



Wings Over Iowa From the Pilot's Seat

By William M. Johnson
Color photography by Chuck Greiner

The fellow to our right, the cartoon implies, was suffering from "Aviation Neck." By 1910, seven years after Kitty Hawk, Iowans were craning their necks skyward to watch "aeroplanes" circling overhead. The novelty was such that an enterprising photographer capitalized on it by neatly inserting an airplane into the Albion skyline—and utility wires—to create the "joke postcard" above.

But for the builders and pilots of early aircraft, flying—while maybe a lark for some—was no joke. Consider the determination of Ruth Law gripping the controls of her biplane (far right). It must have taken



BOTH PHOTOS: SHSI (IOWA CITY)



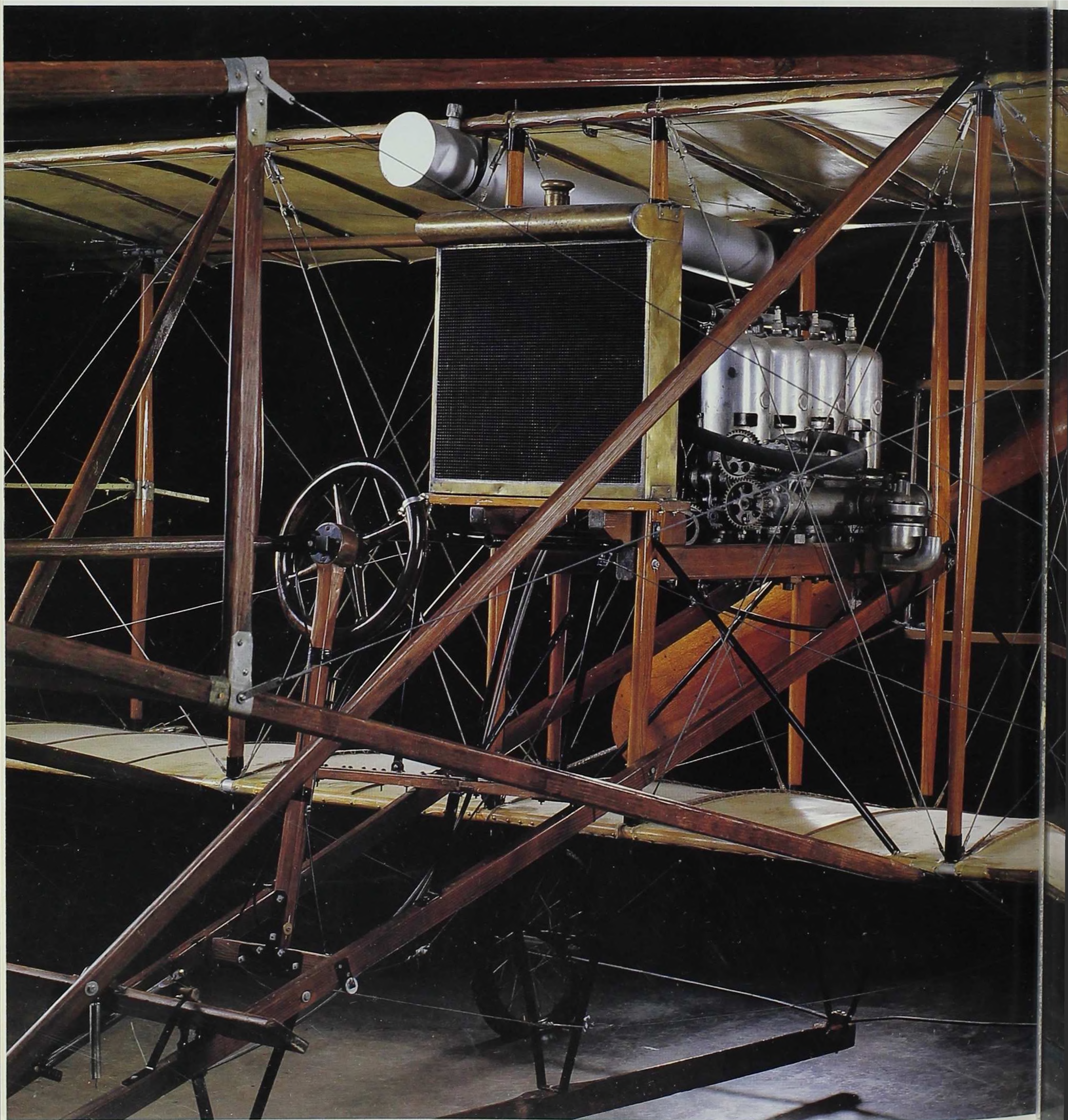
Pilot Ruth Law flew at Iowa exhibitions in Burlington, Malvern, Des Moines, and Keokuk—stunning spectators as she looped, twisted, and flew upside down. The first woman to fly at night, she attached torches and fireworks to her plane.

