

*One morning seventy-three years ago
San Franciscans gasped as Dr. August Greth
sailed overhead in a remarkable airship.*

DR. AUGUST GRETH and the **FIRST AIRSHIP FLIGHT** in the **UNITED STATES**

By Dr. Douglas H. Robinson

All photos courtesy Milton Canfield

Everyone knows the date when the Wright Brothers made their first powered flight. Yet 73 years ago, with many men of science convinced that powered heavier-than-air flight was an impossible dream, the airship, which traced its ancestry back more than 200 years to the balloon, appeared to be the aerial vehicle of the future. After a promising start, the airship was overtaken by the airplane and today is no longer seen in the sky, except for the Goodyear blimps. How many can name the first person to fly an airship in the United States? Or the date?

The evidence points to a fellow physician of San Francisco, Dr. August Greth, who on October 18, 1903, ascended from an open tract in front of a large shed at 11th and Market Streets, and in full view of a large number of his fellow townsmen, flew for 40 minutes and attained a maximum altitude of 2,000 feet. Motor failure (a common problem in the early days) caused the airship to descend into the bay off Fort Point, whence it was towed ashore to the lifesaving station.

There are, of course, rival claimants for the glory of the first airship flight in the United States. One Leo Stevens "claimed the distinction of building and flying the first motor-driven navigable airship in the United States in 1900,"¹ and I have seen a photograph allegedly showing a "trial flight of Leo Stevens' airship at Coney Island (1903?)."² Carl Myers, frequently in the headlines at the turn of the century, "reported initial successes with a motor-driven balloon" in 1901.³ Yet there is no corroborating documentation, while Dr. Greth's flight was witnessed by hundreds if not thousands of people, and was front-page news in the San Francisco Call and Examiner, and even made it in the New York Herald and Journal.

Dr. Greth was in goodly company. The balloon, a scientific miracle at its inception in 1783, was part of the atmosphere, drifting with the wind, and inventors had dreamed ever since of making it a useful means of transportation by giving it power and controllability. Most, like the San Francisco physician, were dreamers operating on a shoestring, long on vision and determination, varying in their engineering ability from those competent in a classical environment to the naive and impractical. The efficient, lightweight power plant long eluded them, and as late as

1872 the airship of the great French naval architect, Stanislaus Charles Henri Laurent Dupuy de Lome, had its 30-foot propeller turned by eight sailors fueled with ample libation of rum.

The first powered airship flight had actually been made 20 years earlier. The only possible mechanical power plant was the steam engine, and to Henri Giffard, the inventor of the steam injector, belongs the credit for adapting it for aerial propulsion. His engine, weighing 250 pounds and powered by a boiler weighing 100 pounds without water, produced 3 hp. In a single flight, on September 24, 1852, the 88,000 cubic foot craft traveled 17 miles from Paris to Trappe. The still air speed was reported to be six mph, and this, in effect, was a downwind run with no hope of returning to the takeoff point. No further steam-powered airships were built—the power to weight ratio was far too low.

The German Paul Haenlein, in 1872 proposed to fly his airship with a primitive internal combustion engine burning coal gas from the balloon, and developing six hp, but his craft was never flown untethered. The first airship to fly free and return to its point of takeoff was "La France," built to government order in 1884 by Colonels Renard and Krebs; but for lack of a more efficient power plant, they chose an electric motor developing 7½ hp and driven by 1,232 pounds of batteries. At 210 lb./hp, this was no real advance on the Giffard steam engine. Yet in seven local flights in calm air, "La France" developed a speed of 14½ mph and on five occasions was brought back to her starting point. Twice she force-landed away from her shed and had to be deflated.

