

THE MONTH AT CALTECH

President-Elect Beadle

DR. GEORGE W. BEADLE, professor of biology and chairman of the Caltech Division of Biology, became president-elect of the American Association for the Advancement of Science last month. He will serve as president-elect for a year, and will then succeed Dr. Warren Weaver of the Rockefeller Foundation as president of the organization.

Dr. Beadle will be the fourth Caltech faculty member to serve as A.A.A.S. president. The others were Arthur Amos Noyes (1927), Robert A. Millikan (1929), and Thomas Hunt Morgan (1930).

A geneticist, Dr. Beadle is noted for his revolutionary development, in 1940 with Dr. E. L. Tatum, of the use of the bread mold *Neurospora* as a simple and effective research tool for the study not only of heredity but of problems in biochemistry as well. This followed from their discovery, using *Neurospora*, that genes control the synthesis of vitamins and amino acids in the living cell. Previously, Dr. Beadle had made many contributions in the genetics of corn and of the fruit fly, *Drosophila melanogaster*.

His work has been recognized with honorary DSc degrees from Yale, Nebraska, and Northwestern, and in a number of awards. These include the Lasker Award of the American Public Health Association in 1950, the Dyer Lectureship Award of the National Institutes of Health in 1951, and the Gold Medal of the Emil Christian Hansen Foundation of Copenhagen in 1953. He was elected to the National Academy of Sciences in 1944.

He has been chairman of the Biology Division at Caltech since 1946, when he came to the Institute from Stanford University, where he had been professor of biology. Prior to joining the Stanford faculty in 1937, he had taught at Harvard for a year and spent five years (1931-36) in research and teaching at Caltech.

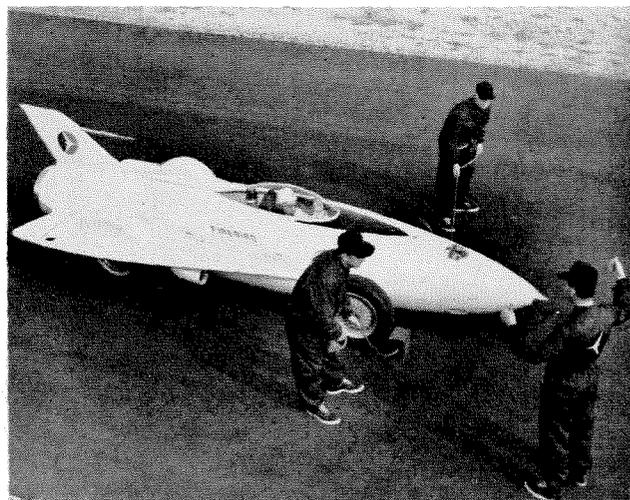
A native of Wahoo, Nebr., he received his BS and MS degrees from the University of Nebraska and his PhD, in 1931, from Cornell University.

Firebird

THE FIRST GAS turbine automobile ever to be built and tested in the United States made its debut at the General Motors Motorama in New York last month. Known as the XP-21 Firebird, the experimental car was produced by General Motors with a strong assist from Caltech.

Underlying the unique aerodynamic styling of the car is a series of special wind tunnel tests developed at Caltech. To make it completely streamlined the car had to have a tail fin or some flat vertical surface behind its center of gravity, to hold it on course when in motion. The final design of the Firebird was worked out after a scale model of the car had been given wind tunnel tests at Caltech, under the direction of Dr. Peter Kyropoulos, associate professor of mechanical engineering.

The Firebird is not being touted as any "car of tomorrow"; it's merely a laboratory on wheels, built to further study the commercial possibilities of the gas turbine.



General Motors' XP-21 Firebird, an experimental gas turbine car, gets a road test.

The car will be on view locally when the GM Motorama comes to Los Angeles on March 5. Its mechanical anatomy, the reverse of the conventional automobile, includes a 35-gallon glass fiber-plastic fuel tank in the nose ahead of the driver. The engine, consisting of two mechanically independent parts, is behind the driver. These two parts are called the gasifier section and the power section. The gasifier section provides a source of compressed hot gas, and the energy from this gas is delivered by the power section to the car's rear wheels. Thus, the gasifier section replaces the engine and torque converter pump in a conventional automobile, while the power section replaces the torque converter turbine, transmission, and rear axle gears.

