

THE MONTH AT CALTECH



Albert B. Ruddock, Chairman of the Board of Trustees

Chairman of the Board

ALBERT BILLINGS RUDDOCK was elected chairman of the Board of Trustees of the Institute at the annual meeting of the board on November 1.

Mr. Ruddock succeeds James R. Page, chairman since 1943, who will continue to serve on the board as chairman of the finance committee and in other important capacities.

At the same meeting John E. Barber, who became a trustee in February of this year, was elected vice president and treasurer of the board. As treasurer, he succeeds Dr. William B. Munro. Dr. Munro has been associated with Caltech since 1926. As Professor of History and Government for nearly twenty years, he was a leading figure in the establishment of the Institute's Humanities program, and was elected a trustee in 1945. He is also a trustee of the Huntington Library and the Huntington Memorial Hospital.

Mr. Ruddock, a Caltech trustee since 1938, has been prominent for many years as a diplomat and as a civic leader in southern California.

A native of Chicago, Mr. Ruddock was educated at Yale (BA 1907), Columbia (MA 1909), and the Ecole des Sciences Politiques in Paris, 1911. From 1912 to 1916 he was Secretary of the American Embassy in Berlin and the following year held the same post in Brussels. From 1917 to 1920 he served in the State Department in Washington and from 1920 to 1923 in the American Embassy in Peking.

Mr. Ruddock resigned from the foreign service in 1924 to enter private business. Since then he has been associated as trustee or director with many institutions, including the Security First National Bank of Los An-

geles, Occidental College, the Los Angeles County Museum, the Town Hall of Los Angeles and the Pasadena Civic Music Association. He has been chairman of the advisory committee of the Los Angeles County General Hospital and chairman of the management committee of the Huntington Memorial Hospital. In 1943 he received the Arthur Noble Award for outstanding service to Pasadena, where he lived from 1923 until 1952.

Mr. Ruddock is currently president of the Southwestern Development Company of Los Angeles and a director of the Universal Consolidated Company. He is also a director of the Santa Barbara Foundation and the Santa Barbara Museum of Art.

Montgomery of Alamein

FIELD MARSHAL Viscount Montgomery of Alamein, the British World War II hero who is now Deputy Supreme Allied Commander of the NATO forces in Europe, will be the guest of the Institute for three days this month, November 28-30.

Last spring President DuBridges attended a conference in Paris, of which Marshal Montgomery was chairman. When he learned the Marshal's plans for a visit to the United States this fall he invited him to come to Pasadena.

Marshal Montgomery will be honored at an invitational dinner given by the Trustees of the Institute for the California Institute Associates on November 29. On November 30 he will attend a public luncheon, given by the Institute and the Los Angeles World Affairs Council, where he will speak on "The Whole Question of NATO and the Defense of the Free World."

NSF Grants

THE NATIONAL SCIENCE FOUNDATION this month awarded grants totalling \$58,500 to Caltech researchers.

A three-year grant of \$34,500 went to John R. Pellam, Professor of Physics, for experimental work at extremely low temperatures.

A two-year grant of \$15,000 went to Max Delbrück, Professor of Biology, for work on light and dark adaptation in a mold.

And a two-year grant of \$9,000 went to Henry Borsook, Professor of Biochemistry, and Richard S. Schweet, Senior Research Fellow in Biology, for a continuation of Dr. Borsook's studies in protein synthesis.

Achievement Award

HOMER J. STEWART, Caltech Professor of Aeronautics, has received the University of Minnesota Outstanding Achievement Award, an honor given to former students of the University. The award was presented to Dr. Stewart at a dinner in Minneapolis on October 15, commemorating the 25th anniversary of the University's Department of Aeronautical Engineering.

Homer Stewart received his BS in Aeronautical Engineering at the University of Minnesota in 1936. He did his graduate work at Caltech, and got his PhD here in 1940. He has been at Caltech ever since, teaching and doing research in the field of theoretical and applied aerodynamics. He became Professor of Aeronautics in 1949.

In addition, he serves as Chief of the Research Analysis Section of the Jet Propulsion Laboratory, where he has made important contributions to the development of guided missiles. He is a member of the Scientific Advisory Board of the U. S. Air Force and was consultant to the former Guided Missiles Committee of the Department of Defense, Research and Development Board. He is also a consultant to the Aerojet-General Corporation.

Harry Earhart

HARRY B. EARHART, founder of the Earhart Foundation, died on October 21 at his home in Ann Arbor, Michigan. He was 84 years old.

A gift of \$407,000 from the Earhart Foundation made it possible for Caltech to build its Earhart Plant Research Laboratory in 1949.

Mr. Earhart was, successively, an owner of Great Lakes shipping vessels, a machinery manufacturer, and president and director of several oil companies. He also served as a director of the American Petroleum Institute and the National Safety Council. He was a close friend of the late Dr. Robert Millikan, chairman of the Executive Council of Caltech from 1921 to 1945, and from 1933 to his death he was a member of the California Institute Associates.

Embryologist

LORD ROTHSCHILD, Director of Research of the Department of Zoology at Cambridge University and Chairman of the Agricultural Research Council of Great Britain, will be at Caltech during the month of November working with Dr. Albert Tyler, Professor of Embryology, on some problems of the early phases of both plant and animal reproduction. Rothschild and Tyler worked together at Caltech in 1951 and during the summer of 1953 at Cambridge.

Appointed a research associate in biology at Caltech, Lord Rothschild is confining his studies in embryology here to what takes place in the first 45 minutes after the fertilization of the egg. ("After that," he says, "some other scientist will have to take over.")

In the first 45 minutes something happens that changes the nature of the egg. "It is the same in the embryo of a bit of seaweed, a bumble bee, or a human being," says Rothschild.

With the help of Dr. Tyler, Rothschild is trying to find out what *does* happen. And they would like to find answers for such questions as: "What happens if two sperms enter an egg instead of just one;" and "Do eggs breathe faster before or after fertilization?"

Lord Rothschild is also at work on a book on this subject. His research project is being sponsored jointly by Caltech, Cambridge University, the U. S. Public Health Service, and Britain's Agricultural Research Council.

A member of the famous Rothschild banking family, he tried working in the family business for three short months once—then gave it up permanently to do research in embryology.

Top Performers

DR. GEORGE W. BEADLE, Chairman of the Division of Biology, and Dr. Richard P. Feynman, Professor of Theoretical Physics, are included among the "Top Performers of the Year" in the annual selection of distinguished Californians which *Fortnight Magazine* published in its November 3 issue.

Dr. Beadle received one of America's highest scientific honors in January of this year when he was made president-elect of the American Association for the Advancement of Science. He will serve as president during 1955.

Dr. Feynman has been honored twice this year for his scientific achievements. In April, he was elected to the National Academy of Science, and in January, he was selected as winner of the Albert Einstein Award, consisting of a \$15,000 cash prize and a gold medal. This award is made every three years for an outstanding contribution to knowledge in the mathematical and physical sciences.