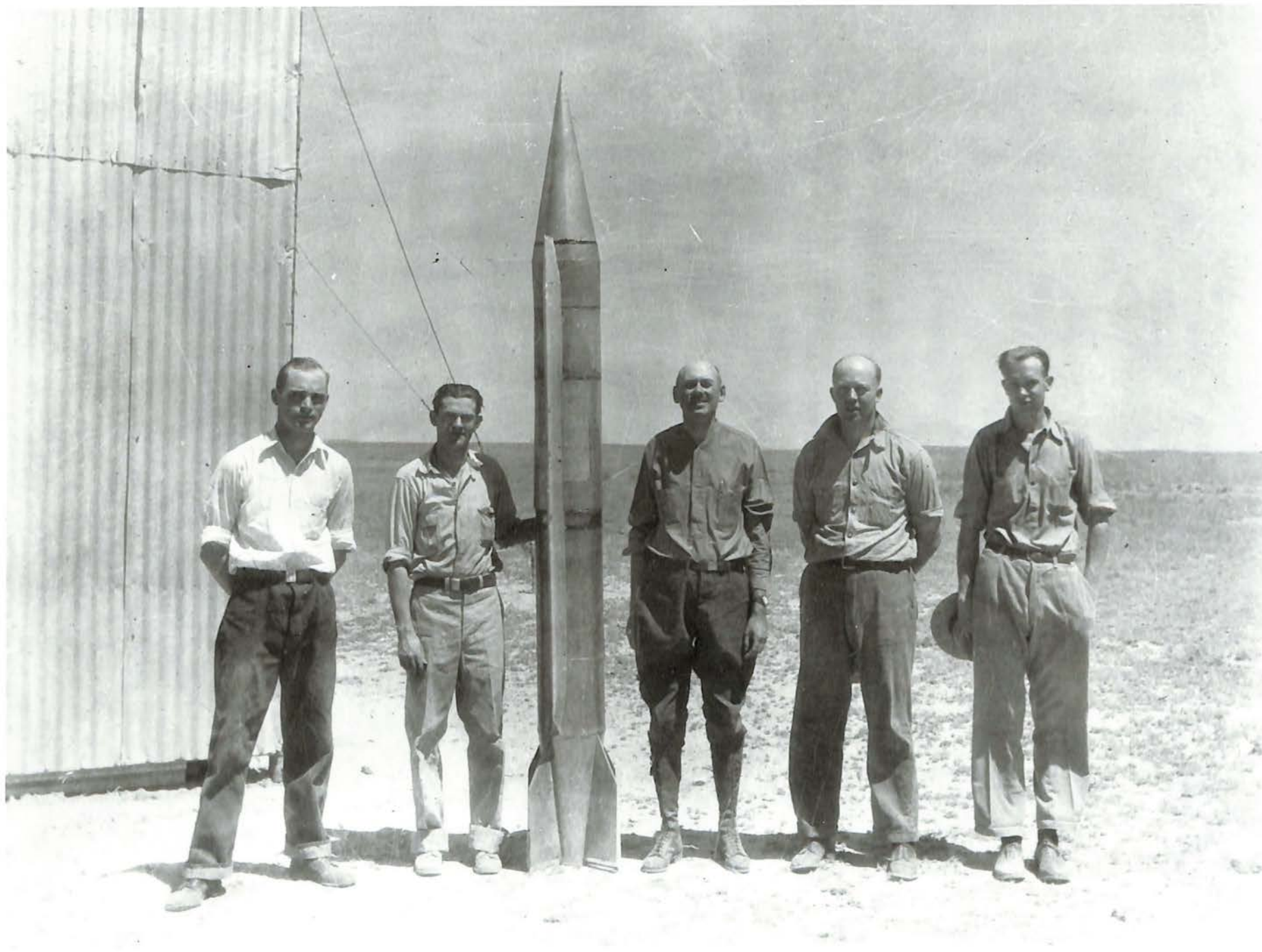




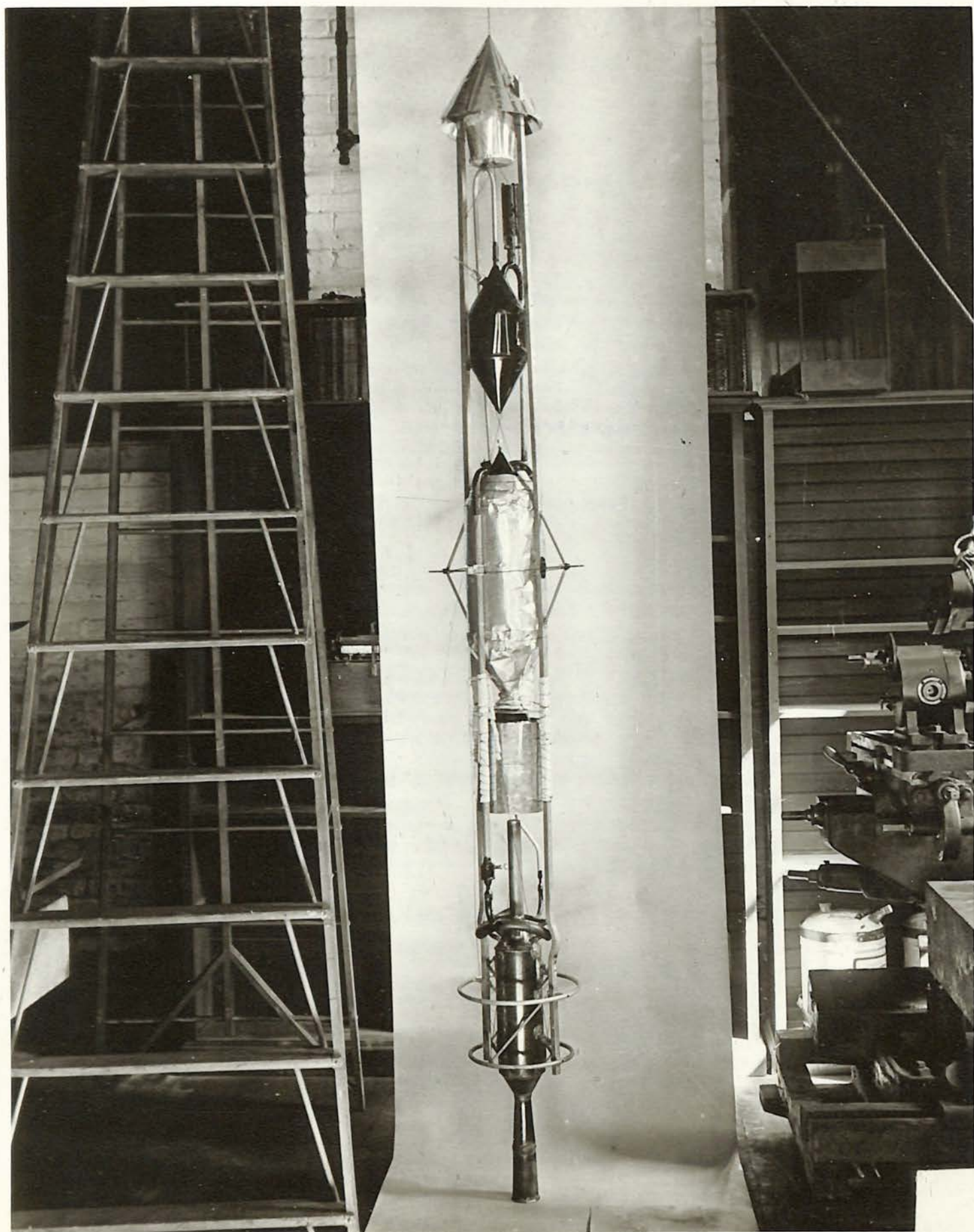
For Release: Filed November 1, 1974

NASA Photo No. 74-H-1202

This rocket was used in Dr. Robert H. Goddard's New Mexico test of September 29, 1931. Shown with the rocket is the group that took part in the flight. Left to right are: N. Ljungquist, L. Mansur, Dr. Goddard, A. Kisk, and C. Mansur.

Dr. Goddard has been recognized as the "Father of American Rocketry" and as one of the pioneers in the theoretical exploration of space. Robert Hutchings Goddard, born in Worcester, Massachusetts, on October 5, 1882, was a theoretical scientist as well as a practical engineer. His dream was the conquest of the upper atmosphere and ultimately space through the use of rocket propulsion. Dr. Goddard, who died in 1946, was probably as responsible for the dawning of the Space Age as the Wrights were for the beginning of the Air Age. Yet his work attracted little serious attention during his lifetime. When the United States began to prepare for the conquest of space in the 1950s, American ~~rocket~~ rocket scientists began to recognize the debt owed to the New England professor. They discovered that it was virtually impossible to construct a rocket or launch a satellite without acknowledging the work of Dr. Goddard. This great legacy was covered by more than 200 patents, many of which were issued after his death.

