

C. I. T. NEWS

EARHART FOUNDATION TO PROVIDE PLANT LABORATORY

A GIFT of \$200,000 pledged by the Earhart Foundation will make possible a new temperature-controlled plant laboratory at the California Institute of Technology. An additional grant of \$6,000 per year for four years will be contributed by the Foundation toward the operating cost of the laboratory.

The new facility which is now being designed by the staff of the C. I. T. building and grounds department will contain six glass-covered laboratories. The temperature and humidity of each laboratory will be independently controlled on a cyclic basis. This type of control will permit predetermination of varying degrees of temperature and humidity for an advance period of twenty-four hours and will enable plant physiologists to study the growth and behavior of plants under any conditions of temperature that may be desired.

To obtain the temperature required, a fifty-ton refrigeration plant will be incorporated in the structure. This feature of the design is being executed by the firm of Hess, Greiner and Pollard, consulting engineers.

When the new laboratory is completed it will supplement and expand the work now being done in the field of plant physiology under Dr. Frits W. Went and Dr. James F. Bonner. It is believed that results obtained from research in the new laboratory will be of great economic value. Location and date of construction of the new plant laboratory have not been announced.

DR. BEADLE TO HEAD DIVISION OF BIOLOGY

DR. GEORGE W. BEADLE will become Professor of Biology and Chairman of the Division of Biology at the Institute on July 1.

Dr. Beadle was born at Wahoo, Nebraska, on October 22, 1903. He received his B. S. degree from Nebraska in 1926 and his Ph.D. from Cornell in 1930. He was National Research Fellow at the California Institute from 1930 to 1932, Institute Research Fellow from 1932 to 1935, and Instructor in Biology from 1935 to 1936. In 1936 he went to Harvard for one year as assistant professor of genetics, and since 1937 has been professor of biology at Stanford. He is a member of the National Academy of Sciences, and is president of the Genetics Society of America.

Dr. Beadle is the only person who has been extensively concerned with studies on all three of the organisms that are of major importance in the development of theoretical genetics—maize, drosophila, and neurospora. His work at present is with the last-named organism (commonly known as the "pink bread-mold"), and has resulted in powerful methods of studying the biochemistry of intact organisms—methods that involve a combination of the techniques of genetics and biochemistry.

Correction

The February issue of *Engineering and Science* erroneously reported that the Douglas El Segundo Plant and Mr. E. H. Heinemann, its chief engineer, were still associated with the Northrop Corporation. Mr. Heinemann is chief engineer of the Douglas El Segundo Plant.

JET ROCKET SOARS 43 MILES

A S a step forward in exploration of the outer atmosphere, development of a jet-propelled rocket able to soar 43½ miles above the earth's surface was disclosed at the California Institute of Technology.

Powered by the oxidation of liquid hydro-carbon, the 16-foot long projectile is equipped with supersonic instruments in its nose capable of recording weather information in the upper stratosphere at an altitude of 230,000 feet.

Under the direction of the Army Ordnance Department, which developed the rocket for the Signal Corps, the projectile was tested recently at the White Sands Proving Grounds near Las Cruces, New Mexico. After completing its flight into space, the rocket parachuted to earth and readings were made from the instruments.

Dr. Frank J. Malina, acting director of the Caltech jet-propulsion laboratory, is credited with guiding development and building the rocket, which was veiled with wartime secrecy under the code name of "WAC Corporal" from its inception in 1944.

The Douglas Aircraft Company worked with scientists on the project, manufacturing and assembling special parts for the projectile.

BOWEN TRANSFERS TO ASTRONOMY

ON January 1, Dr. I. S. Bowen, Professor of Physics at the California Institute of Technology since 1931, became the director of the Mount Wilson Observatory of the Carnegie Institution of Washington, succeeding Dr. Walter S. Adams upon his retirement after forty-two years of service at the Observatory.

It has been announced that, upon completion of the 200-inch reflector for Palomar Mountain, the operation of the new telescope will be a joint undertaking of the California Institute of Technology and the Carnegie Institution of Washington. Dr. Bowen will become the administrative head of the joint project, as well as director of the Mount Wilson Observatory.

After studying at Oberlin College and the University of Chicago, Dr. Bowen came to C.I.T. as instructor in 1921 and received his doctorate in 1926. He remained as a member of the faculty and was advanced rapidly to full professorship in 1931.

Dr. Bowen is well known both in the realm of physics and of astronomy. In physics his researches have been particularly fruitful in the field of spectroscopy, and because of his studies of spectral lines which cannot be produced in the terrestrial laboratory his interests have been extended to the great laboratories of the stars and nebulae. His work has been of a fundamental character bearing upon the behavior of the atoms under different conditions of temperature, pressure, and excitation. His wide knowledge of the origin of spectral lines enabled him to attribute to oxygen and hydrogen the prominent lines observed in the gaseous nebulae, thus solving one of the problems which had baffled astronomers for years.

Researches into the nature of substances in the nebulae and in the corona of the sun have recently won new honors for Dr. Bowen. He has been selected for an award of the Potts Medal of the Franklin Institute for 1946, with Dr. Stanford A. Moss, General Electric consulting engineer, of Lynn, Massachusetts, and Dr. Bengt Edlen, of the University of Lund, Sweden. The medals were presented at the annual ceremonies, April 17, by Charles S. Redding, president of the Franklin Institute.