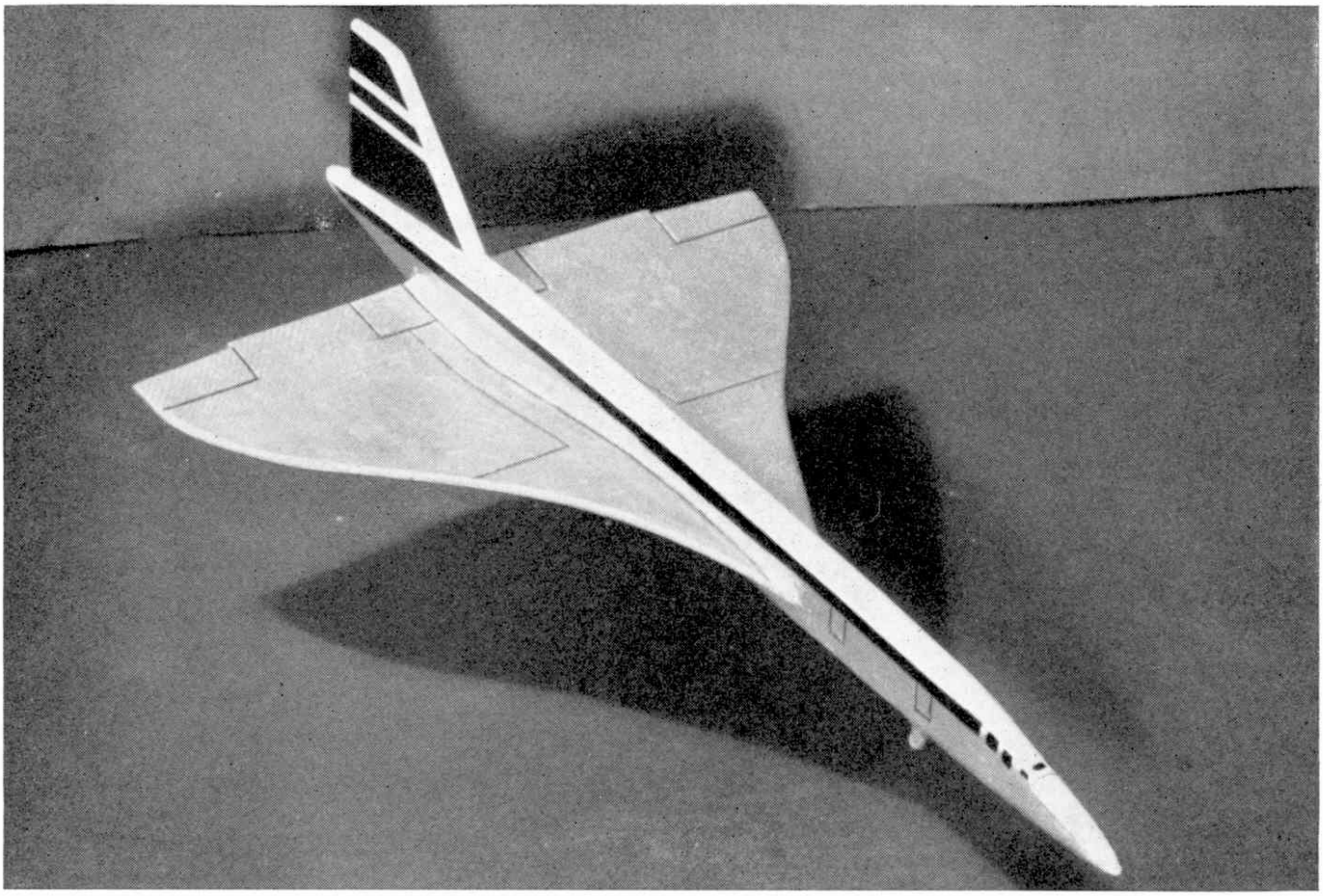


THE CONCORD

Meccano Magazine presents the model of tomorrow! Build this Concord for flight or display

ALTHOUGH the new Concord has yet to fly, there can have been few aircraft that have aroused such world-wide interest. Designed to fly at supersonic speeds, the Concord will 'shrink' the earth to a size that is impossible even with present-day jet-airliners. Be the first to build a model of this beautiful streamlined delta-wing aeroplane. The model has been designed so that you can fly it as a catapult-towline glider or, if you prefer, as an eye-catching display model for your den. Carefully painted and mounted on its specially designed stand it will attract lots of attention, and amply reward you for your efforts.

