

Dayton Engineer

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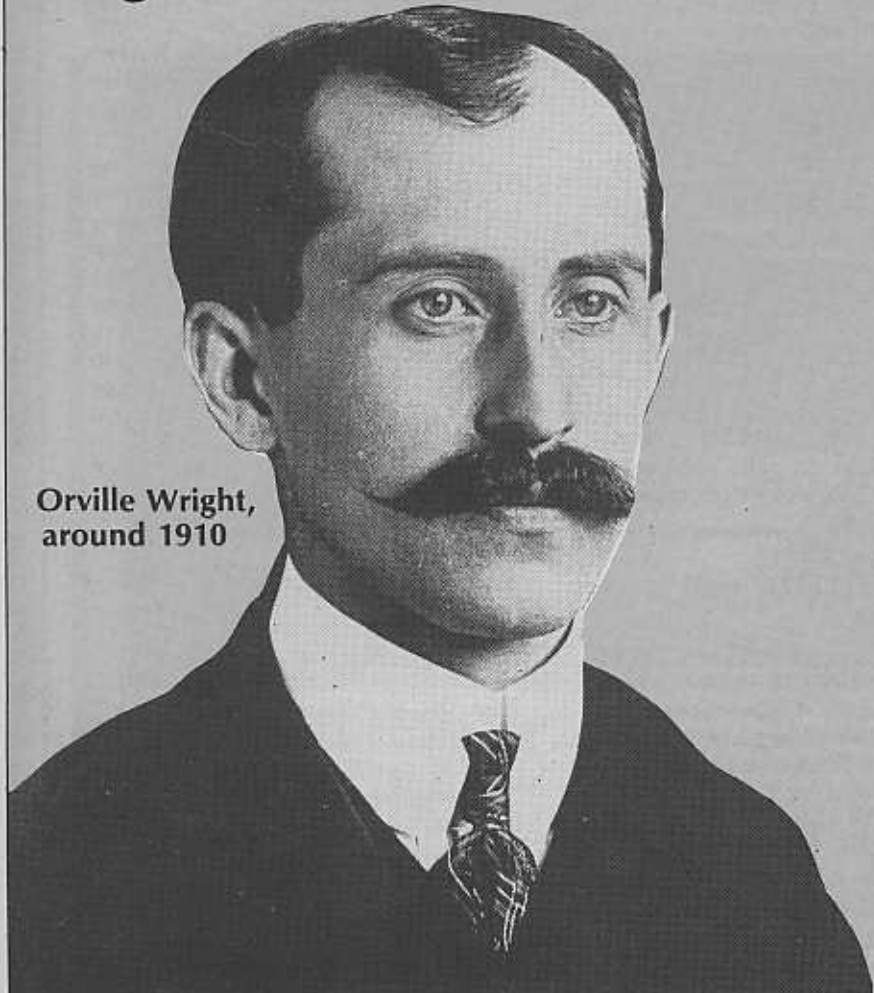
November 1985

THE VALLEY OF THE GIANTS

Orville Wright

It all started when he made a 12-second flight on Dec. 13, 1903 at Kitty Hawk

By Mary Ann Johnson



Orville Wright, around 1910

Orville Wright became the world's first airplane pilot when he made a 12-second 120-foot flight on December 13, 1903 at Kitty Hawk, North Carolina. The flight marked the beginning of aviation, lifting man above the earth's confines and changing his life forever.

Although the first flight was made in North Carolina, the airplane that made the flight was built here in Dayton, by Orville and his brother Wilbur in their bicycle shop at 1127 West Third Street. The shop was moved to Greenfield Village, in Dearborn, Michigan, in 1936.

The world's first airplane was a powered version of the Wright's third glider, tested at Kitty Hawk in 1902. With the 1902 glider, the brothers proved they had solved the problems of lift and control. With the 1903 Flyer I, they solved the final problems of power and propulsion — by designing and building the first airplane engine and the first airplane propellers.

After the December 17, 1903 flights, the Wrights returned to Dayton deter-

See Wright on Page 10

Orville Wright — the

Continued from Page 1

mined to develop their invention into a practical machine. They did this through a series of tests at Huffman Prairie, their flying field east of Dayton, in 1904 and 1905. Huffman Prairie is now part of Wright-Patterson Air Force Base.

