are removed at temperatures of between 30° and 60°K. Next the hydrogen is liquefied and distilled at 20°K in rectification columns.

This process leads to 90 percent HD. By warming this to room temperature, using a catalyst, a mixture of light and heavy hydrogen is obtained; this mixture is again cooled to liquid hydrogen temperatures, again rectified, and finally 99.7 percent deuterium is obtained. The deuterium is burned with oxygen to heavy water, which can be used directly as a moderator in reactors.

This is the first time that large amounts of liquid hydrogen have been used in a technical production line, although the French Atomic Energy Commission has authorized the Societé de l'Air Linde to build a plant for this purpose at Toulouse. For American plans and a review of the various processes, see M. Benedict in *Peaceful Uses of Atomic Energy* (United Nations) [8, 378 (1956)].—K.L.-H.

News Briefs

■ The Canadian Meteorological Station at Departure Bay, Vancouver Island, will soon launch 15,000 bottles on the Pacific Ocean, one of the most extensive projects of the kind ever carried out. The bottles will be used for a survey of ocean currents and the launching will be done by about 30 ships, the most distant one being 1500 miles from shore. For more than a year, J. Tully, who is in charge of the experiment, has been collecting old bottles, for new ones are somewhat more fragile. The number of bottles that return to Departure Bay is not expected to exceed 2 percent, or 300 bottles.

■ President Eisenhower has signed the bill authorizing construction of an atomic powered merchant ship. No limit is set on the cost of the vessel, but it has been estimated at about $40 million.

■ Moscow Radio reports that a station to study cosmic rays is to be built near Alma Ata, capital of the Soviet Central Asian State of Kazakhstan. The station will be more than 10,000 feet above sea level.

■ Jayaprakash Narayan, former leader of the Socialist party in India, has come out strongly in favor of banning the slaughter of cattle, according to the *New York Times*. Twelve Indian states already have laws banning cattle slaughter, and in others the question is a divisive issue and a matter of debate. Prime Minister Nehru has opposed legislation to enforce the ban.

The latest official figures are for the year 1951, when there were 155.5 million cattle and 43.3 million buffalo in India. This is 19 percent of the world's cattle population and more than half the world's buffalo. Opponents of the ban on slaughter point out the magnitude of the economic burden involved in maintaining the old and useless animals and hold that it retards any real progress in the development of Indian agriculture.

■ Recent legislation passed by Congress authorizes the expenditure of $400,000 to enable the World Health Organization to hold its 11th World Assembly in the United States in 1958.

Scientists in the News

ROGER BARNES, chairman of the department of urology at the College of Medical Evangelists School of Medicine (Los Angeles), is now in Vellore, India, lecturing on urology at the Christian Medical College. He will return to his post next July.

Also at the College of Medical Evangelists, J. E. THOMAS will commence a 3-year interim appointment as visiting professor and chairman of the department of physiology in September.

EILEEN R. CUNNINGHAM, librarian for the Vanderbilt University School of Medicine, retired on 1 July after 31 years of service. In recognition of her work with medical and nursing school students, Mrs. Cunningham was appointed professor of medical library science in 1949. She was elected president of the Medical Library Association in 1948, and received the first Marcia C. Noyes award for outstanding achievement in medical librarianship to be given by that association.

She has headed a number of important national and international library committees, and she has participated in many international conferences. In addition, she has been active in promoting the recently organized International Association of Medical Libraries.

Mrs. Cunningham is the author of *Classification for Medical Literature,* a system that is in use in many libraries in various parts of the world. She is also a coauthor of the annotated *Bibliography of the Reference Works and Histories in Medicine and the Allied Sciences.*

She is succeeded at Vanderbilt by ELEANOR G. STEINKE, assistant librarian since 1946.

LEROY E. BURNEY has been sworn in as Surgeon General of the U.S. Public Health Service. The appointment is subject to Senate confirmation. Burney, who has been serving as Assistant Surgeon General and deputy chief of the PHS Bureau of State Services, succeeds Leonard Scheele, who resigned on 1 Aug.

