

to establish in the Congress a Joint Committee on Astronautics, and for other purposes. Fulton (R-Pa.). Select Committee on Astronautics and Space Exploration.

HR 11805. Promote the national defense by authorizing the construction of aeronautical research facilities by the National Advisory Committee for Aeronautics necessary to the effective prosecution of aeronautical research. Kitchin (D-N.C.). House Armed Services.

HR 520. Provide for printing as a House document the statement entitled "Introduction to Outer Space." Arends (R-Ill.). House Administration.

HR 11838. Supplement the act of 3 July 1952 by providing for construction of a full-scale demonstration plant in Ventura County, Santa Barbara County, San Luis Obispo County, or Monterey County, Calif., for the production of fresh water from salt water. Teague (R-Calif.). House Interior and Insular Affairs.

News Briefs

The Soviet Government news agency Tass announced on 15 April that Sputnik II, which contained the carcass of a dog, had disintegrated that morning over the Lesser Antilles, Brazil, and the Atlantic Ocean. During the satellite's 5½ months in orbit (it was launched 3 November 1957) it had completed about 2370 trips around the world. It is said to have traveled about 62 million miles.

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Thirty-six governments have now submitted a total of 1925 titles of scientific papers for presentation at the Second International Conference on the Peaceful Uses of Atomic Energy, to be held in Geneva, 1-13 September, by the United Nations. Approximately 900 abstracts have been proposed for presentation by the United States.

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The inaugural meeting of the Indian Society for Plant Physiology was held on 24 January at the University of Allahabad, when the constitution of the society was adopted and officers were elected. The president is P. Parija, vice-chancellor of Utkal University, Cuttack. Kenneth V. Thimann, professor of botany at Harvard University, was elected an honorary member.

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A special summer laboratory course in the techniques and applications of the electron microscope will be offered to senior biologists and medical research workers at Cornell University from 16 June through 3 July. The course, which is under the direction of Benjamin M. Siegel, is being sponsored by a grant from the National Science Foundation.

Well-known guest lecturers will participate. Requests for information should be addressed to Siegel at Rockefeller Hall, Cornell University, Ithaca, N.Y.

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The Atomic Energy Commission has released information on 15 past nuclear explosions, revealing that at least seven explosions took place in the Pacific in 1954 and 1956 that never were announced. A list of seismological data on the 15 tests is being distributed by the Division of Earth Sciences, National Academy of Sciences-National Research Council, Washington 25, D.C.

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The Experimental Boiling Water Reactor at Argonne National Laboratory of the Atomic Energy Commission, Lemont, Ill., was operated recently at a power level of 62,000 kilowatts of heat. This operating level is more than triple the original design operating level of 20,000 kilowatts. In December 1957 the EBWR was operated in experiments at 50,000 kilowatts of heat. The recent increase in the thermal output of the EBWR is a result of months of experimentation. Such an increase would increase the amount and reduce the unit cost of electricity produced by the plant if increased generating capacity were installed.

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A research team at the University of California's Radiation Laboratory has photographed the annihilation of an antineutron. This is considered the newest evidence of the great efficiency with which matter and antimatter destroy each other when they touch. Emilio Segrè announced the achievement on 11 April when he was lecturing at New York University.

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In only 4 years, world population grew by about 172 million. That equals the total population of the United States today. World population rose from 2.519 billion in 1951 to 2.691 billion in 1955, an increase of 118,000 persons each day.

The average annual rate of natural increase (excess of births over deaths) for the period was about 1.7 percent, the most rapid rate of growth in world history. These are a few of many highlights stressed in a recent United Nations report.

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State laws concerning private schools are reported in a new study, the first of its kind, by the U.S. Office of Education. A 152-page publication, *The State and Nonpublic Schools*, describes the legal framework within which these educational institutions operate and reports on the responsibilities of state departments of education in connection with them.

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Despite an increase in admissions, the population of this country's mental hos-

pitals continued to decline in 1957, according to a survey released recently by the American Psychiatric Association and the National Association for Mental Health. This is the second year of downward trend in mental hospital rolls after a 25-year climb.

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The astronomy department of the University of California is organizing a conference for college teachers of astronomy between 7 July and 1 August. The conference will be sponsored jointly by the university and the National Science Foundation. The participants (limited to about 20 persons) will receive travel and living-expense allowances. Persons wishing to take part in the conference, which will be directed by Cecelia P. Gaposchkin of Harvard University, should write as soon as possible to the astronomy department of the University of California, Berkeley.