By the end of the 1905 season, the brothers had a machine that could turn, bank, circle and do figure eights and was capable of sustained flight. In contrast to the 120-foot flight, the longest flight of the 1905 Flyer III was over 24 miles in just under 40 minutes, flown in circles over the small field. The original Flyer III, restored under Orville's direction, is on display at Carillon Park.

The first public acclaim of the Wrights' achievements came during a 1908-1909 trip to Europe, where their flying demonstrations made them international celebrities. Upon their return to Dayton the city staged a two-day celebration in their honor. Among the events was a program at the Fairgrounds during which Wilbur and Orville were presented gold medals from the City of Dayton, the State of Ohio and the United States Congress. The medals are now owned by Wright State University.

The first United States sale of a Wright airplane was the purchase of a Model A by the Army in 1909 — the world's first sale of a military airplane. During the first set of tests prior to acceptance, in September 1908, one of the plane's propellers broke, sending it crashing to the ground. Orville, the pilot, sustained injuries that plagued him for the rest of his life. The passenger, Lt. Thomas E. Selfridge, was killed — the world's first airplane fatality. A replica of the first Army airplane is on display at the United States Air Force Museum.

At the end of 1909, Wilbur and Orville Wright formed The Wright Company to manufacture their invention. The company proved profitable, earn-



ing over \$1 million in 1910-1911. Much of this came from fees collected by the Wright exhibition flying team, whose performances at shows and competitions helped popularize the Wright airplanes. The Wrights received \$100,000 cash, 40 percent of the stock and a ten percent royalty on every plane sold for assigning the company their American patent rights. The two original Wright Company factory buildings are now Buildings 1 and 2 at the GM Inland plant on West Third Street.

By now men of substance as well as international celebrities, Wilbur and Orville decided they needed a new home worthy of their new status. In