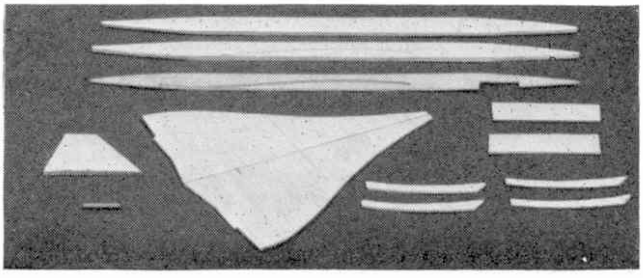
Begin by cutting the three fuselage shapes, two of $\frac{1}{8}$th inch sheet balsa and one of $\frac{1}{16}$th inch plywood. Cement these together and when dry, cut out the wing slot with a fretsaw. Take your time over this operation. Sandpaper the fuselage shape to the correct section and then give two coats of clear dope.

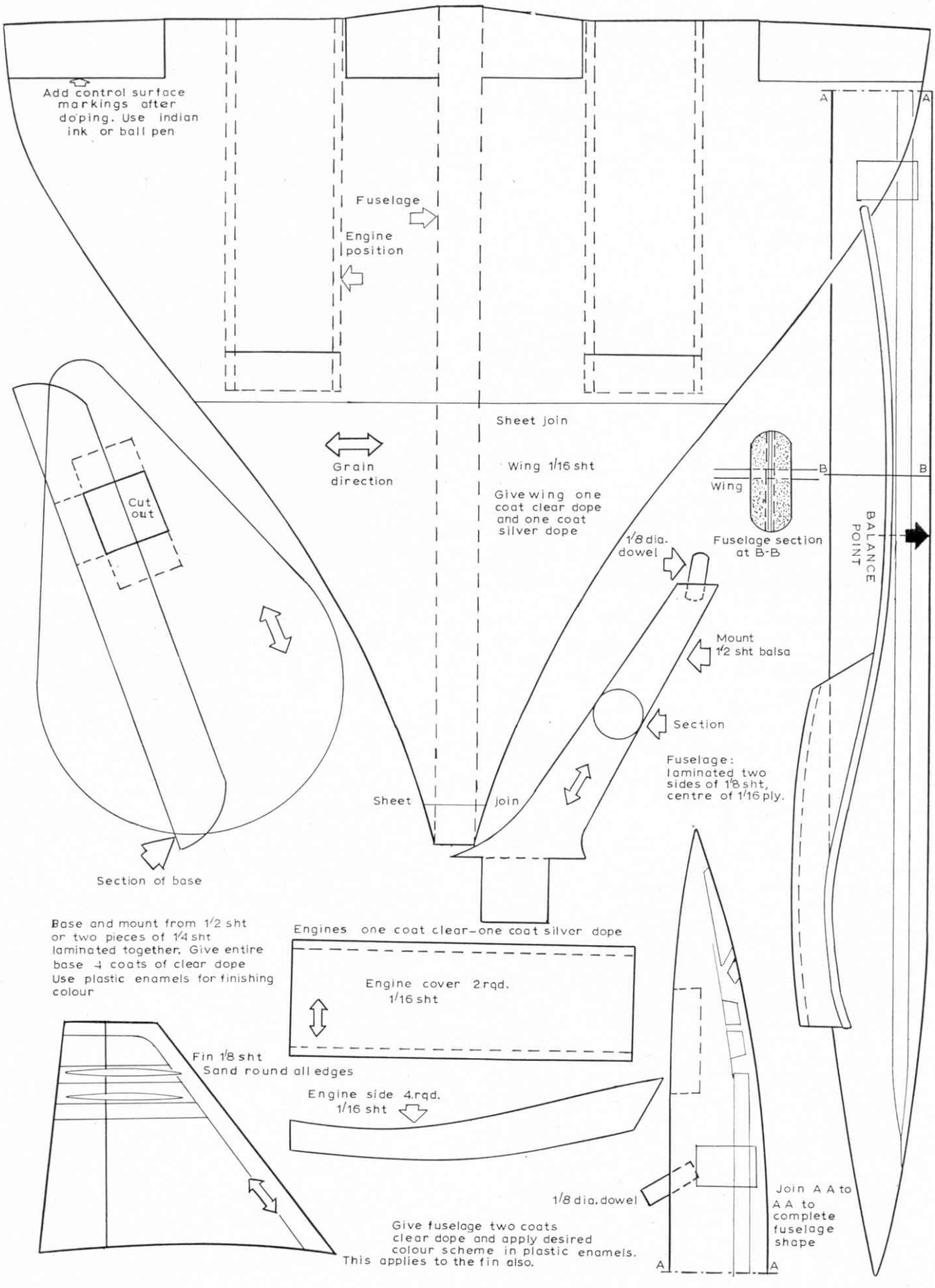
Join three pieces of $\frac{1}{16}$th inch sheet and trace on the wing shape. Cut out and round off the edges. Give one coat of clear dope and then sandpaper *very* lightly. Slide the wing into the wing slot. The wing will automatically take on the right curvature. Check that it is at right angles to the fuselage. Plastic wood can be used to form a smooth fillet at the wing-fuselage joins. Cut out the engine pieces and cement in place under the wing. Cut out the fin, round off the edges and cement to the fuselage. Make sure it is upright. Add the $\frac{1}{8}$th inch diameter dowel rod which is used for catapult launching.