Photo courtesy of Mrs. Esther C.
Goddard





NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
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Dr. Robert H. Goddard returned to this medium-sized rocket, October 1927.

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Dr. Robert Hutchings Goddard at the entrance to the Mescalero Ranch in New Mexico, happily heading for his shop near by, about 1937.

Dr. Goddard has been recognized as the "Father of American Rocketry" and as one of the pioneers in the theoretical exploration of space. Robert Hutchings Goddard, born in Worcester, Massachusetts, on October 5, 1882 was a theoretical scientist as well as a practical engineer. His dream was the conquest of the upper atmosphere and ultimately space through the use of rocket propulsion. Dr. Goddard, who died in 1945, was probably as responsible for the dawning of the Space Age as the Wrights were for the beginning of the Air Age. Yet his work attracted little serious attention during his lifetime. When the United States began to prepare for the conquest of space in the 1950's, American rocket scientists began to recognize the debt owed to the New England professor. They discovered that it was virtually impossible to construct a rocket or launch a satellite without acknowledging the work of Dr. Goddard. This great legacy was covered by more than 200 patents, many of which were issued after his death.

Photograph courtesy of Mrs. Esther C. Goddard



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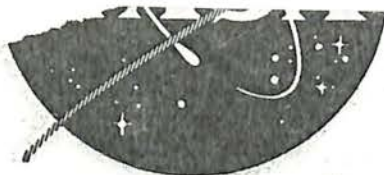
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January 1940--Cap. parachutes and barograph for Dr. Robert H. Goddard's rocket.

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Photo courtesy of Mrs. Esther C. Goddard





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Dr. Robert H. Goddard making adjustments at the upper end of the rocket combustion chamber. Around the chamber are small coils of copper tubing for vaporizing liquid nitrogen in order to produce pressure for the fuel tanks and for operating controls. Pumps were used for fuels and oxidizer. Photograph 1940 at Roswell, New Mexico.

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ROSWELL, NEW MEXICO--Dr. Robert H. Goddard's rocket flight of August 26, 1937, with gimbal steering and catapult launching.

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Photo courtesy of Mrs. Esther C. Goddard



See 10



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NEW MEXICO--Dr. Robert H. Goddard's rocket after flight, April 19, 1932. Left to right are: N. T. Ljungquist, Mansur Kisk and Dr. Goddard

Dr. Goddard has been recognized as the "Father of American Rocketry" and as one of the pioneers in the theoretical exploration of space. Robert Hutchings Goddard, born in Worcester, Massachusetts, on October 5, 1882, was a theoretical scientist as well as a practical engineer. His dream was the conquest of the upper atmosphere and ultimately space through the use of rocket propulsion. Dr. Goddard, who died in 1945, was probably as responsible for the dawning of the Space Age as the Wrights were for the beginning of the Air Age. Yet his work attracted little serious attention during his lifetime. When the United States began to prepare for the conquest of space in the 1950's, American rocket scientists began to recognize the debt owed to the New England professor. They discovered that it was virtually impossible to construct a rocket or launch a satellite without acknowledging the work of Dr. Goddard. This great legacy was covered by more than 200 patents, many of which were issued after his death.

