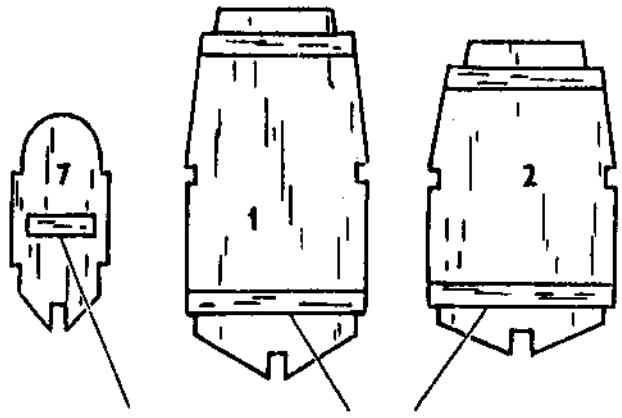
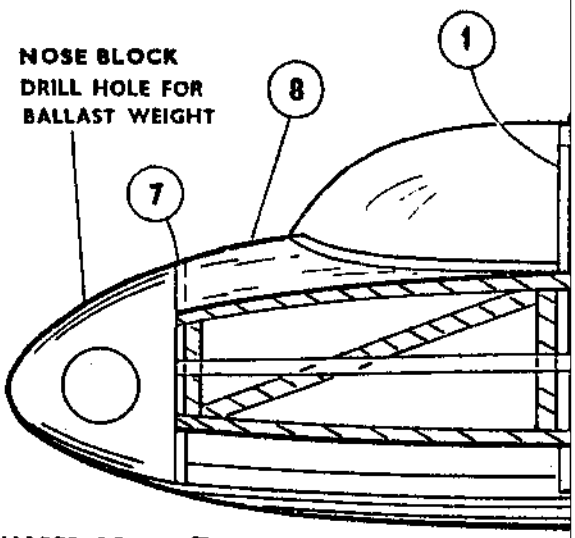
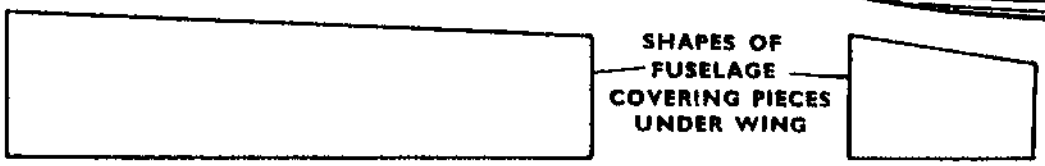
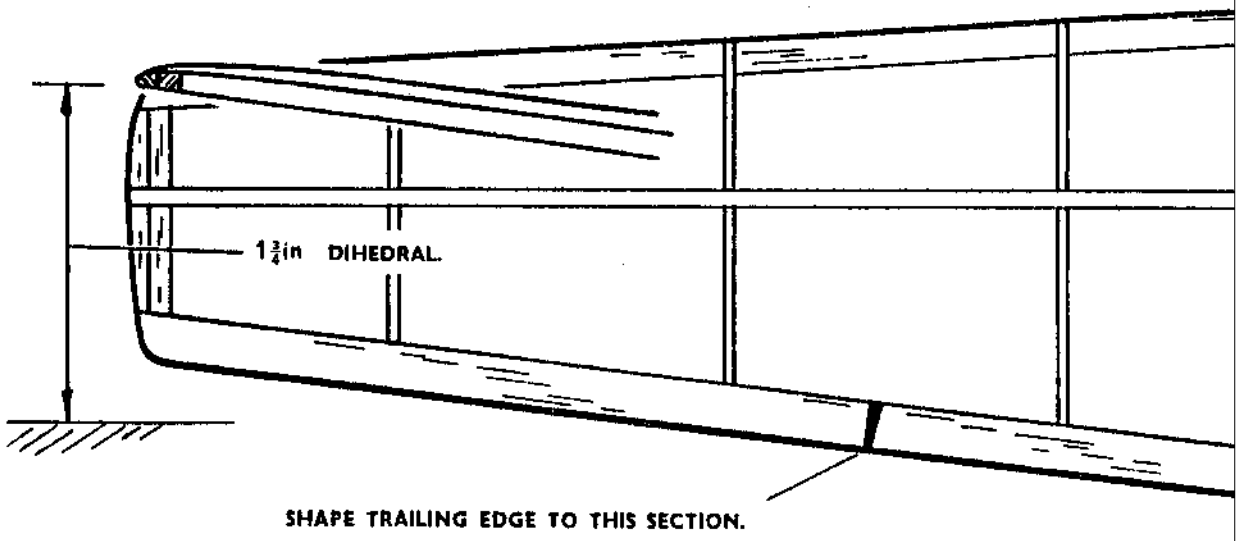
CAT. No. 727GK

