Medical Service for 35 years, including duty among the Navajos and Apaches in Arizona and the Pueblos in New Mexico; 26 July.

FRED R. JONES, Madison, Wis.; 71; former plant pathologist for the Bureau of Plant Industry, U.S. Department of Agriculture, and research associate at the University of Wisconsin; 5 Apr.

JOSEPH P. LAZANSKY, Homewood, Ala.; 57; associate dean of the University of Alamaba School of Dentistry; formerly associated with the University of Rochester School of Medicine and Dentistry and Tufts College; 27 July.

ROSCOE F. LEE, Washington, D.C.; 58; first Negro to receive national certification in the field of oral surgery; founder and former head of the oral surgery department at Freedmen's Hospital; 29 July.

MARTIN MEYER, New York, N.Y.; 57; retired professor and chairman of the department of chemistry at Brooklyn College; formerly associated with Antioch College and City College of New York; 28 July.

LEWIS F. MILLHAN, Scotia, N.Y.; 75; retired engineer for General Electric Company; 26 July.

HENRY B. MITCHELL, Riverdale, N.Y.; 82; former professor of mathematics at Columbia University; 30 July.

ROSCOE H. SUTTIE, New Haven, Conn.; 70; professor emeritus of civil engineering at Yale University; 30 July.

BENJAMIN H. UTAL, Philadelphia; 64; civil engineer; 30 July.

JOHN VON DANCZ, Newark, N.J.; 73; staff member of the Kennedy Research Laboratories; 25 July.

HARRY R. WAHL, Kansas City, Kans.; 70; professor of pathology at the University of Kansas Medical Center; former chairman of the department of Pathology and dean of the medical school at the University of Kansas; 18 June.

## Education

■ A $38,000 grant from the Carnegie Corporation of New York to the American Society for Engineering Education will make possible a comprehensive study of technical institute education in the United States. G. Ross Henninger, assistant director of the engineering extension service at Iowa State College, will be director of the project, which will have a threefold purpose: (i) to identify the industrial, technological, and educational trends that influence the education and careers of graduates of 2-year technical institutes; (ii) to assess the place of the technical institute in higher education, and to determine the present capacity and status of technical institutes in the United States; and (iii) to project the future role of the technical institute in meeting this country's needs for scientific and engineering manpower.

The ASEE has also received a $40,000 National Science Foundation grant to support a study of the nation's needs for research in engineering. Eric A. Walker, vice president of Pennsylvania State University, will direct this second survey.

■ An agency for research on military problems, the Institute for Defense Analyses, has been established at Massachusetts Institute of Technology, one of five educational institutions participating in the institute. The new unit, which will be headed by Albert G. Hill, former director of M.I.T.'s Lincoln Laboratory, is a nonprofit corporation that will conduct scientific analyses of present and future weapons systems. Other initial members of the IDA are California Institute of Technology, Case Institute of Technology, Stanford University, and Tulane University.

■ The new University of Tennessee Memorial Research Center and Hospital was dedicated last month. The six-story building has 245,000 square feet of floor space. The general research area has 14 laboratories occupying 12,000 square feet, and there is another 8000 square feet of clinical laboratory space. Hospital capacity is 384 beds.

■ The R. T. French Company of Rochester, N.Y., manufacturers of bird foods and bird-care products, has established a professorship and a research fund in the Cornell University laboratory of ornithology. William C. Dilger, assistant professor of biology at St. Lawrence University, will be the first staff member appointed under the grant for the R. T. French professorship of ornithology. His appointment will be in the laboratory of ornithology as assistant director in charge of research projects, and he will also be an assistant professor in Cornell's conservation department.

The company is contributing $12,000 a year to support the chair and research on bird biology. The research will be especially concerned with studies of behavior, genetics, and nutrition of both caged and wild birds.

## In the Laboratories

■ A British engineering firm, Mitchell Engineering, Ltd., London, has developed an automatic method of moving coal from the pit bottoms to hopper cars above ground. At the source, coal is automatically fed into tipplers, which tip the coal onto a moving belt. The belt conveys the coal to coal breakers, which reduce it to 3-inch lumps. These are then carried on the belt to bucket elevators, which carry them to the surface and automatically discharge them into hopper cars. The buckets are unusual in that they operate like grabs rather than by tilting. The system saves labor, inasmuch as only two men—one above and one below ground—are required for supervision of operations. It is expected that the device will permit a 90-percent reduction in the labor force, a saving urgently needed to enable Britain to meet her commitments of more than 1 million long tons of coal annually to the European Coal and Steel Community.

