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News of Science

Asian Nuclear Center

The United States Government has announced that it will provide about $20 million to help establish the proposed Asian nuclear center that is to be located in Manila. The money will be used for capital expenditures and initial operating costs.

A team from the Brookhaven National Laboratory has been investigating for some months the problems involved in establishing the Manila center. The team's report stated that the center, "is an entirely feasible enterprise, capable of rendering a valuable service to the progress and development of the area." However, the report recommended, among other things, that the nations involved agree in advance on a formula for sharing future operating costs.

The $20 million for the project will come out of the special $100 million Asian regional development fund set up by Congress in the 1955 Foreign Aid Bill. The money is available for 3 years.

IGY Upper Atmosphere Research

Three special National Science Foundation grants of more than $325,000 have been awarded to Stanford University scientists for radio investigations of the upper atmosphere during the International Geophysical Year. The work will involve a network of 24 radio-radar stations extending from the Arctic Circle in the north to Little America near the South Pole. Allan M. Peterson, Robert A. Helliwell, and O. G. Villard, Jr., all of the Radio Propagation Laboratory, are the recipients of the NSF awards.

Peterson's research is related to the IGY's aurora and airglow studies. He will establish and direct the work of 13 ionospheric "scatter-sounding" stations ranging from Greenland down both coasts of North America. Other stations will be located in Central and South America and in Australia. Unusual equipment at the stations will provide a radarlike picture of invisible ionized cloud effects in the upper atmosphere for 1000 miles or more around each post.

Helliwell's work, part of the IGY's ionospheric physics program, has to do with the curious "whistler" sounds believed caused by lightning flashes which generate radio signals that travel far out into space. There will be ten stations located in the Northern and Southern Hemispheres participating in this research. Villard's grant will be used for radar meteor investigations in Little America.

Free Radicals Research Program

A 3-year program of basic research on free radicals has been undertaken by the National Bureau of Standards. The object of the program is to increase fundamental knowledge of the formation, properties, and storage of these highly reactive molecular fragments. The series of experimental and theoretical investigations is receiving support from the Department of Defense through the Office of Ordnance Research, U.S. Army.

Over-all direction and coordination of the work is centered in a Free Radicals Research Section recently established for this purpose. Herbert P. Broida, who has been named chief of the new section, will serve as technical coordinator for the entire program; Arnold M. Bass is assistant chief of the section.

To encourage broad dissemination of the information obtained in the program, and also to minimize interference with other established projects at the Bureau, participating scientists are being drawn largely from other institutions. Approximately half of the technical staff for the free radicals research program will be on loan from industrial research laboratories, working under an unusual cooperative plan. Others will come from universities and various government agencies. It is expected that the work of this central research group will be continued and expanded in many of the industrial laboratories after termination of the present program.

A technical data center is being set up so that free radical research at other laboratories, both in the United States and abroad, may be closely followed. Other activities serving to knit together the various research projects making up the program will include weekly colloquia and a general conference now being planned for mid-1957.

Male Fertility Index

A new index to fertility in males has been discovered by scientists of the Southwest Foundation for Research and Education (San Antonio, Tex.). In studies of thoroughbred horses conducted at the institution's branch in Lexington, Ky., it was found that the sulfhydryl content of seminal fluid provides an index to the ability of the semen to induce pregnancy.

When the sulfhydryl content is high, there is a reduction in the capacity of the sperm to maintain its ability to move. This is associated with failure to cause pregnancy. The sulfhydryl concentration varies from day to day. Studies are now in progress to determine whether or not this new index is applicable to human beings.

Pioneer in X-ray Therapy

Emil H. Grubbe, probably the first American to treat a patient with x-rays, has undergone his 90th operation for cancerous burns resulting from his own early exposure to radiation. Sixty years ago, in Philadelphia, Grubbe gave x-ray therapy to a woman suffering from cancer. This was only a few months after Wilhelm Roentgen, the German physicist, had announced a method for generating x-rays.

Now 81, and living in retirement, Grubbe has lost his left hand, nose, upper lip, and most of the right side of his face. His right hand is enfeebled. He

must repeatedly return to the hospital for further surgery. Since 1896, Grubbe has taught 7000 other physicians how to use x-rays.

News Briefs

■ Homosexual patterns in our society will be discussed by Margaret Mead, noted anthropologist and AAAS board member, and Max Lerner, author and *New York Post* commentator, on 12 Jan. over WRCA-TV (New York area). This will be the third broadcast on homosexuality by the NBC program series "The Open Mind." The first two were last August, and it is reported that substantial pressure was brought to bear on NBC to cancel the second program because of sensitivity about public discussion of such a subject.

■ The Council for Scientific and Industrial Research, Union of South Africa, has stationed a permanent scientific liaison officer in Germany, thus establishing the third South African Scientific Liaison Office overseas; the other two are in London and Washington. J. P. Van Zyl is the scientific adviser who heads the new office, which is in Cologne.