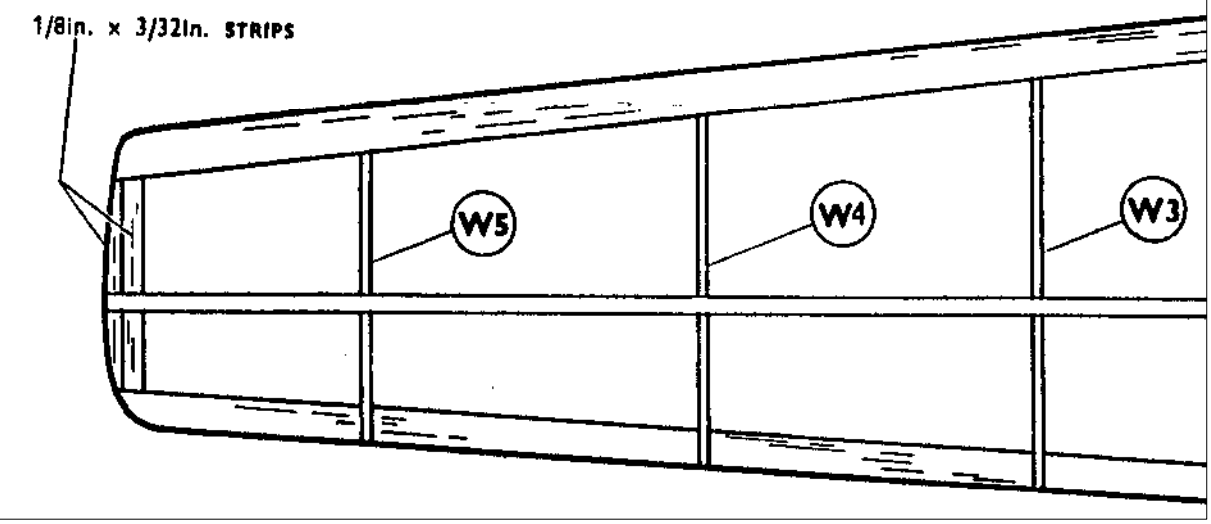
FROG TRADE MARK





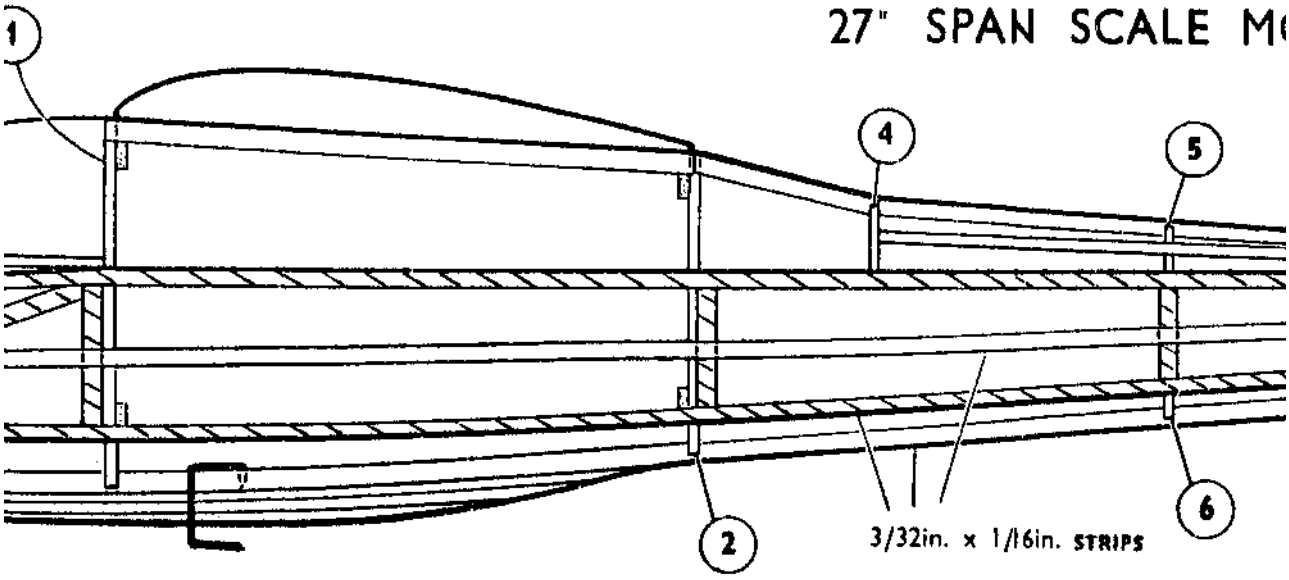


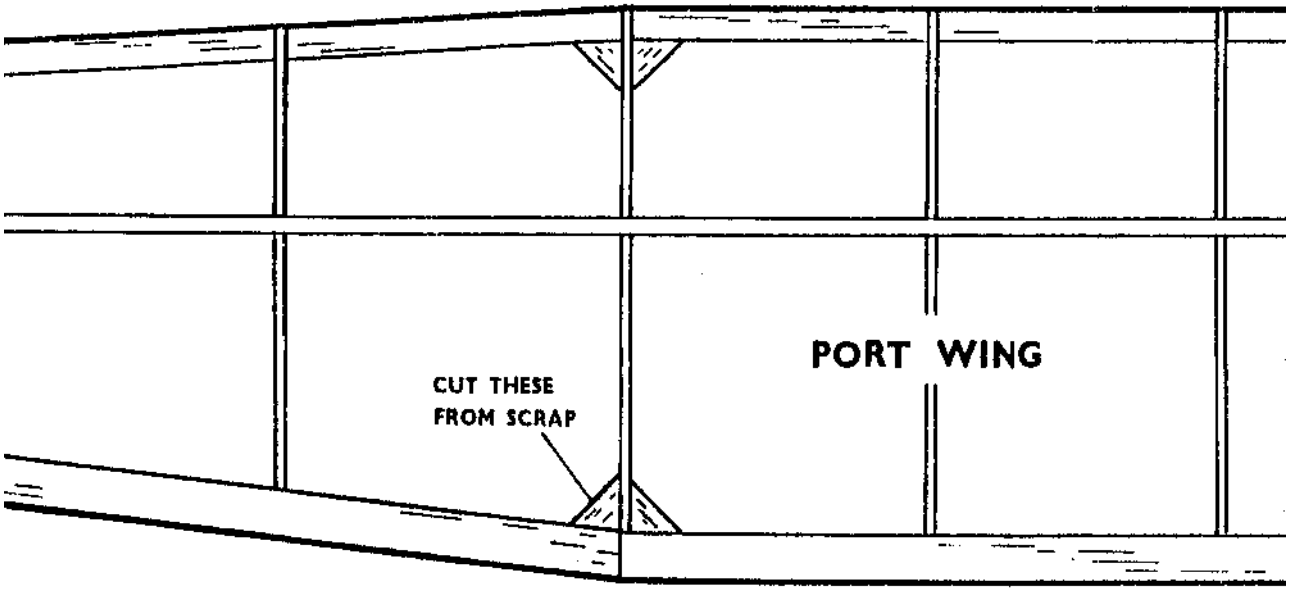


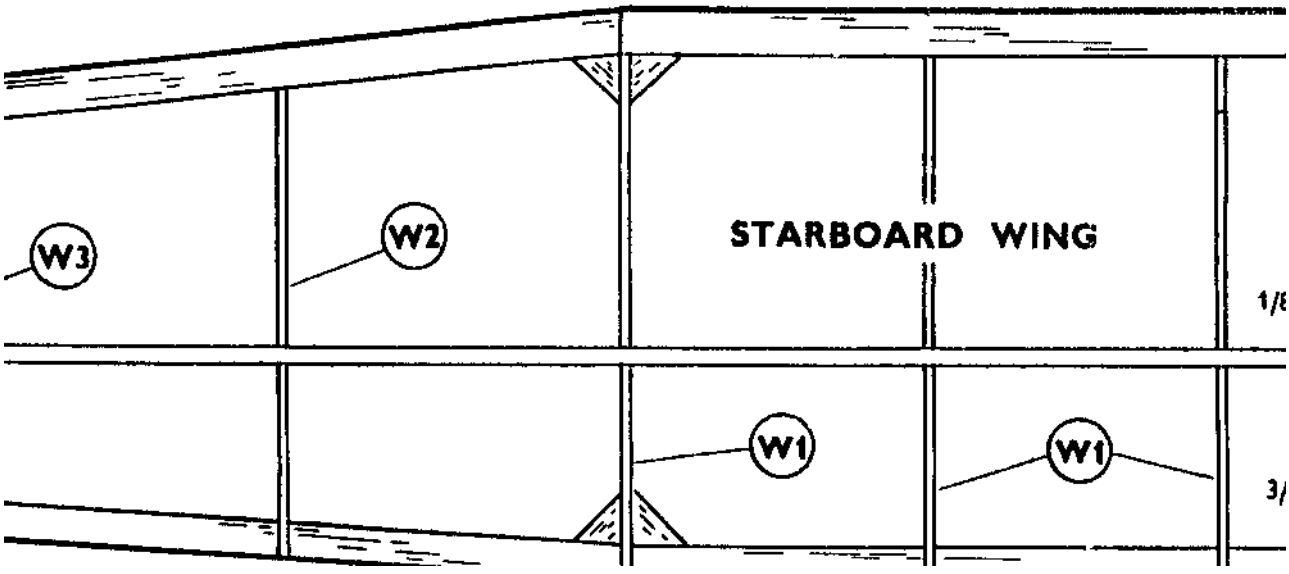


