

with the administration and faculty of the College of Engineering of New York University in drawing up a program selected from regular graduate offerings of the university. These courses, emphasizing particularly mathematics, physics, and basic communications, are designed to develop a strong background for engineers embarking on careers in creative work in the field of communications. This will be the first graduate center to be established by New York University in cooperation with industry.

Mental Health Awards

The Foundations' Fund for Research in Psychiatry has announced that 15 Oct. is the next deadline for the submission of applications for research fellowships and research teaching grants in psychiatry, psychology, sociology, neurophysiology, and other sciences relevant to mental health. Interested persons and departments are invited to write for details to Foundations' Fund for Research in Psychiatry, 251 Edwards St., New Haven 11, Conn.

Zoological Nomenclature

The International Commission on Zoological Nomenclature has announced that beginning 6 Nov. it will start voting on the following cases involving the possible use of its plenary powers for the purposes specified. Full details were published in the 6 May issue of the *Bulletin of Zoological Nomenclature* (Vol. 13, Part 5): (i) *squilla Linnaeus*, 1758 (Cancer), suppression; *adsperus* Rathke, 1837 (*Palaemon*), designation of, as type species of *Palaemon* Weber, 1795 (Cl. Crustacea, Order Decapoda); (ii) *Draunculus* Reichard, 1759, validation of, with *Gordius medinensis* Linnaeus, 1758, as type species (Cl. Nematoda); (iii) *Mansonina* Blanchard, 1901 (Cl. Insecta, Order Diptera), validation. Comments should be sent as soon as possible and in duplicate to the secretary of the commission, Francis Hemming, 28 Park Village East, Regent's Park, London, N.W.1.

Rare Chemicals

The following chemicals are wanted by the Registry of Rare Chemicals, Armour Research Foundation of Illinois Institute of Technology, 35 W. 33 St., Chicago 16, Ill.: alpha-Thujene; Trimethyl arsine; 2,4,6-Trimethylheptane; Perfluoroisovaleric acid; Perfluoro-n-heptane; Pentaiodobenzene; Pyrazinecarboxamide; 3,4-Lutidine; Sabinene; Santene; Tri-iso-butyl phosphate; Tri-n-hexyl phosphine oxide; 1,2,3,4-Tetraiodoben-

zene; 1,3,5-Triiodobenzene; 2,2',4,4'-Tetramethyldiphenylamine; Potassium picrate; 1-Methylcyclohexanol; Ovalene; Isomenthone; Cadinene.

Proposed Legislation

Of the many bills introduced in Congress, some have a special relevance to science and education. A list of such bills introduced recently follows:

HR 6895. Discharge more effectively obligations of U.S. under certain conventions and protocols *re* institution of controls over manufacture of narcotic drugs. Karsten (D Mo.) House Ways and Means.

HR 6548. Amend Universal Military Training and Service Act, as amended, as regards persons in medical, dental and allied specialist categories. Vinson (D Ga.) House Armed Services.

HR 6719. Provide adjustments in organization and salary structure of Department of Medicine and Surgery in Veterans' Administration. Long (D La.) House Veterans' Affairs.

HR 6897. Provide that persons who have filed petitions for naturalization be employed as doctors in Medical Service of Department of Medicine and Surgery of Veterans' Administration. Knutson (D Minn.) House Veterans' Affairs.

HR 6126. Amend Civil Service Retirement Act to provide certain service in Coast and Geodetic Survey and Public Health Service be considered to be military service for purposes of such act. Broyhill (R Va.) (by request) House Post Office and Civil Service.

S 1862. Establish the Patent Office as an independent agency in executive branch of Government. O'Mahoney (D Wyo.), Wiley (R Wis.) Senate Government Operations.

HR 6602. Provide for establishment of a commission to study shortage of doctors of medicine in U.S. Dorn (R N.Y.) House Interstate and Foreign Commerce.

