

traditional 12-hour intervals (at 5 A.M. and 5 P.M. in New Zealand).

If this finding should be accepted by dairy farmers, their working hours could be greatly modified. Similarly, work shifts in dairy factories, which manufacture butter and cheese, would be markedly changed.

## Medical Reactor

The U.S. Atomic Energy Commission has recently awarded a contract for the construction of the first nuclear reactor designed specifically for medical research housed in a new medical center at Brookhaven National Laboratory. The center will include laboratories for medical physics, pathology, microbiology, biochemistry, and physiology as well as a 48-bed research hospital. The medical center, including the reactor, is scheduled for completion in 1958 at a cost of \$6 million.

Employing thermal neutrons, the new medical reactor will produce a treatment beam having an intensity 50 times greater than that provided by the Brookhaven general research reactor and, thus, will insure wider medical application of neutrons and flexibility of treatment.

## Fossil Palm

Roland W. Brown, paleontologist of the U.S. Geological Survey and the Smithsonian Institution, has recently discovered fossil imprints of palmlike leaves in a geologic formation in southwestern Colorado, which dates from the Triassic period. He has assigned the species tentatively to the palm family and described it as a hitherto unknown genus, *Sanmiguella*, of the great plant group of Monocotyledons, which includes palms, grasses, sedges, and many other flowering plants.

The fossils of the area where the fossils were discovered presumably accumulated on flood plains and in scattered pools and lakes at a time when the southwestern Colorado area was a few hundred feet above sea level. Plant remains are rare.

Teeth of ancient reptiles, the phytosaurs, which were somewhat similar to extant crocodiles although they belonged to a different family, were associated with the palmleaf imprints.

## News Briefs

■ A bill that would have authorized Federal construction and operation of nuclear reactors for the production of electric power was recently returned to the Joint Atomic Energy Committee by a

vote of 203 to 191 in the House of Representatives. In effect, this killed the bill, which had already passed the Senate.

■ Fabrication has begun on the nuclear research reactor designed and being built by Atomics International, a division of North American Aviation, Inc., for the Atomic Energy Research Institute of Japan. The 50-kilowatt reactor will use as fuel enriched uranyl sulphate dissolved in about 4 gallons of water and will be similar to the industrial research reactor designed and built by Atomics International for the Armour Research Foundation in Chicago, which began operating recently.

The reactor for Japan is designed to prevent the discharge of any radioactive gases or other fission products into the atmosphere. The gases will be retained inside the primary system, where they will be circulated and recombined. This will have the added advantage of providing a source of neutron-free gamma rays, which are essential in medical and scientific research.

The Atomic Energy Research Institute in Japan, a nonprofit foundation sponsored by the Japanese government and industry, will use the reactor for nuclear study—including medical research, drug sterilization, food preservation, production of radioisotopes, and research and study in reactor techniques—as well as for investigating the effects of atomic radiation on plastics, rubber, and similar materials, and for research in botany, biology, and agriculture.

■ An experimental seeding of quinoa, a hardy plant whose seeds and leaves have long been eaten by the upland natives of Peru, Bolivia, and Ecuador, will be undertaken in Greenland under the auspices of the U.S. Navy, according to a report from the National Geographic Society. If the seeding is successful, Greenland will have a staple food plant. On the altiplano of Peru and Bolivia, quinoa is a major food plant, which grows well at altitudes up to 13,000 feet.

## Scientists in the News

HUGH R. GILMORE, JR., colonel in the Medical Corps, U.S. Army, and curator of the Medical Museum of the Armed Forces Institute of Pathology, has retired. He has been cited by Silas B. Hays, Surgeon General, U.S. Army, for 30 years of superior and devoted service to the Army Medical Service. His appointment to the Medical Museum post in 1953 climaxed a long association with military medicine. He received his M.D. in 1921 from the University of Pennsylvania and, after several years in private

practice, joined the Army Medical Corps in 1926.