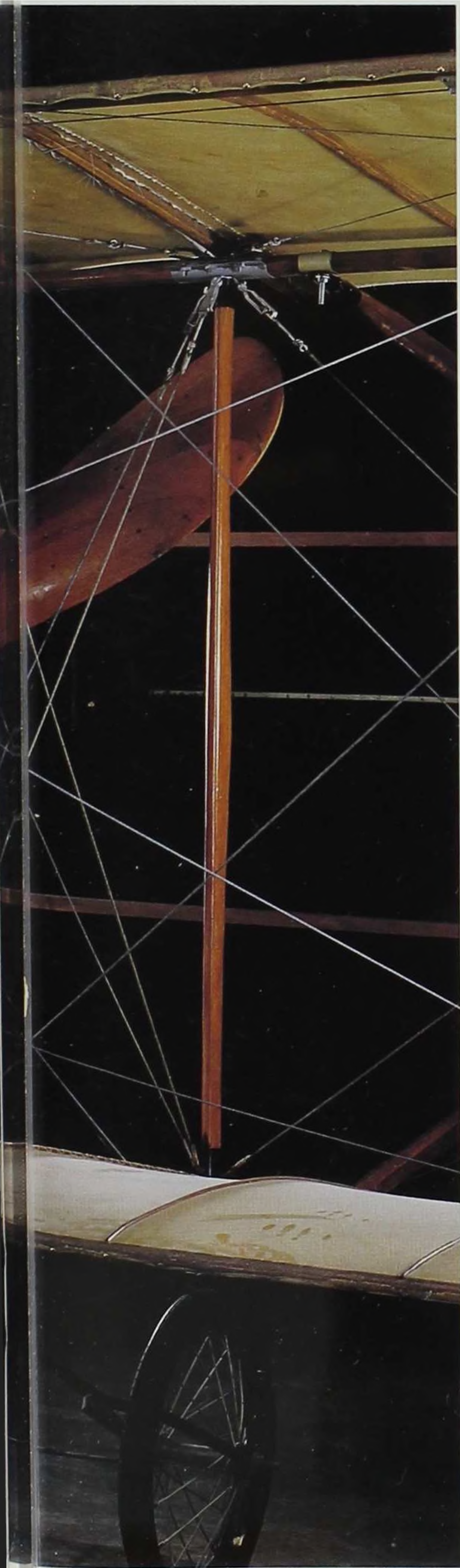
considerable courage for these early pilots to climb into fragile planes and head upward. In return for their belief that airplanes were essentially a sound idea, their reward was the sheer thrill of flight.

Vicariously, this was the same reward for the thousands of spectators at fairs and celebrations who watched exhibition pilots spiral and dive and dip—and sometimes crash—over open fields.

Today we can relive some of the excitement of seeing planes fly over Iowa more than 80 years ago. Suspended inside the atrium of the State Historical Building in Des Moines are three examples of early aircraft from the Society's museum collection. The exhibit, "Wings Over Iowa," opens March 30.

On the following pages, you'll get a chance to see the planes up close. Chuck Greiner photographed them for *Iowa Heritage Illustrated* before they were suspended. The photos will give you an idea of early flight from the pilot's point of view.

