method similar to that of the repeating rifle. He also developed several types of projectile rockets intended to be fired at tanks or other military objectives, from a launching tube held in the hands and steadied by two short legs, a device similar in many respects to the "bazooka" of World War II.

These weapons were demonstrated at the Aberdeen Proving Grounds on November 10, 1918, before representatives of the Signal Corps, the Air Corps, the Army Ordnance and others. The demonstrations went off quite successfully, but the Armistice next day put an end to the war and also to the experiments.

In the Second World War Goddard likewise offered his services, and was engaged in work on liquid fuel rocket research for the Navy at Annapolis throughout the conflict.

Goddard concluded his last report, in 1936, with these words: "The next step in the development of the liquid-propellant rocket is the reduction of weight to a minimum. Some progress along this line has already been made."

Part of this progress consisted of the development of ingenious, light-weight, simple fuel pumps for injecting the propellants rapidly into the liquid-fuel rocket motor. The physicist had expected to return to New Mexico as soon as possible after the war, to continue his work on high altitude rockets, and planned to set some altitude records which would have been spectacular indeed. His death, at the age of 62, brought this program to an untimely end. Nevertheless, Goddard lived to see the dream of his youth become reality. Jet propulsion, for the uses of war at least, matured in his lifetime from a fantastic notion into a billion-dollar industry. It gave promise, too, of achieving the objectives of peacetime research for which he had spent a lifetime of thought and effort.

Dr. Goddard had been a member of the American Rocket Society for many years, and a few months before his death was elected to the society's Board of Directors. He was universally beloved and respected, and especially so by his associates in research on rockets and jet propulsion. The Board of Directors of the American Rocket Society paid tribute to him in these words:

> The lifework of Dr. Goddard, both as a scientist and a man, will always remain a brilliant inspiration to all of those who are privileged to carry on his endeavors, and to every other bold explorer on the new frontiers of science. In time to come, his name will be set among the foremost of American technical pioneers.

G. EDWARD PENDRAY,
Secretary, American Rocket Society

RECENT DEATHS

DR. EUGENE COOK BINGHAM, professor of chemistry at Lafayette College, died on November 6 at the age of fifty-six years.

DR. RODNEY B. HARVEY, professor and head of the Section of Plant Physiology of the University of Minnesota, died on November 4 at the age of fifty-five years.

DR. RALPH HENRY SMITH, professor of entomology and entomologist in the Agricultural Experiment Station of the University of California at Los Angeles, died on September 22 at the age of fifty-seven years.

DR. CALVIN S. BROWN, professor of Romance languages at the University of Mississippi, well known for his work in geology and in archeology, died on September 10 at the age of seventy-nine years.

SCIENTIFIC EVENTS

THE SUMMER MEETING OF THE AMERICAN MATHEMATICAL SOCIETY

THE fifty-first summer meeting of the American Mathematical Society was held at the New Jersey College for Women of Rutgers University, New Brunswick, on September 15, 16 and 17. The Institute of Mathematical Statistics met on September 16. In accordance with the restrictions on conventions by the Office of Defense Transportation, the society has held no previous meetings in the east or midwest since the annual meeting on November 24–25, 1944, in Chicago. The attendance was about four hundred, including three hundred and twenty members of the society.

Three addresses were given: "Some New Viewpoints in Differential Geometry in the Large," by Professor S. S. Chern, of the National Tsing Hua University and the Institute for Advanced Study; "Topological Methods in Abstract Algebra," by Professor Samuel Eilenberg, of the University of Michigan; "Some Aspects of Ergodic Theory," by Professor Witold Hurewicz, of the University of North Carolina.

On Sunday afternoon a symposium was held on "Recent Developments in Numerical Methods," consisting of three addresses: "Interpolation, Smoothing and Curve Fitting," by Professor I. J. Schoenberg, of the University of Pennsylvania; "Laurent Expansions of Algebraic Functions," by Professor Hans Rademacher, of the University of Pennsylvania, and