

# The Joy Stick

By ED BERGMAN

Curtiss Field, on Long Island, was a buzzing beehive of activity in the months following Lindbergh's phenomenal flight. New airplane designs were making their debut almost daily, and the aeronautical publications were issues behind in their descriptions. "We Fly The Such-and-Such" reports were still a thing of the future. Though Sikorsky had designed an efficient wing that converted the ultra-slow Jenny into a fairly serviceable monoplane, there were few takers. Fitted cowlings and cleanly faired fuselages gave the later OX-5-powered biplanes a "new look," and streamlined wires and single sets of interplane struts, plus split-axle landing gears, made all of the World War One types look like antiquated flying birdcages.

Pressed for space by the flying boom thrust so unexpectedly upon them, Curtiss Field shops cleaned house of their accumulations of junk by depositing old component parts and odd bits of outdated hardware on a growing junk heap that was constantly being raided by souvenir-hunting youngsters. It is amazing to recall some of the stuff that these kids were able to carry off. One pair of brothers (not named Wright) managed to carry away two ailerons, four struts, and an unlaminated Liberty "club," by tying them all together and toting them tandem style between their two bikes, very much like the TV carpet commercial.

Hank Zarling was one of these many aviation-struck kids, but his foraging was for a more definite purpose than just to hang a splintered prop on the wall. At the age of fifteen, he had begun construction of a miniature monoplane which he firmly believed he could fly by bolting a Harley Davidson two-banger in the nose. When his project reached the final assembly stage, Hank's father became a little concerned. Word had gotten back to him about a cliff take-off that Hank had in his flight test program! So, he persuaded a Curtiss Field pilot to come and inspect his son's backyard creation. On expert advice, the miniscule monoplane was scrapped but the aeronautical flotsam and jetsam continued to fill the cellar, and parts of a wrecked primary glider rested on the garage cross-beams awaiting repairs and a pair of wings that Hank laboriously was building--this time to plans. Since it required a crew to launch and retrieve a glider, he had little trouble in attracting myself and a few others to his glider club.

Two years and many crack-ups later, I bought a used Waco Ten and the much-patched primary was relegated to the hangar roof trusses at Fitzmaurice Field in Massapequa Park, Long Island. Still well stocked we continued to draw on Hank's cellar storehouse for numerous odds and ends.

The Waco's front stick was a straight and solid shaft of wood that canted about fifteen degrees forward when in a neutral position. This awkward and tiresome position was necessary, since the stick's socket was located close to the seat's front edge, and fifteen degrees of back travel brought the stick hard against the seat. Because Ed Lyons, our instructor, insisted that we fly from



*Author Ed Bergman preparing to join Ed Lyons in his Waco Ten, Fitzmaurice Field (1933). (Author photo)*

the front cockpit (the instruments were all in the rear) until we were about ready for solo, Hank and I decided to do something about this inconvenience. An ingenious mechanic, Hank had the solution. We drove the wooden stick from its tapered socket and substituted one from his cellar that was made of steel tubing. This one had a rearward curve near the top that straightened out to vertical again, thereby bringing the grip several inches back, and ended with a ball on top. Hank had to machine a bushing to adopt it to the socket. In so doing, we were able to make it readily removable as was then required by Department of Commerce regulations when passengers were carried. Our learning ability greatly improved, due to this more relaxed stick position. Naturally, when I sold the Waco, the stick went with her. During the next thirty-five years of horizontal air cooled engines, metal airframes, flaps and tri-gears, I completely forgot about Hank's wonderful improvement.

Jack Canary is presently selling reprints of the original Curtiss JN4D drawings, and recently Jack McRae, an aeronautical engineer whose hobby is building and flying his own designed sport planes, sent for a set. I don't know of anyone who may have started construction from these authentic prints, but they would certainly add an impressive note when mounted on the wall of any aerophile's den. To many of us, the venerable Jenny is sacred. I approached these drawings with the same awe as a scholar examining the Dead Sea Scrolls. Then I spotted something vaguely familiar. I looked again, closer this time, noting the part number. The stick had a characteristic rearward curve near the top, then straightened out for a few inches and ended in a spherical knob. I now can truthfully say that I learned to fly at the controls of that most time-honored of all airplanes--the Curtiss JN4D Jenny.

Just in case someone, somewhere, with an aching right arm is flying a Waco Ten from the front pit--the part number is 15930.