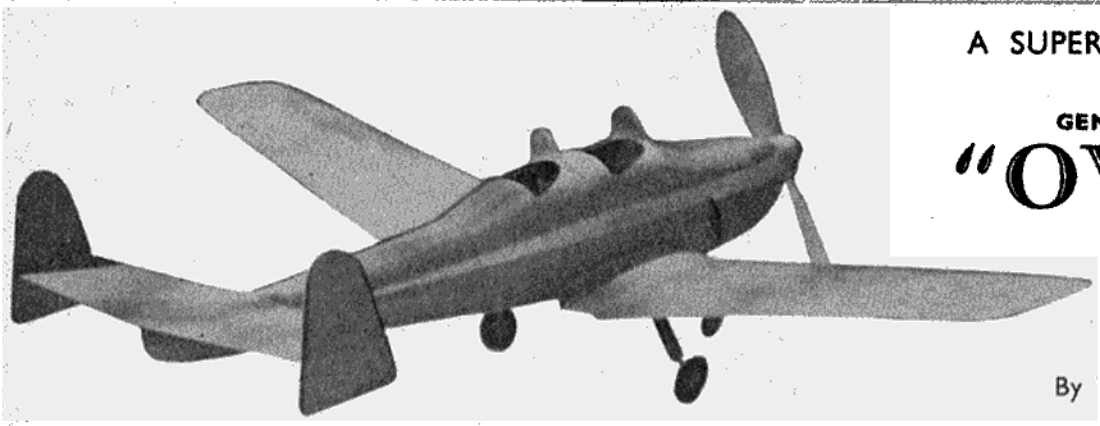


A SUPER DETAILED SCALE
1 inch—1 foot
GENERAL-AIRCRAFT

"OWLET"

A new departure in scale model technique, in which the fuselage is built in two halves, simplifying transport.

By W. R. JONES

THE plans of this latest training machine are drawn to 1 in. scale and the constructional features are simplified as much as possible. The only flying done up to the present has been pole flying. In this the "Owlet" has shown exceptional flying abilities, and it is hoped to have further details at an early date. The model was designed for twin motors and gears but, using the rubber stated in a single motor, the performance was quite satisfactory. If "super" flying is required gears *should* be used together with a hardwood nose-block.

Fuselage (Fore End).

Make complete drawings of the formers and transfer on to wood. Mark the two top longerons with the positions of formers and attach formers No. 1 and No. 8. When glue has dried the remaining formers may be fitted (glue former No. 5 in first) and make sure that everything is square. Add bottom longeron and top centre stringer.

Fuselage (Aft End), Tail-plane and Rudder.

Mark main longerons as above and leave enough forward of former No. 9 to plug into boxes, which are built up as shown on plan. Cut out piece "H" from $\frac{1}{8}$ in. sheet and glue in place. Formers 12 and 13 should be cut at dotted lines and top portion glued on to tail-plane to form the saddle. Build up tail-plane as shown and use $\frac{1}{32}$ in. by $\frac{1}{8}$ in. balsa for upper and lower surfaces of ribs. "Fill in" end ribs with $\frac{1}{32}$ in. sheet to form gluing surface for rudder attachment.

The entire fuselage is covered with $\frac{1}{32}$ in. balsa and the tail-plane (complete with saddle) is glued on as shown. When covering has been completed "fair in" the tail-plane with bamboo paper on underside. NOTE: The "aft fuselage" longerons must be bound with silk from end of "overhang" to former No. 10 to prevent breaking when the longerons are pushed into the boxes. Build up two rudders as shown and cover with *tissue* before glueing on to tail-plane.

Wings and Centre Section and Undercarriage.

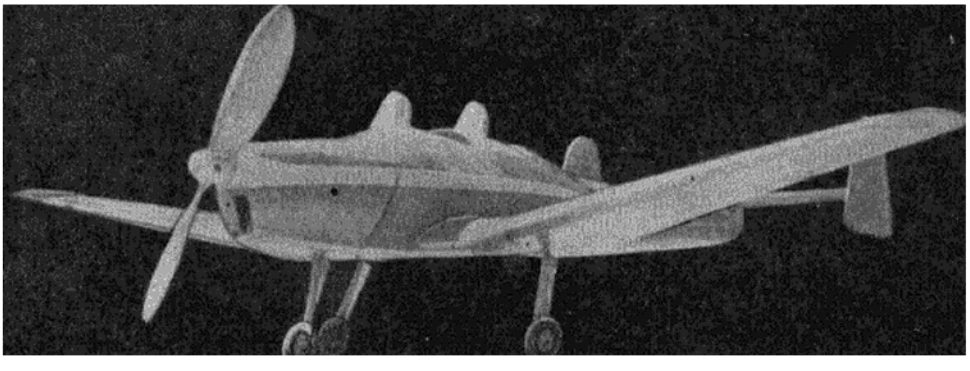
Build up these components as shown on the plan. NOTE: Centre section must be built "into" the fuselage by glueing the spars on to the formers shown, and then glue the ribs in place. Do not forget the aluminium tubes for the undercarriage which is built up as shown from wire and balsa fairings. NOTE: Use a hardwood wheel on the front leg and bushed celluloid wheels on the rear legs. Glue the box shown on to No. 3 former and reinforce former with piece of hard balsa glued on to rear of same. Build up wings as shown, using the wood stated. Cover the centre section with wood ($\frac{1}{32}$ in. sheet) on top and bottom surfaces. Piece "M" is glued on to top of bottom fuselage longerons.

Covering.

Wings and tail-plane are covered with "superfine" bamboo paper when these components have been glued into position. Give complete 'plane two coats of dope (fuselage should be polished to give a good finish) and then add two coats of banana oil. If the "Owlet" is adopted by the R.A.F. it will be coloured green and brown with yellow undersides, but at present the colour scheme may (I think) be left to individual tastes.

Flying.

Use a 9 in. dia. Paulownia propeller and five loops of $\frac{3}{16}$ in. by 1/30 in. brown rubber 12 in. long, well lubricated. Gliding tests should be carried out before power flights are attempted. Suitably trimmed, good results may be obtained, and the model is capable of standing a great deal of rough usage and may be flown under any weather conditions owing to the methods employed in the building and also to its very stable qualities. 35 sec. flights r.t.p. are the "order of the day."



This head-on view of the model shows its clean lines and finish, and conveys a good idea of the effective tricycle undercarriage.