

the threshold of investigational careers or who are handicapped by inadequate resources and facilities. The committee does not ordinarily approve grants for research the results of which constitute partial fulfillment of requirements for an academic degree.

■ The Explorers Club has adopted a new rule under which grants from the Exploration Fund may be given to scientists who are not members of the club. Application blanks may be obtained by writing to the Explorers Club, 10 W. 72 St., New York 23.

■ The department of biochemistry, University of Washington, announces the availability of teaching and research assistantships for the academic year 1956-57. These assistantships carry a stipend of \$150 per month and remission of tuition and laboratory fees.

In addition, a number of research assistantships are offered for the summer months. Applicants having a bachelor's degree in chemistry, or its equivalent, are invited to apply *before 15 Mar.* by writing to the executive officer, Dr. Hans Neurath, Department of Biochemistry, University of Washington, Seattle 5.

In the Laboratories

■ Vitro Laboratories, a division of Vitro Corporation of America, plans to build a \$1-million laboratory near Silver Spring, Md. The new laboratory will replace the present leased facilities of the Silver Spring Laboratory of the division, and will allow for greatly increased expansion and many improvements. Vitro has purchased 35 acres in Montgomery County, 7 miles north of the present laboratory. Ground will be broken early next year and the first building will be ready for occupancy by 1957.

The initial laboratory structure calls for 55,000 square feet of usable floor space, suitable for 350 persons, as well as storage and other auxiliary features. The design will permit an early expansion to 100,000 square feet of floor space.

The Silver Spring Laboratory carries out research, development, and engineering contracts for both Government and industry, chiefly for the Navy and largely in the field of weapons systems, including underwater ordnance and guided missiles.

■ The entry of Raytheon Manufacturing Company, Waltham, Mass., into the atomic energy field was announced on 8 Dec. with the publication of its pamphlet, *Nuclear Reactor Data*. The booklet lists all significant data on every nuclear reactor that is known to be already built or under construction any-

where in the world, including six in the Soviet Union.

The study that resulted in the booklet was carried out under the direction of William A. Robba, head of the firm's nuclear power group in the research division. Material was gathered from a wide variety of sources, including scientific journals and other published works in many languages. The entire project was aided greatly by the declassification of significant quantities of information for the Geneva Conference.

A feature of the pamphlet is a comprehensive chart listing all reactors built since Enrico Fermi constructed the first one in Chicago 13 years ago, and including those that are partially constructed or definitely planned and engineered for future construction. Facts and figures were checked against two or more sources wherever possible. The chart shows up to 50 principal characteristics of each of the nearly 100 reactors listed. These characteristics include the function, builder, location, and important technical features of the reactors.

■ A new chemical plant will be constructed by the Glidden Company at Port St. Joe, Fla., to utilize the crude skimmings created as a by-product by the St. Joe Paper Company and other southern kraft paper mills. The new unit will produce crude and distilled tall oil, high grade fatty acids, premium-grade tall oil rosins, and by-product pitch. The Port St. Joe facility will be the fourth chemical plant to be operated by Glidden in the South.

Miscellaneous

■ Installation of a Foucault pendulum is now nearing completion in the main lobby of the General Assembly Building at United Nations Headquarters in New York. The pendulum, a gift to the U.N. from the Government of the Netherlands, utilizes the principle first demonstrated by the French physicist, Jean Bernard Leon Foucault, in Paris in 1851, when he suspended a heavy sphere from the dome of the Pantheon by a 220-foot wire. A pin was attached to the underside of the large ball, and at each swing the pin swept over a ridge of sand arranged on an inner railing inside a spectators' circular railing. At each swing the pin cut into the sand pile. It was almost immediately observed that the plane of vibration shifted slowly in a clockwise direction, the rate of deviation being some 11 degrees an hour. Actually the floor was turning around under the pendulum because of the earth's daily rotation.

For the U.N. installation, a 200-pound gold-plated sphere is being suspended

from the ceiling 75 feet above the floor of the Assembly lobby, and directly above a stair landing connecting the lobby with the main entrance to the General Assembly hall. A stainless steel wire will hold the sphere in such a manner as to allow the weighted ball to swing freely in any plane.

The sphere, 12 inches in diameter, will swing directly over a raised metal ring, some 6 feet in diameter and containing an electromagnet in the center. When activated, the electromagnet will cause an impulse in the ball sufficient to overcome the resistance of the air and friction at the suspension above. The sphere will thus swing continuously as a pendulum, its plane shifting slowly in a clockwise direction, as it did in Foucault's original experiment.

Installation of the pendulum is under the supervision of William Bahler, a physicist of the Phillips Company, Eindhoven, Netherlands. Inscribed on the shaft supporting the electromagnetic ring is the following message: "It is a privilege to live this day and tomorrow. Juliana."

■ The U.S. Information Agency's pamphlet *Atomic Power for Peace* has been printed in 35 languages for a total of almost 6½ million copies since May 1954.

■ The *Engineering Societies Directory*, a complete list of all engineering societies in the United States, together with pertinent information about them, will be published by the Engineers Joint Council. The tentative release date is 1 June 1956. The *Directory* will be a new publication, not a revision of the *Engineering Societies Yearbook*, which has been discontinued.

Questionnaires will be mailed to all known societies about 16 Jan. and should be returned to EJC by 1 Mar. If a society has not received such a questionnaire, it should write the Engineers Joint Council, 29 W. 39 St., New York.

■ The University of Western Australia is establishing a medical school and invites applications for the chairs of anatomy, biochemistry, medicine, microbiology, pathology, physiology, obstetrics and gynecology, and surgery. Closing date for receipt of applications is 31 Jan.

■ A competitive examination for appointment of medical and dental officers to the regular corps of the U.S. Public Health Service will be held on 20, 21, and 22 Mar. at various places throughout the United States. A candidate will be tested at the examining center nearest his home. Applications must be received in the Public Health Service, Washington 25, D.C., *no later than 10 Feb.*