

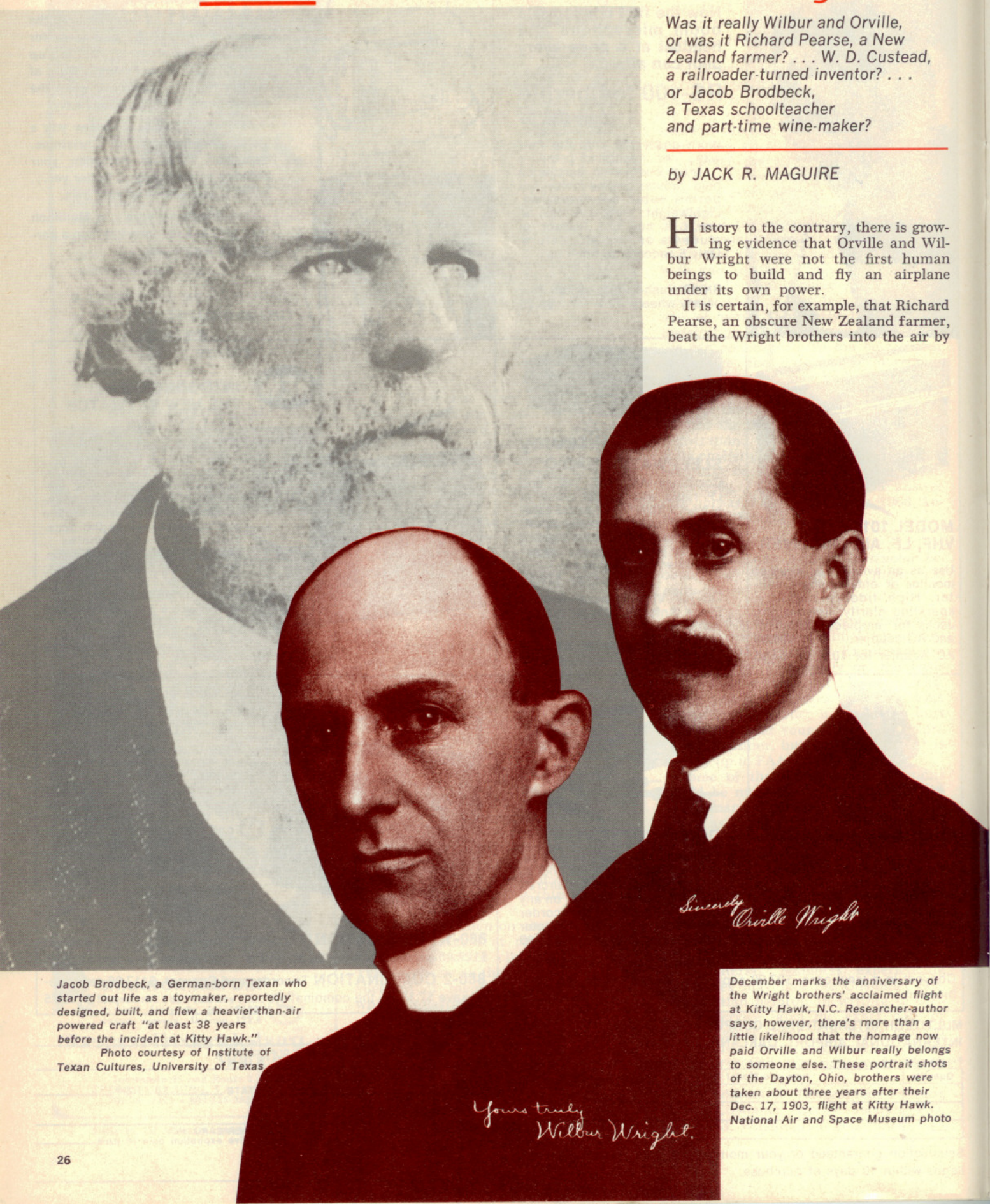
History's Unanswered Question: Who Was The First Man To Fly?