Gilmore is a former chief of pathology and allied sciences division of the Army Surgeon General's Office and has served in many capacities at medical installations, both in the United States and overseas. Throughout World War II, he was assigned as preventive medicine officer to various command headquarters in the North African and Italian theaters of operations. Gilmore served as acting curator of the Medical Museum for 9 months during a previous tour of duty at AFIP from 1935 to 1937.

SAMUEL W. KIME, captain, Medical Corps, U.S. Army, has been named acting curator of the Medical Museum.

MARVIN L. ENGLISH, who has been teaching engineering at North Carolina State College, will become associate professor of mechanical engineering in the University of Cincinnati College of Engineering on 1 Sept. 1956.

EARL H. DEARBORN has been appointed head of pharmacological research at Lederle Laboratories, American Cyanamid Company. He was formerly professor of pharmacology and chairman of the department at the Boston University School of Medicine.

JOHN H. GARLOCK, clinical professor of surgery at Columbia University and director of surgery at Mount Sinai Hospital, New York City, is at present on an extended teaching tour of South America. He is scheduled to give a series of lectures and hold didactic operative clinics in every important medical center. His itinerary includes Colombia, Chile, Peru, Argentina, and Brazil.

THEODORE EUGENE STERNE has left the staff of the U.S. Army's Ballistic Research Laboratories at Aberdeen, Md., and has been appointed to concurrent positions as associate director of the Astrophysical Observatory of the Smithsonian Institution in Cambridge, Mass., and as Simon Newcomb professor of astrophysics in Harvard University. At Aberdeen, Sterne's work was in the fields of exterior ballistics, terminal ballistics, wound ballistics, and weapon systems evaluation.

He was connected with Harvard University from 1931 to 1941, first as a National Research fellow in physics at Harvard and M.I.T., and then as a lecturer in astrophysics.

L. WHITTINGTON GORHAM has been made director emeritus and GEORGE K. HIRST has become acting director of the Public Health Research Institute of the City of New York, Inc.

Recent appointments to the staff of the National Bureau of Standards are as follows. WILLIAM S. CONNOR will work in the statistical engineering section of the applied mathematics division on the application of modern probability and statistical methods to the physical sciences. He was previously employed at NBS from 1951 to 1954.

JULIAN F. SMITH will extend the present scope of the instrumentation reference service of the office of basic instrumentation. Prior to his appointment, he spent 4 years as a documentation and technical information service consultant, largely at the Library of Congress.

FRANK A. GRANT, who formerly was an assistant professor of physics at the University of Maryland, will do research in the mineral products division on the semiconducting properties of titanium dioxide and titanates.

At the cryogenic engineering laboratory of the Boulder laboratories of the bureau, ROBERT B. JACOBS has been appointed chief of the cryogenic equipment section, replacing BASCOM W. BIRMINGHAM who has been made chief of the cryogenic processes section.

WILLIAM D. GRAY has been named head of experimental pharmacology in the research division, American Cyanamid Company, at Lederle Laboratories, Pearl River, New York. He was formerly group leader in pharmacological research.

G. ARTHUR COOPER has been appointed head curator of the U.S. National Museum's department of geology. He will continue to serve as curator of invertebrate paleontology and paleobotany, a position he has held since 1943.

JOHN A. CLARK, a member of the Massachusetts Institute of Technology faculty since 1949, has been appointed professor of mechanical engineering at the University of Michigan and will start with the second semester of 1956-57.

JOHN J. DENTON has been named director of organic chemical research at the Pearl River laboratories of the American Cyanamid Company. He was formerly technical director of Cyanamid's fine chemicals division.

Two Netherlands visiting professors have been announced by the University of Michigan. J. DROOGLEEVER FORTUYN, professor of neurology at the University of Groningen, will join the department of anatomy of the University of Michigan Medical School from January to June 1957; and M. G. RUTTEN, professor of physical geology at the University of Utrecht, will serve in the

department of geology, College of Literature, Science and the Arts, for the 1957-58 university year.