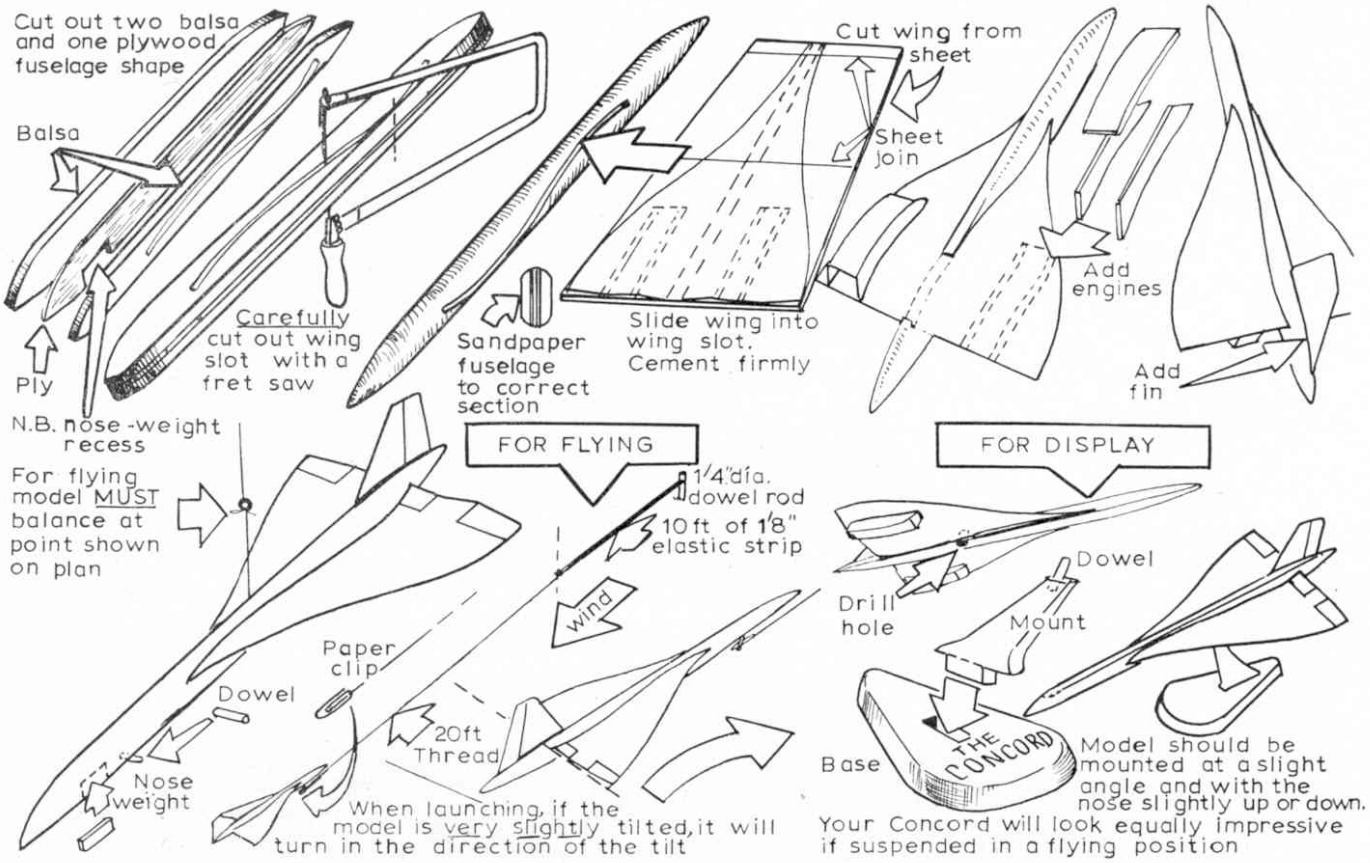
If you intend to fly your Concord, it is important that you balance your model correctly. When suspended from the balance point (on the plan), the model should hang level. You will probably need a small piece of lead or folded cement tube, pushed into the nose weight recess, to obtain correct balance. It is very unlikely you will need weight at the tail end.