S 1863. Provide for limiting the life of a patent to a term commencing with date of application. O'Mahoney (D Wyo.), Wiley (R Wis.) Senate Judiciary.

S 1621. Amend act of Dec. 24, 1942 (56 Stat. 1086, 43 U.S.C., sec. 36b), entitled "An act to authorize Secretary of Interior to acquire lands or interest in lands for Geological Survey." Murray (D Mont.) Senate Interior and Insular Affairs.

HR 5817. Authorize for each fiscal year an appropriation into migratory bird conservation fund equal to all moneys received for Federal migratory-bird hunting stamps during next preceding calendar year. Dingell (D Mich.) House Merchant Marine and Fisheries.

HR 6541. Provide that Secretary of Commerce be authorized to furnish

weather reports to air-pollution-control agencies. Roosevelt (D Calif.) House Interstate and Foreign Commerce.

S 1918. Amend P.L. 31, 84th Congress, 1st session, to increase authorization for appropriation to Atomic Energy Commission for construction of modern office building in or near D.C. to serve as its principal office. Pastore (D R.I.) Joint Committee on Atomic Energy.

H Con Res 163. Express sense of Congress that Atomic Energy Commission should establish an experimental nuclear reactor in state of Washington. Pelly (R Wash.) Joint Committee on Atomic Energy.

HR 5889. Authorize appropriations for Atomic Energy Commission for acquisition or condemnation of real property or any facilities, or for plant or facility acquisition, construction or expansion. Durham (D N.C.) Joint Committee on Atomic Energy.

HR 5954. Provide for an experimental research program in cloud modification. Baring (D Nev.) House Interstate and Foreign Commerce.

HR 6005. Make evaluation of recreational benefits and wildlife development resulting from construction of any flood control, navigation, or reclamation project an integral part of project planning. Trimble (D Ark.) House Interior and Insular Affairs.

HR 6571. Provide for establishment of a Federal Nuclear Science Academy. Patterson (R Conn.) Joint Committee on Atomic Energy.

HR 6691. Authorize a 10-year program for acquiring national migratory bird refuges and areas. Reuss (D Wis.) House Merchant Marine and Fisheries.

HR 6807. Provide for establishment of a fish hatchery in state of Wisconsin. Withrow (R Wis.) House Merchant Marine and Fisheries.

HR 6959. Authorize Secretary of Interior to cooperate with Federal and non-Federal agencies in augmentation of natural food supplies for migratory water-fowl. Boykin (D Ala.) House Merchant Marine and Fisheries.

HR 5877. Amend Internal Revenue Code of 1954 to allow additional income tax exemption for dependent who is student. Jennings (D Va.) House Ways and Means.

HR 6105. Amend Internal Revenue Code of 1954 to allow deductions for amounts paid by teachers for further education. Teague (R Calif.) House Ways and Means.

Scientists in the News

EDWIN C. KEMBLE, director of the Institute for Teachers of Science and Mathematics which Harvard University will conduct during the coming aca-

demical year, will become professor emeritus on 1 July. Kemble, a theoretical physicist with long experience in teaching elementary and advanced scientific courses, has been closely identified with Harvard's general education program in physical science since its inception. At present he is preparing *An Introduction to Physical Science*, a textbook for the use of general education students. He will devote full time next year to the new institute for high-school teachers, which is part of a program being sponsored by the National Science Foundation.

Kemble was chairman of the department of physics at Harvard from 1940 to 1945 and in charge of the instruction in physics for the Army and Navy officer-candidate training units at the university during World War II. During the same period he was engaged in propeller research for the Navy at the Underwater Sound Laboratory. In the spring of 1945 he was sent overseas as deputy scientific chief of the ALSOS military intelligence mission.

He attended Ohio Wesleyan University and Case Institute of Technology. He received his B.S. degree in 1911 from Case, which bestowed an honorary doctorate in 1931. He received his A.M. degree at Harvard in 1914, and his Ph.D. degree in 1917.

