radio relay systems. He directed the New York-Boston radio relay project, opened for experimental service in November 1947, which was the first link in the transcontinental radio relay system.

A native of Fairport, N.Y., Bown received the degrees of mechanical engineer, master of mechanical engineering, and doctor of philosophy from Cornell University. After serving as a captain in the Signal Corps during World War I, he began his telephone career in 1919 with the development and research department of the American Telephone and Telegraph Company. There he specialized in various aspects of radio broadcasting and in ship-to-shore and overseas telephony.

In 1934 he was appointed assistant director of radio research at Bell Laboratories; in 1936, director of radio and television research; in 1944, assistant director of research; in 1946, director of research; and in 1951, vice president–research.

During World War II Bown served with the National Defense Research Committee, specializing in radar, and in 1941 he visited England to study operations under combat conditions. He also served as a consultant to the Secretary of War. After his retirement Bown will be associated with the N.W. Ayer and Son advertising agency as a consultant in public relations in the field of science.

The recently organized Chemical Warfare Laboratories of the Army's Chemical Corps at the Army Chemical Center, Md., has announced the following appointments:

DONALD H. HALE has been placed in command of the laboratories. He received his doctorate in physics from the University of California and was formerly deputy commander of the Chemical Corps Research and Engineering Command.

L. WILSON GREENE, who formerly was technical director of the Chemical and Radiological Laboratories at the Army Chemical Center, has been appointed chief technical adviser to the Chemical Corps.

SEYMOUR P. SILVER has been appointed deputy for scientific activities. He has been associated with the Chemical Corps since 1938, and has served as consultant to civilian health organizations in air pollution problems.

The laboratories are divided into four directorates. WILLIAM H. SUMMERSON has been appointed director of research; ALBERT R. DREISBACH, director of medical research; DONALD E. YANKA, director of development, and JAMES P. MITCHELL, director of technical services.

LEONARD G. GINGER has been promoted to director of chemical research in the research and development division of Baxter Laboratories, Inc.

LEONARD REIFFEL has been appointed manager of the physics research department of Armour Research Foundation at Illinois Institute of Technology. He will direct research in acoustic design, sound and vibration control, nuclear physics, light and optics, physics of solids, and magnetics.

ALFRED C. REDFIELD, senior oceanographer at the Woods Hole Oceanographic Institution and professor of physiology at Harvard University, and LAURENCE IRVING, biologist at the U.S. Public Health Service's Arctic Health Center, Anchorage, Alaska, and professor of biology at Swarthmore College, Pa., were among 12 scientists who received the honorary degree of doctor of philosophy at the graduation ceremony of the University of Oslo, Norway.

JACOB E. JANSEN, who has been with the B. F. Goodrich Company since 1938, has been named director of organic chemicals research in the company's Research Center, Brecksville, Ohio.

U. PENTTI KOKKO has joined the staff of the U.S. Public Health Service's Communicable Disease Center at Atlanta, Ga., as assistant chief of the center's laboratory branch. Prior to coming to Atlanta, Kokko was director of the division of local health services of the Kentucky State Department of Health.

A. J. HAAGEN-SMIT, professor of bio-organic chemistry at California Institute of Technology, has been appointed to head the air pollution control research program of Southern California Edison Company.

Recent Deaths

FRANCIS BLOSSOM, New York, N.Y.; 80; engineer; former special consultant to the War Department; 12 Mar.

ARTHUR L. DUBUSC, Elizabeth, N.J.; 90; pioneer submarine builder; 9 Mar.

PAUL J. KOLACHOV, Bogota, Colombia; 56; chemurgy expert; director of Colombia's Department of Technological Investigation; 29 Feb.

FRANK J. O'BRIEN, White Plains, N.Y.; 65; child psychiatrist; 13 Mar.

WILLIAM ROBERTSON, Philadelphia, Pa.; 85; professor emeritus at Temple University Medical School; 9 Mar.

OTTO ROSENDAHL, Minneapolis, Minn.; 80; emeritus professor of botany and former chairman of the department at the University of Minnesota; 4 Mar.

WALDO SHUMWAY, Hoboken, N.J.; 64; zoologist; provost of Stevens Institute of Technology; 8 Mar.

LUKAS TINBERGEN, Groningen, Netherlands; 39; professor on the faculty of sciences at the University of Groningen; 1 Sept. 1955.

Education

■ The fourth annual Workshop for College Professors will be offered at the University of Michigan, 25 June–13 July. Further information may be obtained from Algo D. Henderson, Director, 242 U.E.S., University of Michigan, Ann Arbor.

■ Some 1000 Washington area scientists and engineers took over the classes of approximately 100 junior and senior high schools for 2 days, 15 and 16 Mar., leaving 400 regular teachers free to attend the convention of the National Science Teachers Association, and giving

the local scientists a chance to discuss their work with students. The project, sponsored by the Washington Academy of Sciences and the D.C. Council of Engineering and Architectural Societies, was led by the Joint Board on Science Education for the Greater Washington Area. The D.C. Science Supervisors helped secure the substitute teachers, while Science Service gave the program financial support.

■ The nation's network of educational television stations maintained by the Educational Television and Radio Center, Ann Arbor, Mich., will present this fall a series of ten programs featuring Glenn T. Seaborg of the University of California. The series, now being filmed on the California campus by the San Francisco station for the center, is called *The Elements*. It will explain the various natural and synthetic elements and show the importance of chemistry in the life of a typical American family.