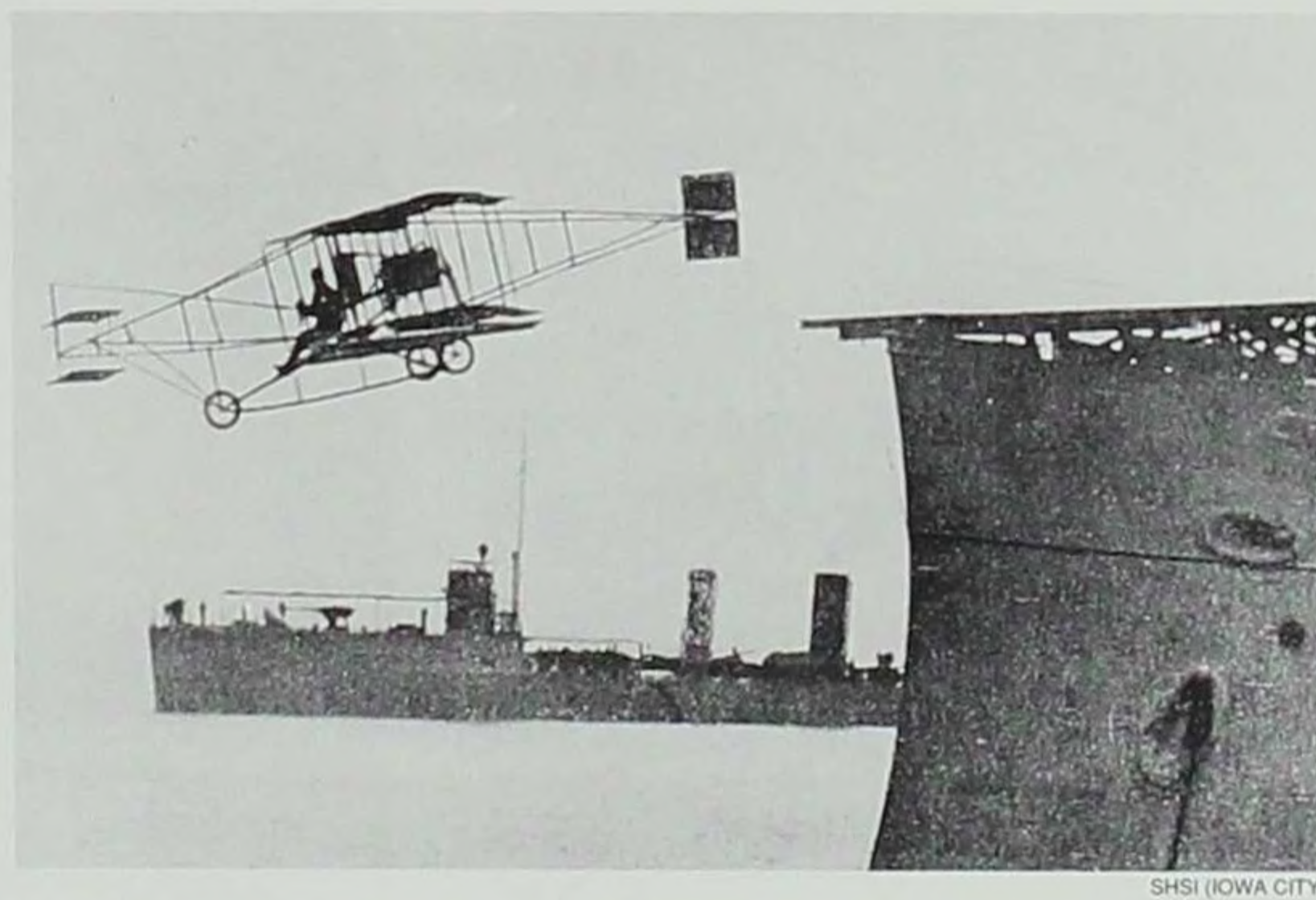




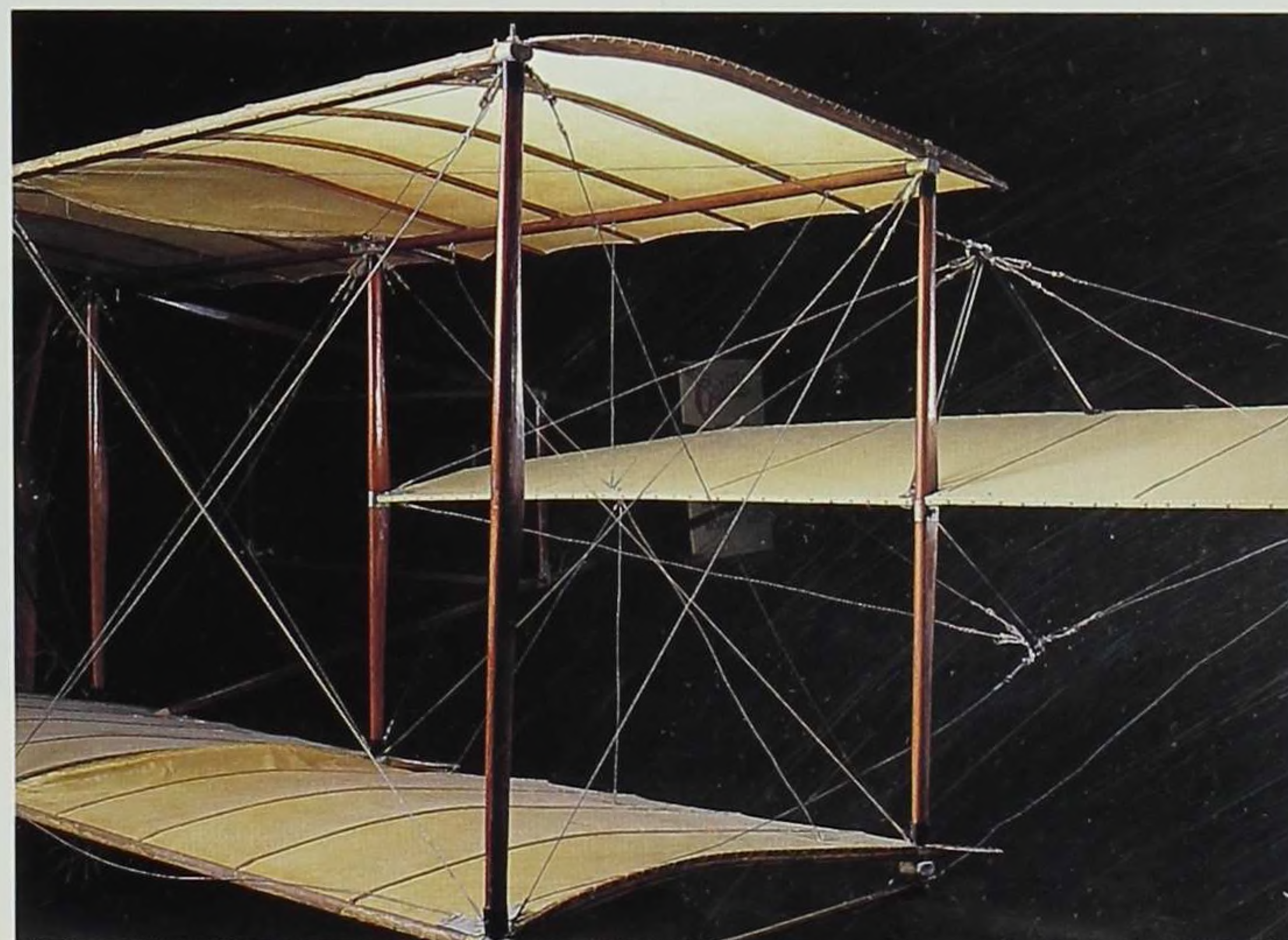
Working from plans in an aviation magazine, Ben and Arthur Klein built this Curtiss pusher (left) in their parents' barn near Treynor, Iowa, in 1911. They shaped the wood, formed steel brackets, strung wires, stretched fabric over the wings, and installed a \$500 engine. With Ben as ground crew, Arthur often flew the plane over the family farm.