His first teaching experience was at Carnegie Institute of Technology in 1911-13; in 1917 and 1918 he was employed as an engineering physicist by the Curtis Aeroplane Company at Buffalo, N.Y.; and in 1919 he returned to Harvard as instructor in physics. He has been a professor since 1930, the year in which he also earned a Guggenheim fellowship.

Most of Kemble's research activity has been in theoretical atomic physics, including band spectra, statistical mechanics, and the philosophic problems of quantum mechanics. As chairman of the National Research Council Committee on Radiation in Gases, he was coauthor of the committee's report *Molecular Spectra in Gases*, published in 1937. That same year he also published *Fundamental Principles of Quantum Mechanics*. He was chairman of the Coulomb's Law Committee of the American Association of Physics Teachers, 1946-49, and chairman of the physics section of the National Academy of Sciences, 1945-48. He is a member of the National Academy of Sciences and a fellow of the American Physical Society and the American Academy of Arts and Sciences.

ALLISON BUTTS, professor of metallurgy at Lehigh University, who has been teaching at that institution for the past 41 years, was recently honored at the tenth annual faculty dinner. He will retire on 30 June.

Technical editor and author as well as

teacher, Butts served as head of Lehigh's department of metallurgy from 1952 until last year, when he gave up administrative duties to devote full time to teaching, research, and writing. Prior to joining the Lehigh faculty in 1916, he was a research chemist for the United States Metals Refinery Company, Carteret, N.J.

He has served as associate editor of *The Mineral Industry* for 11 years and as consultant and contributor to several dictionaries and encyclopedias. He is the author and editor of a number of books. His latest volume, for which he was editor, is *Copper: the Science and Technology of the Metal, Its Alloys, and Compounds*.

Butts was graduated from Princeton University with a bachelor of arts degree. He received his bachelor of science degree from the Massachusetts Institute of Technology.

Sir JOHN COCKROFT, director of the British Atomic Energy Research Establishment, left on 17 May for a lecture tour in Poland as a guest of the Polish Academy of Science.

A. J. P. MARTIN, winner of the Nobel prize in chemistry, and his colleague A. T. JAMES came to the United States recently to receive the annual special award of the Society of Cosmetic Chemists. The two British scientists were honored for their publications on gas-liquid chromatography.

CARL G. PAULSEN, chief hydraulic engineer for the U.S. Geological Survey, has retired and LUNA B. LEOPOLD has been promoted to succeed him. Also, RAYMOND L. NACE has been advanced to assistant chief of the Survey's Water Resources Division.

Paulsen had been chief of the Water Resources Division for more than a decade. With more than 45 years of Government service already behind him, he will continue to serve as Delaware River Master and will continue also in a special advisory capacity on a number of international water commissions.

Paulsen entered Government service in 1911 as hydrographer with the Bureau of Reclamation. He earned the bachelor of science degree in civil engineering from the University of Idaho in 1913, and joined the Geological Survey in the same year. He became chief of the surface water branch in 1931, assistant chief hydraulic engineer in 1940, and chief in 1946.

In addition to service in the United States, Paulsen has had general supervision of hydrologic investigations in Alaska and Hawaii and has undertaken similar work in Iraq. He is also a member of several joint international engi-

neering boards for the International Joint Commission between Canada and the United States.

WARREN S. WOOSTER, assistant research oceanographer at the University of California's Scripps Institution of Oceanography, will start a 1-year leave of absence on 15 June to direct the marine research program of the Republic of Peru. He will be stationed in Lima.

Wooster's appointment stems from a recent agreement between the Peruvian Council of Hydrobiological Investigations, the Scripps Institution, and the Inter-American Tropical Tuna Commission. Under the agreement, the Scripps Institution will train Peruvian oceanographers and will give leave of absence to staff members chosen to aid the Peruvian research studies. In return, the institution will receive data collected in Peruvian waters.

