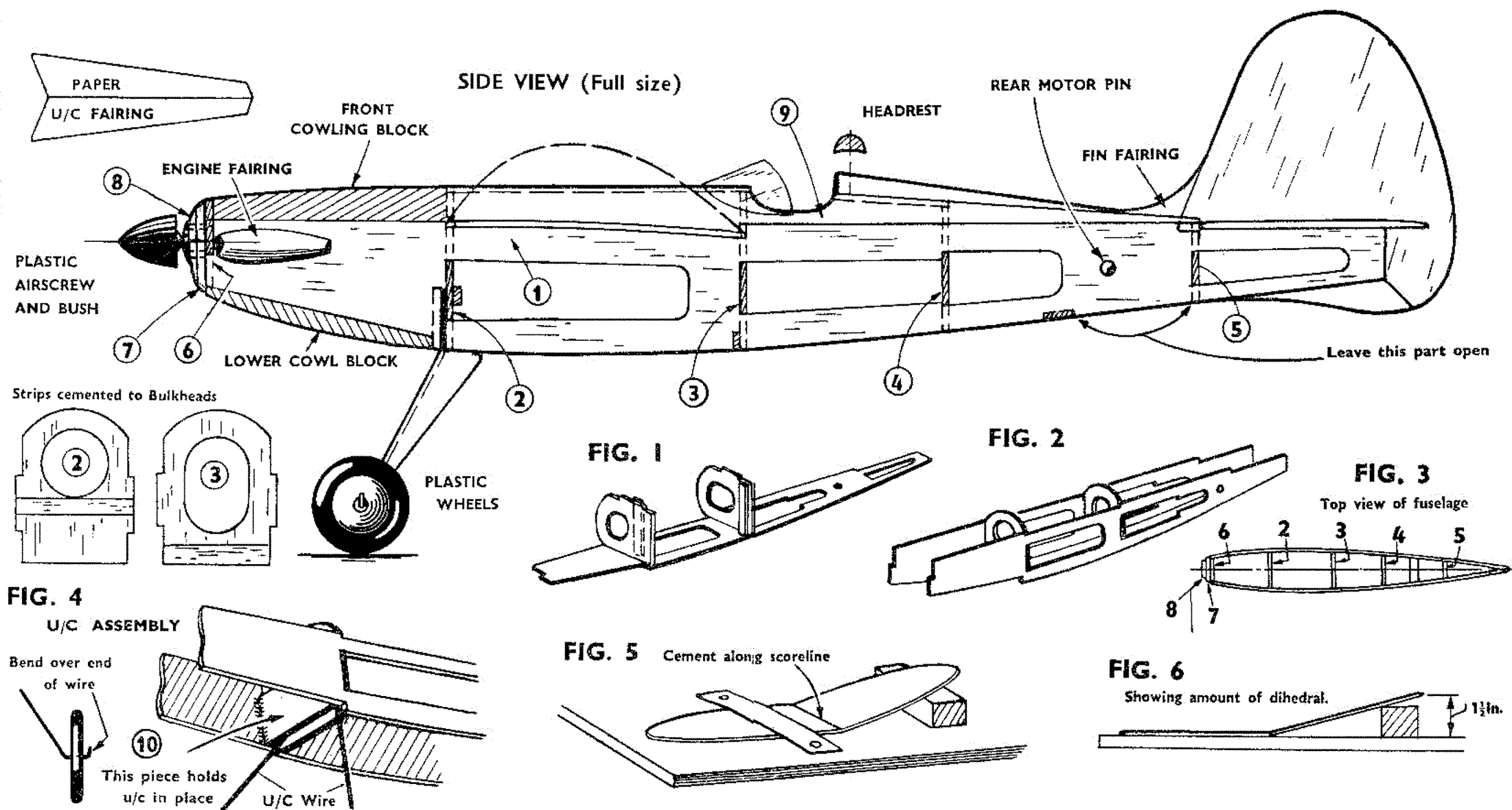




"SCAMP"

JUNIOR
SERIES

12" SPAN
RUBBER-POWERED



BUILDING INSTRUCTIONS

The Frog Junior Series comprises a range of models of near-scale design and appearance, and embodying very simple and quick construction methods. All the parts are ready-cut to shape, and interlock together, so that they automatically locate with each other, and only require cementing.