"SLINGSBY SKY

27" SPAN SCALE M

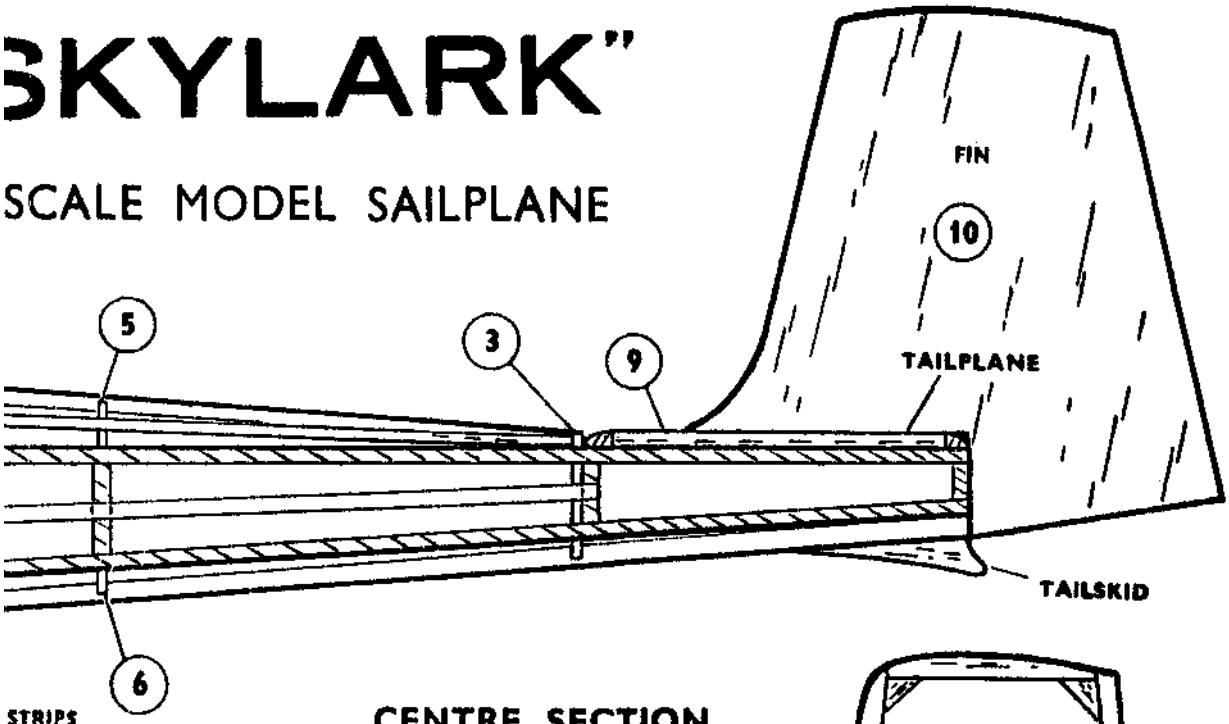




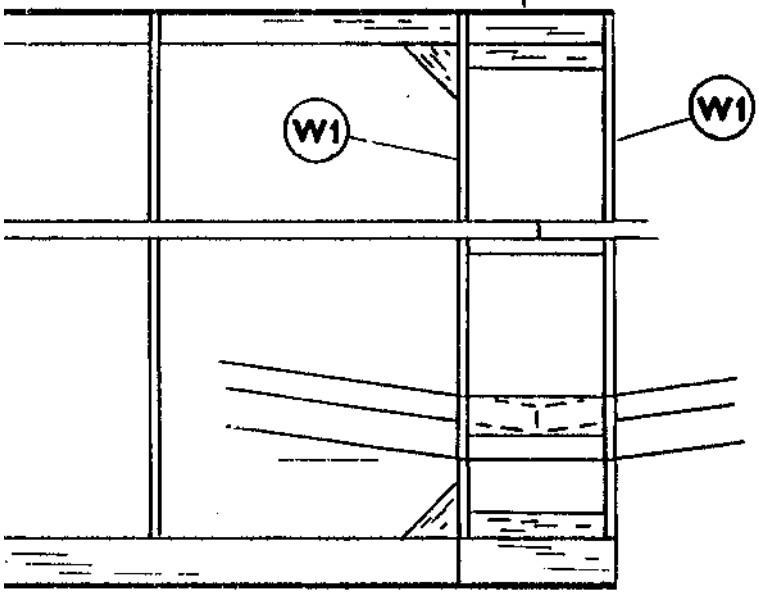


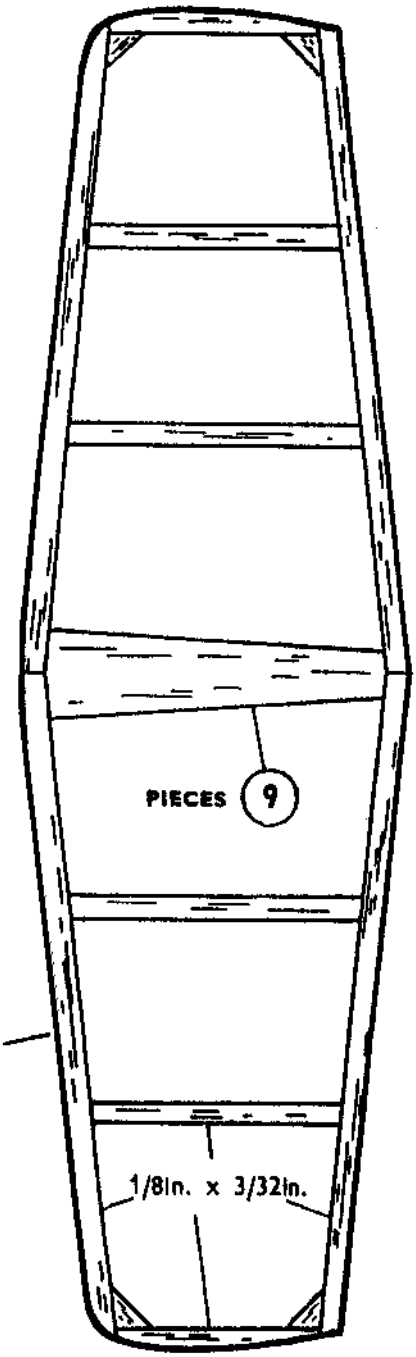
SKYLARK"