Photo courtesy of Mrs. Esther C. Goddard



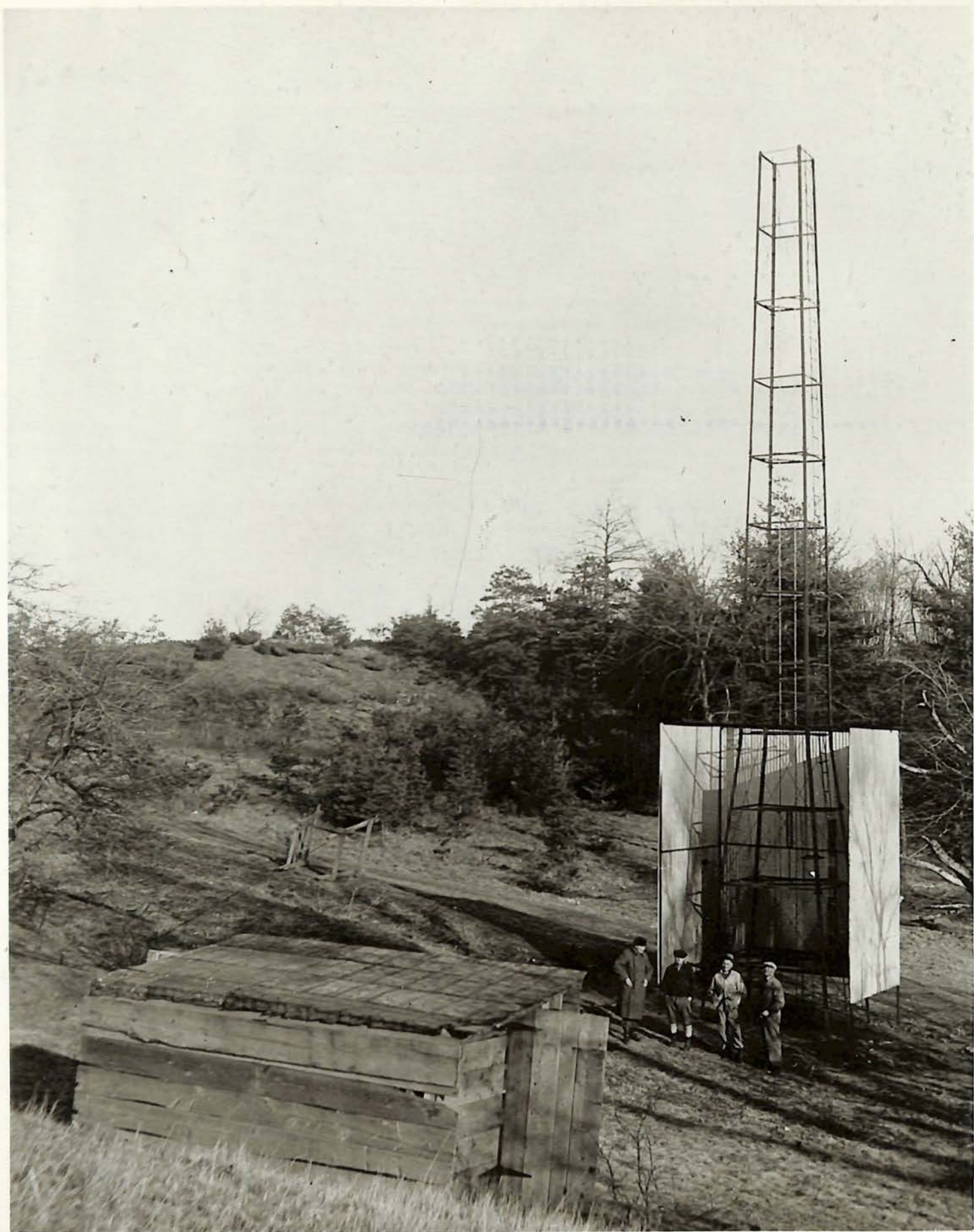
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Photo courtesy of Mrs. Esther C. Goddard

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Dr. Robert H. Goddard's tower and shelter at the artillery range at Camp Devens, Ayer, Massachusetts, winter 1929-1930. This spot is now marked with a small tower, dedicated May 1963.

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Dr. Robert H. Goddard and Mrs. Goddard at the Mescalero Ranch in New Mexico, about 1937.

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Photograph courtesy of Mrs. Esther C. Goddard