To ensure a satisfactory job, study the plan and check the parts with it before commencing. Assemble the model step by step as shown.

Cement and "dope" are not included in this kit but they can be bought at any model shop. Use quick-drying balsa-cement (glue) such as Frog Universal. You will also need a balsa knife or razor blade and a few pins.

If you enjoy building this model, remember there are many others in this series equally attractive.

FUSELAGE ASSEMBLY.

Carefully remove all the parts from the balsa sheet using a balsa knife or a piece of razor-blade to separate them with a clean edge. Start by glueing pieces of balsa strip cut from scrap, to bulkheads 2 and 3, then cement these to one of the side panels, as shown in fig. 1. Make sure they are upright, and allow to dry. Then cement the other side in place as in fig. 2. When these are set, assemble the other bulkheads 4 and 5 and the front pieces 6, 7 and 8; see fig. 3.

UNDERCARRIAGE.

Bend the top part of the shaped wire piece forward as shown in the side view drawing; then cement it into place in front of bulkhead 2, with the piece 100 against the wire to hold it in place; see fig. 4. Then fix the lower cowl block, $\frac{1}{8}$ in. thick, between part 10 and the nose piece, and shape it after it has set.

Fit the wheels in place and bend over the ends of the wire, or glue small paper washers to the axles to hold them on. Cut the two fairings from paper to the shape given, fold them, and glue them to the wire legs.

WING.

Remove the cut-out wing piece from the balsa sheet, and sandpaper the surface and edges smooth. A score-line is made at the centre to help bend the wing to the required angle.

Place the wing on a flat board or table, fix down one side as indicated in fig. 5, and raise the other end $1\frac{1}{2}$ in. with a match box or similar article; fig. 6.

Apply cement along the score-line, and allow to dry. When it is quite set, remove the wing from the board and fix it to the fuselage, with bulkheads 2 and 3 fitting into the slots in the wing. Make sure that both sides of the wing are level and free from warps.

Continued over.

INSTRUCTIONS (cont'd).

COWLING.

Remove the cockpit piece 9 from the balsa sheet, damp it on the outside with water to help bend it to shape, and cement it in place over the bulkheads 2, 3 and 4, and wing; fig. 7.

Cement the front cowl block in place, and sandpaper it to fit the nose of the fuselage. Taper the rear cowl block as shown, make a slot at the back, and cement it in place. When it has set, shape it to fit the fuselage, and round off the top.

Cut a small strip of balsa to fit between bulkheads 4 and 5, as shown in Side View.

Fix the windscreen in place on the cowling, holding it in position until the cement has set.

Shape the headrest from a strip of $\frac{1}{4}$ in. square balsa, and cement it to the rear cowl block; see fig. 8, and Side View drawing.

TAIL ASSEMBLY.

Remove the Tailplane and Fin parts from the balsa sheet, using fine sandpaper to obtain a smooth finish. Cement them in place on the fuselage as shown in fig. 8 and make sure they are quite "square" as in fig. 9.

Remove any sharp corners on the fuselage with sandpaper, and smooth down the whole model to obtain a good finish.

COVERING.

Only the fuselage needs covering on this model. Cut three strips of the tissue, to cover each side separately, allowing about $\frac{1}{4}$ in. overlap all round. Use paste for sticking it to the framework. Dope can be used, but remember that it dries very quickly. Start with the bottom and apply paste to the edges of the frame, from the undercarriage to the strip between 4 and 5. Lay the strip of tissue over the frame and smooth out any wrinkles. Do not try and get it drum-tight, as water-shrinking and doping will ensure a taut surface. When dry, trim off the excess paper and paste down again. Repeat this with each side. When the paste is set, spray water carefully over the tissue and allow to dry. A coat of dope or lacquer can be applied to the fuselage to "proof" the surface and strengthen it.