SCALE MODEL SAILPLANE



CENTRE SECTION





TAILPLANE

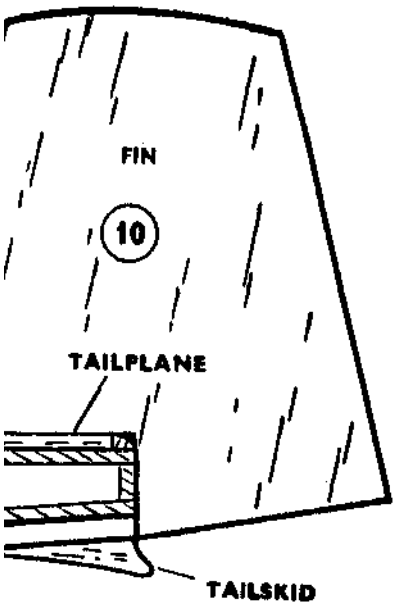
1/4in. x 3/32in. TRAILING EDGE

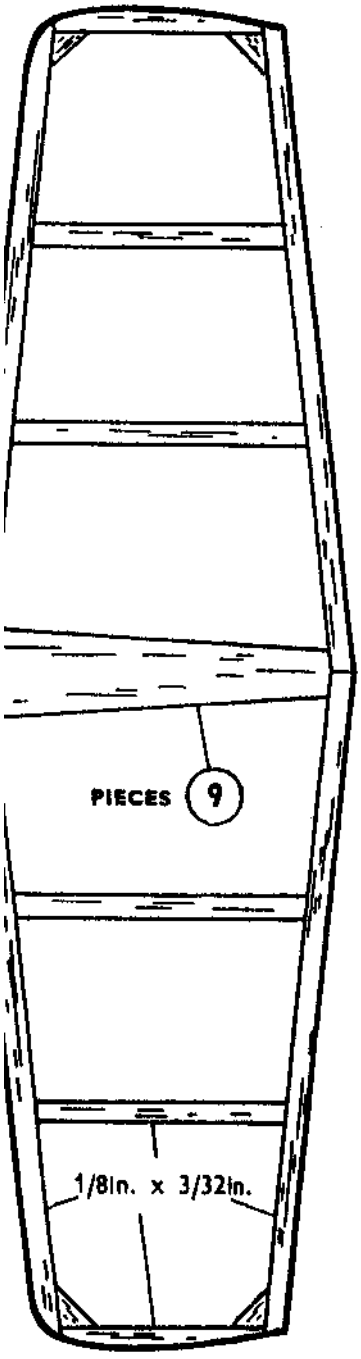
G

1/8in. x 3/32in. SPAR

V1

3/16in. x 3/32in. LEADING EDGE





BUILDING INSTRUCTIONS.

This model is simple to construct, the kit incorporating the usual Frog practice of supplying most of the parts cut to shape and numbered to correspond with the drawing, leaving very little shaping to be done. The pre-cut parts can be eased out of the panel with a balsa-knife, or a razor-blade to sever the edges that are left uncut.

Pin the drawing to a flat board to work on, and cover it with a sheet of greaseproof paper to protect it from the cement. Dope and cement are not included in this kit, but can be obtained at any model shop. Use quick-drying balsa cement, such as Frog Universal.

CONSTRUCTION.

FUSELAGE.

First build the two sides (shown shaded) from 3/32" x 1/16" strip as shown in Fig. 1. Duplicate the strips and build the second side over the first, with a piece of tracing paper between them, to ensure they are identical.

While these are setting remove bulkheads 1, 2 and 3 from the panel and cement strips of scrap sheet balsa to them where indicated on the drawing. Cement bulkheads 1 and 2 between the side frames, see Fig. 2. When these have set, cement the rear ends of the fuselage together, then assemble bulkheads 3, 4, 5, 6 and 7 as in Fig. 3. The top decking pieces parts 8, can now be assembled. Damp the outside surfaces to facilitate bending.

Cut the wing supports to length from 1/8" x 3/32" strip and cement them to bulkheads 1, 2 and 4. Next fix the three top stringers in place in the slots in half-bulkhead 5 and butting against bulkheads 3 and 4. The two side stringers and lower stringer are made from 3/32" x 1/16" strip and are cemented to the fuselage next.

Apply cement to one end of the nose block and bulkhead 7, and allow these to dry. Then apply another coat of cement and fix the nose block in place. When this has set, shape it with a sharp knife or razor-blade and sandpaper it smooth.

TOWING HOOK.

This is made from a 1" pin with the head cut off. Bend it to the shape given in Fig. 4 then bind and cement it in the position shown on the side view drawing.

The skid is made from 3 lengths of 3/32" x 1/16" strip, see Fig. 5. Cement each piece on to the fuselage separately, holding it in place until it has dried. Then sandpaper them to shape as in the side view drawing.

Cut two pieces of note paper to each of the shapes given on the drawing and cement them in position over bulkheads 1, 2 and 4. The skid is fitted after the fuselage is covered (see later paragraph on covering). The Tailskid is made from spare sheet balsa and cemented in place.

WINGS.

Cut the leading and trailing edges to length and lay them over the drawing, holding them in position with pins.

The wing-tip pieces are cut from 1/8" x 3/32" strip, two pieces for each wing, and cemented in place. Then fix three ribs W1 to each wing with ribs W2, W3, W4 and W5.

Cut the spars to length from 1/8" x 3/32" strip and fix them in place in the rib slots. When the wing-halves have set, remove them from the drawing and build the centre section. The brace pieces in this section are cut from 1/8" x 3/32" strip. Place the port wing back on the drawing and cement it to the centre section with the tip raised $1\frac{1}{4}$". Then fix the starboard wing in place with the spar-jointing piece made from 1/4" x 3/32" strip. The gussets are cut from spare sheet balsa and cemented in place where indicated.

Sandpaper the trailing edge and tips to shape and smooth down the whole structure.

TAILPLANE.

Carefully remove the two pieces 9 from the panel, cement them together and pin them over the plan. Build the structure round them, using 1/8" x 3/32" strip; the gussets being cut from spare sheet balsa.

COVERING.

Cover the model with the paper supplied, in the following order — fuselage top and bottom, then sides. Wing and tailplane under-surfaces, then top. Use office paste or dope for fixing it. Cut the paper to the approximate shapes first, leaving a 1/4" margin all round. Apply paste to the edges of the frame, then lay the tissue over it and pull gently all round. Do not attempt to get it drum tight, but aim at getting an even surface, with no deep wrinkles. The water-spraying and doping will tighten it.

