fered with by several independent gene mutations at different loci. Other mutations may, however, mimic the effect of a lack of gibberellic acid. This might be because the response of stem and leaf cells to gibberellic acid is in some way lessened, or it might be because there are other essential growth-promoting substances necessary for cell elongation. Gibberellic acid is a tetracyclic dihydroxylactonic acid, $C_{19}H_{22}O_6$.—B.G.

Amazon Fossil Search

Members of the paleontological expedition to the Juruá River, one of the major tributaries of the Amazon, left New York recently on a journey that will take them more than 2000 miles into the interior of Brazil. George Gaylord Simpson, chairman of the department of geology and paleontology at the American Museum of Natural History, is coleader of the expedition. The group has joined a party of Brazilian scientists from the National Department of Mineral Production and the Goeldi Museum that is led by Llewellyn Ivor Price. The expedition is traveling up the Juruá to the Peruvian border in search of fossil remains of early animal life.

Before his departure Simpson commented that "Although no previous paleontological study of the Juruá region has ever been attempted, small scraps of fossils brought out by traders and explorers indicate that the area may be rich in fossil deposits. Since almost nothing is now known about the evolution of the fauna of the region, any material we find should be of considerable scientific importance."

Atomic Power Plants

The British Atomic Energy Authority has announced that the first of two atomic piles at the Calder Hall atomic power station in Cumberland has begun to work. Construction of the experimental station began 3 years ago. Queen Elizabeth is to open the station officially 17 Oct.

The Authority's statement said: "For the first time in the history of the world electricity on a large scale will then be supplied from a nuclear power station to a national electricity network." In a few weeks the first electricity will be generated, but the plant will not be on full power until later. Its projected capacity is 50,000 to 70,000 kilowatts.

The only United States counterpart to the British installation at Calder Hall is the plant of approximately 60,000 kilowatts capacity that is being constructed at Shippingport, Pa. According to present plans it will be completed in late 1957. Power from Shippingport will be distributed by the Duquesne Light Company of Pittsburgh, which is contributing substantially to construction costs of the plant.

The Soviet Union plans to install five new atomic power stations in Moscow, Leningrad, and the Urals. The size of these power plants will range from 400,000 kilowatts to 600,000 kilowatts each. They are expected to be in operation by the end of the current 5-year plan in 1960. Several pilot atomic installations, each with a capacity of 50,000 kilowatts, will be operating by 1959 or 1960. A 200,000-kilowatt pilot plant also is being planned in addition to the big commercial installations.

News Briefs

■ President Eisenhower recently began a series of meetings with an advisory committee to consider the possibilities of creating some type of decoration, comparable to the Order of the British Empire and the French Legion of Honor, for citizens who distinguish themselves in the arts, letters and sciences. The President is discussing his plan with a committee consisting of Harold W. Dodds of Princeton University, Leonard Carmichael of the Smithsonian Institution, Percival Brundage, budget director, Sherman Adams, and Howard Pyle.

■ The U.S. Air Force plans to build a large solar furnace at approximately the 9000-foot level in the Sacramento Mountains near the Holloman Air Development Center, Alamogordo, N.M. This furnace, a system of mirrors that will bring the sun's rays to a focus, will be used for high-temperature research and for testing of materials and components of weapons. France has a comparable solar furnace, probably the largest there is, that is located on Mount Louis in the Pyrenees.

■ Wilhelm Reich, who developed the "orgone energy accumulator," and his colleague Michael Silvert, have been held in contempt of court and sentenced to prison. Having filed an appeal, the two men were released on $15,000 bail each.

The contempt charges grew from their failure to comply with a Federal injunction that prohibited shipment of orgone accumulators in interstate commerce and the distribution of literature concerning orgone energy. Reich used his accumulator, pronounced worthless by the U.S. Food and Drug Administration, as an adjunct to psychiatric therapy. He maintained that a patient sitting in a box he devised could build up lost energy.

Scientists in the News

The U.S. Department of Agriculture has presented Distinguished Service Awards to seven of its employees for their achievements in research and improved administration. The recipients are as follows:

LYLE T. ALEXANDER, chief of the Soil Survey Laboratories, Soil Conservation Service, Beltsville, Md., who is a leader in soil science. He has done considerable work on the use of radioactive material in agricultural research and on the effects of radioactive fallout on soils.

MERTON R. CLARKSON, deputy administrator, Agricultural Research Service, Washington, who has played a major part in control and eradication of foot-and-mouth disease in Mexico during the past several years.