The following awards were made during the recent annual meeting of the American Society for Engineering Education:

LLEWELLYN M. K. BOELTER, dean of the College of Engineering at the University of California in Los Angeles, received the Lamme medal for contributions to teaching, research, administration, and the advancement of the profession.

CLIFFORD C. FURNAS, chancellor of the University of Buffalo who is on leave to serve as Assistant Secretary of Defense for Research and Development, received the Vincent Bendix award in recognition of outstanding contributions in engineering college research and its administration.

MILTON C. SHAW, professor of mechanical engineering at the Massachusetts Institute of Technology, received the George Westinghouse award, which is given to a young engineering teacher for achievement in teaching.

CHARLES S. JONES, president of the Academy of Aeronautics, LaGuardia Airport, New York, received the $500 James H. McGraw award for leadership in 2-year technical institute education.

RALPH J. PAFFENBARGER, head of the department of engineering at Ohio State University, received a citation for distinguished service in his profession.

C. H. LI, metallurgist in the tube division of the Radio Corporation of America, Harrison, N.J., received the $100 Gessner prize in nomography for the best graphical representation of a mathematical equation published in 1955–56.

EDWARD U. CONDON, head of the department of physics at Washington University (St. Louis), has been named editor of *Reviews of Modern Physics,* quarterly journal of the American Institute of Physics.

CHARLES S. CAMERON, medical and scientific director of the American Cancer Society, has been appointed dean of Hahnemann Medical College, effective 1 Nov. He will fill the post that was left vacant when CHARLES L. BROWN resigned to become head of the Seton Hall University Medical College.

THEODORE E. STERNE, a specialist in weapons systems evaluation, has been appointed associate director of the Astrophysical Observatory of the Smithsonian Institution in Cambridge, Mass., and Simon Newcomb professor of astrophysics at Harvard University.

SAMUEL B. BATDORF, physicist, formerly of the Westinghouse Electric Company, has joined Lockheed's Missile Systems Division as assistant director and head of the electronics division.

BENJAMIN B. WELLS, director of the department of medicine at Creighton University (Omaha) has been appointed to the newly established position of director of clinical investigation at the Lynn Clinic, Detroit, Mich. He will assume his post on about 1 Sept.

PETER L. KAPITSA, Soviet nuclear physicist, has been restored to his post as director of the Institute for Physical Problems, Moscow, after 7 years of house arrest suffered because he refused to devote himself to nuclear weapons research. Western physicists who visited the U.S.S.R. this summer to attend conferences say that Kapitsa and a number of other scientists who had been arrested, including some who had been exiled to Siberia, have been returned to their laboratories and are being permitted to mingle freely with visiting foreign scientists.

Richard M. Bozarth of Bell Telephone Laboratories, a participant in the recent conference on magnetics of the Soviet Academy of Sciences, said in a statement to the press:

"At present, there seem to be no barriers to personal and scientific contacts. [Soviet] . . . scientists want to be friends. They want to get together with us. They would like to visit the United States."

Bozarth commented further that he was shown every piece of apparatus that he desired to see and that every scientific subject that he raised was discussed with apparent freedom.

Recent Deaths

REUEL A. BENSON, New York, N.Y.; 78; professor of graduate pediatrics and retired professor of pediatrics at New York Medical College; founder of the Frederick S. Wheeler Laboratory; member of the editorial board of *Archives of Pediatrics*; 6 Aug.

GLENN BRIGGS, Washington, D.C.; 65; research agriculturist in charge of technical assistance training programs, Department of Agriculture; former professor at Oklahoma Agricultural and Mechanical College; 4 Aug.

SAMUEL BRODY, Columbia, Mo.; 66; professor of dairy science at the University of Missouri; 6 Aug.

GUSTAVO CUMIN, Catania, Italy; 60; volcanologist who was an authority on Mount Etna; 7 Aug.

GEORGE H. HOGEBOOM, Bethesda, Md.; 43; pioneer investigator of the biochemistry of subcellular particulates; head, cellular biology section, National Cancer Institute, National Institutes of Health; 5 July.