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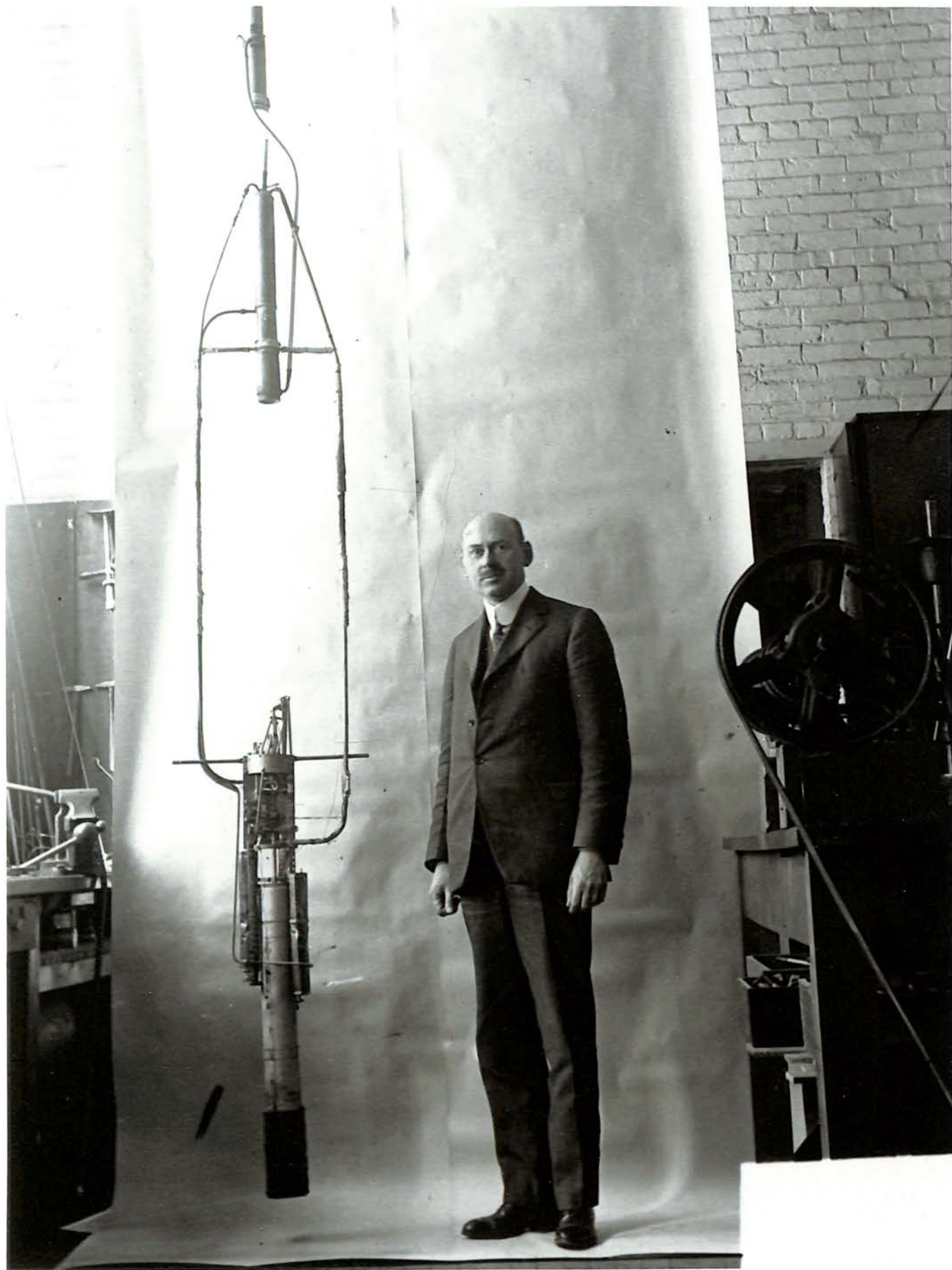
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This picture described by Dr. Robert H. Goddard "The Empty Frame, obtained after a long time" was taken after the first flight of a liquid-propellant rocket at Auburn, Mass., March 16, 1926. It is of interest here to note what was written by Dr. Goddard in a diary the evening after the test. "It looked almost magical as it rose, without any appreciably greater noise or flame, as if it said, 'I've been here long enough; I think I'll be going somewhere else, if you don't mind.'" Surprising was "the absence of smoke, the lack of very loud roar, and the smallness of the flame." This first flight of a liquid-propellant rocket is of very considerable significance, inasmuch as it demonstrated the possibility of using liquid propellants to secure actual flight, thereby making possible a rocket which could be simple in construction, and of small weight compared with the weight of the propellant.