Was it really Wilbur and Orville, or was it Richard Pearse, a New Zealand farmer? . . . W. D. Custead, a railroader-turned inventor? . . . or Jacob Brodbeck, a Texas schoolteacher and part-time wine-maker?

by JACK R. MAGUIRE

History to the contrary, there is growing evidence that Orville and Wilbur Wright were not the first human beings to build and fly an airplane under its own power.

It is certain, for example, that Richard Pearse, an obscure New Zealand farmer, beat the Wright brothers into the air by



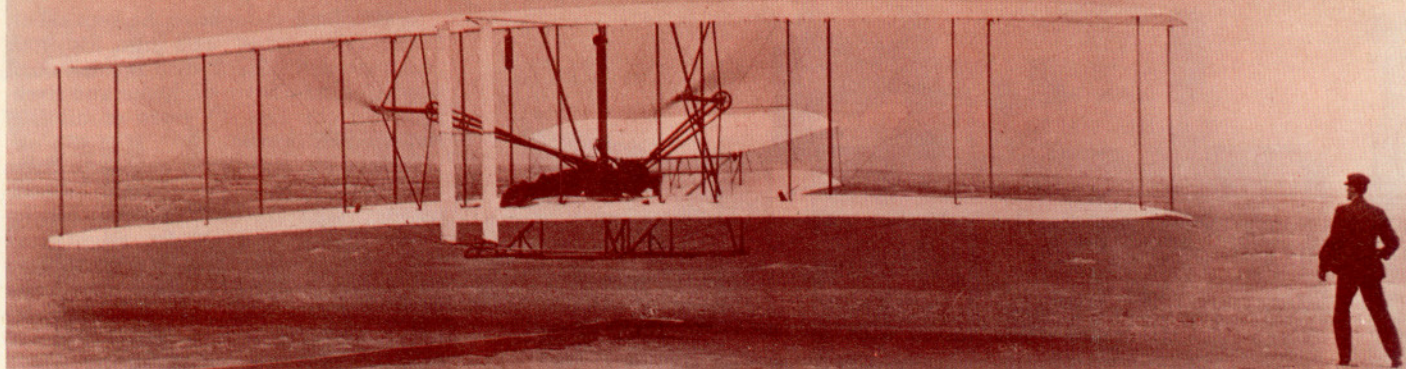
Jacob Brodbeck, a German-born Texan who started out life as a toymaker, reportedly designed, built, and flew a heavier-than-air powered craft "at least 38 years before the incident at Kitty Hawk."

Photo courtesy of Institute of Texan Cultures, University of Texas

*Sincerely
Orville Wright*

December marks the anniversary of the Wright brothers' acclaimed flight at Kitty Hawk, N.C. Researcher-author says, however, there's more than a little likelihood that the homage now paid Orville and Wilbur really belongs to someone else. These portrait shots of the Dayton, Ohio, brothers were taken about three years after their Dec. 17, 1903, flight at Kitty Hawk. National Air and Space Museum photo

*Yours truly
Wilbur Wright.*



No photo was available of the craft supposedly built and flown by Jacob Brodbeck; but those who witnessed the Texan's flight in 1865 are recorded as saying the Wright Flyer, which is shown here on its historic first flight, bore a remarkable resemblance to Brodbeck's craft.

National Air and Space Museum photo

at least a year. In 1902, he was making numerous hops of from 100 to 150 yards in an airplane that he built from junk. On March 31, 1903, he made a controlled flight of two-and-a-half circuits of a small field before 25 witnesses. Both the length of his flight and the estimated altitude (12 feet) compare favorably with the attempts made by the Wright brothers nine months later.