The Peruvian council is supported by four groups: the Peruvian Navy; the Guano Company, which harvests the fertilizer deposits left by sea birds on the rocky islands off the Peruvian coast; the Peruvian Fish and Wildlife Service; and the Peruvian fishing industry. Financial support for the marine research program comes from fees paid by American tuna fishermen, who pay to collect bait in Peruvian waters and to use Peruvian ports.

Wooster's task will be to organize and direct the new research program. His first project will be an oceanographic study of the northern boundary of the Peru Current, where most of the tuna fishing is done. He will also study "El Niño," a warm current from the north which occasionally sweeps down the Peruvian coast and causes the death of many fish and birds.

Y. C. LEE has been named director of research and planning for the Liquid Engine Division of the Aerojet-General Corporation, Azusa, Calif. Lee, a native of China who served with the Chinese Air Force from 1931 to 1935, was graduated from the California Institute of Technology with a B.S. in aeronautical engineering in 1938 and joined Aerojet-General in 1949.

The following men received awards during the recent annual meeting of the Aero Medical Association:

Col. JOHN P. STAPP, USAF (MC), chief, Aero Medical Field Laboratory, Holloman Air Force Base, N.M., is the first recipient of the Eric Liljencrantz award, established by Pfizer Laboratories, division of Chas. Pfizer & Co., Inc. The award, consisting of a plaque and an honorarium, will be given annually for outstanding achievement in the solution of problems of high-speed flight and ac-

celeration. The late Dr. Liljencrantz, whose memory the award perpetuates, was a reserve naval Medical Corps officer who lost his life in an aircraft accident in 1942 while conducting experiments with a new type of accelerometer.

Maj. DAVID G. SIMONS, USAF (MC), chief, space biology branch, Aero Medical Field Laboratory, Holloman Air Force Base, N.M., received the Arnold D. Tuttle award for the best research report published in the *Journal of Aviation Medicine* in the past 2 years. The winning article was "1954 Aero medical field laboratory balloon flights; physiological and radiological aspects."

Capt. CHARLES F. GELL, MC, USN, director, Air Crew Equipment Laboratory, Naval Material Center, Philadelphia, received the Theodore C. Lyster award, which is given annually for outstanding achievement in the general field of aviation medicine. Gell is a specialist in acceleration.

Brig. Gen. EUGEN G. REINARTZ, USAF (MC), retired, Carmel Valley, Calif., received the Raymond F. Long-acre award, which is given annually for outstanding accomplishments in the psychologic and psychiatric aspects of aviation medicine.

ROBERT P. RICE, formerly chief chemist at the Columbia Southern Chemical Corporation, Jersey City, N.J., has joined the American Potash and Chemical Corporation as chief control chemist at the company's Henderson, Nev., plant.

HENRY KOFFLER, professor of bacteriology at Purdue University, received the \$1000 Eli Lilly research award in bacteriology and immunology during the recent meeting of the Society of American Bacteriologists. He was honored for research achievements that include: discovery of unique chemical structures that permit some organisms to thrive at temperatures high enough to kill most living creatures; studies on structural polymers in microorganisms, especially fibrous proteins in bacteria and cell-wall substances in fungi; clarification of the intimate details of metabolism in such molds as those that synthesize penicillin and streptomycin; and development of the peptide antibiotic circulin (including its crystallization and studies on its chemistry), and the demonstration that this antibiotic acts on the surface structures of bacterial cells rather than within the cells.

R. W. TOWNLEY, chemist, who has headed basic research at Personal Products, Milltown, N.J., for the past 3 years, resigned recently to form his own firm, known as Townley Research and Consulting, Gillette, N.J.

NATHAN J. SMITH, associate professor of pediatrics at the University of California, Los Angeles, has been named chairman of the University of Wisconsin Medical School's department of pediatrics, pediatrician-in-chief of University Hospitals, and the university's first Dr. Alfred D. Daniels professor on diseases of children.