The ultimate solution to the problem of a lightweight power source—the gasoline-driven internal combustion engine—was being developed at this time by Otto and Langen, and refined by Gottlieb Daimler and Wilhelm Maybach. The first to take it aloft was the German, Karl Woelfert. The primitive Daimler engine which he used was incredibly dangerous when attached to a hydrogen-filled gas bag: instead of electrical ignition it relied on a platinum tube fed with gasoline and kept at a high temperature by an open flame burner! This led to disaster in the only flight of his airship at Berlin in 1897: an ascent to 3,000 feet caused hydrogen to be vented from the bag; this was set afire by the burner flame, and



AIRSHIP THAT SAILED OVER THE CITY WILL COMPETE FOR WORLD'S PRIZE IN ST. LOUIS

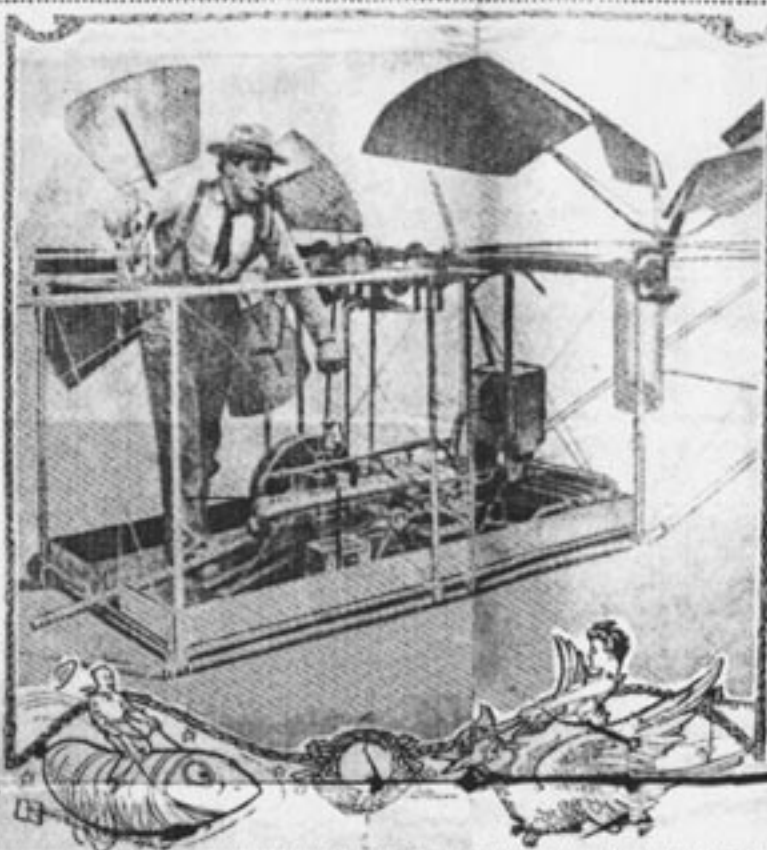
DR. AUGUST GRETH will make his last voyage on the "Guth" dirigible balloon before he sails for St. Louis, Mo., to compete for the prize offered by the Aero Club of America for the first dirigible to sail over the city of St. Louis. The balloon will be launched from the city of St. Louis, Mo., and will be the first dirigible to sail over the city of St. Louis.

PROBLEM OF CENTURY SOLVED

After His Successful Experiment, Dr. Greth Is Positive That at Last He Has Made Aerial Navigation Feasible

ONLY MINOR DETAILS NEED BE CORRECTED

The idea of flying through the air has been a dream of man since he first looked up at the sky. It is now a fact. Dr. Greth, of St. Louis, Mo., has proved that it is possible to fly through the air. He has done this by building a dirigible balloon which he has sailed over the city of St. Louis, Mo. The balloon is a rigid structure which is filled with hydrogen gas. It is controlled by a system of ropes and pulleys which are attached to the ground. Dr. Greth has sailed the balloon over the city of St. Louis, Mo., and has proved that it is possible to fly through the air. He has done this by building a dirigible balloon which he has sailed over the city of St. Louis, Mo. The balloon is a rigid structure which is filled with hydrogen gas. It is controlled by a system of ropes and pulleys which are attached to the ground. Dr. Greth has sailed the balloon over the city of St. Louis, Mo., and has proved that it is possible to fly through the air.



