ternational Cooperation Administration, is visiting Chile, Peru, Ecuador, Colombia, Panama, and Costa Rica. A similar group made an orientation and survey tour last June that included Venezuela, Brazil, Argentina, and Uruguay.

Members of the group, in cooperation with local scientists, are holding unclassified discussions and delivering lectures on the following subjects: the application of radioisotopes to industry, medicine, and biology; nuclear educational and training programs, including research reactors; the organization and functions of atomic energy administrative organizations. Additionally, staffs of the respective U.S. embassies are being briefed on all aspects of the atoms-for-peace program. The mission is headed by Clark C. Vogel, assistant director of the AEC Division of International Affairs.

Reactor for Japan

The Atomic Energy Commission has issued a license for the export of a research reactor to Japan, the first such commercial transaction in the history of the U.S. private atomic energy industry. Notice of the license was filed with the Federal Register on 2 Nov. 1956. Interested persons have 30 days from that date to request a formal hearing on the issuance of the license.

The license was issued to the New York firm of Marubeni-Iida for export of a reactor, fueled by an aqueous solution of uranyl sulfate and operating at 50 kilowatts, for use in Japan by the Japan Atomic Energy Research Institute. Atomics International is manufacturing the reactor at its plant in Canoga Park, Calif.

Microcards for WMO's IGY Work

The World Meteorological Organization has awarded a contract to the Microcard Corporation of West Salem, Wis., to microcard the observations made by meteorological groups for the International Geophysical Year. These data will come from between 2000 and 2500 continental stations and weather ships. It is estimated that this will involve some 2 million forms reduced to 30,000 Microcards per set. This quantity of data incorporated in one set will store in 24 14- by 3- by 5-inch card-file drawers and occupy about 13 cubic feet of space.

The Microcard Corporation will establish a photograph branch in Geneva for the program to insure rapid production and close liaison with WMO. The period 1–5 Jan. 1957 has been designated as a trial period and all meteorological services have been requested to submit WMO standard forms covering this period for microcarding.

Another Voice on Radiation Effects

A comment on the effects of radioactivity has been published in a letter to the *New York Times* (31 Oct.) from William G. Cahan, assistant attending surgeon at the Memorial Center for Cancer and Allied Diseases. After citing various cases of cancer from radiation exposure — x-ray diagnosticians who used fluoroscopy in its early days, Hiroshima victims, a wild muskrat that had eaten water plants growing beside the river that flows past Plant X-10 at Oak Ridge, Tenn.— Cahan concludes:

"The addition of even the smallest amount of radiation (a known carcinogen) to the many causes of cancer which are still unknown, but which are undoubtedly present in our daily lives, may be enough to tip the scales. . . . It would seem apparent that with our present lack of factual knowledge about the potential genetic and carcinogenic properties of radioactivity we should suspend large-scale radioactive enterprises until our biological knowledge is more secure than it is at present. Only then can genuine safeguards be established."

AEC Offices Abroad

The establishment of U.S. Atomic Energy Commission offices in London and Paris has been announced. The commission has maintained a liaison office in Canada at Chalk River, Ont., for some time. Amasa S. Bishop of the commission's Research Division has been appointed to the Paris post, where he assumed his duties on 1 Nov. Edward L. Brady of the Knolls Atomic Power Laboratory, Schenectady, N.Y., will open the London office on about 1 Dec.

The commission representatives will assist in scientific and technical aspects of the rapidly expanding work related to the United States program for international cooperation in promoting the peaceful uses of atomic energy. Their duties will include liaison with the atomic energy authorities and technical staffs of the country to which they are assigned and expediting the day-to-day scientific and technical problems growing out of the U.S. bilateral agreements for cooperation in nuclear energy matters.

There are now in effect agreements with 30 nations. Accords with seven others await the formal exchange of notes or the expiration of the statutory 30-day waiting period before the Joint Committee on Atomic Energy. A number of amendments to original agreements are pending and negotiations are under way with additional nations for nuclear research or power agreements. The commission representatives also will assist the Department of State, the International Cooperation Administration, the United States Information Service and other agencies in nuclear energy matters.