ELWOOD L. DEMMON, director of the Southeastern Forest and Range Experiment Station, Ashville, N.C., who has directed forest management work in several areas. Among his achievements is leadership in developing new methods of harvesting gum naval stores and in improving the management of several million acres of industrially owned forest throughout the pine region of the South.

CLARENCE M. FERGUSON, administrator, Federal Extension Service, Washington, who has promoted development of new extension educational methods for reaching and serving rural people.

JAMES B. HASSELMAN, director of information, Commodity Stabilization Service, who has spent nearly 40 years in state and federal agricultural information work. He now directs the information program that is required for the operation of acreage adjustments and price supports and for the sale, barter, and donation of Government-owned agricultural stocks.

SYLVESTER R. SMITH, director, Fruit and Vegetable Division, Agricultural Marketing Service, who provided the leadership and vision that resulted in a continuation of acreage and production guides for commercial growers after the war. These guides have helped to keep vegetable production in line with market needs.

PERCY A. WELLS, chief of the Eastern Utilization Research Branch, Wyndmoor, Pa., who directed research that led to development of new uses for many abundant farm products such as white potatoes, animal fats, and tobacco.

LEO E. MELCHERS, formerly head of the department of botany and plant pathology at Kansas State College, will retire from active duty on 1 July. He will have completed 43 years of service as teacher, administrator, and research worker at the college.

The National Science Foundation has announced that the U.S. Senate has confirmed the appointment of the following men to the National Science Board: EDWARD J. McSHANE, professor of mathematics, University of Virginia; SAMUEL M. NABRIT, president, Texas Southern University; JULIUS A. STRATTON, professor of physics and vice president, Massachusetts Institute of Technology; EDWARD L. TATUM, professor of biology, Stanford University; WARREN WEAVER, director, division of natural sciences, Rockefeller Foundation.

LAWRENCE M. GOULD, PAUL M. GROSS, GEORGE D. HUMPHREY, and FREDERICK A. MIDDLEBUSH, charter members of the board, were reappointed. Except for Weaver, all will serve terms of 6 years, ending 10 May 1962. The term of Weaver, who succeeds the late Rev. James B. Macelwane, expires 10 May 1960.

Four Albert Lasker medical journalism awards for outstanding reporting on medical research and public health during 1955 have been announced by the Albert and Mary Lasker Foundation in New York. In addition to awards for medical reporting in newspapers and general magazines, an award for television was included for the first time. It was given for "The March of Medicine," a documentary film and live-action series produced by Smith, Kline and French Laboratories, Philadelphia, over the National Broadcasting Company network. The individual winners, each of whom received $1000, are as follows:

SELIG GREENBERG, staff writer, the Providence (R.I.) *Journal and Evening Bulletin,* for his series of articles published in that paper during February 1955, on "Hormones: revolution in medicine."

JOAN GEYER, staff writer, the Provo (Utah) *Daily Herald,* for her series of articles published in her newspaper in May 1955 on "The secret sickness—mental illness."

STEVEN M. SPENCER, associate editor, the *Saturday Evening Post,* for his article, "Mystery of the blinded babies," published in the magazine, June 1955.

JOHN A. F. GERRARD, former director of geophysical research for Houston Technical Laboratories, is now director of geophysical research in the central research division of Texas Instruments, Inc., Dallas. In the Texas Instruments organization contract geophysical exploration is carried out by a subsidiary, Geophysical Service, Inc., which has eight affiliated companies throughout the world. The manufacture and marketing of geophysical instruments is conducted by Houston Technical Laboratories, another subsidiary. Gerrard replaced HAL J. JONES, who has been made chief engineer for the Houston facility.

DOROTHY F. BECK, who until recently has been assistant professor of biostatistics at American University in Beirut, Lebanon, has been appointed director of research for the Family Service Association of America. She will head an expanded research program in selected aspects of family case-work practices and policies. The association's 267 member agencies in this country, Canada, and Hawaii provide counseling services on personal and family problems for a million persons a year.

W. B. ENNIS, JR., agronomist for the Weed Investigations Section of the U.S. Department of Agriculture, has recently been transferred to the section's headquarters at the Plant Industry Station, Beltsville, Md. Since 1954 Ennis has served at State College, Miss., as southern regional coordinator for the Weed Investigations Section. At Beltsville he will assume the duties of project leader for weed control in horticultural and field crops.

Other recent personnel changes in the Weed Investigations Section include the appointment of EVERETT HOLLINGSWORTH as agronomist. He will be stationed at Lafayette, Ind., where he will cooperate with the department of botany at Purdue University. He will be concerned with weed-control practices in pastures and the establishment of forage crops for new pastures typical of the north-central region. Hollingsworth was formerly with the department of plant pathology and physiology of Mississippi State College.