RUNNING PLATFORM OF GRETH'S DIRIGIBLE BALLOON

GREAT DIRIGIBLE BALLOON WILL CUT THROUGH THE CLOUDS AT A RATE OF THIRTY MILES AN HOUR

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(Above) San Francisco Examiner of October 20, 1903 pictures B.R. Saxby on the "Running Platform of Greth's Dirigible Balloon" and the caption details Saxby's manipulation of the control arrangements.



(Right) Possibly Saxby is the man on the left. Dr. Greth stands within the gondola. Photo probably was taken October 18, 1903 after keel girder was shortened, and propeller shafts mounted on top girder of gondola.

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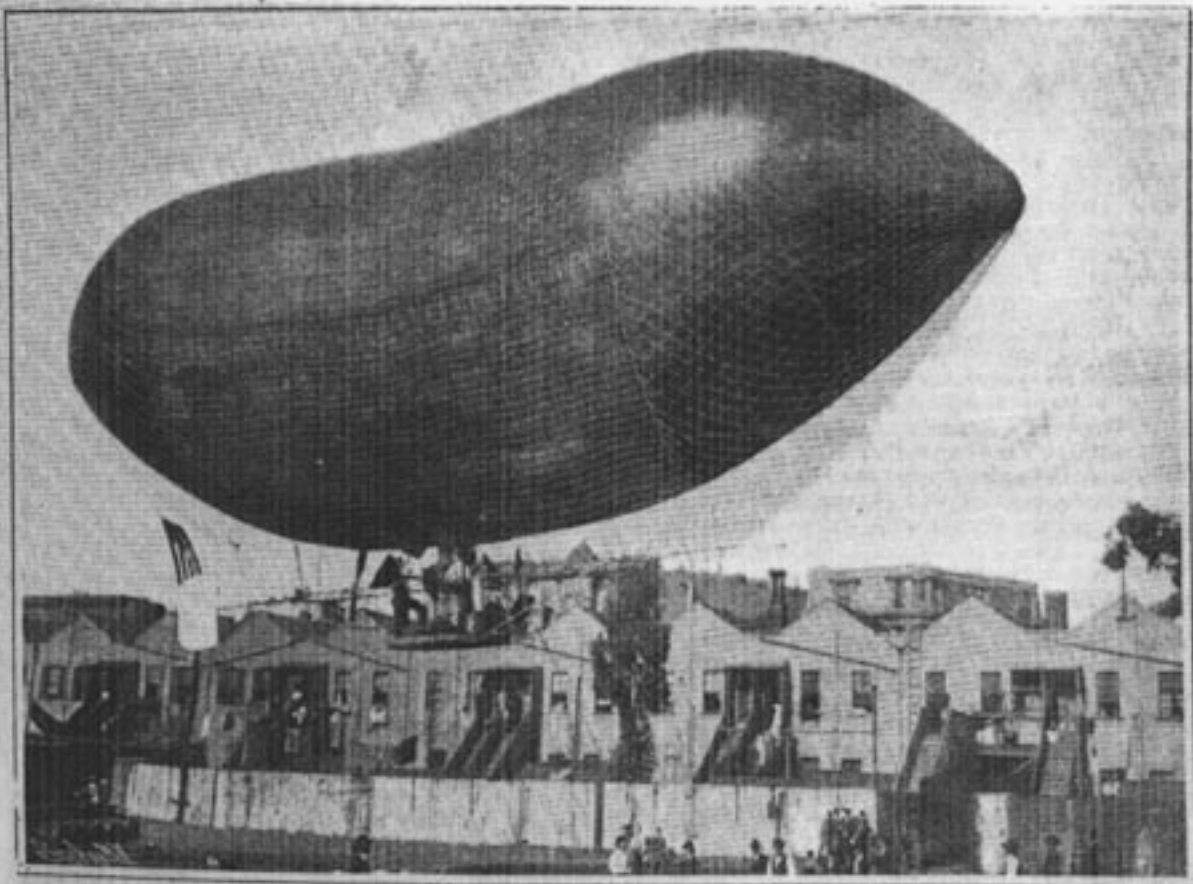
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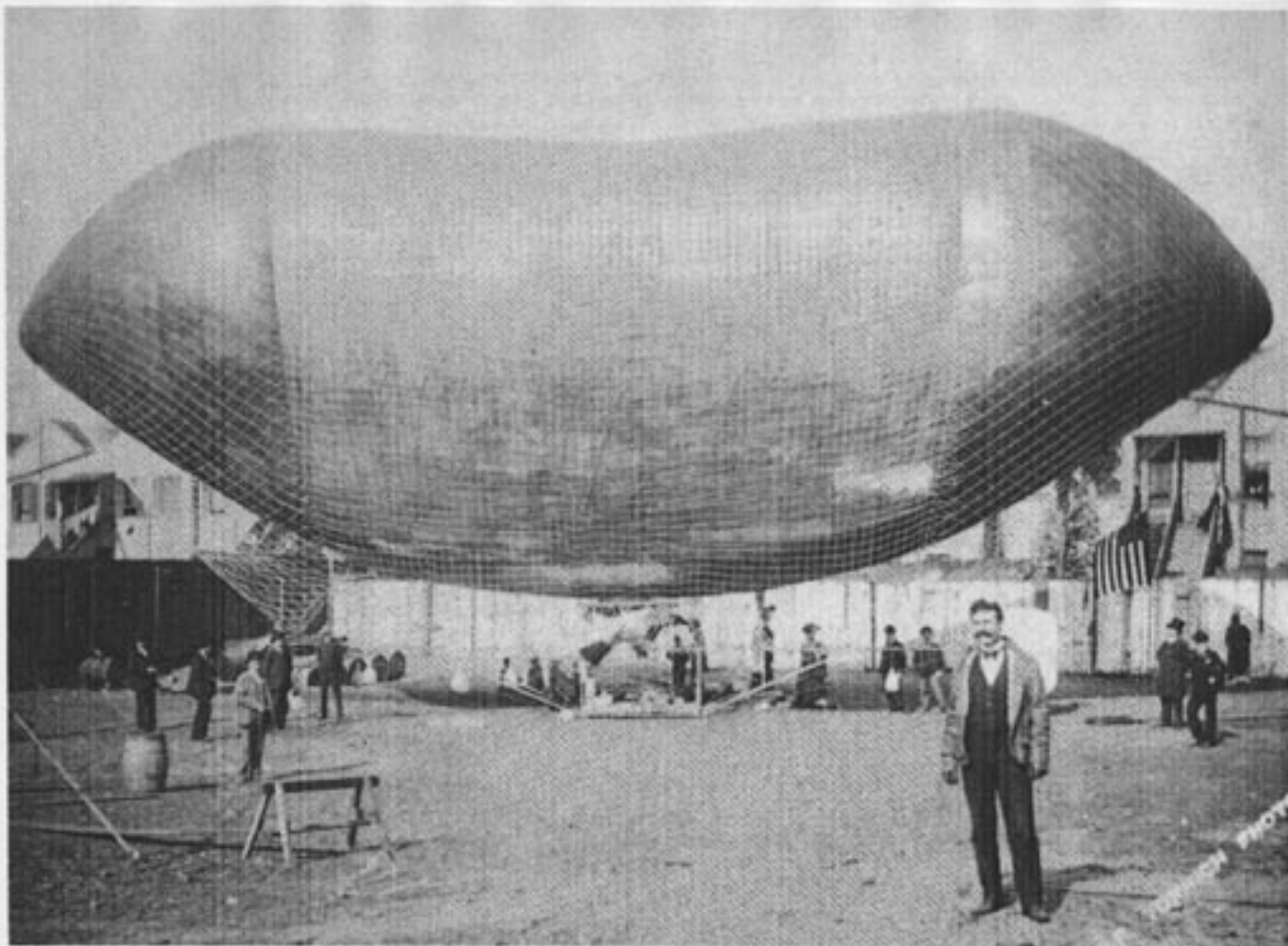


The Balloon at FRENCH.



The Hot Air Balloon, and One of the Preparations.





Further photos of the California Eagle reveal changes made in the keel girder and position of propeller shafts. These photos were probably made October 18, 1903 at the time of the final flight that was of 40 minutes duration.