Tranquilizing Drugs

The U.S. Public Health Service has announced the establishment of a new unit to assist in the development of scientifically sound research programs on tranquilizing and other drugs used in the treatment of mental illness. The new unit is called the Psychopharmacology Service Center; it is in the National Institute of Mental Health in Bethesda, Md. Jonathan O. Cole, has been appointed psychiatrist in charge of the center. He is a former member of the staff of the Division of Medical Sciences of the National Research Council, where he worked with its committees on psychiatry and stress.

Almost simultaneously, the Veterans Administration announced plans for a nation-wide evaluation of the new tranquilizing drugs in 37 Veterans Administration hospitals. The study is designed to answer questions of the drugs' effectiveness and toxicity, what dosage is desirable, and how long they should be administered.

The project will be directed by an executive committee of physicians from various VA hospitals, under the chairmanship of S. Theodore Ginsberg, chief of VA's Psychiatry Division. Two of the tranquilizing drugs now in clinical use will be studied in the first research program, which will involve about 1000 patients with acute and chronic schizophrenia. Preliminary results of the investigation are to be discussed at the VA's third annual conference on chemotherapy in psychiatry, 8–11 May 1957, at the Downey, Ill., VA Hospital.

News Briefs

■ It is reported that the satellite which the U.S.S.R. will send aloft during the International Geophysical Year will be about the same size, 20 inches across, as the satellite now being built in this country. However, it will be five times as heavy as ours and its orbit will begin further out in space (460 miles compared with 300). The Russian satellite also will require an initial push from its launching rocket of 1000 miles per hour more than the U.S. satellite.

■ Seventeen medical schools, 16 in the United States and one in Canada, have reported completion during 1955–56 of construction projects that cost $65 million. In the same period, 17 schools in

the United States and two in Canada have undertaken new construction projects that will cost approximately $45 million.

■ The Atomic Energy Commission has postponed until 10 Dec. a hearing to reconsider its conditional approval of a controversial private nuclear power project near Detroit, Mich. The hearing, on safety questions, had been scheduled for 13 Nov. The Power Reactor Development Company of Detroit is to build the plant.

Scientists in the News

WILLIAM SHOCKLEY, WALTER H. BRATTAIN, and JOHN BARDEEN have won the 1956 Nobel prize in physics for their work in developing the transistor. Their research was conducted in the Bell Laboratories, Murray Hill, N.J. Shockley left Bell last year to become director of the Shockley Laboratories of Beckman Instruments, Inc., Mountain View, Calif., and Bardeen resigned in 1951 to become professor of physics and electrical engineering at the University of Illinois.

Sir CYRIL HINSHELWOOD, a professor at Oxford University (England), and NIKOLAI N. SEMENOV, director of the Institute of Physics in Moscow (U.S.S.R.), will share this year's Nobel prize in chemistry for "their researches into the mechanism of chemical reactions." Beginning 25 years ago and working separately, the two men have dealt with essentially the same problem: the elucidation of the occurrence of chain reactions and their importance in connection with the phenomenon of explosion. It was not until after each had published several papers that Hinshelwood and Semenov came to know each other. This is the first time that a Soviet scientist has received a Nobel prize. Not since the selection of Ivan Pavlov, the physiologist, in 1904 has a Nobel award gone to a Russian living in Russia.

COLBY M. CHESTER, honorary chairman of the General Foods Corporation, has received the Frank H. Lahey memorial award for distinguished service to medical education by a layman. The presentation was made by former President Herbert Hoover at a recent dinner in Chester's honor given by the National Fund for Medical Education.

THOMAS E. MURRAY, a member of the Atomic Energy Commission, is the 1956 recipient of the peace award of the Catholic Association for International Peace. The award is presented annually to "an American whose outstanding achievements have helped further the Christian principles of justice and charity in international life." Murray was cited specifically as one who has consistently pointed out that the "use of force in warfare is subject to the moral law, that the dictates of conscience call for rational limits on the size and number of nuclear weapons."

