JENNY WAS A REAL LADY

The AT-6 of her time, Glenn Curtiss' bipe is a fitting subject as an old-time U/C'er

By DICK EALY

■ Queen of the skies may be the way many of us remember the Jennys that performed in the post W.W. I era. Barnstorming, aerial circuses, silent movie stunts saw Jenny in her glory, as daredevil men and women crawled out through the numerous bracing wires to wave at the crowd from the wingtip. Then the performance was topped off by hanging down from a wingtip skid or axle. Maybe our hero changed from a speeding car to the plane in motion, as an added thrill.

Jenny's story goes back before W.W. I, with Glenn Curtiss developing the JN-4 for Curtiss Flying Schools. Foreign countries bought them for their pilot instruction program, and when the U. S. entered the war the Curtiss plant along with seven others turned out 3,299 JN-4D's as our standard training ship using an OX-5 V-8 90 hp engine. It would climb to 2,000 feet in 10 minutes, and the maximum speed was 80 mph, with a 45 mph minimum. Advance trainer versions with 150 hp Hisso engines were used for gunnery, bombardment, and observation training. A total of 5975 Jennys were procured, and after the Armistice warehouses of uncrated new Jennys were auctioned at a fraction of their cost. That is the reason that hundreds of them appeared all over the U. S.

The model Jenny was built to a scale of 1" to 1' as a joint venture with the author as designer and Walt Farrell the builder and pilot. Our model has proved its airworthiness, having been flown nearly every Sunday over an eight-month period, or approximately 125 flights. With the powerful .19 Torpedo it takes off fairly fast and handles easily, going just where you want it. When the motor cuts, you can hear the whistling of the flying wires as it glides in for a realistic landing. Those wingtip skids come in handy on asphalt, as the wings rock due to narrow wheel tread.

Bracing the long thin wings was the big problem. Since the fuselage, landing gear, and tail are conventional structure, we skip this and guide you through the wing construction. In fastening the landing gear, attach front strut to underside of motor beams with ¼" x ⅞" tin straps and 4-40 M.S. and nuts. Let rear strut dangle until lower wing is glued to fuselage. The way to build the wings is to cut 1/32" sheet balsa to outline of wing and rear edge to fit flush with trailing edge as shown in detail. Glue ribs on top of 1/32" sheet balsa wing bottom. The leading edge is a large 1" x 5/16" medium balsa trailing edge turned around with sharp edge forward. Glue this on top of 1/32" sheet balsa and add ribs and tips made from L.E. stock. Round L.E. with standing block. Bolt 1/16" wire tip skids under wing with 2-56 M.S. nuts and washers to protect the tips.

Note how 1/16" wire hooks are glued to top of 1/32" sheet bottom at strut positions on lower wings. Then reinforce by gluing 1/16" plywood plates over top wire. These plates must have holes made in them to receive struts. Steam in the dihedral 1 degree as shown. Cover lower wing with tissue. Spray with water to shrink. Brush on two coats of clear Testors dope. A hole is cut at center between two center ribs to allow access for attaching rear gear strut. Add wire fuselage hooks as shown in front view. Now glue wing in place and attach gear to bulkhead as shown. Cover fuselage bottom with 3/32" balsa. The fuselage, lower wing, and tail are now painted. Spray lacquer gray surfacer primer on after fuselage and tail have been covered with tissue. Sand with 400 paper. Spray Testors olive drab or yellow dope and follow with coat of fuelproof clear Sta Dope.

Now build upper wing in similar fashion. Add 1 oz. counterweight on right wingtip. Bottom of the wing only is primed and painted. Now make the depression on top of L.E. as shown for flying wires. Bolt wing to center struts with 2-56 M.S. and nuts and washers. Make eight identical ⅛" mahogony ply wing struts. Brush on 4 coats clear Sta. Install as shown in detail. Note how .025 steel wires are coded for identification. Lower ends pass through hooks and up through bottom of L.E. A washer is placed over wire end and soldered. Bend end of wire back for safety. Fill in holes of L.E. with plastic wood and sand smooth. Cover top of upper wing and paint as before. (*Further construction details on "AT" full-size plans.*)