■ Argonne National Laboratory has announced the establishment of a Reactor Physics Constants Center. Plans for the center were made last January at a conference between the United States, the United Kingdom, and Canada, held in Chalk River, Canada. A tripartite group was proposed for the purpose of correlating and standardizing the data used in reactor physics. It was agreed that Argonne National Laboratory should form a group performing this function for the North American Continent, and that a similar group would be set up in the United Kingdom to act as a clearing house for the receipt and transmission of European data.

During the initial period of its operation, the center will be governed by a committee consisting of H. Greenspan, C. Kelber, W. Loewenstein, and B. I. Spinrad. The material covered will be unclassified and will be derived from unclassified sources. It is requested that individuals or laboratories who have data pertinent to the purposes of the center transmit such data, with complete references, to Reactor Physics Constants Center, Argonne National Laboratory, Lemont, Ill.; Attention: B. I. Spinrad, Reactor Engineering Division.

■ The Olin Mathieson Chemical Corporation has announced the formation of a nuclear fuel division to produce nuclear fuel elements and nuclear reactor cores. M. F. Meissner, corporate vice president, will be in charge of the new unit. Meissner also heads the metals division.

In order to begin output as quickly as possible, equipment is now being installed in space that has been reconstructed at the Winchester Arms plant in New Haven, Conn. Pilot operations are scheduled to begin there this month. A larger facility will be made operative within the next 18 months to permit full scale production of nuclear elements. No site has yet been selected for this plant.

Olin Mathieson is also erecting a $36-million plant at its Lake Ontario Ordnance Works in Model City, N.Y., about 14 miles north of Niagara Falls, where a new high-energy chemical fuel for use in missile and aircraft engines will be produced for the Air Force. The

company has been conducting research on the new fuel for the Department of Defense since 1952. In addition a smaller plant is being built to produce the same fuel for the Navy. The new facilities will be operated by the corporation's recently formed aviation division.

■ Arthur D. Little, Inc. has announced the opening of its Midwest Division—Miner Laboratories, through which all ADL research and consulting services are now directly available to midwestern industry. John R. Kirkpatrick is manager, and C. S. Miner, Jr., is technical director of the new division, which has laboratories at 9 S. Clinton St., Chicago, Ill.

■ A pressurized aircraft cockpit has recently been installed in an altitude chamber at the Wright Air Development Center. It will permit studies of pilot performance under conditions simulating altitudes as high as 150,000 feet. The cockpit can have its pressure raised to 5 pounds per square inch above that of the air in the surrounding chamber. By means of a diaphragm that can be punctured, air can be allowed to escape from the cockpit rapidly to simulate the loss of cabin pressure that might occur in flight and the consequent rapid decompression.

■ On 1 Aug. Sharp and Dohme, the pharmaceutical and biological division of Merck and Company, Inc., adopted the name "Merck Sharp and Dohme."

■ The General Electric Company has awarded to the New York Shipbuilding Corporation a $2 million contract for the engineering and construction of a large welded steel, atomic reactor tank for the Commonwealth Edison Company's 180,000-kilowatt Dresden nuclear power station, near Chicago, Ill. General Electric will build the all-nuclear plant for Commonwealth and the eight members of the Nuclear Power Group, Inc.

The cylindrical pressure vessel, of 12-foot 8-inch inside diameter and of approximate height of 42 feet, will stand upright inside a steel sphere. The sphere will be 190 feet in diameter.

The pressure vessel will have ⅜-inch stainless-steel cladding over the inside of a 5-inch thick carbon steel welded assembly. When filled, it will hold approximately 278,000 pounds of water. It will be designed for an operating pressure of 1000 pounds per square inch and an operating temperature of 544.6°F.

■ The Mellon Institute, Pittsburgh, Pa., will soon initiate a major research effort in the field of peaceful atomic energy applications. The institute has established a new department of radiation research to carry on the work and has purchased a 3-million-volt Van de Graaff particle accelerator as its initial radiation source.

The work that is being planned will embrace both basic studies on the nature of ionizing radiation and investigation of its practical applications in chemical processing. Robert H. Schuler, for several years a member of the staff at Brookhaven National Laboratory, has been selected to head the department, which he will join on 1 Sept.

■ A new device to obviate the necessity of driving test pilings in clay soil to determine sinkage under load has been developed by H. Bolton Seed of the University of California at Berkeley. The device is a rod with four projecting vanes. When the rod is pushed into the soil at various depths, enough torsional force is applied to make the vanes rotate. The force required can be correlated with results obtained with loaded piling and reasonably accurate predictions of sinking under load can be made from the "vane shear" tests alone.

