■ The generating station at the Shawinigan Water and Power Company's new hydroelectric development at Rapide Sans Nom, Quebec, will be of the most modern outdoor type, without superstructure. Construction will start this spring on the St. Maurice River.

The plant will operate under a head of 125 feet and is designed for six generating units with a total capacity of 248,000 kilowatts, or 330,000 horsepower. Rapide Sans Nom is about 10 miles upstream from La Tuque.

Since the new dam will raise the river level some 110 feet, a 9-mile diversion of the Canadian National Railways transcontinental main line will be necessary.

■ A petrified tree stump with an estimated age of 80 million years has been excavated by workmen on the site of the Army's Nuclear Power Package Reactor at the Corps of Engineers' Research and Development Laboratories, Fort Belvoir, Va.

A left-over of the Cretaceous age, the stump could be as much as 130 million years old, according to Roland Brown, a U.S. Geological Survey paleobotanist who identified it at the Smithsonian Institution. The stump predates the Ice Age by many millions of years. A cypress-type tree that was found in the "Potomac group," a sedimentary formation of river sand and clay with minor gravel lenses, it measures 4 feet by 18 inches.

■ Of the $164 million spent in 1953 by the 77 large privately endowed foundations, $26 million was spent for scientific research. These figures are drawn from a recent survey made by the Russell Sage Foundation for the National Science Foundation. The private foundation expenditures for science are less than 1 percent of the estimated national total for all research and development. Forty three of the 77 major foundations supported scientific research.

■ In agreement with the United Kingdom and the Commonwealth of Australia, Canada is to participate in the series of atomic trials to be held in Australia in late 1956. Members of the Canadian forces and the Defense Research Board will assist in the trials, and items of Canadian service equipment will be exposed to the effects of the nuclear weapons.

■ The U.S. Atomic Energy Commission has removed a suspension order on gem irradiations that has been in effect since 1953. The commission will now treat requests for irradiation of gems in the same manner as requests for irradiation of other materials.

As is well known, irradiation may change the color of gems. Radiations from a particle accelerator may produce blue or blue-green colors in diamonds. Irradiation in a nuclear reactor may produce a green color, which may turn brown under certain conditions of heating. Although diamonds irradiated in a nuclear reactor become radioactive, this activity decays in a few days to an insignificant level.

■ The Republic of the Philippines has been chosen as the site for the new Asian Nuclear Center. The choice was made public by the State Department on 15 Mar. This center was proposed by the United States at the Colombo Plan meeting that was held in Singapore last October. The State Department's announcement concluded:

"The United States is now preparing to move rapidly with initial plans for the establishment of this center as a means of putting atomic energy to work for the economic and social progress of Asia. This action will represent an important step toward the further advancement of President Eisenhower's atoms-for-peace program."

Scientists in the News

The National Academy of Sciences will make the following awards at its annual meeting in Washington, D.C., 23–25 Apr.

ALFRED C. REDFIELD, associate director of the Woods Hole Oceanographic Institution and professor of physiology at Harvard University, received the Agassiz medal for his contributions to oceanography.

ARCHIE CARR, professor of biological sciences at the University of Florida, received the Daniel Giraud Elliot medal in recognition of his work, *Handbook of Turtles,* an account of all of the kinds of turtles found in the area north of Mexico, but including Lower California.

SEWALL WRIGHT, professor of genetics at the University of Wisconsin, received the Kimber medal for his contributions in both theoretical and experimental genetics.

ALEXANDER ROMER, Alexander Agassiz professor of zoology and director of the Museum of Comparative Zoology at Harvard University, received the Mary Clark Thompson medal, which is awarded for distinguished services to geology or paleontology.

CHESTER B. WATTS, director of the 6-inch transit circle division of the Naval Observatory, received the James Craig Watson medal for his contributions to astronomical research.

H. C. VAN DE HULST, professor of theoretical astronomy at the University of Leiden, has received, in absentia, the Draper medal for his contributions to radio astronomy.

