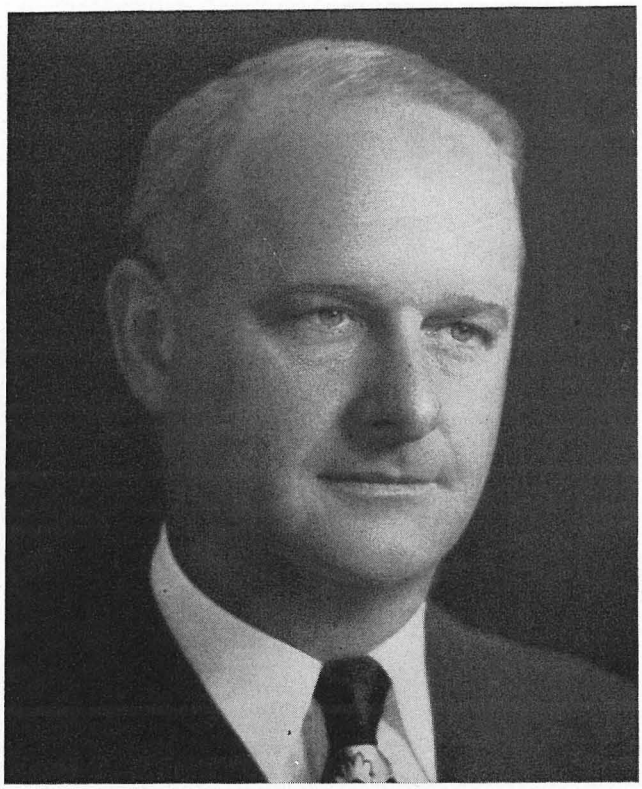
F. M. Banks, president and general manager of the Southern California Gas Company, is the newest member of the Caltech Board of Trustees.



THE MONTH AT CALTECH

New Trustee

NEWEST MEMBER of the Board of Trustees of the California Institute of Technology is F. M. Banks, president and general manager of the Southern California Gas Company.

Mr. Banks joined the civil engineering staff of the gas company in 1922, became vice-president and director of sales, advertising and public relations in 1934, and president in 1950. He is president of the American Gas Association, national organization of gas companies, as well as a past president of the Pacific Coast Gas Association and a director of the Independent Natural Gas Association.

He is a director of the Los Angeles Chamber of Commerce, a director of the Union Bank and Trust Company and the Pacific Indemnity Company, a trustee of the Southern California Air Pollution Foundation, and a director of Associated In-Group Donors.

Mr. Banks attended schools in California and the Colorado School of Mines, and graduated in 1922 from the Massachusetts Institute of Technology in electrochemical engineering.

Radio Astronomer

JOHN G. BOLTON, who in 1948 discovered the first of the so-called "radio stars," came to Caltech last month to serve as scientific director of a new project in the field of radio astronomy. Mr. Bolton, who has been appointed a senior research fellow in physics and astronomy, comes from Sydney, Australia. For the past 10 years he has been a research officer in the division of radiophysics of the Commonwealth Scientific and Industrial Research Organization.

The major goals of Caltech's radio astronomy project will be to detect radio signals from outer space, to find out what their sources are, and to discover as much as possible about the position, strength and size of these sources.

The tools used in radio astronomy are ultra-sensitive receivers with very large antennas. The antennas pick up high-frequency noises, some of which are believed to be generated by enormous masses of gas colliding at velocities up to 5,000 miles per second. The analysis of these radio signals provides information about the nature of matter in outer space which can be gained in no other way.

Some of these large antennas are radio-wave reflectors, or "dishes" resembling oversize radar antennas. Several of this type, up to 50 feet in diameter, are already in operation in this country, and one 250 feet in diameter is being built in Manchester, England. Other antennas, for receiving longer waves (but not of the reflector type) are up to one mile in length. Caltech will begin construction of several different types of antenna and

receiving equipment sometime within the coming year.

This new radio astronomy project will be an important supplement to the astronomical work being carried on at the Mount Wilson and Palomar Observatories, and will be greatly aided by Caltech's current research and development in ultra-sensitive radio receivers and high-frequency tubes.

Mr. Bolton, although only 33 years old, is regarded as one of the pioneers in the discovery of radio noise sources. Shortly after his 1948 discovery of a radio source in the constellation Cygnus, he made the first identification of a radio source with a visible object, the Crab Nebula. Since then he has had a long record of achievement, culminating in the recent discovery of an intense radio source at the center of our own galaxy, the Milky Way.

Mr. Bolton received his BA, with honors in physics, at Cambridge University in 1941. The following year he entered the Royal Navy, and at the end of the war left the British Pacific Fleet to join the Commonwealth Scientific and Industrial Research Organization. A little over a year ago he became the youngest man ever appointed to the rank of Principal Research Officer in that organization. In Australia he has also recently worked on problems of weather control and cloud seeding.

"Ambassador" to Australia

PRESIDENT AND MRS. DuBRIDGE will make a two-month trip to Australia and New Zealand this summer, visiting universities and scientific establishments.

Dr. DuBridge will travel under the sponsorship of the Carnegie Corporation of New York, whose officers have asked him to serve as an "ambassador" in connection with their travel grant program for an international exchange of scholars and educators. One of his main missions will be to discuss with Australian education officials the future of technical training in that country, the question there now being whether to build new technological, institutions or to provide technical training in large universities.

Dr. and Mrs. DuBridge plan to leave Pasadena in mid-July and will return in mid-September, with brief stop-overs in Hawaii each way.