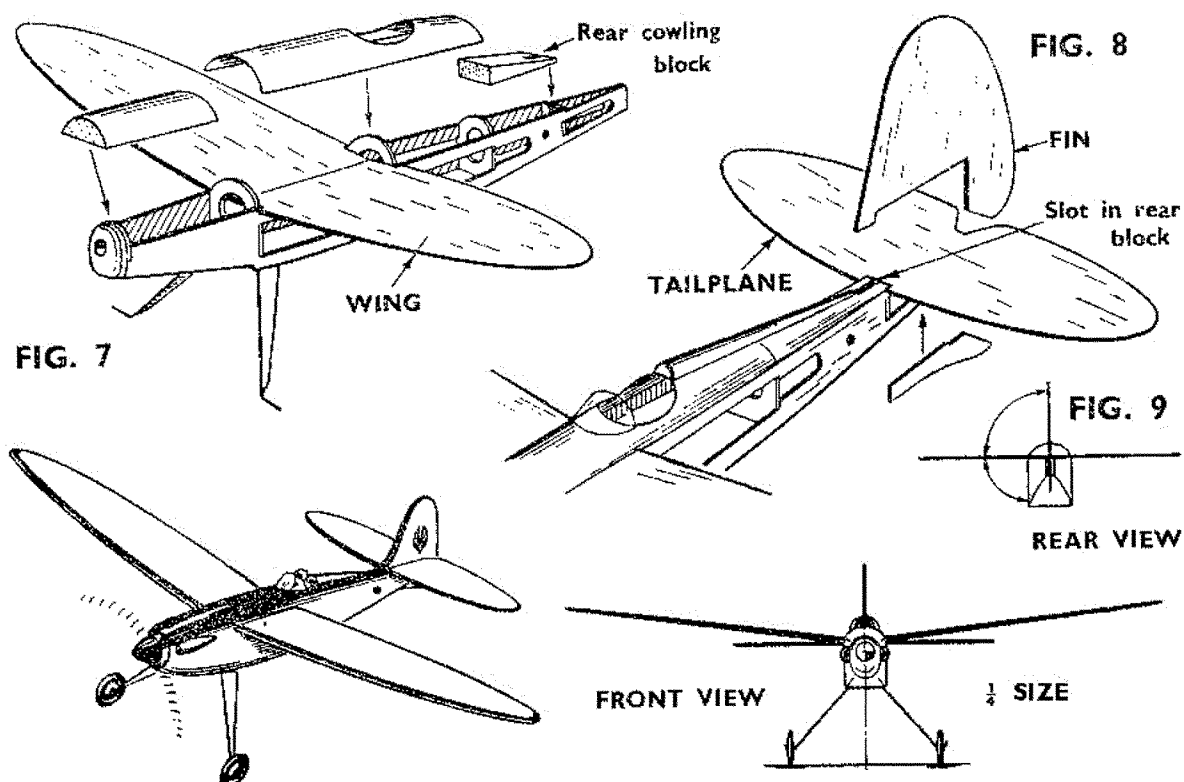
DECORATING.

Painting should be restricted to the fuselage, and edging on the wing and tail, to save weight. Use Cellulose Lacquer, and apply it quickly and evenly with a soft brush. Do not put it on heavily, or the model will not fly well.

Transfers can be affixed to the wing or fin, and any other lettering or decoration required.

MOTOR.

This is an elastic band 6 in. long. Lubricate it with Castor Oil, and insert it with the help of a length of wire or thread. Bend a hook at one end of the wire and insert it into the front end of the fuselage. Hook the band on to it through the opening at the rear, and insert the rear motor pin (cane) through the holes in the fuselage and through the loop of elastic. Pull the band out through the front, and hook it on to the Airscrew shaft (complete with airscrew). The model is now complete and ready for flying. A drop of thin oil on the airscrew shaft will improve the running.



FLYING.