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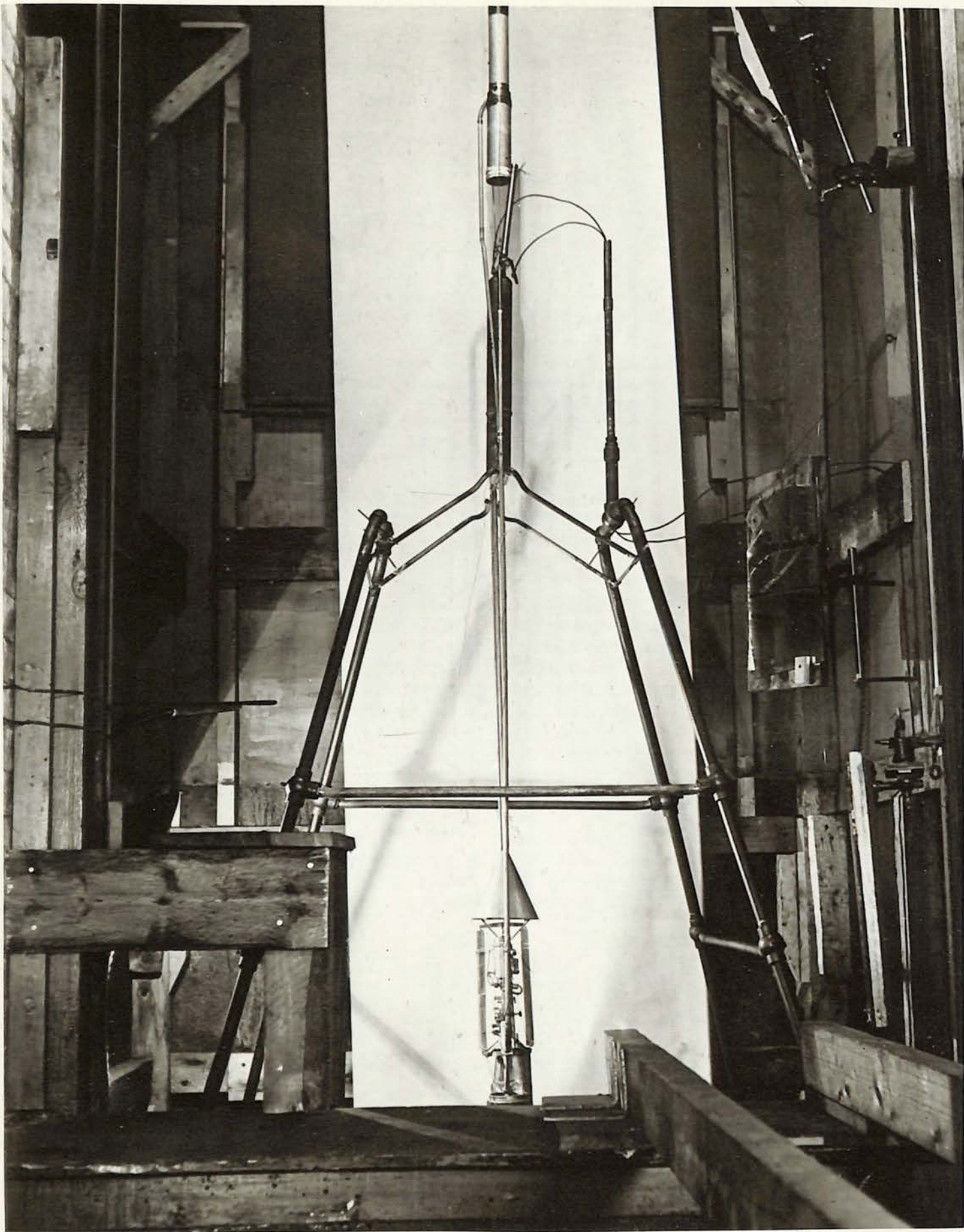
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Dr. Robert H. Goddard with his complete rocket with the double-acting engine in November 1925. Following more than two years of pump development based on the idea of a separate pump for each propellant, Dr. Goddard here made an important change in his pump technique, by combining both pumps into a single double-acting unit. Though gas pressure, rather than pumps was used on his first successful liquid-propellant rocket shot of March 16, 1926, the idea of combining both pumps into a single unit led later to a successful solution of the pump problem and hence marked a significant advance. Dr. Goddard has been recognized as the "Father of American Rocketry" and as one of the pioneers in the theoretical exploration of space. Robert Hutchings Goddard, born in Worcester, Massachusetts, on October 5, 1882, was a theoretical scientist as well as a practical engineer. His dream was the conquest of the upper atmosphere and ultimately space through the use of rocket propulsion. Dr. Goddard, who died in 1945, was probably as responsible for the dawning of the Space Age as the Wrights were for the beginning of the Air Age. Yet his work attracted little serious attention during his lifetime. When the United States began to prepare for the conquest of space in the 1950's, American rocket scientists began to recognize the debt owed to the New England professor. They discovered that it was virtually impossible to construct a rocket or launch a satellite without acknowledging the work of Dr. Goddard. This great legacy was covered by more than 200 patents, many of which were issued after his death.