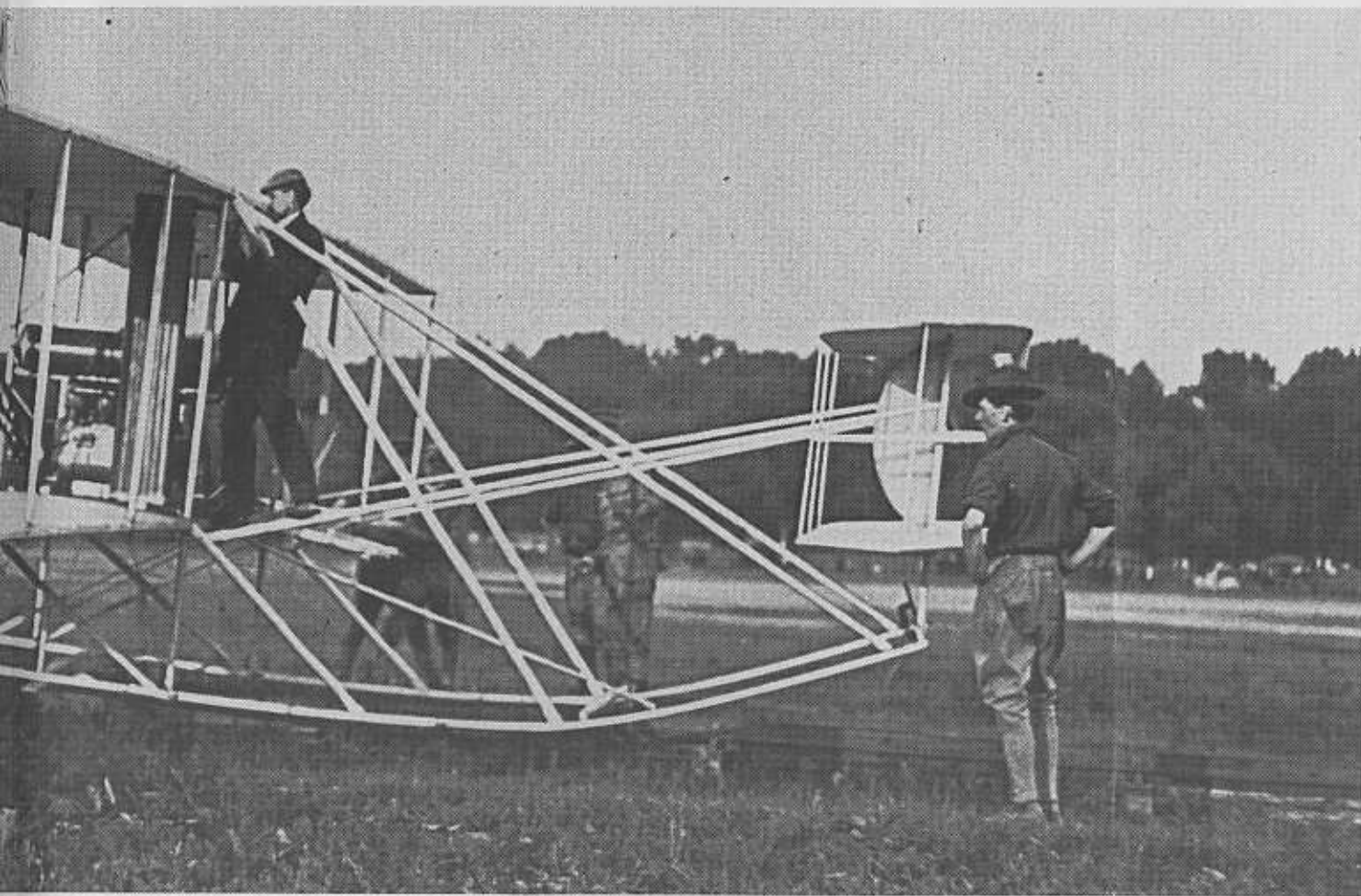
Test of the Wright hydrofoil

1910, the brothers purchased a 17-acre lot on a wooded hillside in Oakwood, which they viewed as a suitable location for the southern-style mansion they planned to build. Completed in 1914, the mansion was named Hawthorn Hill, Hawthorn Hill, at 901 Harman Avenue, is now owned by NCR Corporation, which uses it as a company guest house.

Wilbur, however, never occupied the new home. Less than nine years after inventing the airplane, he contacted typhoid fever while on a trip to Boston and never recovered. Wilbur died at the family home at 7 Hawthorn Street on May 30, 1912 at the age of 45. The Hawthorn Street home was

OF THE GIANTS

the world's first airplane pilot



Wright brothers working on the airplane wing structure near the Main Street bridge, March 1907

moved to Greenfield Village in Dearborn, Michigan in 1937.

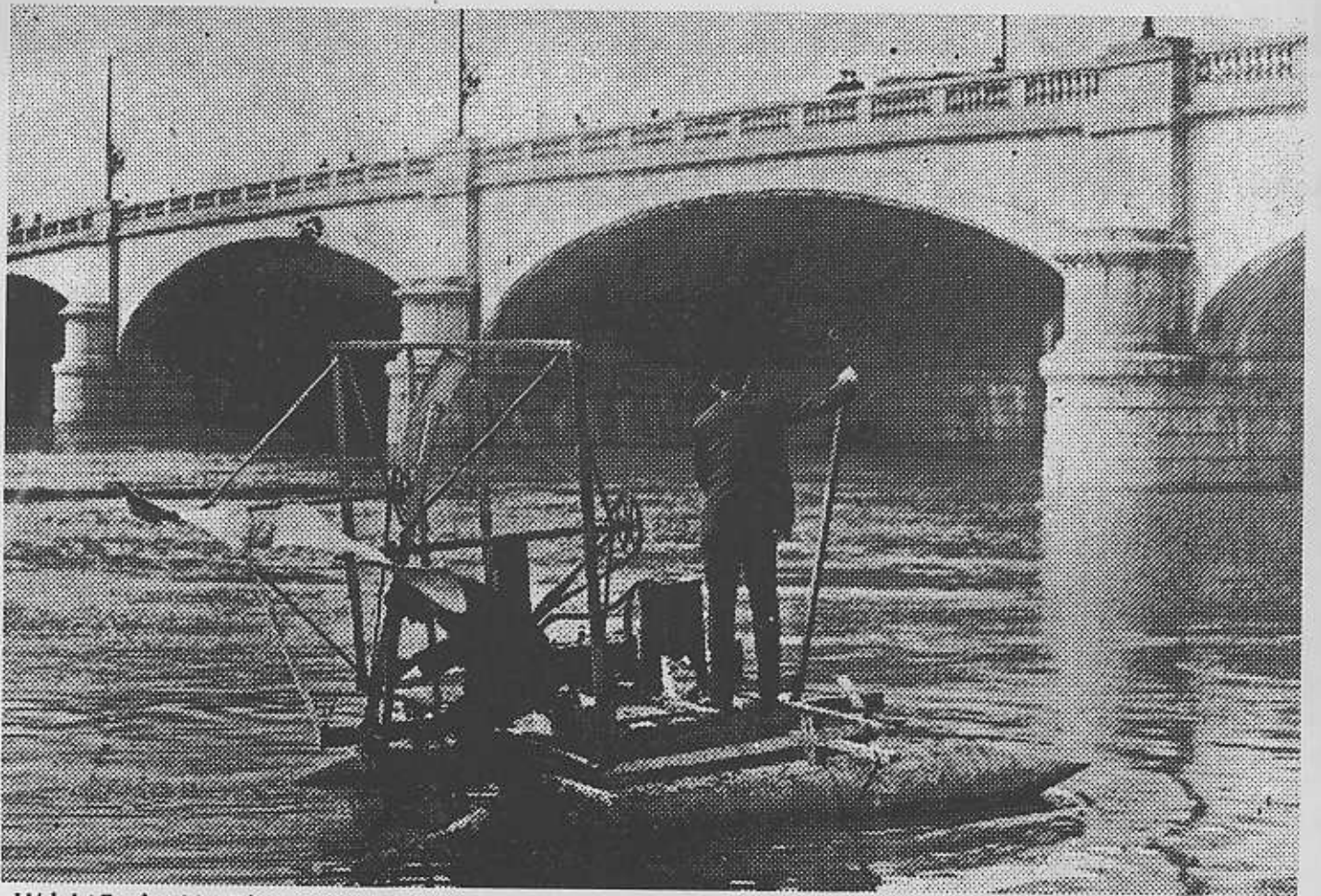
Interested more in research than in managing a company, Orville sold The Wright Company in 1915. The next year the company merged with the Glen L. Martin Company to form the Wright-Martin Aircraft Company.