Six years before the Wrights got their airplane off the ground at Kitty Hawk, N.C., on Dec. 17, 1903, a railroad ticket agent in central Texas supposedly flew a powered plane of his own design for a distance of five miles. This exploit of W. D. Custead, the railroader-turned-inventor, is not as well documented as the flights Pearse made later in New Zealand. However, contemporary accounts published in 1897 by Waco, Tex., newspapers say that Mr. Custead successfully made a round-trip flight between the McLennan County villages of Tokio and Elm Mott and he landed safely. The plane was powered with an engine built by Gustave Whitehead of Bridgeport, Conn. On Aug. 18, 1901, Whitehead supposedly flew an improved version of the plane at Bridgeport.

The principal contender for the niche presently occupied by Orville and Wilbur Wright in aviation history, however, is neither Pearse nor Custead. *It's a schoolteacher who was flying at least 38 years before the incident at Kitty Hawk.* He was Jacob Brodbeck, whose consuming passion was the invention of toys and who admittedly regarded the airplane as a super toy for adults.

Brodbeck was a German by birth and a Texan by adoption. Born in 1821 in Wurttemberg, he trained to be a teacher at the seminary in Ezzlingen and was a schoolmaster for six years in his hometown. To Brodbeck, however, teaching held little interest, except as a source of income. His primary fascination was with the sources of power, particularly the energy produced by a coiled spring. He spent much of his spare time trying to build a spring-powered clock for the Kaiser that would run forever without winding.

By the time he was 25, however, his native land had begun to lose some of its attraction for him and he decided to join the German migration to Texas. He settled at Fredericksburg, in the central

Texas hill country, and became the second schoolmaster at the Vereins Kirche, the town's octagonal church that also doubled as a classroom. To increase his income, Brodbeck also taught in other nearby German communities, worked for a year as county surveyor and even played the organ in area churches. But he still spent every spare moment working with his beloved toys.

They really weren't toys by today's standards; rather they were models of the ideas that poured from the schoolmaster's inventive mind. Still intrigued by the coiled spring, he specialized in building model airplanes that actually would fly when the spring was wound properly. And he was convinced that if a toy could be made to fly, he could also build a plane that would carry a man into the air.

"Close observation of the birds assured me that they flew on the same principle as the united working of the kite and parachute," he wrote. So if a heavier-than-air craft could be constructed that conformed to these principles of aerodynamics, it should be able to carry a human being. On that kind of reasoning, he set about to build an airplane and prove his thesis.

Financing the project, though, was a formidable obstacle. Seven years after arriving in Texas, he had married an attractive *fräulein* named Marie Christina Behrens. Several of what was to become a family of 12 children already had arrived and Brodbeck's meager salary as a schoolteacher was barely enough to keep them. To try and improve his financial condition, Brodbeck decided to move to a larger community.

San Antonio, 80 miles from Fredericksburg as the crow flies, was hardly a city in the 1860's, but it was the largest community in Texas and he had been offered a position there as inspector of schools. Although the job paid considerably more than he had earned as a village schoolmaster, the family budget continued to be strained. To increase his income, Brodbeck decided to become a wine-maker on the side.

His native Germany had taught him an appreciation for good wine, and the vineyards around San Antonio produced a quality grape. He fermented his product at his modest home, using 20-gallon barrels for the purpose. Finding buyers