Scientists in the News

The American Institute of Mining, Metallurgical and Petroleum Engineers has announced the names of 14 men who will receive awards at the organization's annual meeting in New Orleans, 24–28 Feb.:

ANDREW FLETCHER, president of the St. Joseph Lead Company, Charles F. Rand medal.

RUSSEL B. CAPLES, president of the Anaconda Aluminum Company, James Douglas medal.

JOHN E. BRANTLY of Cocoa, Fla., retired founder of the American Association of Oil Well Drilling Contractors, Anthony F. Lucas medal.

LEO F. REINHARTZ, who recently retired as vice president of the Armco Steel Corporation, Benjamin F. Fairless award.

ANTOME MAR GAUDIN, professor of mineral dressing, Massachusetts Institute of Technology, Robert H. Richards award.

ARTHUR TIX of Bochumer, Germany, works director of Gusstahalwerk Bochumer Verein, A.G., Robert W. Hunt medal.

MOHAMMED MORTADA, senior engineer of the Magnolia Petroleum Company, Rossiter W. Raymond award.

PAUL GORDON of the Institute for the Study of Metals, Chicago, Mathewson medal.

RAYMOND W. SUNDQUIST, assistant division superintendent of blast furnaces, United States Steel Corporation, J. E. Johnson, Jr., award.

JOSEPH L. GILLSON, geologist for E. I. du Pont de Nemours and Company, D. C. Jackling award.

R. C. BELL, senior research engineer, and G. H. TURNER and E. PETERS, research engineers, all of the Consolidated Mining and Smelting Company of Canada, Ltd., Extractive Metallurgy Division award.

LOUIS A. PANEK, mining methods research engineer, U.S. Bureau of Mines, Robert Peele award.

KARL K. DARROW, internationally known author and lecturer on physics, retired from the technical staff of Bell Telephone Laboratories on 30 Nov. after nearly 40 years of service with the Bell Telephone System. He joined the Western Electric Company as a research physicist in 1917 and became a member of Bell Laboratories on its incorporation in 1925. He had previously completed extensive studies in mathematics and physics at the universities of Chicago, Paris, and Berlin. He received the B.S. and Ph.D. degrees from the University of Chicago in 1911 and 1917, respectively.

At Bell Laboratories he has devoted a major portion of his time to the study and interpretation of current and historical scientific information for his colleagues, to keep them informed of developments in fields of science related to their research activities.

As a result of his extensive writing and lecturing, the influence of Darrow's work in interpreting science has extended outside the Bell System. He has published eight books and more than 200 articles. In addition, Darrow has served as visiting professor at the University of Chicago, Columbia University, Smith College, and Stanford University.

He has long been active in the American Physical Society and has been its secretary since 1941. He is also a member of the American Philosophical Society, of which he was a councilor for 4 years. He has been a member of the French Physical Society for many years and served for a term on its council. He is also a member of the Physical Society of London and of the International Union of Pure and Applied Physics, which he served as vice president from 1947 to 1951.

In recognition of Darrow's contributions to science, the University of Lyons in 1949 granted him the honorary degree of doctor of science. In 1951 the French Legion of Honor awarded him its decoration, with the rank of Chevalier, for "services rendered to the international relations of science and to the cultural relations between France and the United States."

After his retirement, Darrow plans to continue his work with the American Physical Society, with frequent intervals of foreign travel. He also intends to continue, through his writings and lectures, to assess and interpret the latest discoveries in the physical sciences.

GEORGE F. REDDISH, chief bacteriologist of the Lambert-Hudnut Division of the Warner-Lambert Pharmaceutical Company, St. Louis, Mo., has received the 1956 achievement award of the Chemical Specialties Manufacturers' Association for outstanding work in the fields of public health, disinfection, and antisepsis.

JOHN B. MACDONALD, formerly chairman of the division of dental research and professor of bacteriology at the University of Toronto, has been named director of the Forsyth Dental Infirmary for Children and professor of oral microbiology in the Harvard School of Dental Medicine. Macdonald's selection is the first joint appointment made by the two institutions since their affiliation in May 1955. Macdonald succeeds the late HOWARD M. MARJERISON as director of the Forsyth Dental Infirmary.

Three appointments to the staff of the John Jay Hopkins Laboratory for Pure and Applied Science (San Diego) have been announced by the General Atomic Division of General Dynamics Corporation: THEODORE B. TAYLOR, a theoretical physicist formerly with Los Alamos Scientific Laboratory; HAROLD A. THOMAS, a physicist who was chief of the Radio Standards Division of the National Bureau of Standards, and LLOYD ZUMWALT, a physical chemist who during the past year was operations vice president of the Nuclear Science and Engineering Corporation.

WILLIAM S. McCANN, chairman of the department of medicine at the University of Rochester School of Medicine and Dentistry since the school was opened in 1925, will become emeritus professor on 1 July 1957. President of the Association of American physicians in 1952, McCann has served as deputy chairman of the Committee on Medical Sciences of the Research and Development Board, Department of Defense; chairman of the American Board of Internal Medicine; member of the Naval Research Advisory Committee and of the Committee on Medicine of the National Research Council; vice