M. M. SCHREIBER, previously a member of the agronomy department at Cornell University, has been appointed an agronomist for the section. He will be stationed at Ithaca, N.Y., where he will work in cooperation with Cornell. He will conduct research on the control of weeds in pastures and the establishment of forage crops for new pastures typical of the northeastern region. He will also be concerned with the establishment of pastures through the renovation of shallow soils throughout the northeastern states.

Another change is the transfer of LEONARD L. JANSEN to the Beltsville headquarters. Jansen was formerly assigned to physiological investigations of halogeton control at Logan, Utah, which are carried out in cooperation with Utah State College. At Beltsville he will continue physiological studies and will be primarily concerned with the mechanisms of herbicidal action.

BENGT O. ENGFELDT, professor of pathology at Uppsala University, Sweden, who studies the life cycles of bone tissue, has been named a visiting lecturer in the Harvard School of Dental Medicine. Engfeldt is chiefly interested in the normal construction and reconstruction of bone tissue and in the diseases and injuries that affect these processes. He is particularly concerned with the way in which bone tissue retains radioactivity and the effect this radiation may have on surrounding tissue, including the bone marrow.

ROSS G. HARRISON, Sterling professor of biology emeritus at Yale University, has received the Antonio Feltrinelli international prize of the Academia Nazionale dei Lincei of Italy. The 5-million-lira prize, worth about $8000 in U.S. currency, is awarded in the fields of science, the arts, music and literature.

The citation described as Harrison's principal contribution his discovery that tissues of the embryo, particularly those of the nervous system, can be grown outside the body. This led to his discovery that nerve fibers grow out from a certain specific region of the body and that they do not develop from the vague pathways of intercellular spaces, as had been believed previously.

Equally esteemed has been Harrison's work in developing the process of grafting together whole bodies of vertebrates or the parts and organs of different individuals or even of different species. He conducted experiments in grafting the limbs of one species of salamander to the body of another species.

Another Feltrinelli international prize winner is SOLOMON LEFSCHETZ, research professor of mathematics emeritus at Princeton University, who is at present serving as a professor in the Institute of Mathematics at the Universidad Nacional Autonoma de Mexico.

ARNIE J. SUOMELA, assistant director of the Fish and Wildlife Service, in charge of fisheries, has been promoted to the recently created post of associate director. In this capacity he will serve as general deputy to the director in directing the over-all activities of the service, including fisheries.

WILLIAM H. STEWART, chief of the Heart Disease Control Program, Division of Special Health Services, Bureau of State Services, Washington, D.C., has been appointed assistant director of the National Heart Institute, National Institutes of Health, Bethesda, Md. R. C. ARNOLD, chief of the Technical Services Branch, National Heart Institute, succeeds Stewart in the Bureau of State Services.

BERT R. BOONE, chief of the Labo-

ratory of Technical Development at the Heart Institute, has transferred to the Office of the Director, where he will serve as special projects officer. ROBERT L. BOWMAN of the Laboratory of Technical Development has become chief of the laboratory, succeeding Boone.

WALTER CARTER, head of the entomology department of the Pineapple Research Institute of Hawaii, will serve as consultant to the West African Cocoa Research Institute in Gold Coast for 3 months beginning 1 July.

R. J. STEPHENSON of the College of Wooster, Wooster, Ohio, has been appointed technical director of summer training for the Oak Ridge Science Demonstration Lecture Program of the Oak Ridge Institute of Nuclear Studies. Under this program, eight high-school science teachers will receive a special 3-month training course at Oak Ridge this summer and then spend the 9 months of the 1956–57 school year visiting high schools throughout the country, where they will present demonstration lectures to the science students and confer with faculty members on science-teaching problems.

LOTHAR W. NORDHEIM, professor of physics at Duke University since 1937, has joined the General Atomic Division of General Dynamics Corporation, San Diego, Calif.

J. ROBERT OPPENHEIMER, director of the Institute for Advanced Study at Princeton, N.J., received an award for "distinguished services to the principles of American democracy" during a dinner to celebrate the 11th anniversary of the founding of Roosevelt University, Chicago.

BASILE J. LUYET, professor of biology at St. Louis University, was honored recently on the 25th anniversary of his appointment to the faculty. To celebrate the occasion, the department of biology sponsored a lecture by ISIDORE GERSH, professor of anatomy at the University of Chicago, who discussed "Electron microscope studies of rapidly frozen tissues."