Grants, Fellowships, and Awards

■ Aided by a grant of $23,000 from the National Science Foundation for the 3-year period 1956–58, the entomology department of the Bishop Museum, Honolulu, is beginning a program on the zoogeography of Pacific insects. Emphasis at the start will be on field work in the assumed source areas of the oceanic Pacific insect fauna—the island groups from the New Hebrides to Southeast Asia, particularly New Guinea. Under the supervision of J. L. Gressitt, arrangements are being made for several entomologists to participate in the field work, and collaboration with other organizations interested in the area is anticipated. It is expected that research on the collections may be carried on largely by the specialists collaborating with the Bishop Museum in the *Insects of Micronesia* series, of which nine issues have been published to date.

■ The Atlas Powder Company, manufacturer of explosives, chemicals, and activated carbons, will award eight $1000 college scholarships again this year. The grants will go to students who will be seniors during the 1956–57 college year who are majoring in chemistry or any branch of engineering. Thirty-eight colleges and universities have been invited to participate in the program. Scholarships will be awarded on the basis of scholastic records and the recommendations of faculty members who are acquainted with the applicants. Extracurricular activities and financial need will also be factors. Winners of the awards will be announced 15 May. Successful candidates also will have a chance to gain practical experience by paid summer work with Atlas between their junior and senior years. However, successful candidates will not be obligated to work for Atlas either during the summer or after graduation, nor will Atlas assume any commitment to employ the student.

■ The Foundations' Fund for Research in Psychiatry, New Haven, Conn., awarded 13 grants during 1954–55. Of these, ten grants were made in behalf of new research programs or of programs that had not previously received the foundation's support. Of these ten grants, one was for a period of 1 year, two were for 2 years, and the remaining 7 were for 3 years.

The total amount expended for all 13 grants was $212,955.50, and commitments for the years 1955–56 and 1956–57 are in the combined amount of $262,-513.87.

The directors of FFRP consider that research in all branches of the behavioral and biological sciences is needed if an integrated scientific basis for the field of psychiatry is to be developed. There exists, however, an especially urgent need for investigations on the level of clinical psychiatry, including psychoanalysis. These latter fields have heretofore provided important new ideas and have also brought to light important new phenomena, thus posing significant research problems. This foundation is especially interested in supporting research that will bring scientific rigor and ingenuity of method to the facts and problems which most directly confront the psychiatrist.

Miscellaneous

■ The manner in which the mining of nonferrous minerals may stimulate other economic activities in underdeveloped countries and thus contribute to their development is the subject of an economic report that has been published recently by the United Nations. The 129-page study, entitled *Non-Ferrous Metals in Underdeveloped Countries* is the latest in a series initiated by the secretary-general following the 1949 Scientific Conference on the Conservation and Utilization of Resources that was sponsored by the U.N.

Apart from the major nonferrous metals—copper, lead, zinc, tin, and aluminum—some of the minor ones that are used chiefly for iron and steel alloys, such as colombium, vanadium, molybdenum, tungsten, chromium, nickel, and cobalt are also considered. The report contains five maps showing the locality of mines and smelters of major nonferrous metals in underdeveloped countries.

■ A group of engineers at the Marquardt Aircraft Company has inaugurated an experimental unit of "Science scouts" in cooperation with the San Fernando Valley Council of the Boy Scouts of America.

The unit, known as Marquardt Science Scouts Post, has scheduled assignments covering the launching of a hypothetical spaceship, the use of solar and nuclear energy, and an examination of the social implications of scientific progress.

■ The Association for Applied Solar Energy will publish the first issue of a new journal, *The Sun at Work,* in April. Information about the journal may be obtained from the Editor, Suite 204, Mayer-Heard Building, Phoenix, Ariz.

■ The Atomic Energy Commission has announced that it has adopted a policy of booking its traveling exhibits on peacetime applications of atomic energy to qualified exhibitors free of transportation costs and rental charges. The commission for some years has maintained a relatively small number of atomic energy exhibit materials that have been made available to exhibitors on a daily rental fee basis, with each exhibitor defraying transportation charges as well as costs of presentation. Under the new policy, the exhibits will be available to qualified exhibitors free of transportation costs and rental charges; however all other expenses relative to showings will continue to be borne by the exhibitors.

The exhibits now in circulation are soon to be replaced by new units. Details regarding AEC exhibit materials that are available, as well as information on those being planned, may be obtained from the American Museum of Atomic Energy, Oak Ridge, Tenn. The new exhibits probably will be completed and available for showings starting about 15 June. Requests for bookings will be accepted by the museum on and after 1 Apr.

■ Henri Poincaré's striking predictions of more than a half-century ago on the developments in physics are available for comparison with what has actually happened in "Principles of mathematical physics," which appears in the April issue of *The Scientific Monthly.* Other articles included are "Role of science in marine fisheries: limitations and potentialities," R. E. Coker; "Atmospheric pollution and zoning in an urban area," François N. Frenkiel; and "Radar echoes from birds and insects," Lewis L. Bonham and Lamont V. Blake. Readers' comments on the Julian Day calendar, "Form and symmetry in organisms," and crop yield data are given in the "Letters" section. Twelve books are reviewed.