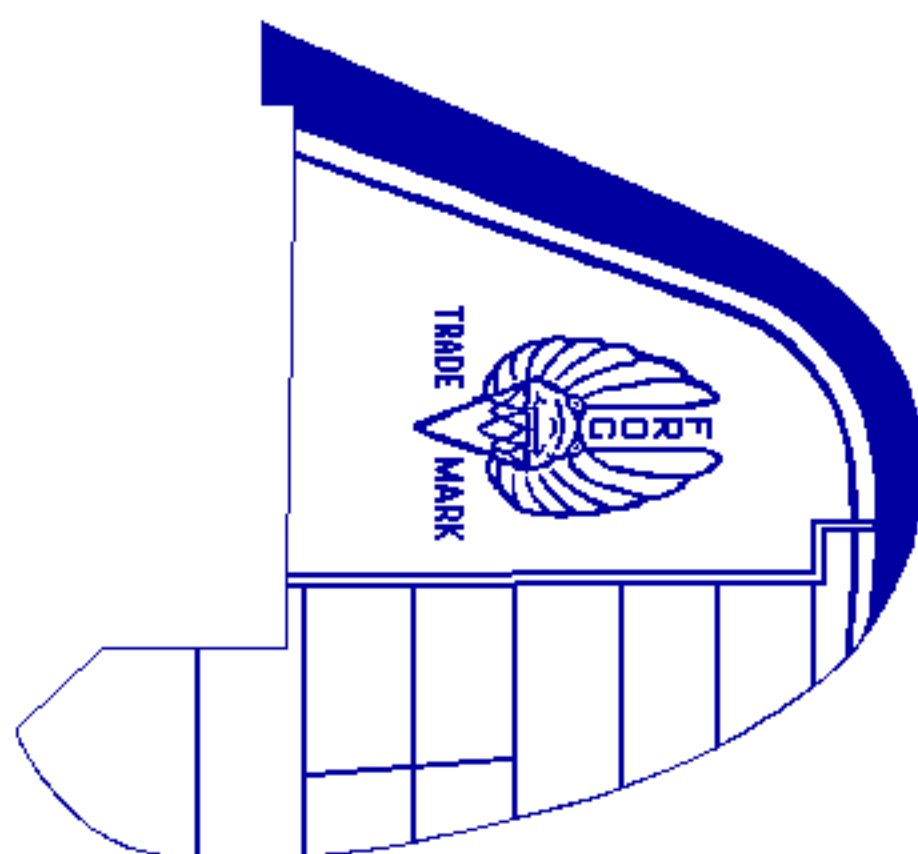
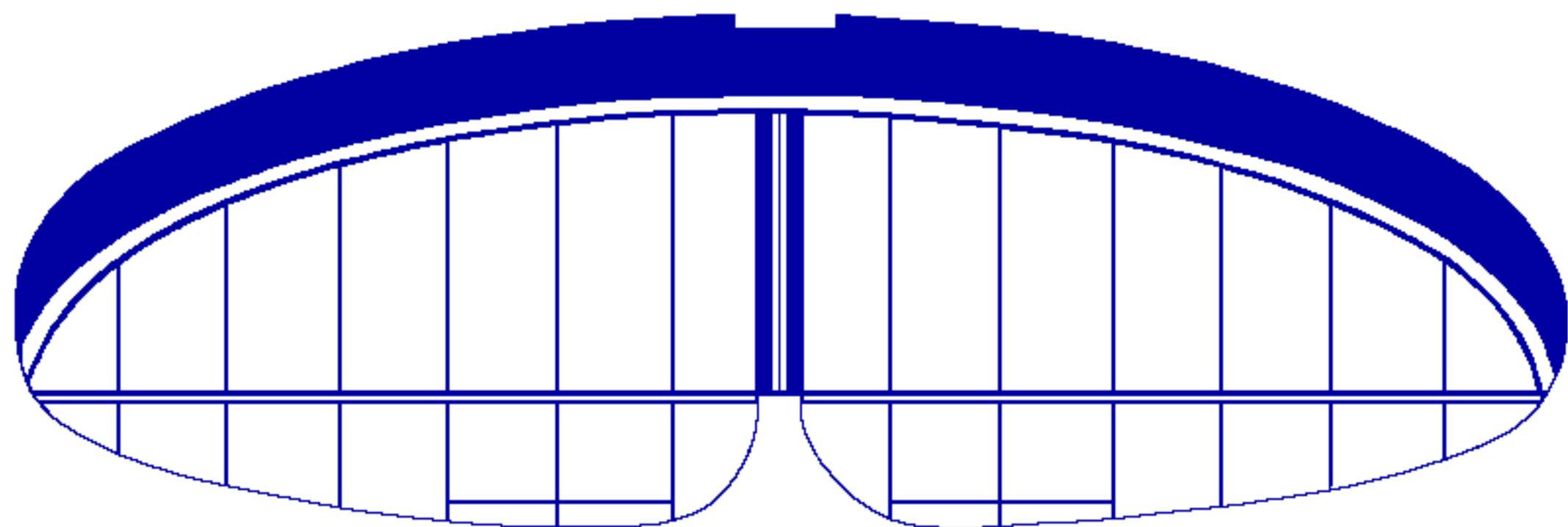
This model can be flown indoors or out, but it should only be used outdoors on a calm day, owing to its size.