BRIG. GEN. JOHN R. WOOD has been named vice president and director of research for Burroughs Wellcome and Company, Inc. He will assume his new position on 1 Aug., when he retires from the U.S. Army Medical Corps. He is commandant and director of the Walter Reed Army Institute.

Wood received his medical degree from the Medical College of Virginia in 1928 and was honored by the same university with the degree of doctor of science in 1946. While a staff member at the Army Medical School in Washington from 1935 to 1939, he attended George Washington University, and in 1941 he received the M.A. degree in chemistry and biochemistry at Columbia University.

Wood has had a distinguished career in the Medical Corps. From 1943 to 1945 he was director of medical research at Edgewood Arsenal, Md., and from 1945 to 1950 he was chief of the Medical Division, Army Chemical Center. Prior to becoming commandant at the Walter Reed Institute, he was chairman of the Medical Research and Development Board, Office of the Surgeon General. Wood was decorated with the Commendation Ribbon in 1945 and with the Legion of Merit and the Oak Leaf Cluster in 1946.

Recent Deaths

CESARE BARBIERI, New York, N.Y.; 78; inventor of paper-cup-making machinery and machinery for manufacture of antifreeze; founder of the Cesare Barbieri Endowment; 25 May.

HAROLD K. BOX, Toronto, Canada; 66; researcher in tooth infection and gum diseases; professor emeritus of periodontology, University of Toronto; 24 May.

GEORGE C. DIEHL, New York, N.Y.; 83; consulting civil engineer in highway development; retired from the New York State Engineering Department; 26 May.

BRYON E. ELDRED, Lime Rock, Conn.; 83; physicist and inventor of a method of casting metals through the use of latent heat, the explosive nitrobyronel, and an instrument for curing deafness called the auditor; 26 May.

EDWIN M. HASBROUCK, Washington, D.C.; 89; physician and surgeon; former ornithologist at the Smithsonian Institution; 25 May.

ALFRED E. HUDSON, Washington, D.C.; 52; anthropologist and expert on Central Asian affairs; professor of anthropology at the University of Washington; 25 May.

LEWIS D. KNOWLTON, Hudson View Gardens, N.Y.; 81; former engineer for the Lamson Corporation; 24 May.

WILLIAM A. LUCAS, Elizabeth, N.J.; 71; consulting chemical engineer for the Peyton-Hunt Company, New York; 24 May.

WILLIS C. NOBLE, Jr., Montclair, N.J.; 71; biochemist; retired supervisor of the laboratory of the Metropolitan Life Insurance Company; 24 May.

JAMES M. OLMSTED, Berkeley, Calif.; 70; professor emeritus of physiology at the University of California and medical historian; important in the discovery of insulin; 25 May.

JOHANN RADON, Vienna, Austria; 69; mathematician; former rector of Vienna University; 26 May.

CARLTON P. ROBERTS, Springfield, N.J.; 53; partner and chief engineer for the New York architectural firm of Voorhees, Walker, Smith and Smith; 27 May.

CHARLES THOM, Port Jefferson, L.I.; 83; retired chief mycologist at the U.S. Department of Agriculture; first to identify the mold that led to penicillin; 24 May.

Education

■ The University of Illinois at Urbana has initiated a program by which teachers in elementary and secondary schools can obtain a master's degree in bacteriology within four summer sessions. A rotating program of advanced courses in microbiology will be offered by the bacteriology department. This program is part of an effort to introduce students to the field of microbiology as early as possible during their precollege training and to extend opportunities for training of teachers in various areas of science.

■ Harvard University is experimenting this summer with a new program to improve high-school science teaching. An 8-week course has been planned that is designed to refresh the scientific knowledge of a selected group of high-school science teachers. These teachers, in addition to stimulating the interest of their own high-school students, will teach other teachers of science from surrounding communities. The course will be offered under the auspices of the Harvard Summer School at the Harvard Medical School, with the collaboration of the Harvard Graduate School of Education.

■ Godfrey Nurse, the surgeon who 20 years ago led the drive to admit Negro physicians to Harlem Hospital in New York, has given the hospital $100,000 to establish a surgical research laboratory. Nurse has made the gift in the hope that a development program planned by Aubre de L. Maynard, surgery director, and his associates, will be fulfilled.

The new unit, the Godfrey Nurse Laboratory for Experimental Surgery, will provide surgical residents in the 4-year training course at the hospital with an opportunity to conduct research.

■ In the department of geology, Columbia University, Charles H. Behre, Jr., will be executive officer for the next 3 years. He succeeds Marshall Kay, who has completed a similar term.