Scientists in the News

A memorial service honoring RUDOLPH MATAS, and the seventh presentation of the Rudolph Matas Award in vascular surgery, will be held on 9 May at the Tulane University School of Medicine. Dr. Matas, who died in September 1957 at the age of 97 years, served Tulane's department of surgery all of his adult life, becoming professor and head of the department in 1894.

The Matas award will be presented to JOHN H. GIBBON, JR., Samuel D. Gross professor of surgery and head of the department at Jefferson Medical College. He is being honored for his pioneering efforts in the field of extracorporeal circulation, which resulted in the development of a heart-lung apparatus.

HAROLD S. BLACK, research engineer for Bell Telephone Laboratories, Inc., is to receive the 1957 Lamme Gold Medal of the American Institute of Electrical Engineers "For his many outstanding contributions to telecommunications and allied electronic arts, especially the negative feedback amplifier and the successful development and application of the negative feedback amplification principle." The medal will be presented to Black on 23 June during the summer general meeting of AIEE in Buffalo, N.Y.

RUSSELL GIBSON has left the United States to take up a year's assignment in Pakistan, where he will advise on the search for atomic raw materials under the United Nations Technical Assistance Administration. Among Gibson's duties will be the undertaking of a preliminary survey. He will advise Pakistan's Atomic Energy Commission on a comprehensive program for an atomic

raw materials ground survey in both East and West Pakistan. His recommendations will also cover the training of local personnel, both to carry out the ground survey and to implement the survey program.

Gibson has had wide experience in geological surveys in the United States, Mexico, Argentina, China, Bolivia, Iran, India, Chile, and Costa Rica. From 1927 to 1954 he served as instructor, assistant professor, and associate professor in the geology department of Harvard University, specializing in the economic aspects of geology.

JOHN HORN, consultant, Technical Data Consulting Service, General Electric Company, has retired from the company after 39 years of service. He expects to devote his time to the investigation and reporting of technological trends in Europe for the benefit of American industry.

Horn joined General Electric in Schenectady, N.Y., in November 1919 to inaugurate the General Electric Technical Translation Service. In 1924 he turned to collecting, organizing, and disseminating technical information throughout the company, and in that connection became the technical information liaison agent on information to and from affiliated foreign companies.

He is the originator of the General Electric Technical Information System, which disseminates technical information throughout the company. For 15 years he has been the editor of the firm's activities bulletin for communicating information between laboratories. He has participated in the education of design draftsmen, the establishment and conduct of the General Electric Technician Program, and the assignment of apprentices within engineering. He is the author of several papers on material conservation, technical report writing, documentation, and allied subjects.

Horn, who was born in Oslo, Norway, was educated in the Norwegian school system, and graduated from the Technical Institute of Horten, Norway, in 1912.

RICHARD G. FOLSOM, former director of the Engineering Research Institute and professor of mechanical engineering at the University of Michigan, assumed his new post as president of Rensselaer Polytechnic Institute on 1 March. He succeeds LIVINGSTON W. HOUSTON, who retired after 14 years as president.

At its meeting in March, the chairman of the National Science Board announced the appointment of a Committee on Social Sciences consisting of the following: Father THEODORE M. HESBURGH, president, University of

Notre Dame, chairman; DONALD H. McLAUGHLIN, president, Homestake Mining Company; DOUGLAS M. WHITAKER, vice-president for administration, Rockefeller Institute for Medical Research; and FREDERICK A. MIDDLEBUSH, president emeritus and director of the Development Fund, University of Missouri.

PAUL A. SIPLE, leader of the first group of men ever to winter at the South Pole, has received the National Geographic Society's Hubbard Medal, one of geography's highest awards. The gold medal bears the citation: "To Paul A. Siple, whose bold Antarctic explorations and researches spanning 30 years have broadened the horizons of geographic knowledge." Siple first went to the Antarctic as a 19-year old Eagle Scout with Richard E. Byrd. He now serves as a civilian polar expert in the Army's Office of Research and Development in Washington.

JOSEPH E. MAYER, Carl Eisendrath professor in the department of chemistry and the Enrico Fermi Institute for Nuclear Research of the University of Chicago, has been awarded the Gilbert Newton Lewis Medal of the California Section of the American Chemical Society. He is being honored for his "outstanding contributions in statistical thermodynamics, pioneering work in the statistical mechanics of fluids and solutions, successful theoretical and experimental investigations of critical phenomena, and illuminating contribution to the theory of electrolytes." The medal will be presented to Mayer in Berkeley, Calif., on 12 May, when he will deliver an address on "Theory of Time Changes (the Statistical Mechanics of Time Dependent Systems)."

PAUL D. V. MANNING has been named professor of chemical engineering at the California Institute of Technology, effective 1 July. He will retire on 30 June from his position as senior technical vice president, International Minerals & Chemical Corporation, Chicago, after 17 years of service. He joined International in 1941 as director of research and 2 years later was made a vice president.