## Miscellaneous

■ The United Nations Educational, Scientific and Cultural Organization's New York office has announced a new group of science and engineering vacancies in the technical assistance programs. The openings, which are primarily for professors or senior lecturers in chemistry, physics, and power engineering, are in Egypt, Israel, Liberia, Pakistan, Paraguay, Thailand, Formosa, and India.

Salaries generally range from $6000 to $8750 a year, free of national income tax. Should the expert have a family, he receives a dependent's allowance of $200 a year for his wife, and a children's allowance of $200 a year for each child. Lodging is furnished by the host government, or a lodging allowance is paid in lieu thereof.

Travel expenses are paid to duty station and back. They are also paid for his wife and dependent children, if his contract is for a year or longer. Unless otherwise specified, initial contracts are for 1 year, with the possibility of renewal in many cases. For information, write to Mr. Arthur Gagliotti, UNESCO, United Nations, New York 17, N.Y.

■ The sixth volume of *Arctic Bibliography,* published recently by the Government Printing Office, lists and summarizes 5285 publications, chiefly from the years 1950 to 1954. This brings to 38,410 the number of references assembled in the series to date. The set of volumes, which have been sponsored jointly by the Army, Navy, and the Air Force, analyze the contents of books and articles on the arctic and subarctic. The research and compilation of the series has been performed by the Arctic Institute of North America.

Subjects emphasized in the current volume, and represented by 800 or more items each, are geology and mineral resources, geography, zoology, and medicine and physiology. The language coverage is essentially the same as in earlier volumes: 3255 of the publications listed are in English and 1215 are in Russian, with others in German, French, the Scandinavian languages, Italian, Japanese, and ten others. The nature and significance of the foreign-language publications are made clear by translated titles and summaries of contents.

■ The International Commission on Zoological Nomenclature has given notice that as from 20 Jan. 1957 it will start voting on the following cases involving the possible use of its plenary powers for the purposes specified against each case. Full details were published in the *Bulletin of Zoological Nomenclature,* vol. 12, pts. 4 and 5 (20 July 1956): (i) *depurator* Linnaeus, 1758 (*Cancer*), interpretation of, by neotype designated for (cl. Crustacea, order Decapoda); (ii) *Cherax* (emend. of *Cheraps*) Erichson, 1846, and *Palinurus* (emend. of *Pallinurus*) Weber, 1795, validation (cl. Crustacea, order Decapoda); (iii) *ferox* Gmelin, 1771 (*Accipiter*), suppression (cl. Aves); (iv) *Maja* Lamarck, 1801, validation of and designation of type species for (cl. Crustacea, order Decapoda); (v) *Sao* Barrande, 1846, and *Ellipsocephalus* (emend. of *Elleipsocephalus*) Zenker, 1833, validation (cl. Crustacea, order Stomatopoda); (vi) *Heteralocha* Cabanis [1851], validation (cl. Aves); (vii) *Acrodytes* Fitzinger, 1843, *venulosa* Laurenti, 1768 (*Rana*) and *tibiatrix* Laurenti, 1768 (*Hyla*), suppression (cl. Amphibia, order Salientia); (viii) *Palaeophonus* (emend. of *Palaeophoneus*) Lindström & Thorell, 1884, validation (cl. Arachnida); (ix) *Actinocrinus gilbertsoni* Phillips, 1836, interpretation of, by neotype (cl. Crinoidea). Comments should be sent as soon as possible to Francis Hemming, Secretary to the Commission, 28 Park Village East, Regent's Park, London, NW.1.

*Erratum*: Owing to a mistake in the release sent to us, the name of Willard H. Bennett appears as "Willard H. Beams" in the news item entitled "New Atom Smasher" on page 114 of the 20 July issue.

*Erratum*: In the obituary of Louis C. Karpinski on page 19 of the 6 July issue, the phrase "to the University of Strassbourg in France" is incorrect. Karpinski studied at the Kaiser Wilhelms-Universität zu Strassburg when Strassburg was in Germany.

*Erratum*: In the "Preliminary announcement of the seventh New York AAAS meeting," 25 May issue, page 949, the name "Society of Vertebrate Zoology" was mistakenly given as one of the cosponsors of the symposium on "Biotic communities in the past and today." The correct name of the society referred to is Society of Vertebrate Paleontology.