JOSE DEL CASTILLO, professor of biophysics at University College, London, England, has been appointed visiting professor of physiology at the State University College of Medicine in Brooklyn for 1 year beginning 1 Sept.

J. C. HACKLEMAN, University of Illinois professor of crops extension, will retire from the university staff on 1 Sept., to join the staff of the Illinois Crop Improvement Association as its public relations officer.

WILLIAM F. MANN, JR., will be the new head of the Southern Forest Experiment Station's research center at Alexandria, La. He succeeds JOHN T. CASADY, who will take charge of the East Gulfcoast Research Center in western Florida and southern Alabama.

RANDOLPH T. MAJOR, former scientific vice president of Merck and Company and more recently in an advisory capacity at Merck, has been appointed professor of chemistry at the University of Virginia.

### Recent Deaths

ELMER C. BERTOLET, Sr., Philadelphia, Pa.; 68; director of chemical laboratories at the Research Institute of Temple University; 16 July.

CHARLES W. BONNEY, Germantown, Pa.; 82; professor and surgeon on the staff of Jefferson Medical College; 21 July.

A. NOWELL CREADICK, Durham, N.C.; 73; clinical professor emeritus of obstetrics and gynecology at Yale University Medical School; 23 July.

JOHN P. DERINGER, Los Angeles, Calif.; 53; metallurgist; 20 July.

CARL R. ENGLUND, Fullerton, Calif.; 71; expert on radiotelephony; retired member of the staff of Bell Telephone Laboratories; 22 July.

RICHARD W. FESSENDEN, Amherst, Mass.; 54; professor of chemistry at the University of Massachusetts; 23 July.

MALCOLM GOODRIDGE, New York, N.Y.; 83; former professor of clinical medicine at Cornell University Medical College; 23 July.

ARTHUR D. HOLMES, Amherst, Mass.; 71; professor emeritus of chemistry at the University of Massachusetts; 18 July.

ELIHU KATZ, New York, N.Y.; 68; professor of gastroenterology of the New York Polyclinic Hospital; 20 July.

PIERRE J. RABIL, Washington, D.C.; 43; assistant professor in surgery at Georgetown University Medical Center; 23 July.

ALEXANDER RICE, Newport, R.I.; 80; founder of the Institute of Geographical Exploration and professor emeritus of geographic exploration at Harvard University; 23 July.

FRANCIS B. TRUDEAU, Sr., Saranac Lake, N.Y.; 69; authority on tuberculosis; 20 July.

MANFRED WAHL, Germantown, Pa.; retired microbiologist; 7 July.

LIGHTNER WITMER, Devon, Pa.; 89; founder of the psychological clinic at the University of Pennsylvania and its director for 35 years; former member of the faculty at Bryn Mawr College and Lehigh University; 19 July.

### Education

■ A program for advanced training of psychiatrists in New York State's mental hygiene institutions will be started in September. The program will be under the joint direction of the State University of New York and the New York State Department of Mental Hygiene. In its initial phase, it will provide training for medical staffs of six mental hygiene institutions in the metropolitan area in cooperation with the faculty of the State University Medical School at Brooklyn. A similar program also is planned for staffs of mental hospitals upstate. This will be centered around the State University's Medical School at Syracuse.

■ A new graduate program in nautical engineering, leading to the degree of master of science, will be started in September by the Stevens Institute of Technology. The new program, with classes to be held in the evening, is designed to help ship designers fulfill present-day demands for vessels that will travel at high speeds in rough, as well as smooth, seas. The staff, consisting of members of the regular Stevens faculty and the group at the institute's Experimental Towing Tank Laboratory, will teach recently developed techniques in fluid dynamics, statistical methods, dynamical structural analysis, and model testing.

■ The science consultant program of the University of Texas, which was established by a grant from the AAAS has added two consultants to its field staff. They are Alan Humphreys, formerly a science teacher at Belton High School, and John Wagner, formerly a mathematics teacher at Kerrville High School. Humphreys and Wagner, together with Wayne Taylor, who is executive direc-