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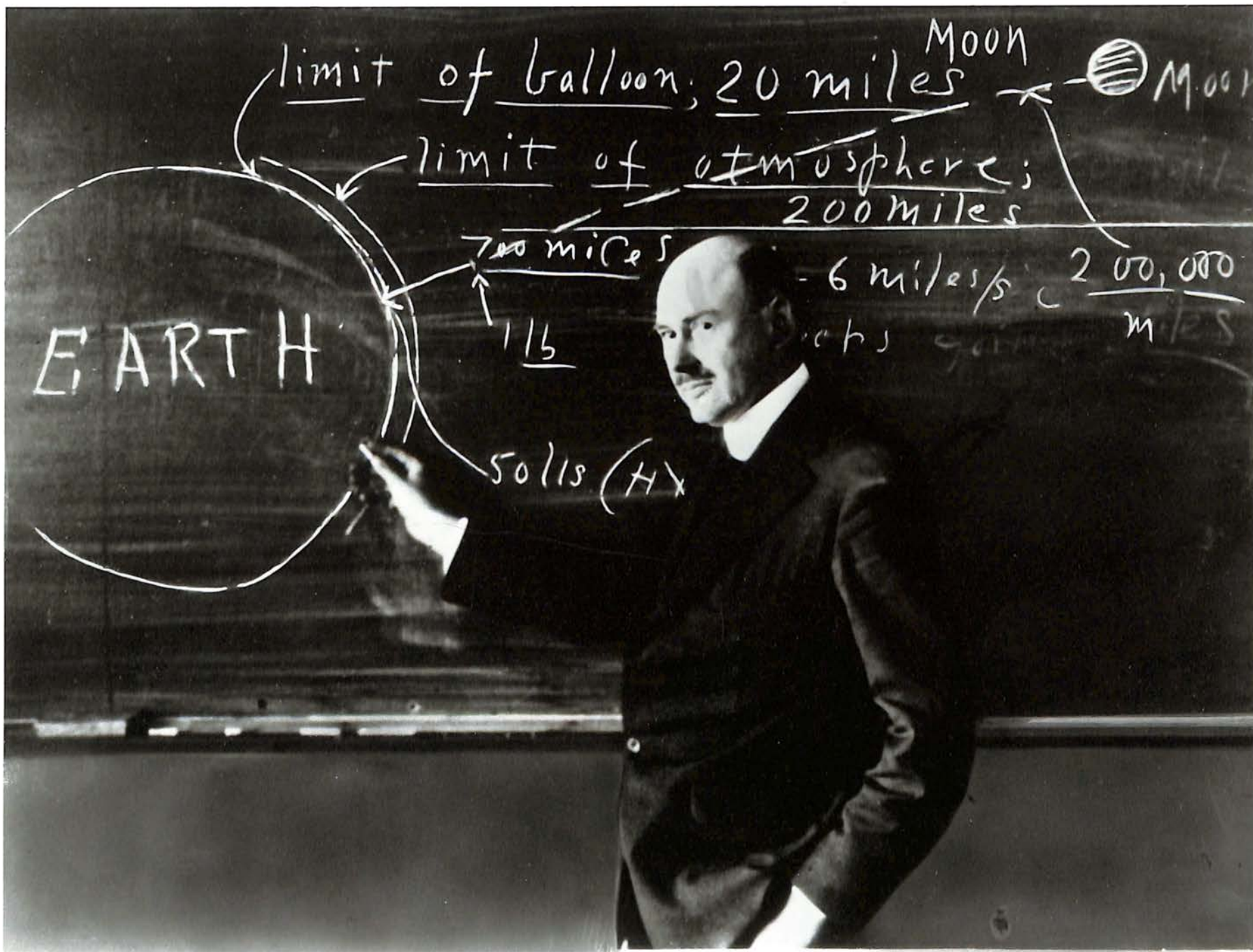
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This photograph of one of Dr. Goddard's rockets in a testing frame was taken in August 1925 at Clark University, Worcester, Mass. Dr. Goddard who taught physics at Clark University also earned his doctorate there.

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April 22, 1975
74-H-1056

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r. Goddard at blackboard, Clark University, 1924.