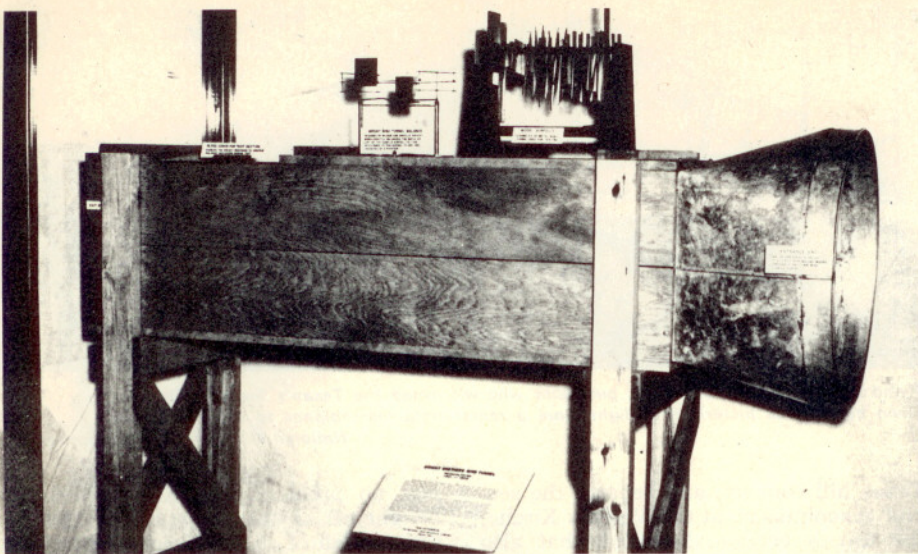
was no problem. San Antonio saloons bought all of the *vin ordinaire* that he could produce and its strength and bargain price kept the customers asking for more. The wine sales also gave him a little of the extra cash that he needed to continue with his plans to build an airplane.

As word of Brodbeck's experiments in aerodynamics spread around in San Antonio, a few speculators hoping to make a quick buck also began to appear. One was Dr. Ferdinand Huff, a wealthy physician who had made his reputation in medicine by being the first to use ether to eliminate the horrors of unanesthetized surgery. Other Germans who had made their money in farming and ranching also decided to join their fellow countryman in his project and willingly bought shares of stock at \$1.25 each. The financing was highly unbusinesslike by today's standards with Brodbeck simply promising to repay the cost of the stock, plus a share in the profits if his plane actually flew and went into production.

Brodbeck, still taken with the energy in a coiled spring, decided that this would be the power source for the aircraft. He really had little choice. Even the smallest steam engine available in 1864 was so heavy that Brodbeck knew his airplane could never lift its weight and that of a "driver." The internal combustion engine was still to be invented. So until some new kind of power came along, the coiled spring had to be the power that would lift the craft into the air.

Brodbeck finished his plane early in 1865. Like the toys which had given him the idea that man could fly, the plane had two partly movable wings, a rudder for steering and a screw propeller. And, of course, it was powered by a coil spring—a huge one that had to be rewound constantly by the pilot while the uncoiling of the other end provided the energy to turn the propeller.

The exact date that Brodbeck decided to try his wings over the gently rolling plains around San Antonio is not known; the inventor never recorded it. But there were a number of witnesses to the flight and one of them wrote a brief account of it. It seems that the



This life-sized model of the Wright brothers' homemade wind tunnel can be seen at the Smithsonian Institution's National Air and Space Museum in Washington, D.C. "Experiments with this wind tunnel revealed errors in air pressure tables then in worldwide use by scientists," states the National Aerospace Education Council. "The Wright brothers," continues the Council, "corrected these tables which led them to discover the secrets of flight. . . ."

Unanswered

(Continued from previous page)

fragile aircraft did manage to take off exactly as Brodbeck had predicted it would and it reached treetop level. But, the spring, that worked so perfectly in a clock and in his toys, didn't perform as expected. The tension went down rapidly, and so did the airplane. Brodbeck wasn't injured, but the plane—the first heavier-than-air vehicle ever to fly with a human being aboard—was a total loss.

Like all good inventors, Brodbeck refused to be discouraged. If a coil spring wouldn't work, a steam engine certainly should and he decided to build one that would. His investors, however, were less enthusiastic. Having watched their investment crumple after less than 60 seconds of powered flight, they refused to put up any more money.

In an effort to find new capital, Brodbeck decided to use a method not unknown to modern business. He ran advertisements in Texas newspapers outlining his plans to build a machine that would conquer the air and asking his fellow Texans to back his idea with their dollars. They didn't, so Brodbeck took to the lecture circuit confident that in face-to-face encounters, he could convince Americans that the sky was the new frontier.

