schools for 25 years, Hellebrandt joined the University of Illinois in 1951 as a department head. She had previously directed the Baruch Center of Physical Medicine at the Medical College of Virginia, and before that she was head of the section on physical medicine and associate professor of physiology at the University of Wisconsin. She organized the physical therapy schools in both institutions. DAVID I. ABRAMSON, a member of the university's department of medicine staff since 1946, will succeed Hellebrandt.

DAVID C. MCCLELLAND of Wesleyan University will become professor of psychology at Harvard University on 1 July 1956. McClelland, who is an authority on motivation, will fill a new chair in the psychology of personality that was endowed by the Ford Foundation with a grant of $400,000. He will conduct his research in the Laboratory of Social Relations.

BERNARD BUDIANSKY, an engineer whose research has been concerned with vibrations and stresses in aircraft structures, has been appointed associate professor of structural mechanics at Harvard University. Since 1952 he has been head of the structural mechanics branch of the Structures Research Division, Langley Aeronautical Laboratory, National Advisory Committee for Aeronautics, Langley Field, Va.

JOHN C. CALHOUN, JR., professor and head of the department of petroleum and natural-gas engineering at Pennsylvania State University, became dean of engineering at the Agricultural and Mechanical College of Texas on 1 Sept.

SUSHIL KUMAR PRAMANIK, who retired as deputy director of the Indian Meteorological Service last year, arrived in Teheran, Iran, on 26 Aug. to fill a 6-month assignment as a consultant for the World Meteorological Organization and the United Nations Technical Assistance Administration. He will assist the Government of Iran in coordinating various meteorological services; this will lead to the establishment of a National Meteorological Institute in Iran.

WILLIAM J. RIEMER, formerly of the University of California, Berkeley, and WILLIAM H. SEARS, formerly of Hofstra College, Hempstead, N.Y., have joined the staff of the Florida State Museum, Gainesville, as, respectively, assistant curator of biological sciences and assistant curator of social sciences. Sears is working with the museum's archeological and anthropological collections. Both appointments were effective in July.

RUSSELL L. MAYCOCK, former assistant manager of the physical chemistry department at the Shell Development Co.'s Emeryville research center, has been appointed director of the company's research laboratory in Houston, Tex. He replaces J. ANDERSON, who has been transferred to Torrence, Calif., to direct research for the Shell synthetic rubber plant there.

ARTHUR BEVAN, principal geologist of the Illinois State Geological Survey since 1947, has retired in order to resume field studies in the Appalachian Mountains of west-central Virginia. Before he joined the Illinois Survey he had been state geologist of Virginia for 18 years. He will reside in Churchville, Va.

The following appointments to assistant professor have been announced. University of Mississippi: LOUIS F. RITTELMEYER, JR., preventive medicine. Rose Polytechnic Institute: FRANK A. GUTHRIE, chemistry. Albany Medical College: WILLIAM THOMAS SMYTH, pathology and bacteriology.

Necrology

DAVID CRAMPTON, Mantoloking, N.J., 45, chief chemical engineer for Wallace and Tiernan, Belleville, N.J., and president and chairman of the board of Stewart Industries, Inc., Clifton, 28 Aug.

CHARLES A. EMERSON, East Orange, N.J., 73, sanitary engineer, former chief engineer for the Pennsylvania State Health Department, and a partner in Havens and Emerson, New York, 24 Aug.

THURMAN D. KITCHIN, Wake Forest, N.C., 69, president emeritus of Wake Forest College, former dean of Wake Forest Medical School, 28 Aug.

HOWARD SHIELD MCCANDLISH, Washington, D.C., 64, emeritus associate professor of clinical obstetrics and gynecology at Cornell University Medical College, 26 Aug.

EDWIN N. ROSENFELD, North Hollywood, Calif., 63, chemist and former assistant inventor to Thomas A. Edison, 27 Aug.

EDWARD B. SILVERMAN, New York, 60, electrical engineer for Smith and Silverman, New York, 29 Aug.