SAM L. CLARK, head of the department of anatomy at Vanderbilt University School of Medicine, delivered the annual Robert J. Terry lecture on 21 Mar. at the Washington University School of Medicine (St. Louis). The lectureship, established in 1938, honors Terry, professor emeritus of anatomy who was head of the department of anatomy from 1900 until his retirement from teaching in 1941. He still is active in research.

LLOYD McCLAIN PARKS has been appointed dean of the College of Pharmacy at Ohio State University. He was formerly professor of pharmaceutical chemistry at the University of Wisconsin.

Two physicians were presented with Ross awards of $1000 each by the Academy of General Practice during its recent national convention. The awards are given annually for the most important contributions to scientific literature by physicians in general practice.

The recipients were CECILE L. FUSFELD of Washington, D.C., for a paper on detection of cancer of the reproductive tract during routine examination of women who had no clinical signs of the disease; and EDWARD SETTEL of Forest Hills, N.Y., for reporting on the use of chlorpromazine for tranquilizing disturbed senile patients.

CLIFFORD BECK, head of the department of physics at North Carolina State College, will take a year's leave of absence in June to become scientific adviser to the director of the Atomic Energy Commission's Division of Civilian Application.

A.C.S. VAN HEEL of the Technical University, Delft, Netherlands, is giving a series of lectures on polarized light at the National Research Council of Canada, where he will work several months on such problems as (i) measuring the optical path differences in microscopic and macroscopic objects and (ii) precision alignment and its technical applications to the setting up of machinery.

EGER V. MURPHREE, president of the Esso Research and Engineering Company, has been appointed to the newly created position of Special Assistant to the Secretary of Defense for Guided Missiles.

PAUL R. BURKHOLDER, head of the department of bacteriology at the University of Georgia, has been appointed director of research at the Brooklyn Botanic Garden, effective 1 July.

CLINTON R. HANNA, associate director of the Westinghouse Research Laboratories in Pittsburgh, Pa., has received the Benjamin Garver Lamme medal of the American Institute of Electrical Engineers. He was honored "for his fundamental calculations and developments in the field of electrodynamics, and particularly for his achievements in the design of voltage regulators, automatic rolling mill controls, and tank gun stabilizers."

J. J. RAIMOND, JR., director of the Zeiss Planetarium at The Hague, Netherlands, lectured at Georgetown University on 2 and 9 Apr.

H. L. SHEEHAN, professor of pathology at the University of Liverpool, Liverpool, England, delivered a lecture on "A typical hypopituitarism" at the Yale–New Haven Medical Center on 9 Apr.

PHILIPP G. FRANK, physicist, philosopher, and retired lecturer on physics and mathematics at Harvard University, has joined the faculty of the Massachusetts Institute of Technology for the current term as visiting professor in the School of Humanities and Social Studies. He will teach a guest course on the acceptance of scientific theories.

HARRIS WALDO BIRD, JR., has been appointed associate professor of psychiatry in the Medical School of the University of Michigan. Bird was formerly associate professor of psychiatry in the University of Chicago Medical School.

FRANK H. BABERS, former biochemist with the Entomology Research Branch, U.S. Department of Agriculture, Beltsville, Md., is now acting head of the Biology and Chemicals Branch at the Quartermaster Research and Development Center, Natick, Mass.

PAUL E. WAGGONER has been named head of a new department of climatology at the Connecticut Agricultural Experiment Station, New Haven. He was previously a member of the station's department of plant pathology and botany, in which his research was concerned both with microclimatology as it relates to the spread of plant diseases and with the effect of atomic radiation on plant diseases.

ROBERT O. SAUER has been appointed vice president in charge of research and development at Velsicol Chemical Corporation, Chicago, Ill. Sauer was formerly engaged in development engineering work for the General Electric Company at Waterford, N.Y.