In 1917 Orville joined Engineers Club founders Charles F. Kettering and Edward A. Deeds in organizing The Dayton Wright Airplane Company. Orville was a member of the board and consulting engineer. Dayton Wright aircraft included the DeHaviland-4, the only all American



Wright brothers bicycle shop at 1127 West Third Street, around 1909

See Wright on Page 12



Wright Engine No. 3 is tested on Great Miami River near the Main Street Bridge

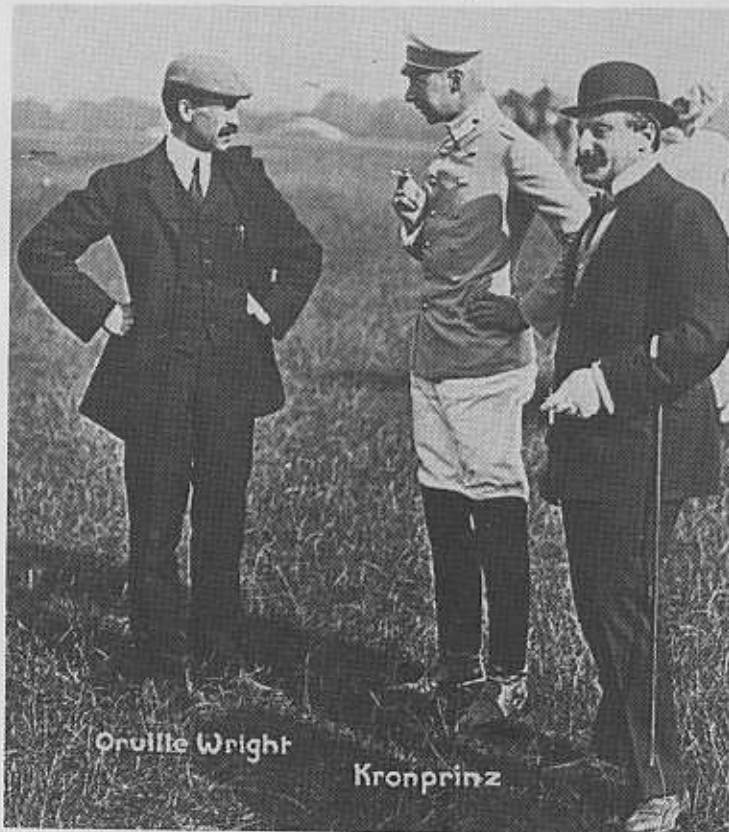
Wright

Continued from Page 11

produced airplane to see action in World War I. In 1919 the company was acquired by General Motors Corporation. The original Dayton Wright factory is now part of the GM Moraine Engine Plant.