ANDREW TOPPING, London, England, 64, dean of the London School of Hygiene and Tropical Medicine; former UNRRA deputy chief, 28 Aug.

JAMES WALTON, London, England, 73, former professor of surgery at London Hospital Medical School, former president of the Association of Surgeons, Medical Society of London, and the Surgical Section of the Royal Society of Medicine, 27 Aug.

ARTHUR MANLEY WICKWIRE, JR., Morristown, N.J., 57, engineer and inventor, president of Power Controls, Inc., Yonkers, N.Y., 27 Aug.

Education

■ Columbia University's School of Engineering has planned a program that is designed to encourage industrial scientists and engineers to return to the campus to become acquainted with recent electronics developments. The university has scheduled a series of evening courses in electric circuits and electronics that is intended for technical men with a bachelor's degree in engineering or science. These courses are offered because entire areas of activity have developed that require scientific and mathematical tools that were not part of the education of electrical engineers trained before World War II.

■ The Special Training Division of the Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn., has announced a partial schedule of courses to be offered during the next 12 months. The institute, a nonprofit educational corporation formed by 32 Southern universities, conducts 4-week courses in the basic techniques of using radioisotopes in general research, and special and advanced courses of varying duration that stress applications of radioisotopes in specific fields of scientific endeavor.

The 47th through the 53rd basic courses, which are limited to 32 participants, will be held on the following dates: 17 Oct.–11 Nov. 1955, 9 Jan.–3 Feb. 1956, 6 Feb.–2 Mar., 16 Apr.–11 May, 4–29 June, 16 July–10 Aug., and 13 Aug.–7 Sept.

The institute's basic courses are designed to assist mature scientific and technical personnel in obtaining in a short time sufficient facility in the use of radioisotopes to utilize them safely and efficiently in their own research. Minimum scholastic requirement for enrollment is a bachelor's degree, preferably in a scientific field, but no specific courses are required as prerequisites.

Tuition for the basic course is $25.00. Application blanks and further information may be obtained by writing Dr. Ralph T. Overman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P.O. Box 117, Oak Ridge, Tenn. Applications and supporting letters should be in the hands of the Institute 3 months in advance of the starting date of the course for which application is made.

Veterinary Radiological Health Courses. In September 1954 the institute initiated the first 2-week advanced

course in veterinary radiological health to be offered in this country specifically to meet the needs of veterinarians in the armed forces. These courses, which are presented in cooperation with the University of Tennessee–Atomic Energy Commission Agricultural Research Program, are designed to instruct military veterinary officers in the evaluation of problems of radiation phenomena, particularly in relation to their biological effects and the possible or potential factors involved in the radiocontamination of food-producing animals and animal-food products. Starting dates for future veterinary courses are 12 Sept., 26 Sept., 10 Oct., 24 Oct., 7 Nov., 12 Mar. 1956, 9 Apr., 23 Apr., and 7 May.

■ The new seven-story Morton medical research building of Northwestern University, Chicago, will be dedicated on 27 Sept. during the 98th Founders Day ceremonies commemorating the founding of the medical school. Sterling Morton, chairman of the board of the Morton Salt Co., will speak at the dedication. His mother left a $2 million bequest in memory of her husband for construction of the building.

The new unit is connected to the Montgomery Ward memorial building, which houses the medical and dental schools. Designed to permit maximum flexibility for any size or type of research, the Morton structure's features include movable metal wall partitions equipped with water, gas, steam, air, and vacuum pipes. The partitions, which can be set up at any 10-foot interval within the building, will allow speedy conversion of laboratories to almost any size desired. Laboratories are being installed so that preclinical research in the Ward building and clinical research in the Morton building can be physically correlated with maximum efficiency.

■ For the first time the University of Detroit McNichols evening division is offering a complete 9-year curriculum leading to a degree in mechanical engineering. The first 4 years of the new program is equivalent to the curriculum offered in the first 2 years of the College of Engineering day program. It is equivalent also to the first 4 years of work, designated preengineering, offered up to the present in the McNichols evening division.