Also at Wisconsin, JOSHUA LEDERBERG has been named half-time chairman of the department of medical genetics. Lederberg will continue his work, on a half-time basis, in the department of genetics of the College of Agriculture.

The following men were honored at the first Pan American Cancer Cytology Congress: JOSE M. MEZZADRA of the University of Buenos Aires, Argentina, received the University of Miami award of merit; GEORGE GEY of Johns Hopkins University received the Wien award for 1956; and WILLIAM TERZANO of Buenos Aires, Argentina, received the Wien award for 1957.

EDWARD L. MICHAELS, specialist in electronics and color television, will teach electrical engineering classes at the Finland Institute of Technology, Helsinki, during a leave of absence from the Hughes Aircraft Company research laboratories.

FERDINAND P. BEER, who joined the Lehigh University faculty in 1947, has been named head of the department of mechanics. The establishment of a curriculum in engineering mechanics starting this September was approved by the university's board of trustees at its spring meeting.

C. D. DAVIS of the University of Missouri School of Medicine has resigned as professor in obstetrics and gynecology to accept an appointment to Yale University Medical School. Also at Missouri, W. A. SODEMAN has resigned as chairman of the department of medicine effective 1 Aug.

HOMER R. WOLFE has joined the staff of the Wenatchee (Wash.) Field Station of the U.S. Public Health Service's Communicable Disease Center. As an entomologist he will be conducting exposure studies to evaluate the health hazards associated with the agricultural uses of pesticides. Wolfe leaves the Tree Fruit Experiment Station of the State College of Washington, where he has been employed as an entomologist for the last 10 years. He replaces GORDON S. BATCHELOR, who resigned in November 1956 to do technical service work for the General Chemicals Division of the Allied Chemical and Dye Corporation.

D. T. SMITH, James B. Duke professor of bacteriology in the Duke University Medical School and chairman of the department of microbiology and the department of preventive medicine and public health, has received the Trudeau medal of the National Tuberculosis Association. He was selected for the award as the person who has made the most outstanding contribution in tuberculosis work in the United States.

Dartmouth College has announced that the following professors will retire this year: FREDERICK PAGE and JAMES POOLE, botany; ANDREW SCARLETT, chemistry; and ELLSWORTH D. ELSTON, geology.

Recent Deaths

NELL V. BEEBY, Jackson Heights, N.Y.; 60; executive editor of the American Journal of Nursing Company; 17 May.

ARTHUR F. BENTLEY, Paoli, Ind.; 86; author, philosopher, and political scientist whose writings included works on mathematics and the philosophy of science; 21 May.

KARL F. BONHOEFFER, Goettingen, Germany; 58; head of the Max Planck Institute for Physical Chemistry; announced 20 May.

DOUGLASS BURNETT, Baltimore, Md.; 85; utilities executive, early research worker in the development of electricity who was associated with Thomas A. Edison; 16 May.

THÉOPHILE DE DONDER, Brussels, Belgium; 84; professor emeritus of mathematical physics at the University of Brussels; 11 May.

FLOYD C. FAIRBANKS, Kingsville, Tenn.; 75; retired professor of physics and astronomy at the University of Rochester; 22 May.

WALTER M. LIPPINCOTT, Lynbrook, N.Y.; 85; retired orthopedic surgeon and former professor at New York Post-Graduate Hospital and Medical School; 15 May.

HAROLD L. LYON, Honolulu, Hawaii; 77; director emeritus of the Experiment Station, Hawaiian Sugar Planters' Association; botanist and former director of the Foster Botanical Gardens; 15 May.

WERNER WOLFF, Annandale, N.Y.; 53; professor of psychology and chairman of the department at Bard College; 18 May.

Erratum: In "Potentially simple technique for rearing 'germ-free fish' by Evelyn Shaw [*Science* 125, 987 (17 May 1957)] the second sentence of the second paragraph should read: "Of 25 trials (consisting of 10 eggs per trial) treated in this manner (3), eight trials remained germ-free throughout the experiment."