Before doping, lightly brush or spray each part with water and leave to dry. Spray half a wing at a time, and pin it down to a flat board to prevent warping whilst it is drying. Do the same with the tailplane. When they are

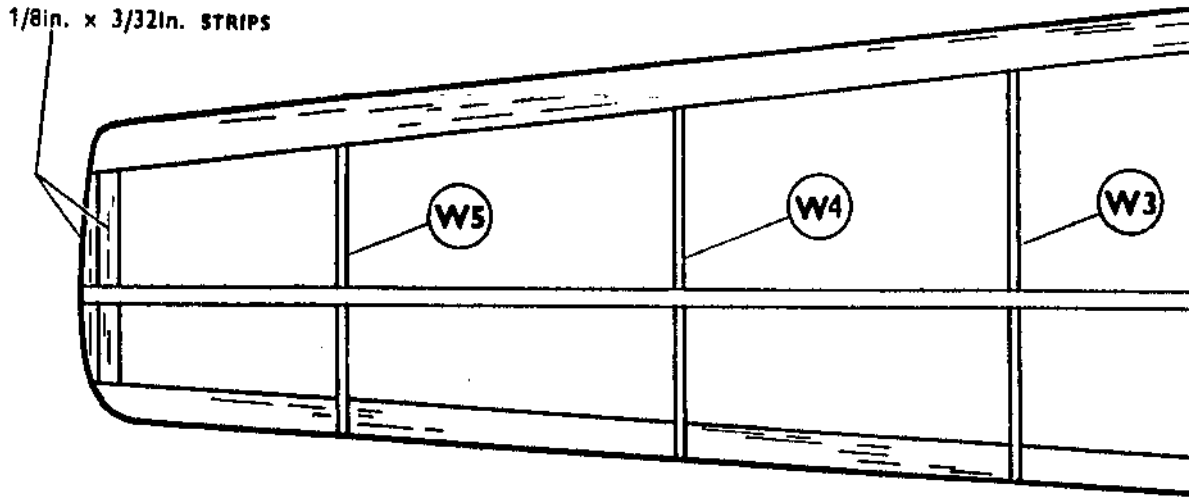


Fig. 1 COMPLETE FUSELAGE SIDE BUILT ON DRAWING.

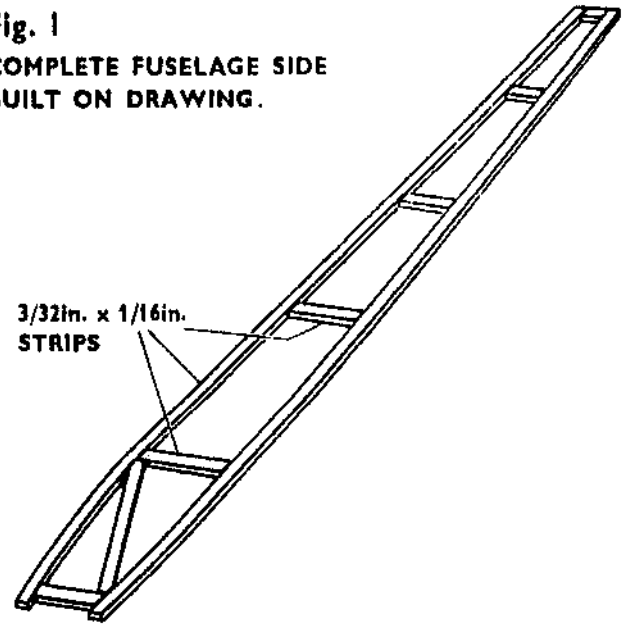
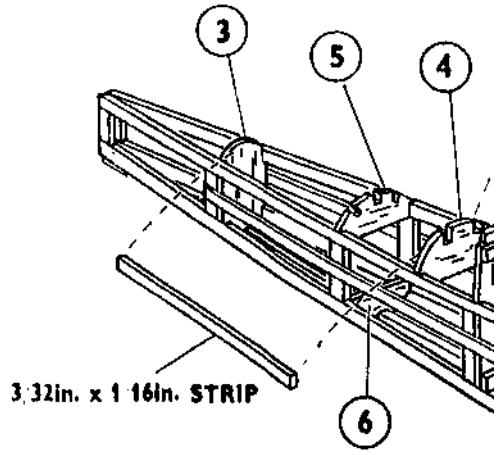


Fig. 3 BULK
STRIN
ASSE



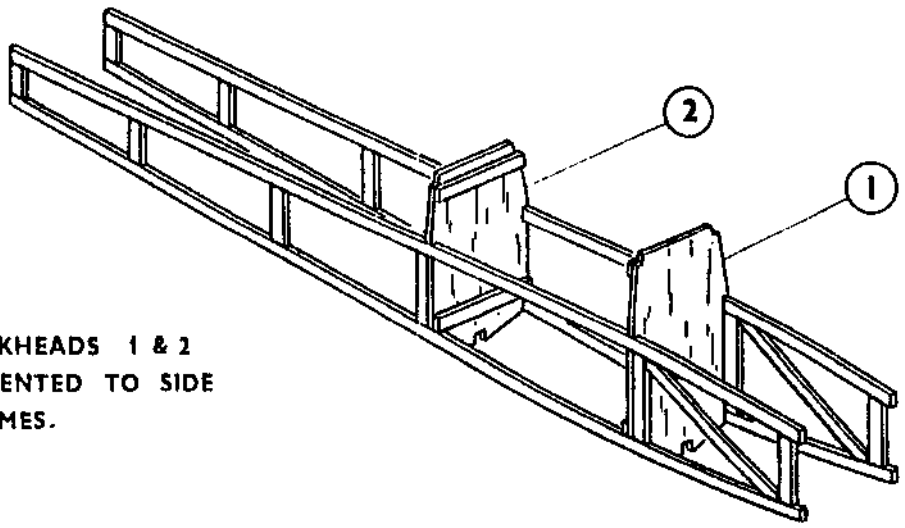
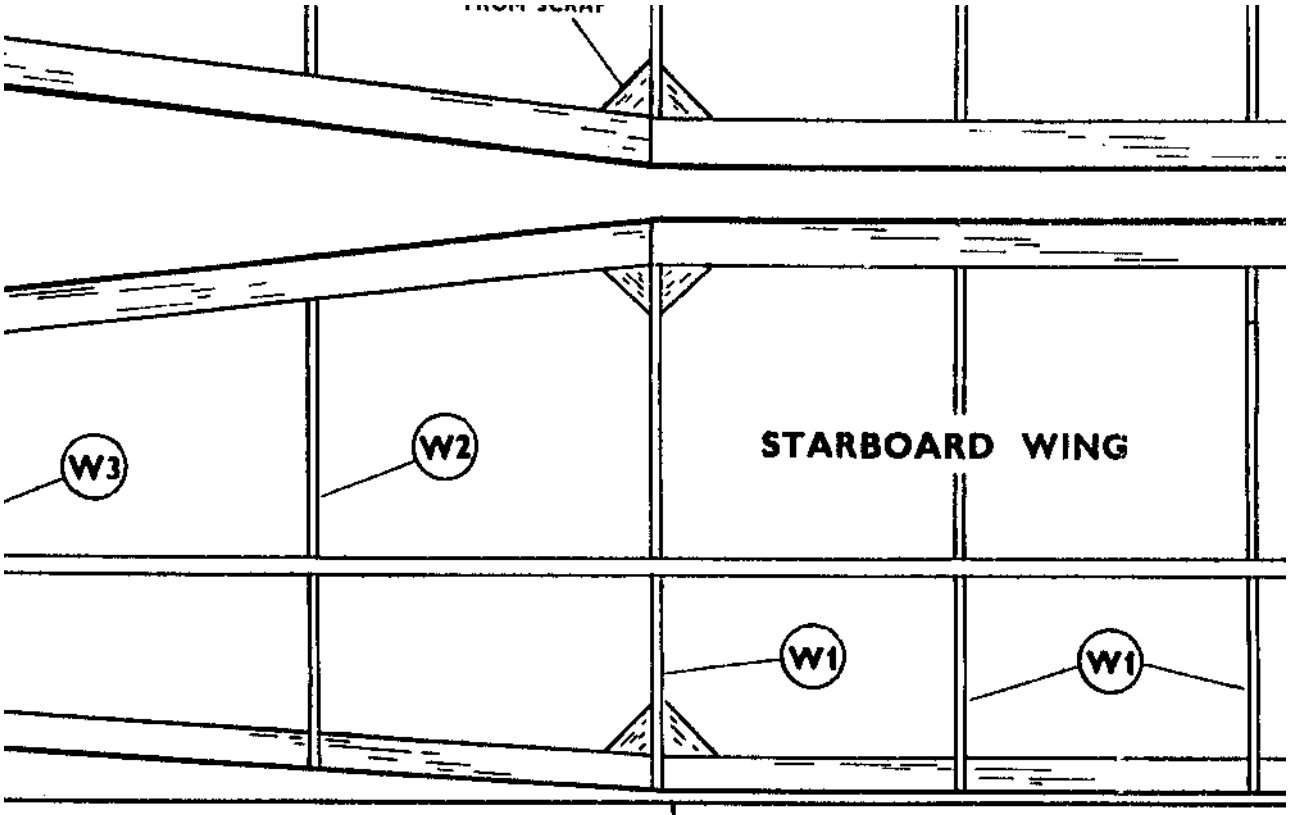