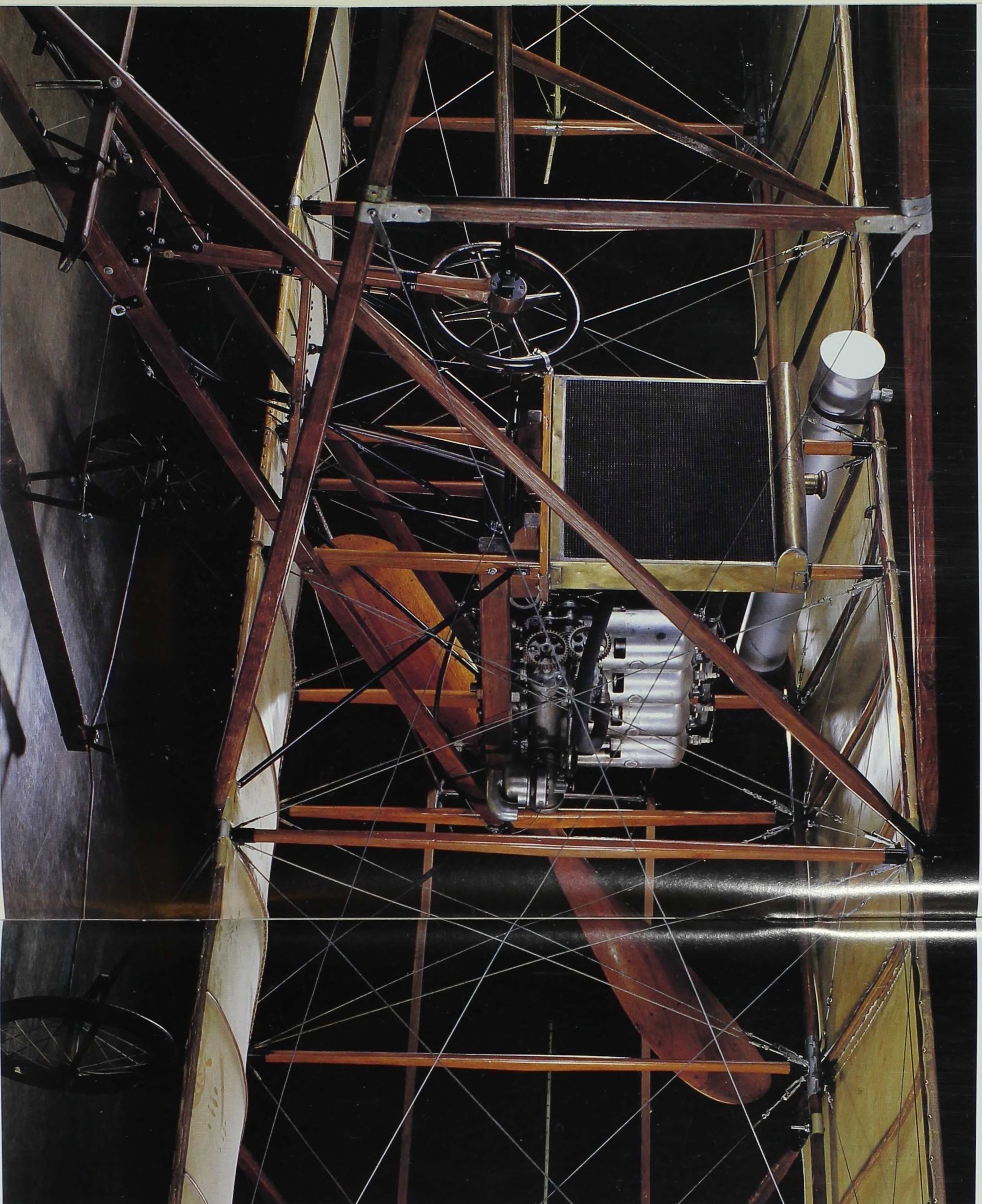
Developed by Glenn Curtiss, Curtiss pushers use a propeller in the back (behind the four vertical cylinders) to push the plane forward. The pilot leans in the seat to turn the plane, and turns the wheel to operate the back rudder (see bottom photo). The foot pedals are the throttles, connected to the gravity-fed fuel tank (the horizontal cylinder under the top wing). The tension of the wires holds the parts together and gives strength and stability. Easy to maneuver, Curtiss pushers were popular with early pilots.