A. T. GREEN, director, and Mr. DINSDALE, assistant director, of the British Ceramic Research Association, Stoke-on-Trent, England, will be in the United States until 4 June. They will visit San Francisco, Los Angeles, Pittsburgh, Columbus, Detroit, Chicago, Boston, Baltimore, and Washington.

J. RUSSELL BRIGHT, associate dean and former chairman of the department of chemistry at Wayne State University,

has been appointed chairman of the state of Michigan's new 16-member Science Advisory Board.

LEO C. YOUNG of the Naval Research Laboratory received the Distinguished Civilian Service Award, the Navy's highest civilian award, on 28 March. Young, who has more than 40 years of Navy service, was honored for his contributions in the field of radio communication, radar, electronics identification, and radio control.

The 1958 Jacob F. Schoellkopf Medal of the Western New York Section of the American Chemical Society has been awarded to ROBERT B. MacMULLIN, senior partner of R. B. MacMullin Associates, consulting engineers of Niagara Falls, N.Y., "for his original contributions to the science of chemical engineering, and for his achievements at home and abroad, as a consulting engineer, particularly in the field of industrial electrolytic processes." The medal will be presented on 20 May at a dinner meeting at the Hotel Niagara, Niagara Falls.

JAMES M. GAVIN has been elected vice president and a director of Arthur D. Little, Inc., Cambridge, Mass. Prior to his retirement at Fort Bragg, N.C., on 31 March, Gen. Gavin was Army chief of research and development. He will assume his new duties as an administrative officer on 1 June at Acorn Park, Little's research center in West Cambridge, Mass.

SERGE A. KORFF, professor of physics at New York University College of Engineering, has been named Professor Honorario en Radiacion Cosmica of the Chacaltaya Laboratory of Cosmic Physics, which is part of the Universidad Mayor de San Andres of La Paz, Bolivia. Korff received the title in recognition of his work in cosmic radiation and his cooperation with the Chacaltaya Laboratory.

CLAIR F. FELLOWS, director of the Detroit Edison Company's engineering laboratory and research department, retired on 1 April after more than 38 years of service. Fellows is a chemical engineering graduate of Purdue University. He joined Edison in 1919 as a chemist in the company's research laboratory—the first full-scale research facility recorded in the electric power industry. He was named head of the chemical division in 1925 and was appointed director of the department in 1952.

During his Edison career he undertook some of the first industrial studies to determine the behavior of steel at high temperatures and pressures. He also won recognition as a pioneer in the study of water treatment and corrosion problems

related to power-plant operation. Fellows, who is past-president of the American Society for Testing Materials, is the author of numerous articles on problems involving the application of chemical principles in the electric power industry.

LOWELL O. RANDALL, director of pharmacology for Hoffmann-La Roche, Inc., Nutley, N.J., has been awarded an honorary doctor of science degree by Mount Union College, Alliance, Ohio.

WILLIAM G. VAN DER KLOOT, associate professor of zoology at Cornell University, will become professor and chairman of the department of pharmacology at New York University College of Medicine at the close of the academic year.

The Geophysics Research Directorate, Air Force Cambridge Research Center, Bedford, Mass., has announced the selection of RITA C. SAGALYN as Guenter Loeser Memorial Lecturer for 1958. Sagalyn will speak on "Recent Investigations of Electrical Phenomena in the Atmosphere" at 2 P.M. on 4 June, in the Charter Room of the New England Mutual Building, Boston, Mass.

H. J. C. MACMILLAN, formerly chief of laboratories at Lemuel Shattuck Hospital, Department of Public Health, Commonwealth of Massachusetts, and instructor in gynecology at Boston University, has joined Bio-Research Institute, Incorporated, and Bio-Research Consultants, Cambridge, Mass., as chief pathologist and cytologist.

ROBERT M. FARRIER has been appointed assistant director of the National Institutes of Health Clinical Center, Bethesda, Md. He replaces STUART M. SESSOMS, now assistant director of the National Cancer Institute. Farrier has been a commissioned officer in the Public Health Service since 1948. Since 1954 he has been on special assignments for the headquarters office of the Bureau of Medical Services.

H. K. NEWBURN, since 1953 president of the Educational Television and Radio Center, Ann Arbor, Mich., has announced that he will leave this position in September. The decision corresponds with his expressed intent to return to university administration when he was named the first full-time head of the Ann Arbor organization.