■ The School of Dental Medicine at Tufts University, Boston, has announced a series of new courses to be conducted in Spanish for foreign dentists. The courses will be open to Spanish-speaking dentists who are graduates of dental schools that have been accredited in their respective countries.

Grants, Fellowships, and Awards

■ For the eighth consecutive year the National Paraplegia Foundation is awarding fellowships to be used for research in basic and medical sciences bearing on the problems of paraplegia. The fellowships are open to residents of the United States or Canada who have demonstrated ability in research. Fellows are expected to devote full time to research during tenure of the fellowship, except that by permission of the Medical Advisory Committee they may attend advanced courses of study that require only a limited portion of their time.

Preference is given to candidates whose primary interest is in the field of spinal cord function and disease, or in complications arising from spinal cord injury. Appointments run for 1, 2, or 3 years; they are subject to renewal for additional periods. The stipends range from $3000 to $4000 yearly, depending upon the past record of the applicant in scientific work, his family obligations, and the cost of living in the location chosen for study. In exceptional cases grants may be as high as $6000. For information address the foundation at 1040 W. Michigan St., Indianapolis 7, Ind.

■ The Division of Medical Sciences of the National Academy of Sciences–National Research Council is accepting applications for postdoctoral research fellowships for 1956–57. These awards are designed to offer research experience for promising individuals who look forward to investigative careers, and not to provide practical experience in the clinical field. Ordinarily fellowships are not granted to persons over 35 years of age. The following programs are announced:

Fellowships in Cancer Research are awarded by the American Cancer Society on recommendation of the division's Committee on Growth. Awards are available for study in all branches of the biological, chemical, and physical sciences, and for clinical investigation applicable to the study of growth, typical or malignant. Citizens of the United States are eligible.

British-American Exchange Fellowships in Cancer Research also are awarded by the American Cancer Society upon recommendation by the Committee on Growth. They are offered to citizens of the United States for advanced study in Great Britain in specialized fields pertaining to the problem of growth. Similar fellowships are awarded by the British Empire Cancer Campaign to young British scientists for research in the United States.

Fellowships in the Medical Sciences supported by the Rockefeller Foundation are administered by the Medical Fellowship Board of the division. Fellows are expected to devote themselves to research in the basic medical sciences. The awards are open to citizens of the United States and Canada.

Fellowships in Tuberculosis are also administered by the Medical Fellowship Board under a grant from the National Tuberculosis Association. These awards are designed to promote the development of investigators in fields related to tuberculosis. They are open to citizens of the United States who are graduates of American schools.

Fellowships in Radiological Research are administered for the James Picker Foundation by the division's Committee on Radiology. Applications will be entertained from candidates seeking to gain research skills leading to investigative careers in radiology. Appointments are not limited to United States citizens.

Applications for 1956–57 under any of these programs *must be postmarked on or before 1 Dec. 1955.* Fellowships are awarded in the early spring. Complete details and application blanks may be obtained from the Fellowship Office, National Academy of Sciences–National Research Council, 2101 Constitution Ave. NW, Washington 25, D.C.

■ The New York Heart Association will offer three senior fellowships this fall, each for a period of 3 years and renewable for an additional 2 years. These fellowships carry annual stipends that start at $6000 and annual increments of $500.

The awards are for full-time work and are available to men and women under the age of 35 who have attained a doctoral degree, who have demonstrated a competence for research, and who have a definite orientation toward fundamental research in the cardiovascular field. Research programs are to be carried out in recognized institutions within the area of the five boroughs of New York.

For further information, write to the Medical Director, New York Heart Association, Inc., 485 Fifth Ave., New York 17. *Closing date for applications is 31 Oct.*

In the Laboratories

■ The Atomic Energy Commission plans to procure additional quantities of high-purity zirconium and hafnium to meet the increasing requirements of its reactor-development program and of currently scheduled naval projects. Tentative plans provide for solicitation of proposals for delivery of 2 million pounds of zirconium over a 5-year period or 1 million pounds over a 3-year period.