Two appointments to the staff of the National Science Foundation have been announced. THOMAS O. JONES has been named assistant to the head, Office of Scientific Information, and JACOB PERLMAN is the new study director for surveys, Office of Special Studies. Jones joins the foundation from Haverford College, where he has served for nearly 20 years as professor of chemistry and part of the time as department head. Perlman has been with the United Nations, where he has been principal statistical adviser in charge of a mission working with the Statistical Center of the University of the Philippines in Manila.

STANLEY E. KERR, professor of biochemistry at the American University of Beirut, Beirut, Lebanon, is spending a year as an A. D. Williams visiting professor in the department of biochemistry at the Medical College of Virginia.

E. L. DEMMON, director of the U.S. Department of Agriculture's Southeastern Forest Experiment Station, Asheville, N.C., has retired. He is succeeded by JOSEPH F. PECHANEC.

ZABOJ V. HARVALIK, professor of physics at the University of Arkansas, has taken a leave of absence to serve as director of the newly formed Basic Research Group at the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Va. In addition to his work at Belvoir, Harvalik also will direct and evaluate several contributing research programs being performed by other scientific institutions and universities throughout the country.

A native of Yugoslavia, Harvalik was educated in Czechoslovakia, where he served as a professor of physics at the University of Prague. He became a naturalized U.S. citizen in 1945.

RAYMOND C. MOORE, professor of geology at the University of Kansas, has received the Hayden Memorial geological award of the Academy of Natural Sciences of Philadelphia. The award is given for the "best publication, exploration, discovery or research in the science of geology and paleontology, or in such particular branches thereof as may be designated." Moore has published three textbooks and about 200 scientific articles.

LUIS AVELEYRA ARROYO DE ANDA has been appointed director of the National Museum of Anthropology in Mexico. He is well known to American students, to whom he has for a number of years extended generous and competent assistance. He is also well known for his leadership, along with Maldonado, in the discovery in the Iztapan area of two mammoths and associated dart points indicating the existence of early man.

ROBERT F. MEHL, dean of graduate studies at Carnegie Institute of Technology, will receive the 1956 Pittsburgh award of the Pittsburgh Section of the American Chemical Society at a dinner in his honor on 12 Dec. This award is made annually for outstanding contributions to the advancement of chemistry in the Pittsburgh area.

At the recent dedication of Temple University's $12-million medical center, the following medical educators received honorary degrees: FRANKLIN D. MURPHY, chancellor of the University of Kansas; ISIDOR S. RAVDIN, professor of surgery at the University of Pennsylvania; WILLIAM S. MIDDLETON, head of medical services of the Veterans Administration Hospitals; FRANCIS R. MANLOVE, director of the University of Colorado Medical Center; MANSON MEADS, Bowman Gray School of Medicine; WILLIAM B. WOOD, JR., Johns Hopkins University; ALEX J. STEIGMAN, University of Louisville; DAVID S. RUHE, University of Kansas School of Medicine; and GEORGE W. CORNER, Rockefeller Institute for Medical Research.

Recent Deaths

HAROLD L. AMOSS, Greenwich, Conn.; 70; former professor of medicine at Duke University; 2 Nov.

FARRAND N. BENEDICT, Parsippany, N.J.; 76; vice president and chief engineer of the Crimmins Contracting Company; 3 Nov.

WILLIAM L. BURGOYNE, Lake Success, N.Y.; 58; consulting aeronautical engineer; 8 Nov.

ANDREW A. DICK, Los Angeles, Calif.; 53; former professor of surgery at Loyola University (Chicago); 2 Nov.

G. LYMAN DUFF, Montreal, Canada; 52; dean of the faculty of medicine at McGill University; 1 Nov.

HARRY G. V. EVANS, Caldwell, N.J.; 32; research chemist at Thomas A. Edison, Inc.; 3 Nov.

VLADIMIR P. FILATOV, Odessa, Russia; 81; director of the Ukranian Research Experimental Institute for Eye Diseases and Tissue Therapy; 30 Oct.