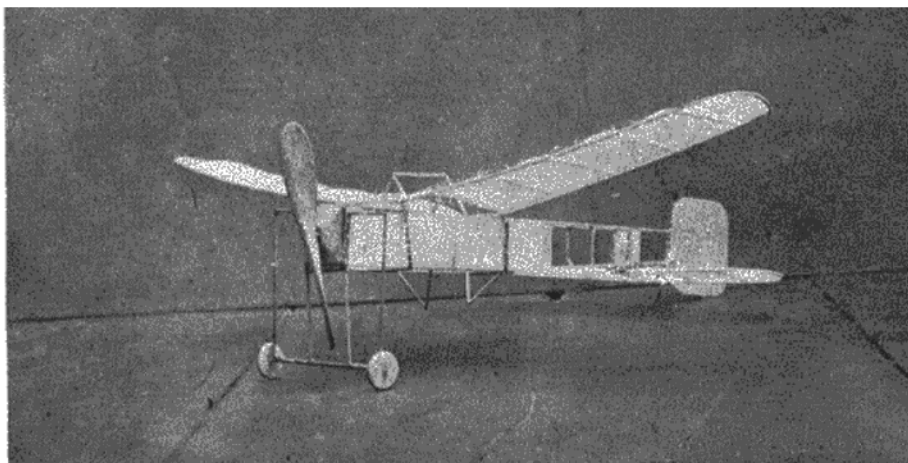


BUILD THIS FLYING SCALE MODEL BLERIOT

for SUMMERTIME FLYING

By H. McDOUGALL



Fuselage.

THE fuselage is built along the usual lines, two sides being made first from $\frac{1}{8}$ in. square balsa, with an extra wide piece at the tail and another to take the rubber anchorage pin. The sides are glued together at the tail, with the $\frac{1}{8}$ in. sheet tail triangles between the top and bottom longerons, so that the sides branch outwards. They may then be brought together so that the fuselage sides are parallel, $1\frac{1}{2}$ in. apart from the point marked with an arrow to the nose.

The pylon for the top of the fuselage is constructed from $\frac{1}{8}$ in. square balsa as shown. The inverted pylon beneath the fuselage is made in exactly the same manner, except that the ends lean inwards at the angles shown in the side view. These pylons are only for the sake of realism and serve no useful purpose. On the original Bleriot they served to anchor the wing guy wires, but if the utmost performance is desired from the model they may be omitted.

Undercarriage.

This is bent from bamboo a little less than $\frac{1}{8}$ in. diameter, except for the strips shown shaded, which are of $\frac{1}{8}$ in. square balsa. When the bamboo has been bent approximately to shape, the framework may be pinned to a board and the balsa strips can then be securely glued. The 1 in. diameter balsa wheels having been added on short lengths of 22 gauge wire, the completed undercarriage may be cemented in place at the nose of the fuselage.

Wing.

This is the one component not given full-size. The dotted line represents the centre of the wing, which must be drawn out full size. The leading and trailing edges may be pinned in place in the usual manner, meeting each other at the tips. The curves can be formed by making a series of small cracks and using a large number of pins to hold the wood to the exact shape required. The wing ribs are cut from $\frac{1}{2}$ in. sheet and placed in position between the leading and trailing edges. Finally, the whole assembly may be removed from the plan and the dihedral angle can then be formed. This may be done by holding the leading and trailing edges each in turn in a jet of steam from a kettle and bending a little at a time until they assume such an angle that each tip is raised to a height of $2\frac{1}{2}$ in.

The top spar of $\frac{1}{8}$ in. square balsa can then be added, but it must not run across the centre-section. A wire bracket

bent to the shape shown must be lightly bound with cotton to the leading edge of the centre-section and one to the trailing edge also.

A short length of $\frac{1}{8}$ in. square balsa should be cemented underneath the leading edge for incidence, and the bracket may then be bound in place underneath this. Finally, the corners of the centre-section must be strengthened by the addition of corner blocks cut from $\frac{3}{4}$ in. sheet.

Accessories.

The shape of the nose former is shown, and it should be cut from $\frac{3}{4}$ in. sheet and cemented to the nose of the fuselage. Three laminations of the softest $\frac{1}{8}$ in. sheet balsa form the nose-block, which is made as shown in the sketches. Note the extra piece at the rear of the block, which should be made to fit the cut-away portion of the nose former.

A small washer may be cemented to the front of the nose-block and one at the rear to take the 20 gauge wire propeller shaft. The propeller is a 5 in. machine-cut one purchased ready-made. The rear of the hub should be removed to lighten it.

Assembly.

For general flying purposes the tail-plane can, if desired, be placed on top of the fuselage, but to be correct it should be underneath. The best way to accomplish this is to cement a length of $\frac{3}{8}$ in. by $\frac{1}{8}$ in. balsa in a vertical position beneath the tail and a short length of $\frac{1}{8}$ in. square balsa further along the fuselage, so that the tail-plane may be cemented in position with the leading edge lying along the front piece and the trailing edge at the bottom of the rear piece.

A slot made with a razor blade between the longerons at the rear serves to take the fin, which may simply be cemented in place.

Superfine tissue is used for covering the wing and tail-plane. The fuselage should only be covered on the two sides and underneath, for four bays back from the nose and on top immediately beneath the pylon.

Four strands of $\frac{1}{8}$ in. flat rubber form the motive power, and the skein is held in place at the rear by a matchstick pushed through the wide upright to form a rubber anchorage pin.

The wing should be placed in position over the pylon on the top of the fuselage and secured with rubber bands, and the exact position for flying can then be found in the usual manner by hand gliding and then power flying, further incidence being added if required.