R. F. McLean, Caltech '43, a member of the GM styling staff, served as coordinator of the Firebird project.

Visiting Professors

VISITING PROFESSORS at the Institute this term include Drs. K. E. Bullen, geophysics; D. Dwight Davis, vertebrate paleontology; H. C. van de Hulst, astrophysics; Luna B. Leopold, geology; Barbara McClintock, biology; William Shockley and Victor F. Weisskopf, physics; and John W. Williams, chemistry.

Dr. Bullen, on leave from the University of Sydney, Australia, where he is professor of applied mathematics, is devoting his time at Caltech to seismological studies.

Dr. Davis is curator of the Division of Vertebrate Anatomy of the Museum of Natural History in Chicago.

Dr. van de Hulst, who is doing research and teaching at Caltech in radio astronomy and galactic structure, is on leave from the University of Leyden, the Netherlands, where he is professor extraordinary.

Dr. Leopold, a geologist with the Water Resources Division, U. S. Geological Survey, is doing experimental work in hydrodynamics at Caltech and teaching geomorphology.

Dr. McClintock, an investigator for the Department of Genetics of the Carnegie Institution of Washington, is continuing her genetic studies here.

Dr. Shockley, Caltech '32, comes from the Bell Telephone Laboratories in Murray Hill, New Jersey, and Dr. Weisskopf from the Massachusetts Institute of Technology, where he is a professor of physics.

Dr. Williams, professor of chemistry at the University of Wisconsin, is engaged in studies of protein chemistry.

New Trustee

MR. JOHN E. BARBER has been elected to the Institute Board of Trustees. A charter member and past-president of the California Institute Associates, Mr. Barber was associated for many years with the United States Steel Corporation in executive capacities in the Columbia-

Geneva Steel Division at San Francisco, and the Consolidated Western Steel Division at Los Angeles.

Carl Braun

CARL FRANKLIN BRAUN, a trustee of the California Institute and founder and president of the C. F. Braun engineering firm in Alhambra, died on February 4 of a heart attack.

C. F. Braun & Co. is one of the country's largest companies building oil refineries and chemical plants.

Mr. Braun, a native of Oakland, received a BS in mechanical engineering from Stanford University, and an LL.D from Occidental College. He established the Braun Co. in San Francisco in 1909, and moved it to Alhambra in 1922. It has designed and constructed chemical plants valued at \$300,000,000.

Mr. Braun was a director of the Friends of the Huntington Library, a trustee of Claremont Men's College, and a consulting professor of the Stanford Graduate School of Business. He had also previously served as director of the California Institute Associates.

Associate President

SHANNON CRANDALL, JR., president of the California Hardware Company of Los Angeles, has been elected president of the California Institute Associates, succeeding Charles S. Jones, president of the Richfield Oil Company.

Also elected were William Clayton, president of the Clayton Manufacturing Company, El Monte, who will serve as third vice-president; and two new members of the Board of Directors: Jerome K. Doolan, vice-president of the Bechtel Corporation, Los Angeles, and Robert L. Minckler, president of the General Petroleum Corporation.

Re-elected were Archibald B. Young, first vice-president; Seeley G. Mudd, second vice-president; Alexander King, secretary; Herbert L. Hahn, treasurer; and H. H. G. Nash, assistant secretary and assistant treasurer.

New Seismo Station

THE FOURTEENTH in the network of auxiliary seismological stations operated by the Caltech Seismological Laboratory has now gone into operation. The new station is located at the Isabella Dam, a project of the U. S. Army Corps of Engineers on the upper Kern River.

Like the other installations in the Caltech network, the Isabella Dam station is equipped with one of the short period recording seismographs developed by Dr. Hugo Benioff to record local earthquakes. Routine work connected with the operation of the seismograph will be handled by resident engineers at the Isabella Dam project.