Orville spent much of his time in his later years at his laboratory at 15 North Broadway Street, around the corner from the bicycle shop in which he and his brother built the first airplane. There he perfected the split-wing flap, which helped prevent airplane stalls and made dive-bombing possible. The split-wing flap was pronounced "of no value" by the Navy in 1922; ten years later the Navy became one of the first to use it.

The split-wing flap was one of two significant inventions developed by Orville after the death of Wilbur. The second was his automatic stabilizer, which he demonstrated at Huffman Prairie on December 31, 1913. His performance, during which he made seven successive turns without



Orville Wright

Kronprinz

Post card with Orville and Crown Prince of Germany, 1909

See Wright on Page 13

Wright

Continued from Page 12

touching the controls with his hands, earned him the Collier trophy for 1913.

Orville occupied his laboratory from 1916 until his death in 1948. The laboratory was torn down in 1976 to make way for a gas station that was never built. The site remains an empty lot.

Orville Wright was born on August 19, 1871, at the family home on Hawthorn Street. He died on January 30, 1948 at the age of 76, three days after suffering a heart attack at his laboratory. Orville is buried in Woodland Cemetery, along with his brother, Wilbur; his sister, Katharine Wright Haskell, and his parents, Milton and Susan.

Orville lived to witness the tremendous impact of his invention. In warfare, he saw the role of the airplane change from a courier and observation craft, the use he had first envisioned, to its decisive role in bringing an end to World War II with the dropping of atom bombs on Hiroshima and Nagasaki, Japan. And he saw its civil use expand from a toy for rich men to a device that changed the entire social and commercial fabric of the world.

A member of the Engineers Club for 34 years, Orville was an active participant in the Club's activities. He became a founding member on May 1, 1914, served as the first second vice president, and as the fourth president (1924-1925), and was presented an honorary life membership at the Club's 12th anniversary dinner in



Wright family home at 7 Hawthorne Street, 1900

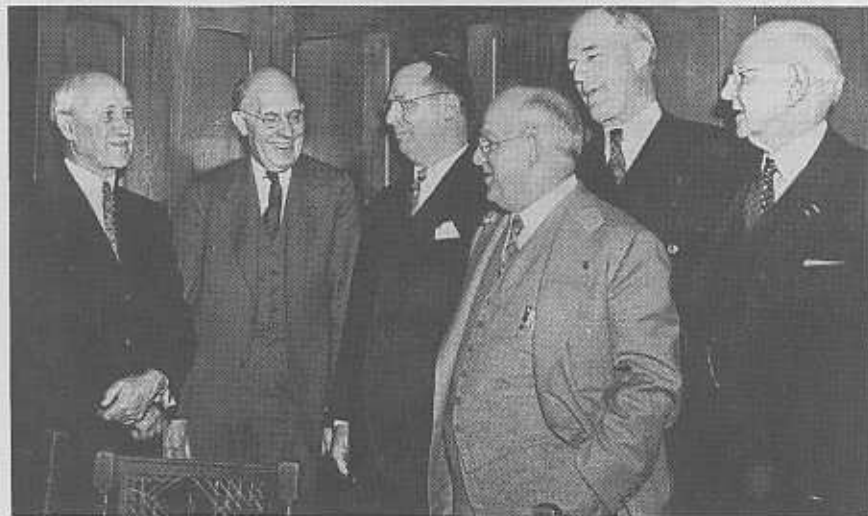
1926. As second vice president, Orville officially accepted the present clubhouse from the building committee at the dedication of the new building on February 2, 1918.

Wright memorabilia, including the original Wright Engine Number 3, are on display on the second floor. The historically-important Engine Number 3, an experimental model willed to the Club by Orville, was used in stationary tests from 1904 to 1906. It was last us-

ed to power a hydrofoil the Wright brothers tested on the Great Miami River near the Main Street bridge in 1907.

Orville Wright, Dayton's most famous native son, is truly a giant in the "Valley of the Giants."

Mary Ann Johnson is the author of the soon-to-be published book **A Field Guide to Flight: On the Aviation Trail in Dayton, Ohio**. The book covers 45 local aviation-related sites, including The Engineers Club.



Left to right: Orville Wright; Charles F. Kettering; W.J. Blanchard, president; Carl Steele, Columbus, Ohio; W. A. Chryst and Julius Stone at Engineer's Club, October 6, 1942.