*Jonathon Dubery borrows Pop's Wartime Helmet ready for a spot of flying*

## Build yourself a French lightplane in miniature—The

# JODEL D.11

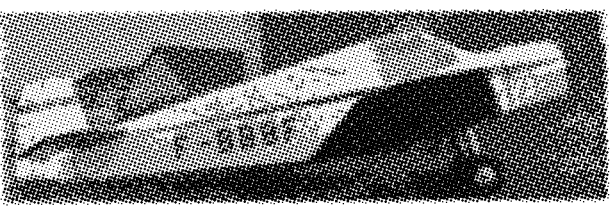
## by Vic Dubery

Ready to start?—All you need is $\frac{1}{16}$th sheet and some scrap $\frac{1}{8}$" and $\frac{1}{4}$", plus wire, wheels and prop.

**Wings.** Transfer the patterns in the lower half of drawing overleaf one by one on to $\frac{1}{16}$ in. × 4 in. sheet and cut out. Round off edges and corners, and put tailplane and rudder on one side. Make 8 ribs W1. Dampen the top surface of the large wing piece and pin down over ribs to dry. Treat the outer panels similarly using two ribs each, making sure you have left and right tips. Cement the two permanent ribs in place and discard the others. Using the sanding block, square off the ends of the centre section. Do the same with the inner ends of the tip pieces, holding the sanding block vertically while the tips are propped up 1½ inches. This will ensure a good joint when you cement on the outer panels next. If you do not trust the joints, cement a strip of $\frac{1}{4}$ in. wide fabric under it.

**Fuselage.** Build up on the plan formers F1 to 6. While these are drying thoroughly cut from $\frac{1}{32}$ in. sheet two panels A, being sure to mark on the "inside" (left and right panels) the dotted lines. Place on flat surface marks uppermost, straight edges beside each other and, holding down with ruler, edge on the first "bend" line, roll a pencil under the sheet until a very faint crackling noise begins and STOP. Now shift ruler to other "bend" lines and repeat. Add rear peg reinforcement and make hole. Join both insides squarely to F1 and add $\frac{1}{16}$ in. square tail post. Make sure all is square by standing fuselage up on former F1 and checking for symmetry. Add F2 to 6 in that order making sure that bottom edges are in line with bottom of sheet sides. Prepare 2 panels each off B and C and butt-join pairs at edge shown, covering with $\frac{1}{32}$ in. × $\frac{1}{16}$ in. strip. Dampen the opposite side to the strip all over and wait for wood to curl. Then place B's centre strip in slots of formers F1 and F2 and check that edge of panel does not overlap sides when held down tight over formers. If necessary trim slots in formers or edges of B. When satisfied, cement formers and B's edges and hold in place until dry, taking care not to distort fuselage. Now proceed in the same way with panels C.

Cement together the square made of $\frac{1}{4}$ in. sheet Cowl



parts with $\frac{1}{4}$ in. square reinforcement. When quite dry the open ends are squared off with the sanding block and the wide end cemented to C7. If all is satisfactory add C3 to the front. Make up front of cowling as shown on plan, omitting the push rods until later when the inside of cowl has been painted matt black. Cement this to rest of cowl and carve and sand to shape. Bush for prop shaft, then cement complete cowl to F1.

If you don't feel up to tackling the prop shown, use a Keilkraft 7½ in. plastic with ¾ in. trimmed off the tips.

Prepare cockpit and windscreen pieces from thin celluloid but do not cement in place until colouring is complete.

Bend undercarriage wire so that the legs are vertical as seen from the front and raked forward according to the side view. Cement in place and add leg parts as detailed.

**Finish.** Sanding sealer with a drop or two of castor oil and equal volume of french chalk are used as a one-coat filler. When thoroughly dry, rub down with 00 paper keeping the fingers behind all parts being rubbed. Cut out an approximately shaped full-length fuselage bottom piece from $\frac{1}{32}$ in. sheet and prepare one side of this also. When satisfied (and do not attempt a grain-free finish), the wing, tailplane and rudder should be cemented in place, the latter being slotted in up to the tail post and set in line with the left side of the fuselage. Make sure all is true as viewed from the front, if necessary by packing pieces. Fit ribs W2 under W1 to conform with fuselage shape, add the fuselage bottom, and give the $\frac{1}{32}$ in. edges of this a little sealer mixture, sanding when dry. If your model now weighs less than 2 ounces you can colour dope and trim (the long trimming stripe on the fuselage conveniently hides any flaws in the butt-joining of sheet). Cowl interior (but not push rods) is matt black, also lower part of undercarriage and wheels.

**Flying.** Power depends on your prop but start with four strands $\frac{1}{8}$ in. flat rubber 12 in. long. Before flying, check for glide, ballasting if necessary by means of small slivers of lead forced into the nose plug. Add $\frac{1}{32}$ in. sidethrust and downthrust before beginning power flights, adjusting further by easy stages. When satisfied you can then give yourself a pleasant surprise by stretch-winding (not more than 500 turns) and launching on a calm day over soft grass. This model is very lively. Fine trimming is achieved by slight warping of flying surfaces.