Flying a Curtiss pusher, Iowan Eugene Ely set world records with the first ship-to-shore and shore-to-ship flights.



Left: Ely's Curtiss pusher takes off from the *USS Birmingham* in 1910. He died in 1911 at a Georgia exhibition. **Below:** Wings of linen or muslin were coated to shrink and tighten them.

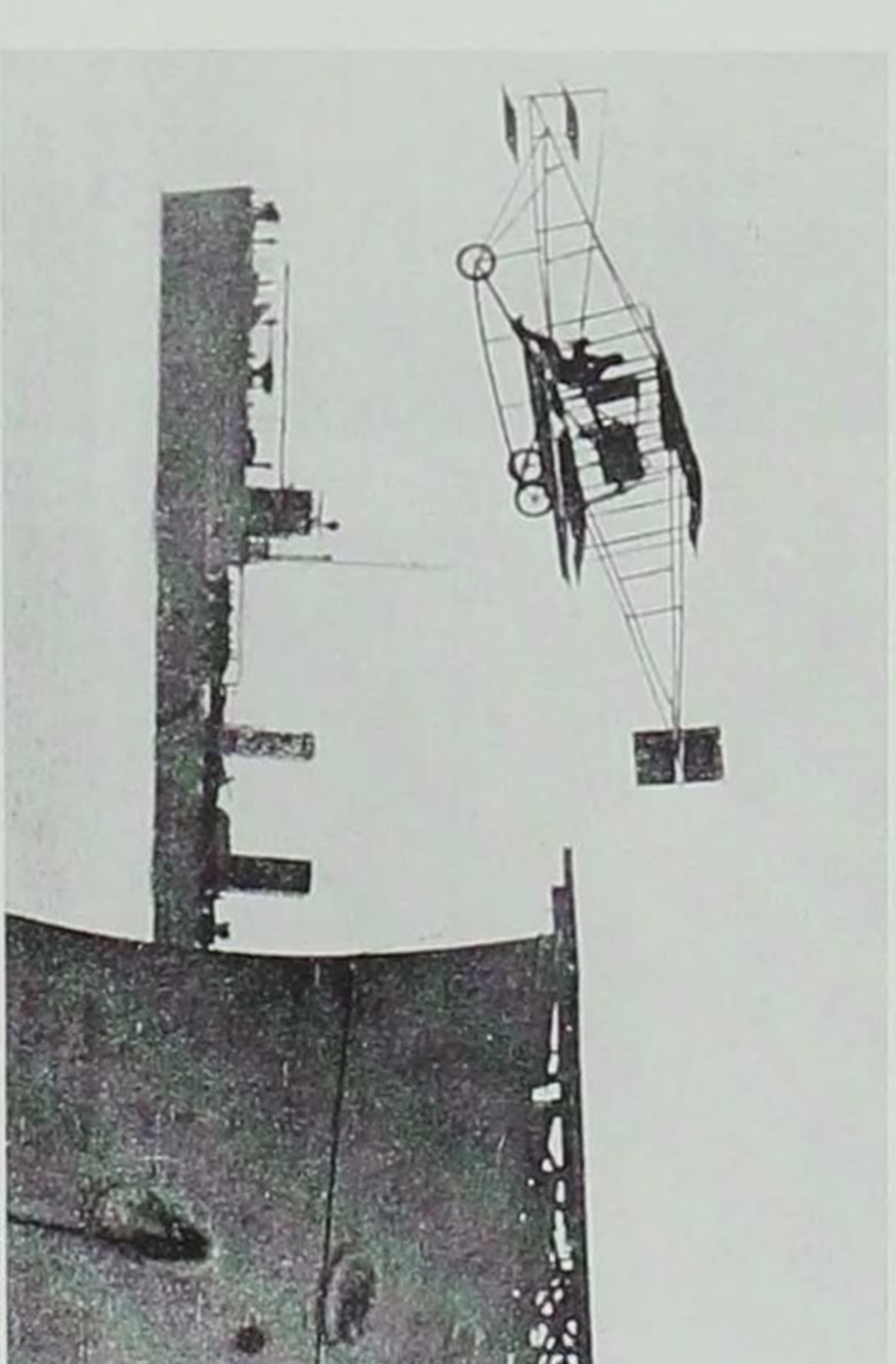




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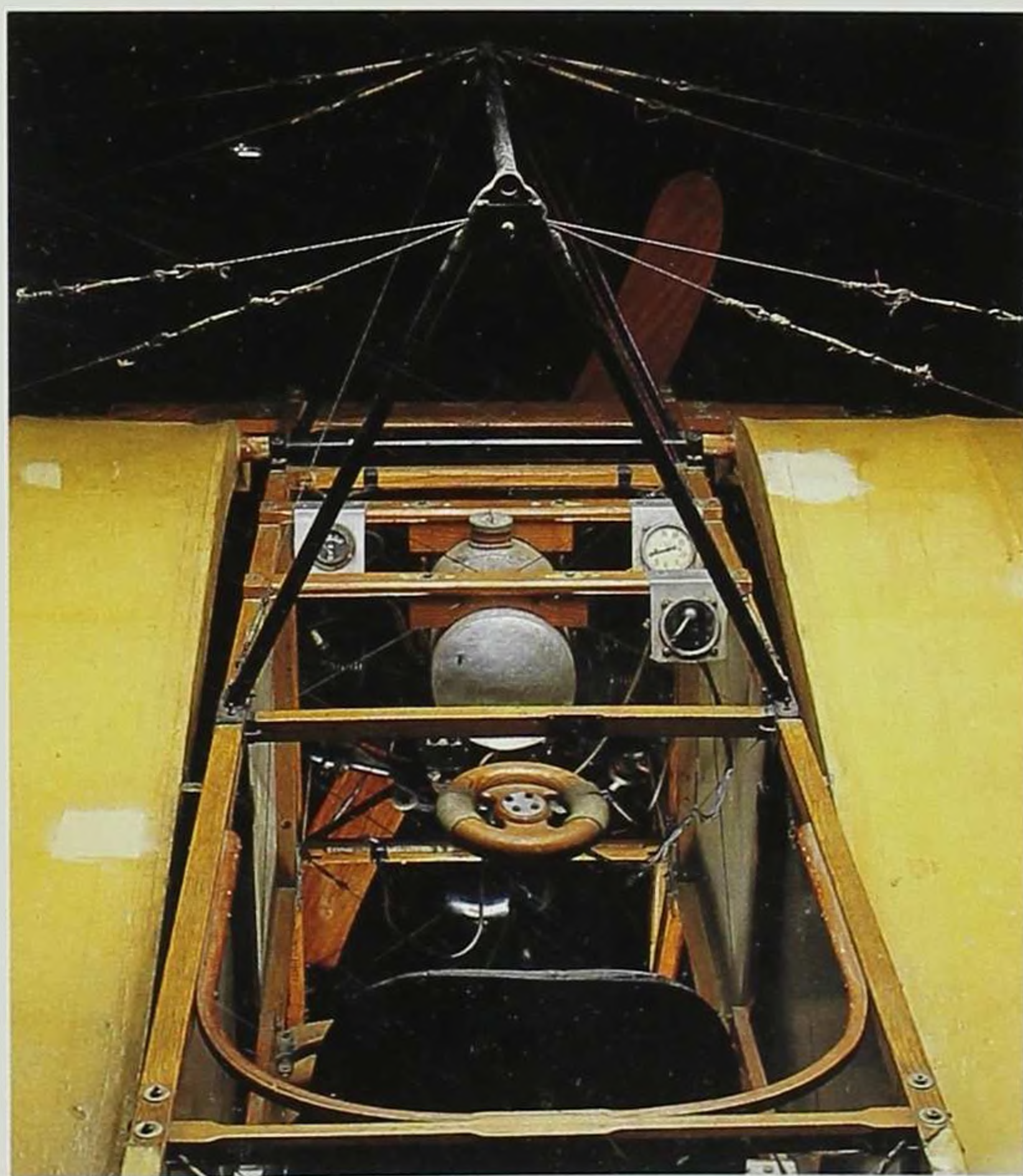


The Bleriot XI was the first successful monoplane when biplanes were still the favored technology. Frenchman Louis Bleriot flew a Bleriot XI across the English Channel in 1909, and other Bleriot XIs established world records for speed (81 mph) and altitude (above 3½ miles) from 1909 to 1911.

The Bleriot XI shown here circled the skies above Atlantic, Sioux City, Des Moines, Ottumwa, and Davenport in exhibitions by the Moisant International Aviators in May and June 1911. Over Sioux City's Woodland Park, Moisant aviator René Simon swooped down to 20 feet from the ground, then did a daring figure eight at 500 feet.

In Des Moines, Moisant pilot John Frisbie reached 5,000 feet in his monoplane and then pointed it downward for his "Dip of Death," pulling the plane up only at the last moment. A Des Moines reporter lauded them with the headline, "Daring Bird Men Flirt with Death High Above the Hyperion Club."

From 1911 to 1913, flying exhibitions were fairly common attractions at local fairs and celebrations. In order to fulfill their contracts with local sponsors, exhibition fliers often risked their lives and their planes to fly as scheduled, despite unpredictable winds, cross currents near the ground, and inadequate landing fields. Nevertheless, exhibition flying entertained the public and built their interest in aviation.



Left: Looking down into the pilot's seat of the Bleriot XI. **Right:** With no windshield, nothing broke the air flow on the Bleriot XI—except the pilot. **Far right:** To even out the stress on the plane, the pilot or mechanic tightened various metal turnbuckles on the wires; some are visible here on the tail.



