

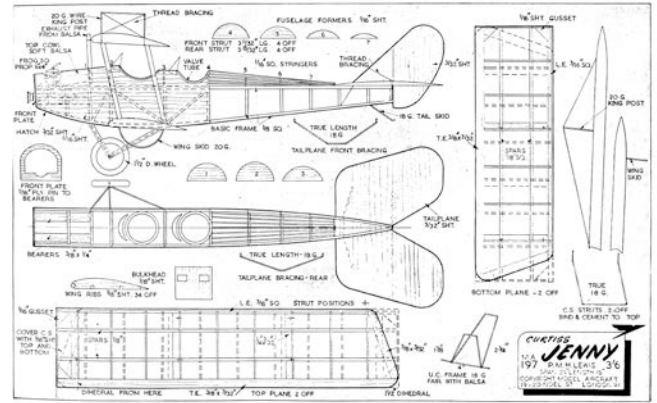
# Curtiss Jenny



## A free flight scale model for .5 c.c. engines by Peter Lewis.

Many pilots of the Great War remember the Curtiss Jenny with its 90 h.p. Curtiss OX-5 V8 motor as the aircraft on which they learnt to fly. It was in use at both British and American schools and continued to be flown on barnstorming tours in the U.S.A. for many years, providing thousands of first flights and exhibitions of wing walking and aerial trapeze acts. The span was 43 ft. 9 in., length 27 ft. 1 in. and top speed approximately 70 m.p.h., all wood construction being used with fabric covering. The original model is powered by a Frog 50.

**The Fuselage** consists of 1/8 in. sq. hard balsa. Two frames are built on the side view, one above the other. When dry, separate them with a razor blade and join with cross pieces, working from the rear towards the nose. 18g. wire center section struts are now bound and glued in place together with the undercarriage vees which are shaped from one piece of wire. Add the tailplane struts and tailskid also from 18 g. wire. The semi-circular 1/16 in. sheet formers are next cut and cemented in position and faired with 1/16 in. sq. stringers. 3/8 in. X 1/4 in. hardwood bearers are drilled and bound with thread to prevent splitting. Cement them in position to accommodate the motor in use, the rear ends passing through slots in the 1/8 in. sheet bulkhead. The fuselage from the nose to the rear cockpit is covered with 1/6 in. sheet, a soft block being shaped and hollowed out to cover the top of the motor bay. 1/16 in. ply front plate is pinned and glued to the bearers and the space below



the motor bolts is filled with a piece of 3/32 in. sheet hinged with tape to provide access for mounting. The center section struts are faired with 3/32 in. sheet and the 18 g. axle bound and soldered to the vees.

**Wings:** Pin the 3/16 in. sq. leading edge and 3/8 in. X 3/32 in. shaped trailing edge in place for the top wing which is built in one piece. The two spars consist of 1/8 in. sq. hard balsa. The required number of 1/16 in. sheet ribs should now be cut and cemented in their respective positions. The wing tips are of the same material as the trailing edge 1/4 in. X 3/32 in. braces are fitted as shown to accommodate the interplane struts and the center section is covered above and below with 1/16 in. sheet. Crack the wings outboard of the center section and set and glue for correct dihedral, fitting corner gussets to strengthen the joints. Port and starboard lower wings are completed in the same way, the root ribs being set for dihedral angle. In addition, 1/4 in. sq. blocks are fitted to take the interplane struts.

**Tail Unit:** Horizontal and vertical tail surfaces are cut from 3/32 in. sheet to the outline shown and arc then sanded to streamline section. If necessary, butt-joint to obtain the required width of sheet, the grain running as shown.

**Covering:** The entire model is covered with heavyweight tissue and water-sprayed. When dry, three coats of deer dope are applied. All upper and side surfaces are then given one coat of matt green dope, the under surfaces of wings, fuselage and tail being left in the natural colour or cream-coloured. Red, white and blue roundels are placed above the upper and below the lower wings and on each side of

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the fuselage together with red, white and blue stripes on the rudder, blue forward and red aft.

**Assembly:** The Jenny is now ready for assembly and the tail surfaces are first glued in place, followed by the top wing and then the lower wing panels. When thoroughly set, cut the interplane struts to length and point the ends. They are now firmly cemented in position. The 1 1/2 in. dia. celluloid wheels are retained by a soldered washer and the nose forward of the center section struts is covered with tin foil glued on. Rubber valve-tubing is fitted round the cockpit edges and celluloid windshields slotted into the top decking. Bracing wires are represented with dark grey shirring thread suitably tensioned. 20 g. wire wing tip skids and kingposts are pressed into the struts and the exhaust pipes and engine details are added with balsa. The motor is bolted in place and a 6 in. X 4 in. propeller fitted.

**Flying:** Add weight to the nose or to the tail as indicated by gliding tests over long grass and adjust power flights with down- and side-thrust as required in conjunction with the rudder.

**Model Aircraft Magazine October 1954**