Fig. 2 BULKHEADS 1 & 2 CEMENTED TO SIDE FRAMES.



g. 3 BULKHEADS, PARTS 8, STRINGERS AND NOSE BLOCK ASSEMBLED.

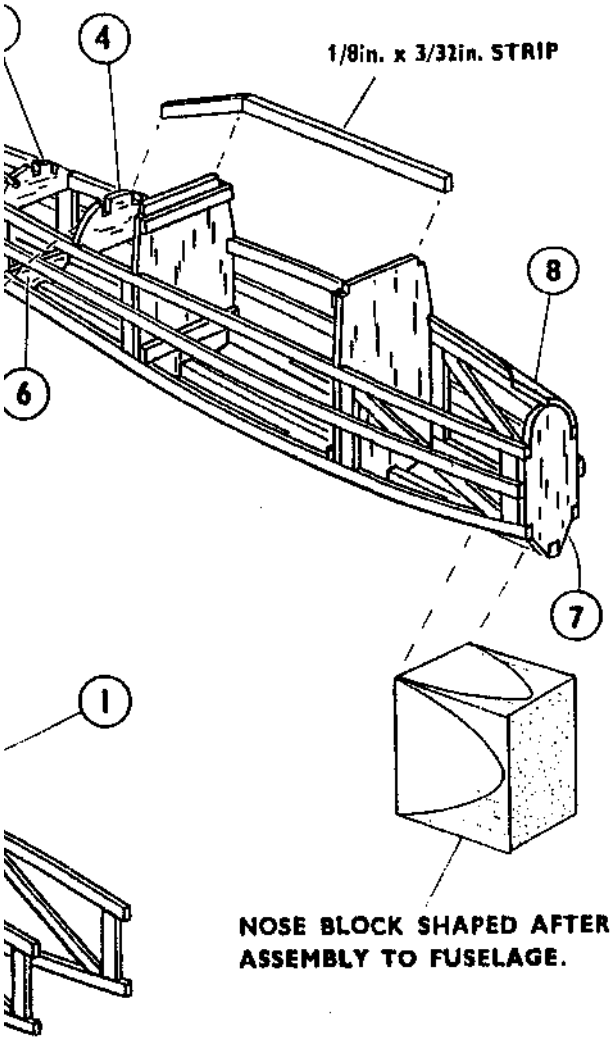


Fig. 4 BEND TOWING HOOK TO THIS SHAPE.

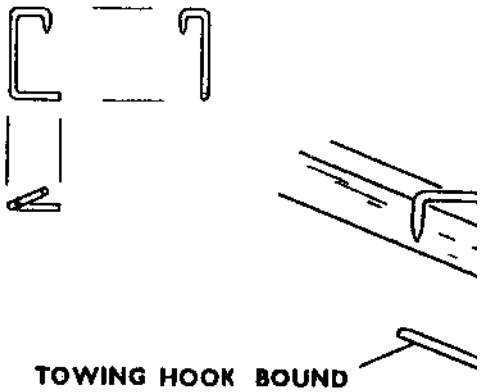


Fig. 5 CANOPY AND SKID PIECES CEMENTED IN PLACE AFTER FUSELAGE IS COVERED.