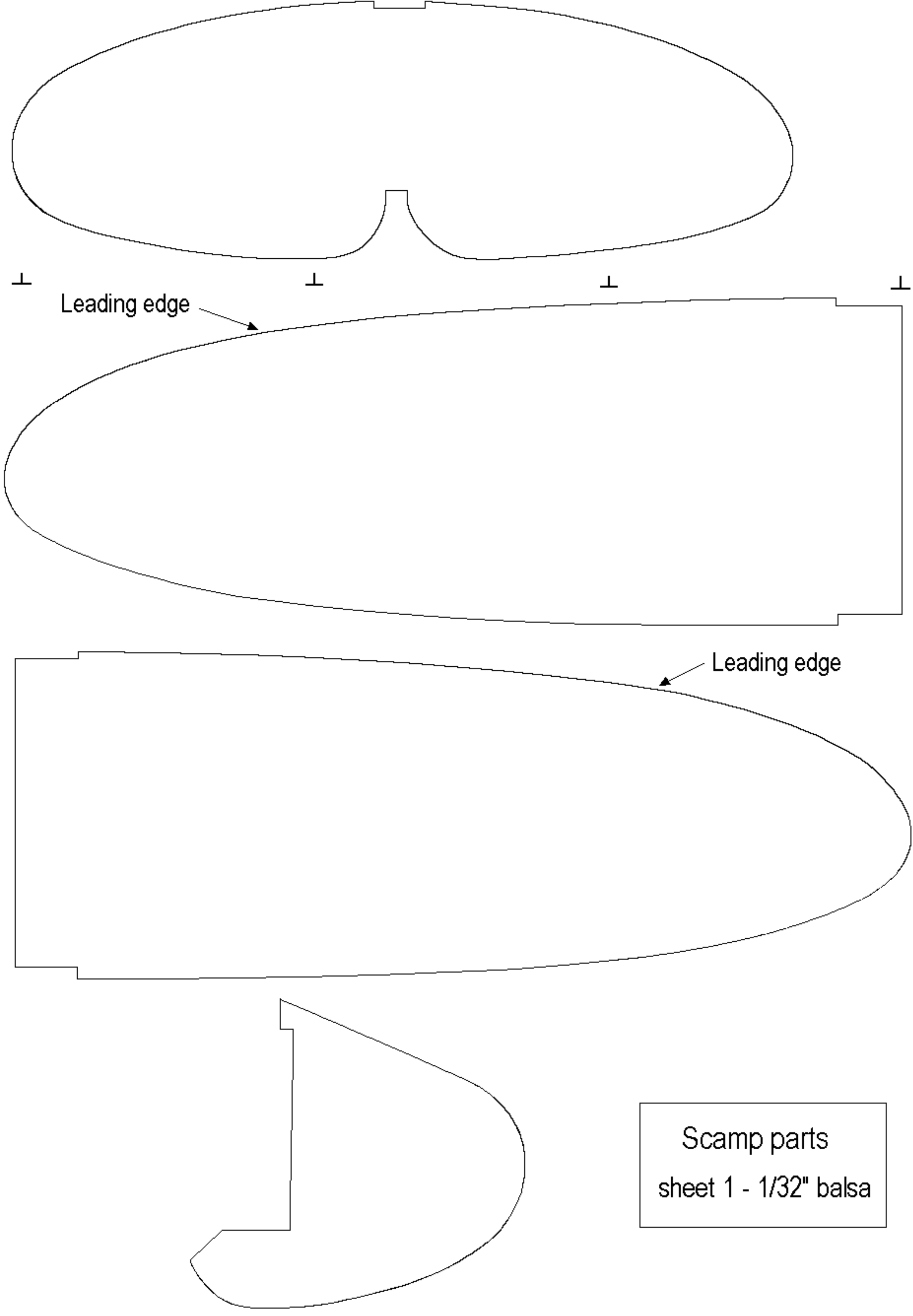
Test-glide the model first to check the balance. Hand-launch it in a slight downward direction. If it dives to the ground, carefully bend up the rear edges of the tailplane, known as elevators, or glue a small weight in the rear end of the fuselage. If the model climbs steeply and stalls, bend the elevators down slightly, and/or add a small weight to the nose of the fuselage. A small nail can be pushed into the cowl block for this.