CHRIS A. HANSEN, an assistant chief of the Public Health Service's Communicable Disease Center in Atlanta, Ga., and an employee of the center since its organization in 1946, was appointed head of the Division of Research Services at the National Institutes of Health, Bethesda, Md., on 1 Apr.

ROBERT C. MYER has been appointed executive director of a special 3-year project on the mentally retarded, with headquarters in the Columbus State School, Columbus, Ohio. Myers was formerly chief of community mental health services for the New Jersey State Department of Institutions and Agencies in Trenton. The project is being developed under a $230,000 grant from the National Institute of Mental Health.

JOHN B. BARNWELL has been appointed assistant chief medical director for research and education in the department of medicine and surgery of the Veterans Administration at Washington, D.C. Barnwell succeeds George M. Lyon, whose appointment as manager of the Veterans Administration Hospital at Huntington, W. Va., previously was announced.

LLOYD C. FERGUSON, professor of veterinary science at the Ohio Agricultural Experiment Station at Wooster, has been appointed head of the department of microbiology and public health at Michigan State University, effective 1 July. Other appointments at Michigan are: AUBREY E. WYLIE, of the State University of New York, who will become professor of forest products, effective 16 Aug., and ALLEN K. PHILBRICK of the University of Chicago, who will assume the post of associate professor of geography, effective 1 Sept.

HEINZ G. F. WILSDORF, principal research officer of the National Physical Laboratory, Council for Scientific and Industrial Research, Pretoria, Transvaal, Africa, will join the staff of the Franklin Institute early in the summer as senior research metallurgist in the solid-state physics division.

CARROLL L. BIRCH, professor of medicine at the University of Illinois, received the Elizabeth Blackwell medical citation on 22 Jan. in New York. She was honored at the New York Infirmary in "recognition of her distinguished achievement in the study and teaching of tropical medicine."

The award is presented in memory of Elizabeth Blackwell, the first woman to receive a formal medical education in modern times. Dr. Blackwell was graduated in medicine in 1849 and was the founder of the New York Infirmary.

Education

■ As a result of a grant from the Rockefeller Foundation, the Centre International d'Epistemologie Genetique was recently established in the Faculty of Science of the University of Geneva, Geneva, Switzerland, under the direction of Jean Piaget. The center, which is interdisciplinary, is closely associated with the department of psychology. It consists of a team of research workers from the logico-mathematical, natural, and psychological sciences interested in the experimental and theoretical study of developmental behavior.

The general topic of study for the present year is the relationship between logical structures and the behavior and thought of a subject in his development. A guest symposium on this topic will be held in July 1956, when the center's first publication will also be released. Inquiries and correspondence should be addressed to the acting secretary, Mlle. S. Taponier, Centre International d'Epistemologie Genetique, Geneva 14, Switzerland.

■ A Computation Center will be opened on 1 Sept. at the Carnegie Institute of Technology under the direction of Alan J. Perlis, at present head of the computing laboratory at Purdue University. In addition to supplying computing service to the institute, industry, and the Government, the center will be used as a research tool for developing the theory of machine computation. The new center is made possible by the IBM educational contribution program.

■ An educational experiment at Rensselaer Polytechnic Institute has indicated that colleges of science and engineering could successfully advance some students to graduate studies without benefit of the senior year.

This finding was the result of a 6-week experimental program conducted at the institute last summer.

Ten students, who had just completed their junior year and who had been carefully screened for promise of achievement, were selected from ten colleges and universities to participate in the experiment. Their previous experience had been in the fields of physics, chemistry and metallurgical engineering.

The two courses that were given dealt with the chemistry and physics of metals.

The program will be repeated next summer. Each participant will be given a full-tuition scholarship and travel and living expenses as well. College juniors who feel qualified should address inquiries to Dr. Arthur A. Burr, Department of Metallurgical Engineering, Rensselaer Polytechnic Institute, Troy, N.Y.