"To take advantage of my aeroplane one must have a steam engine that weighs no more than 40,000 to 45,000 pounds," he told his listeners across the country. "With the increased weight of 40,000 pounds, a steam engine of 80 hp should be made out of cast iron which will produce an aeroplane that should give an acceleration of 100 mph in a quiet atmosphere."

Brodbeck, ever the scientist, then went into many pages of formula-supported theory, most of which his lis-

teners could not comprehend. He gave them a capsule course in aerodynamics, as he understood them, then lectured on the salutary effects that transport through the air could have on the economic future of the nation.

His final plea was short, dramatic, and called for immediate action: "Should not every man, because of the importance of the object, give everything in his power to help me complete my experiment? Capitalist[s] and business[men] should be interested enough to offer their aid of its completion."

Neither capitalists nor businessmen responded to his appeal in any great numbers, however, and Brodbeck became increasingly discouraged. Then one night after a lecture in a Michigan town, somebody stole the drawings of his proposed aeroplane and most of his research notes. He had not taken the precaution to make copies of either, and so much of his lifework was lost in one night to a sneak thief.

Virtually bankrupt and embittered at his inability to interest investors in his dream, Brodbeck gave up his quest for wings and returned to Texas. Even the San Antonio school job was no longer open; so he retired to a farm near another German village, Luckenbach. This was only a few miles from Fredericksburg, where it all had started, and he wanted to live out his remaining days in the Texas hill country that he had come to love.

The plans and notes stolen from Jacob Brodbeck more than a century ago have never been found. But when Orville and Wilbur Wright put their motor-powered plane aloft for 59 seconds at Kitty Hawk nearly four decades later, some of those who had watched Brodbeck's flight in 1865 were amazed at the resemblance in the design of his airplane and theirs. Was it possible that Brodbeck's plans and notes had, somehow, been the basis for the design the Wright brothers used?

If Brodbeck thought so, he kept silent. Seven years later, well into his 90th year, Jacob Brodbeck died on the small farm that had been his home and livelihood for the last 40 years of his life. He is buried nearby.

Except for one thing, there are those who believe that the German schoolmaster, who certainly proved conclusively that man could fly, might have been the aviation pioneer remembered by history today. He made one error that probably was the difference between his success and failure. He had believed that the coiled spring which powered his aeroplane could be rewound by the pilot as it unwound. It couldn't.

But was Jacob Brodbeck the first human being to build and fly a heavier-than-air craft? Did he actually do it in a Texas field 38 years before the Wright brothers? Or does the honor belong to Richard Pearse, the New Zealand farmer? Or could it have been the railroad ticket agent, W. D. Custead, whose purported five-mile flight certainly was the longest of the recorded attempts at powered air travel?

It is a question still to be answered by history. There are no records yet found that authenticate beyond doubt the flights of Brodbeck and Custead, although there are eyewitness accounts that seem to remove any doubts that Brodbeck built a plane that flew. In the case of Pearse, however, there is a possibility that he may finally emerge as the world's first aviator.

Parts of his first airplane, and the authentic records that it actually flew in 1902 and 1903, are on display in the Museum of Transport and Technology in Auckland, New Zealand. His second airplane, with all parts complete, also is on display, although it never flew. A book by Gilbert Ogilvie, a New Zealand historian, is scheduled to be published soon with detailed and precise information on Pearse's flights.

Meanwhile, history's unanswered question must persist: Who was the first man to fly? □

THE AUTHOR

Jack R. Maguire's journalistic career includes stints as an Associated Press staffer, newspaper and magazine editor, and author of more than 400 published articles. He writes a syndicated weekly column for a string of Texas newspapers, a monthly column for Texas Parade magazine, and a weekly radio show, called "Yesterday In Texas," that is aired on some 35 stations. The author conducted his research on Jacob Brodbeck over a long period of time. Brodbeck's base of operations, Fredericksburg, Tex., is only 60 miles from Austin, Tex., where Maguire lives. Brodbeck, Maguire says, is "a sort of folk hero" in the area.