When the glide seems satisfactory, put a few turns on the motor and launch the model (into wind) if any. The turn can be adjusted by bending the fin, or by twisting the wing slightly.

Increase the turns on the motor gradually, up to a maximum of approximately 300; if the motor is not lubricated, the turns must be limited to 150.

Designed and Made in England by
INTERNATIONAL MODEL AIRCRAFT LTD.
MORDEN ROAD, MERTON, LONDON, S.W.19.





Leading edge

Leading edge

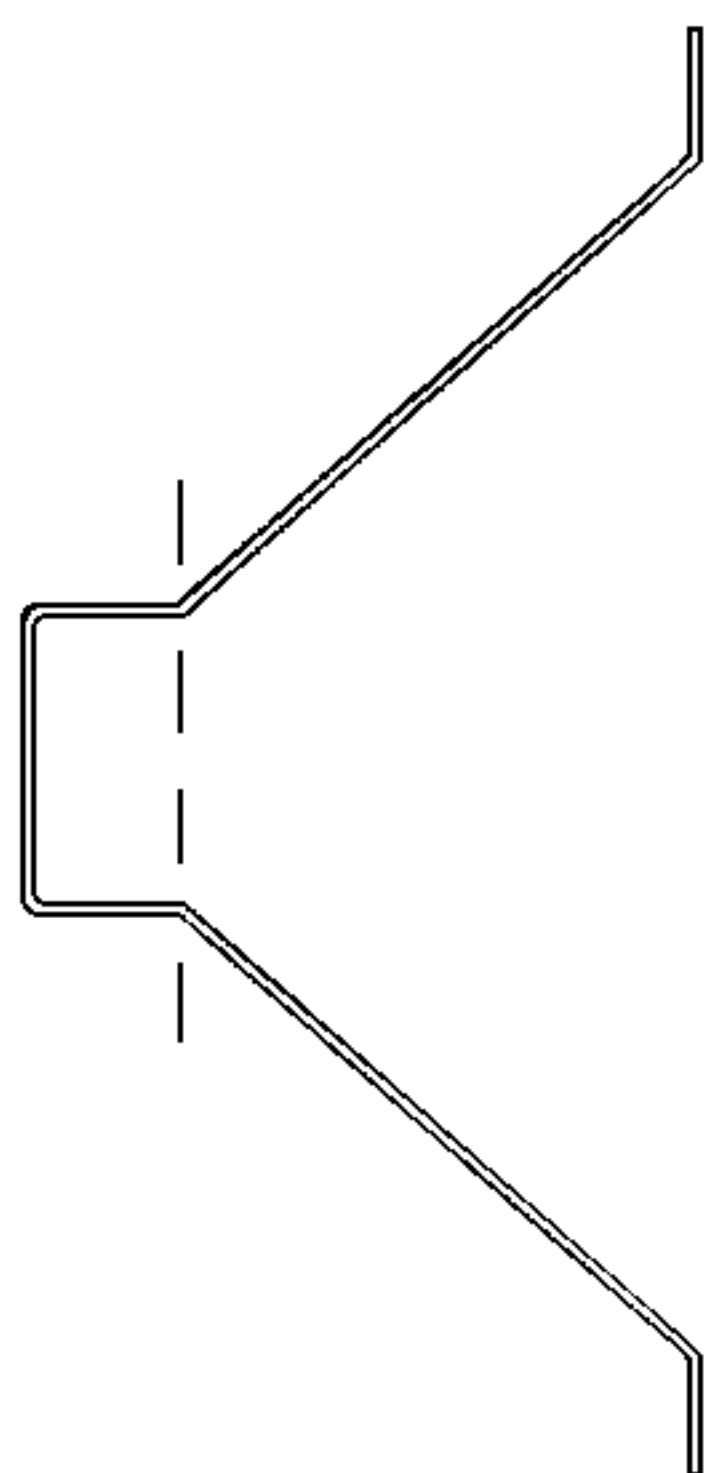
Scamp parts
sheet 1 - 1/32" balsa

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Scamp parts
Sheet 2

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