WILLARD N. HOLMES, Ocala, Fla.; 93; expert in oil chemistry; Patent Office official from 1908 to 1934, who was recalled to government service in the office of the Alien Property Custodian at the age of 80; 2 Aug.

HAROLD G. LITTLER, Montreal, Canada; 55; former manager of the plastics division of Canadian Industries, Ltd.; 2 Aug.

WILLIAM J. MALLORY, Lovettsville, Va.; 81; professor emeritus of medicine at George Washington University; 1 Aug.

WILLIAM MEADOWCROFT, New York, N.Y.; 80; retired civil engineer; 6 Aug.

Rev. JOSEPH J. MOLLOY, Philadelphia, Pa.; 52; head of the chemistry department at St. Joseph's College; 2 Aug.

CHARLES F. MORSE, Patchogue, N.Y.; 85; civil engineer; 4 Aug.

IVAR T. TIDESTROM, St. Petersburg, Fla.; 91; retired Agriculture Department botanist and retired botany teacher at Catholic University; 2 Aug.

JOSEPH A. TRENT, Shawnee, Okla.; 56; professor of biology and chairman of the department at Oklahoma Baptist University; 21 July.

SIDNEY WILLIAMS, Chicago, Ill.; 70; safety engineer; 5 Aug.

Education

■ The Department of Agriculture will open a new forest research center this fall at Sewanee, Tenn., in cooperation with the University of the South. The center will be one of several branches of the Forest Service's Southern Forest Experiment Station, New Orleans, La., but it will be augmented and strengthened by access to the university's forest, library, and laboratories, as well as by the availability of faculty members with special skills and knowledge.

■ The Ohio State University College of Medicine has become the first civilian institution to offer graduate training in aviation medicine. A 3-year program has just been established in the department of preventive medicine that is open only to medical graduates who have completed their internship. A similar program will be instituted at Harvard University in September.

■ Former President Herbert Hoover has announced the establishment of a $42 million Stanford Medical Center Fund, which initially will raise $21,950,000. The fund is an organized effort by civic leaders, alumni, and Stanford University to finance the Stanford Medical Center. The project involves construction of buildings to permit consolidation of the School of Medicine on the university campus at Palo Alto, as well as modernization of Stanford Hospital facilities in San Francisco with a view to their eventual use in supplemental medical education and research. Hoover, a Stanford alumnus and a trustee of the university since 1912, is honorary chairman of the new organization.

■ The Manufacturing Chemists Association plans to spend $1 million in the next 5 years in carrying out a program designed to attract more American youths into scientific and engineering careers. During the coming school year, printed matter and visual aids will be provided for students and teachers in 3600 junior high schools, and a pilot program will be begun in senior high schools. This program will later be extended to the 11,700 high schools that offer chemistry courses and is expected to reach about 400,000 students. Next year a start will be made in attempting to interest sixth-graders in science by emphasizing the significance of science in daily life.

■ A new course in practical English for foreign physicians will be offered during the 1956 autumn semester at New York University's division of general education. The course is open to doctors, interns, and hospital administrators whose native tongue is not English. Particular emphasis will be given to vocabulary commonly used in medical histories, consultations, evaluations, case reports, progress notes, and patient interviews.

There has been a sharp increase in the number of foreign doctors in the United States. At present, more than 30 percent of all house staff physicians in New York, Ohio, and Illinois are aliens, and in New Jersey the figure is 69 percent.

■ The Polytechnic Institute of Brooklyn has begun the conversion of the $2 million industrial plant that it purchased in 1954 for a modern center of scientific and engineering education. The eight-story industrial structures and five-story administration buildings will house Polytechnic's 6000 students and $2 million research program. The institute's facilities are now scattered throughout downtown Brooklyn at 15 locations. It is hoped that the new quarters will be ready for use in September 1957.

Most of the 83 laboratories in the new building will be enlarged, more adequate versions of present facilities, and the increase in the amount of classroom space by more than 35 percent should permit an enrollment increase of one-third or more in the institute's day and evening sessions.

■ The Navy has begun construction of a $2 million guided missile school at the Dam Neck Fleet Air Defense School, Norfolk, Va. The school, to be called the Navy Guided Missile School, will