SHSI (DES MOINES)

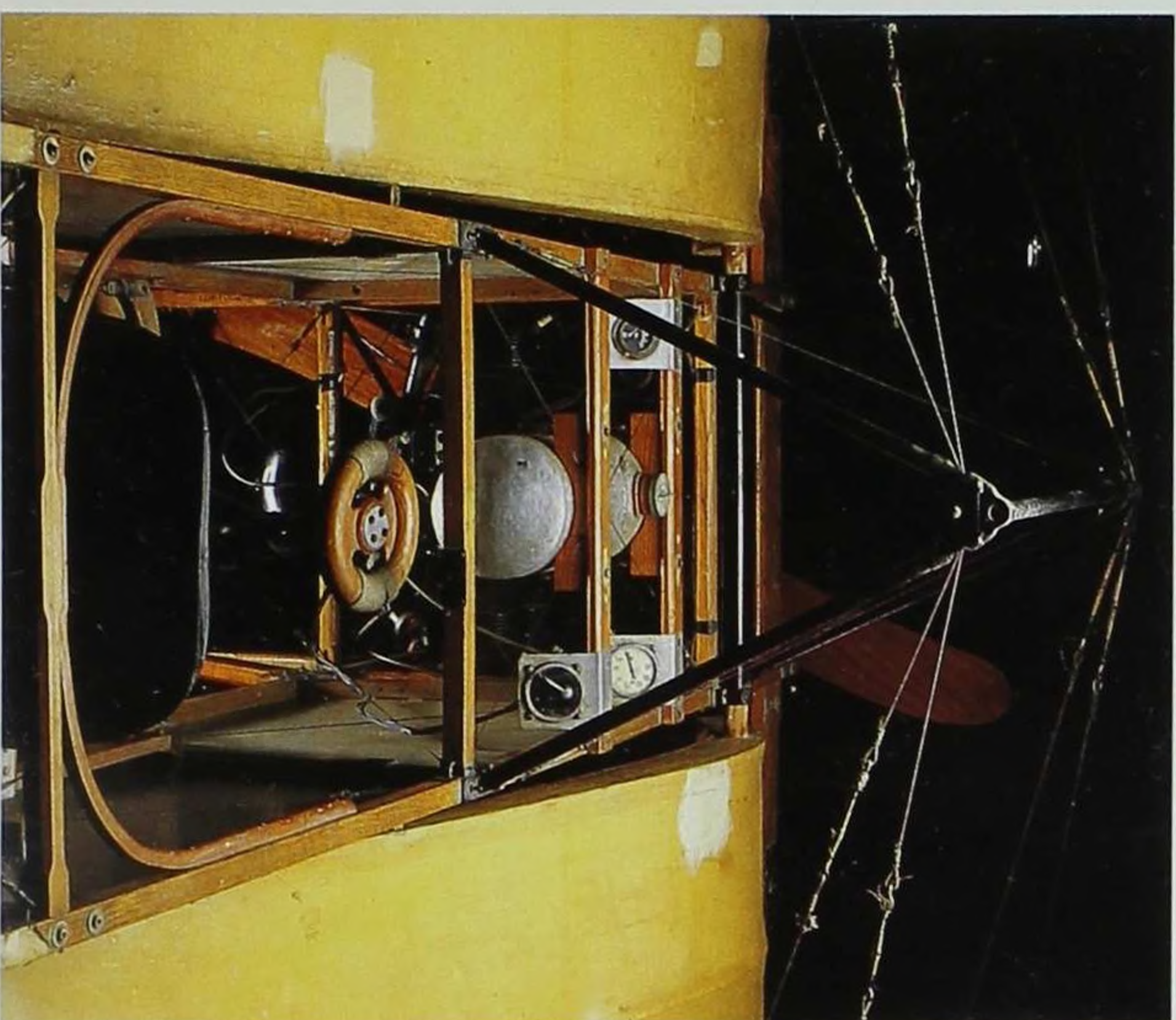


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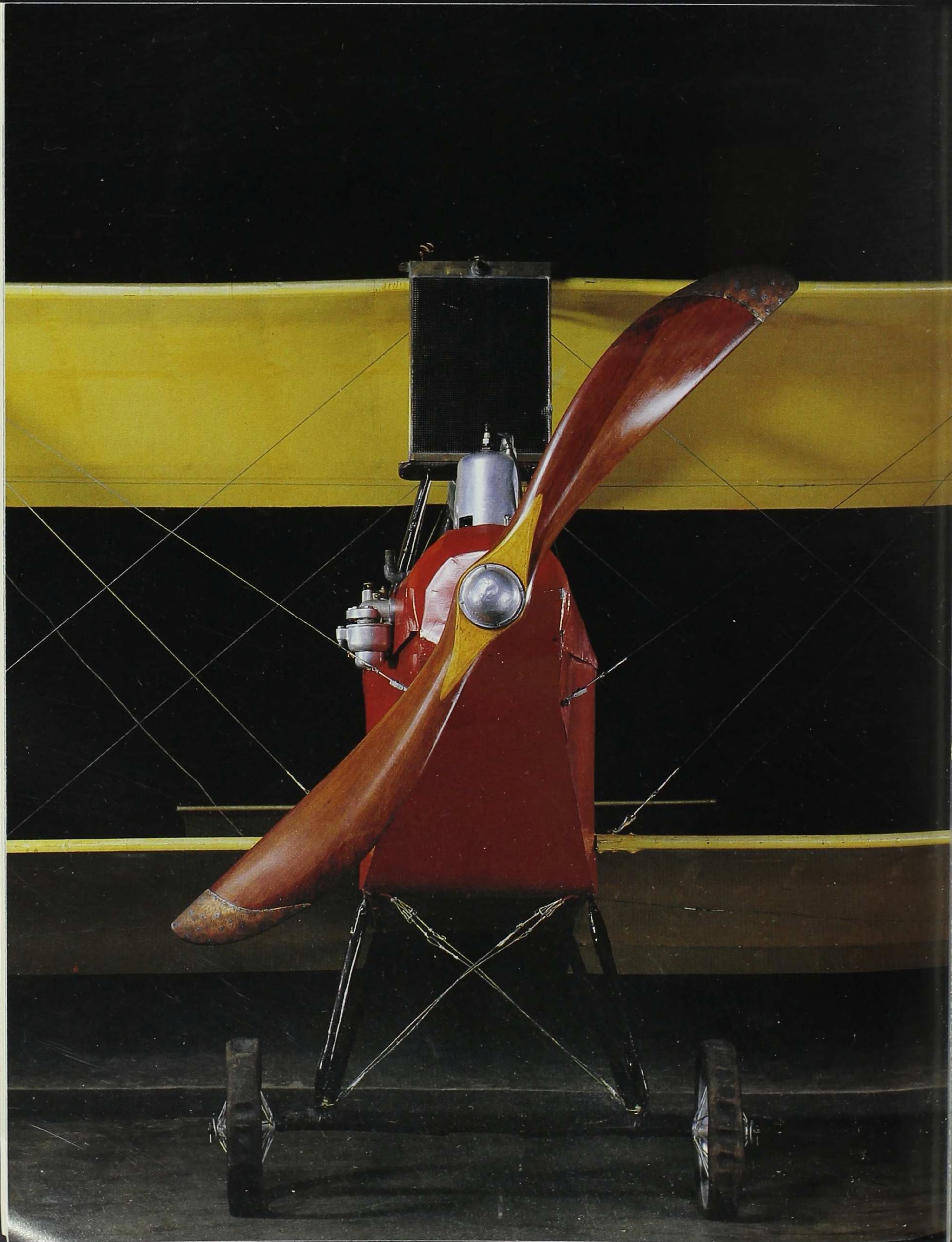


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This biplane reflects the ingenuity of early aircraft builders and pilots. Using a Benoist tractor (or front propeller) biplane and an engine from an earlier Curtiss pusher, Iowans Oscar and Mary Solbrig built this biplane about 1917, modifying it for easy transport and exhibition flying.

Mary arranged the booking and contracts for exhibitions; local promoters paid them \$100 to \$500 and provided camping facilities and the promise of a clean field. At each site, the Solbrigs reassembled the sections. As mechanic, Mary checked the sound of the engine and the smoothness of the field. Oscar was the pilot. More than once some mishap like an unexpected gust of wind would catch the craft, and the plane would fall 50 to 100 feet.

"I do not know of any work that has more ups and downs than building aeroplanes and learning to navigate them," Oscar Solbrig said in 1914. "There is always danger attached to air flying. This danger is to some extent being overcome and I believe aeroplanes will within a few years be generally used as a means of transportation."

When World War I started, aviation shifted from exhibition flying to military purposes, building on

the lessons in aerodynamics learned in the thousands of exhibitions staged by daredevil pilots. Oscar Solbrig was only one of many Iowans with the nerve and the know-how to take to the air in aviation's experimental days. The three planes now hanging in the State Historical Building are tributes to their confidence and vision. ❖

William M. Johnson is a curator at the State Historical Society of Iowa. Chuck Greiner is a photographer in Huxley, Iowa. For more on early Iowa aviation, consult Ann Holtgren Pellegrino's Iowa Takes to the Air (Story City, IA: Aerodrome Press, 1980).

See these three amazing planes for yourself in the new "Wings Over Iowa" exhibit in the State Historical Building, 600 E. Locust, Des Moines. Starting March 30, the planes will command the air space above the first floor lobby. An accompanying display tells the story behind the planes. The building is open Tuesday-Saturday, 9 a.m.-4:30 p.m. and Sunday, noon-4:30 p.m.



SHSI (IOWA CITY)

Trained as a machinist, Oscar Solbrig (above) attended Curtiss flight schools, and soon he and his wife, Mary, were building their own plane in Davenport.



Simple cotter keys and door hinges hold the wings, tail, and other sections together; this made it easy for the Solbrigs to ship the plane and quickly reassemble it.