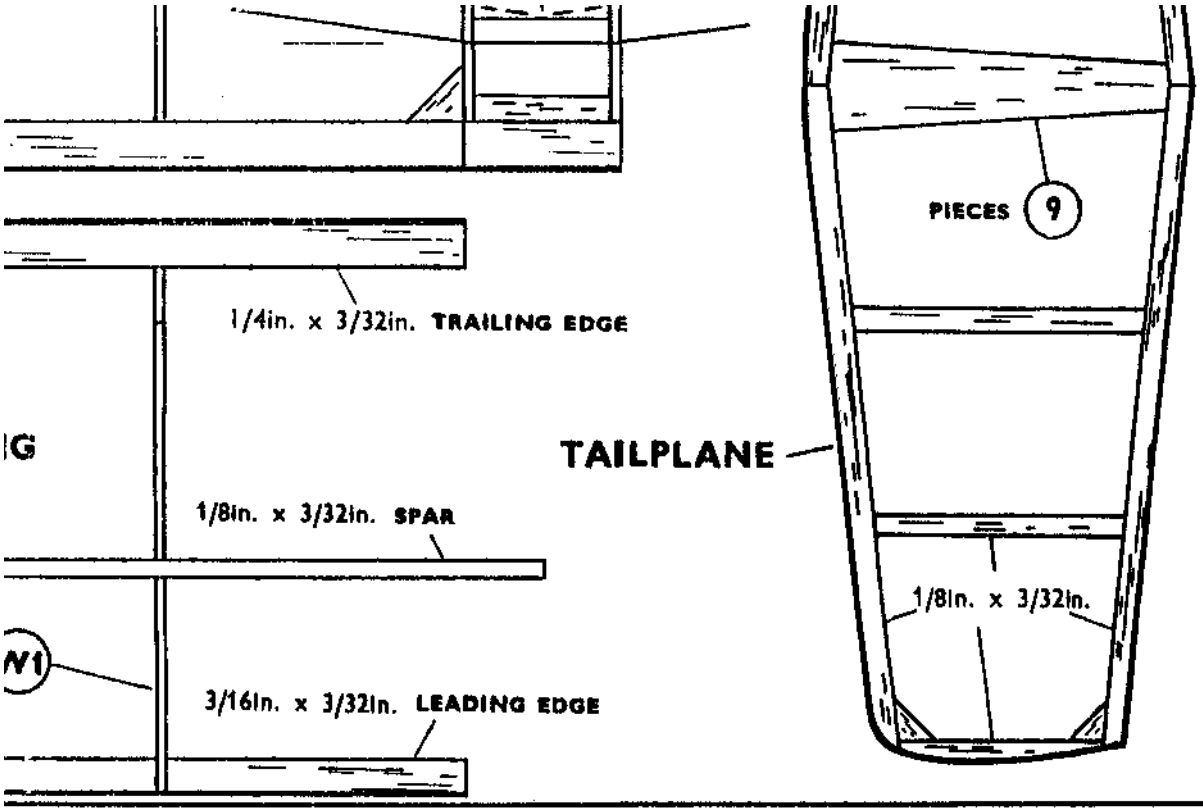
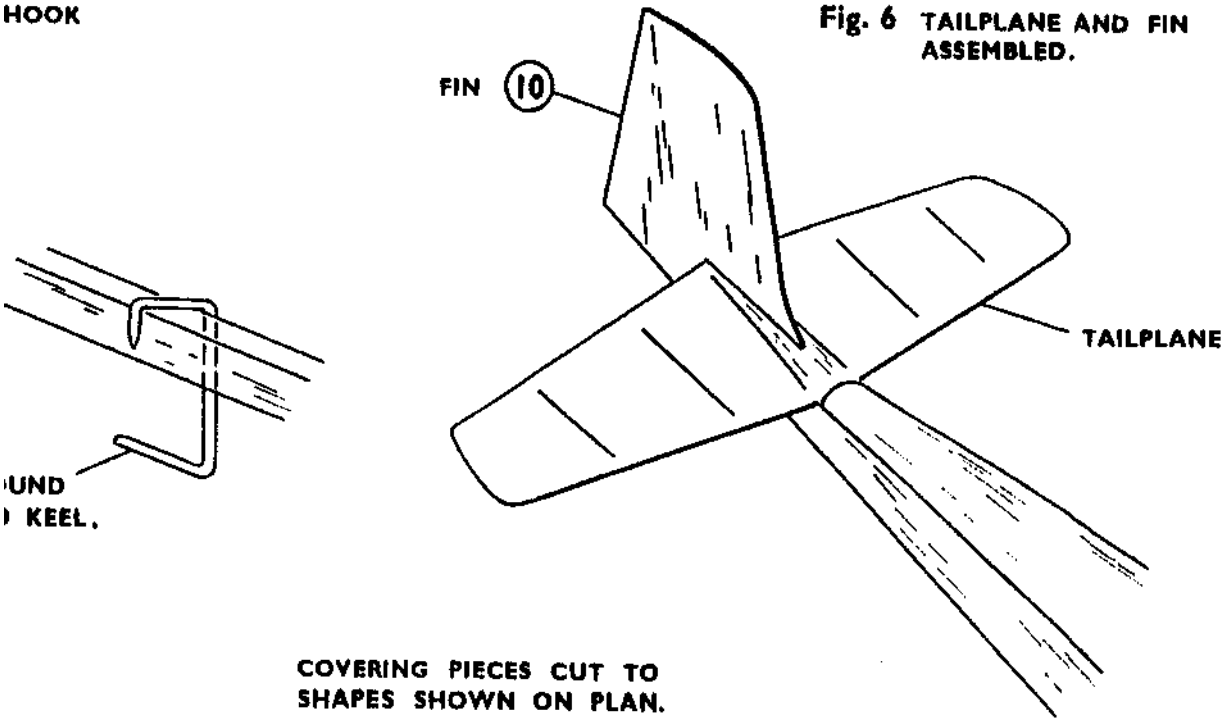
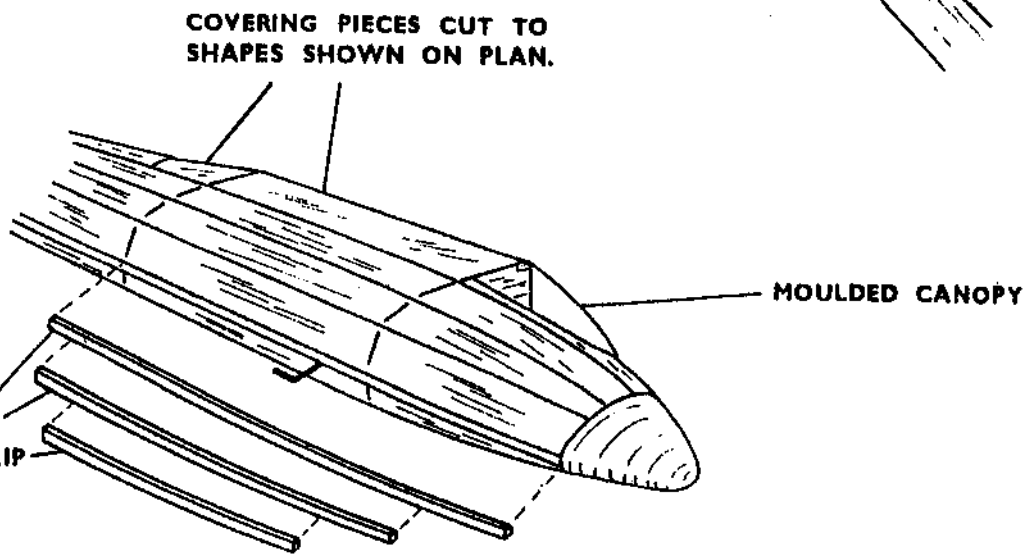
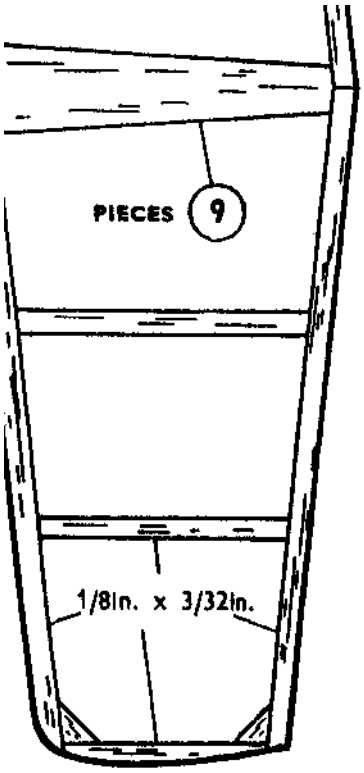


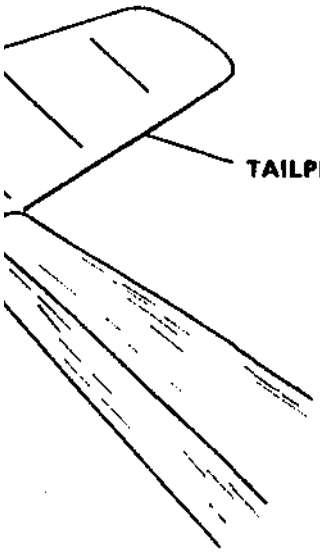
Fig. 6 TAILPLANE AND FIN ASSEMBLED.







ig. 6 TAILPLANE AND FIN ASSEMBLED.