The University of Michigan has announced the following appointments: GEORGE E. HAY, who has been acting chairman of the department of mathematics since September and a member of the faculty since 1940, has been made chairman of the department,

effective immediately and until 30 June, 1962; PAUL M. FITTS of Ohio State University has been appointed as professor of psychology, effective in September; GORDON J. VAN WYLEN, a professor of engineering at Michigan since 1951, has been appointed chairman of the department of mechanical engineering, effective in July; PHILLIP C. CLEMMOW, who will be on sabbatical leave as university lecturer at Cambridge University, Cambridge, England, has been named visiting professor of electrical engineering for 1958-59; PAUL F. ZWEIFEL, consulting physicist with the General Electric Company's Knoll's Atomic Power Laboratory, has been appointed associate professor of nuclear engineering in the department of electrical engineering for a period of 2 years, effective 1958-59; and GIUSEPPE PARRAVANA, associate professor of chemical engineering at the University of Notre Dame, has been appointed associate professor of chemical engineering for a 2-year period, September 1958 to June 1960.

Four physicians whose work has contributed to research on drug addiction were cited for their accomplishments by the Secretary of Health, Education, and Welfare at a recent dinner held in their honor at the Officers Club of the Navy Medical Center in Bethesda, Md. Letters of commendation were presented to two retired assistant surgeons general, LAWRENCE KOLB of Washington, D.C., and WALTER L. TREADWAY of Santa Barbara, Calif.; to NATHAN B. EDDY, chief of the section on analgesics of the Chemistry Laboratory, National Institute of Arthritis and Metabolic Diseases; and to the widow of the late LYNDON F. SMALL, former chief of the Laboratory of Chemistry of the National Institute of Arthritis and Metabolic Diseases.

ALFRED B. FOCKE, former director of the University of California's Marine Physical Laboratory, has been named chief scientist at the U.S. Naval Air Missile Test Center, Point Mugu, Calif. He is a specialist in underwater sound, radar, and radio air acoustics.

DANIEL M. SHAPIRO, formerly of the Columbia-Presbyterian Medical Center in New York, has been appointed associate professor of surgery in the University of Miami School of Medicine. He is in charge of the cancer research program of the department of surgery, to which he has brought a team of trained technicians and a colony of 4000 inbred mice.

HORACE H. HOWE, nuclear physicist, has joined the U.S. Naval Radiological Defense Laboratory, San Fran-

cisco, Calif., as head of the accelerator branch, Nucleonics Division. Howe was formerly on the teaching staff of Reed College, and of the University of California, Los Angeles.

Recent Deaths

CHENG TAN CHOW, Johore Bahru, Malaya; 26; for 2 years research associate in the department of biochemistry at the University of Chicago, since January instructor at the University of Malaya; 24 Mar.

JOHN W. CRONIN, Washington, D.C.; 52; Assistant Surgeon General and chief of the Bureau of Medical Services of the U.S. Public Health Service; 26 Mar.

THOMAS S. CUSACK, Brooklyn, N.Y.; 74; psychiatrist and neurologist for more than 40 years; testified as an expert witness at many famous criminal trials; 14 Apr.

ELSE FRENKEL-BRUNSWIK, Berkeley, Calif.; 49; lecturer in psychology at the University of California; associate research psychologist, Institute of Child Welfare; and research associate, Institute of Industrial Relations; 31 Mar.

FRITZ FRIEDRICHS, Wertheim, Germany; 72; engineer with the Normschliff Glasgeräte GmbH, Wertheim; 12 Mar.

FRANK KINGRON-WARD, London, England; 72; botanist who made more than 20 expeditions to China, Tibet, Burma, and India; brought some 300 varieties of oriental plants and shrubs to Europe; 8 Apr.

MARK M. MILLS, Washington; 40; deputy director of the University of California's Radiation Laboratory, Livermore Branch, and professor of nuclear engineering in the Division of Mechanical Engineering at Berkeley; member of the Atomic Energy Commission's Reactor Safeguard Committee, and member of the Advisory Committee on Atomic Energy of the Secretary of Defense; 7 Apr.

VICTOR C. PEDERSEN, Forest Glen, Md.; 90; physician and surgeon in New York until his retirement in 1948; for 15 years chief of clinic at St. Mark's Hospital in New York, where he developed one of the first social study clinics on the effects of hereditary syphilis in families; 9 Apr.

JOSEPH J. SCHAEFER, New York, N.Y.; 59; consulting chemist; 11 Apr.

BURGESS SMITH, Rochester, N.Y.; 83; chief chemist and research director of the Todd Company in Rochester until he retired in 1950; 14 Apr.

ROBERT S. WITHROW, Minneapolis, Minn.; biophysicist, and chief of the Division of Radiation and Organisms at the Smithsonian Institution in Washington, D.C.; 8 Apr.