— MOULDED CANOPY

Cut the leading and trailing edges to length and lay them over the drawing, holding them in position with pins.

The wing-tip pieces are cut from 1/8" x 3/32" strip, two pieces for each wing, and cemented in place. Then fix three ribs W1 to each wing with ribs W2, W3, W4 and W5.

Cut the spars to length from 1/8" x 3/32" strip and fix them in place in the rib slots. When the wing-halves have set, remove them from the drawing and build the centre section. The brace pieces in this section are cut from 1/8" x 3/32" strip. Place the port wing back on the drawing and cement it to the centre section with the tip raised $1\frac{1}{8}$". Then fix the starboard wing in place with the spar-jointing piece made from 1/4" x 3/32" strip. The gussets are cut from spare sheet balsa and cemented in place where indicated.

Sandpaper the trailing edge and tips to shape and smooth down the whole structure.

TAILPLANE.

Carefully remove the two pieces 9 from the panel, cement them together and pin them over the plan. Build the structure round them, using 1/8" x 3/32" strip : the gussets being cut from spare sheet balsa.

COVERING.

Cover the model with the paper supplied, in the following order — fuselage top and bottom, then sides. Wing and tailplane under-surfaces, then top. Use office paste or dope for fixing it. Cut the paper to the approximate shapes first, leaving a 1/4" margin all round. Apply paste to the edges of the frame, then lay the tissue over it and pull gently all round. Do not attempt to get it drum tight, but aim at getting an even surface, with no deep wrinkles. The water-spraying and doping will tighten it.

Before doping, lightly brush or spray each part with water and leave to dry. Spray half a wing at a time, and pin it down to a flat board to prevent warping whilst it is drying. Do the same with the tailplane. When they are completely dry, give each part a coat of dope, and pin down the wing and tailplane again, when the dope begins to dry. A coat of clear cellulose lacquer over the whole of the model is beneficial.

Painting should be restricted to the fuselage or trimming at the edges to save weight.

CANOPY.

This is already moulded to shape and only needs the surplus material cut away. Check the shape with the drawing before cutting to ensure that you have it the right way round. It is rounded both ends for easy manufacture ; the back end should be cut away. Sandpaper the top corners of bulkhead 2 and the ends of the wing supports where the canopy fits before cementing it in place.

ASSEMBLY.

Use the two small elastic bands to hold the wing in place. They should be stretched diagonally over the centre-section and hooked over four small pins which are pushed into the edges of bulkheads 1 and 2.

Check the rig of the complete model ; the tailplane should be in line with the wing, and the fin upright. There should be no warps in the flying surfaces. The model should balance approximately an inch from the leading edge of the wing. Add ballast weight to the nose to obtain this.

FLYING.

Choose a calm day if possible for the first tests. Hand-launch the model first to check the balance. If it shows a tendency to nose-up and stall, add more weight to the nose, and if the model dives to the ground, take weight out of the nose. It is almost impossible to know exactly what trimming a model will require until it is test-flown, but if there are no warps in the wing or tailplane the model should fly quite well straight away. A tendency for it to turn sharply either way indicates a warped wing, and this should be corrected. A wide turn is desirable to prevent the model flying too far in a straight line.

When a satisfactory glide is obtained, a tow-line launch can be attempted. For this, a length of thin kite string with a ring attached to one end is required. Tie a piece of tissue paper just below the ring to help it disengage from the hook on the model. Use a reel if possible to facilitate winding in the line. Un-reel the line, loop the ring on to the hook on the model, and get an assistant to launch it (into wind) while you reel in the line. A running launch can be used to save reeling in if desired. If the model is inclined to weave from side to side when being towed, slow up the launching and do not release it until it has levelled out to its normal gliding angle.

Do not forget to put your name and address on the model before flying.

Designed and Produced in England by
INTERNATIONAL MODEL AIRCRAFT LTD.,
Morden Road : Merton : London, S.W.19.

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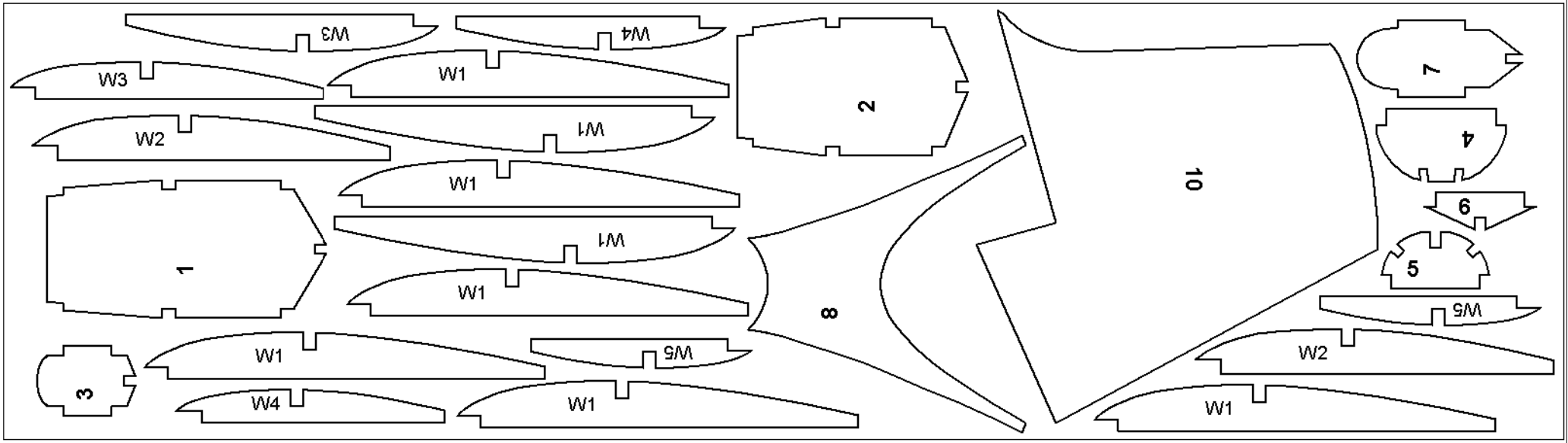
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