Test glide your Concord by launching it with wing parallel with the ground, fairly smartly into wind. Do not throw it, and choose long grass or soft ground for all tests.

Concord components—note grain direction across the wing form




Add control surface markings after doping. Use indian ink or ball pen
Fuselage
Engine position
Sheet join
Grain direction
Wing 1/16 sht
Give wing one coat clear dope and one coat silver dope
Cut out
Section of base
Sheet join
1/8 dia. dowel
Mount 1/2 sht balsa
Section
Fuselage: laminated two sides of 1/8 sht, centre of 1/16 ply.
Wing
Fuselage section at B-B
BALANCE POINT
A
A
B
B
Base and mount from 1/2 sht or two pieces of 1/4 sht laminated together. Give entire base 4 coats of clear dope Use plastic enamels for finishing colour
Engines one coat clear-one coat silver dope
Engine cover 2 rqd. 1/16 sht
Fin 1/8 sht
Sand round all edges
Engine side 4 rqd. 1/16 sht
1/8 dia. dowel
Join A A to A A to complete fuselage shape
Give fuselage two coats clear dope and apply desired colour scheme in plastic enamels. This applies to the fin also.



From shoulder height it should land about 12 to 15 feet away. The glide must be *straight*. If it banks left or right add a tiny amount of Plasticine to the edge of the under-surface of the *opposite* wing tip.

Now you can make up your catapult-towline. Use 10 feet of $\frac{1}{8}$th inch strip rubber, from your model shop, and tie one end firmly to a dowel rod or stick. To the other end tie 20 feet of strong thread. At the end of the thread tie a small paper clip. Push the dowel into the ground—long grass or soft ground, please! Slip the paper clip on to the launching dowel in the nose of your Concord, pull back and release.

Do this very gently at first to see how your model behaves in a fairly high-speed take-off. Slightly tilting the wing will cause the model to bank round in the direction of the tilt. This bank will often prevent the model stalling off the line and diving into the ground. Remember, using a catapult towline with a fast flying model such as the Concord does need practice. With experience you should get some pretty spectacular flights with Concord.

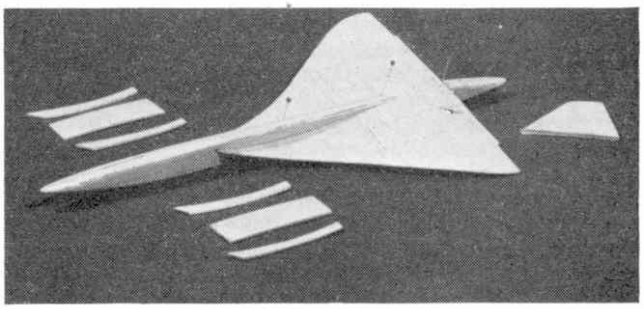
If you decide to build your Concord for display, be extra careful over your painting. Use quick-drying plastic enamels (small tins 9d. to 1s. 0d.). Our Concord is painted in the colours of the British Overseas Airways Corporation. A white fuselage top, dark blue band and silver on the lower part of the fuselage. The fin is dark blue with white trim and wings and engines silver.

Several of the world's airlines are interested in the Concord, so you might like to choose the colour scheme of, say, Air France or Air India. If you are not good at painting straight lines, bands of colour can be cut from strips of painted paper and carefully cemented in place. Build the special stand (as shown on plan) and give it four coats of clear dope, lightly sanding between each coat. Then, finish the stand with plastic enamel in a shade that will harmonise with your model. Add the name Concord to the front of the stand. Finally, fit your Concord on to the top of the stand as shown. Built as a display model the Concord is certainly 'tops'.

by **Ray Malström**

Materials list

1 sheet $\frac{1}{8}$ by 3 by 20 in. balsawood.
1 sheet $\frac{1}{16}$ by 3 by 25 in. balsawood.
1 sheet $\frac{1}{2}$ by 3 by 10 in. balsawood.
1 piece $\frac{1}{16}$ by 1 by 15 in. plywood.
2 in. piece $\frac{1}{8}$ in. diameter dowel rod.
6 in. piece $\frac{1}{4}$ in. diameter dowel rod.
10 ft. $\frac{1}{8}$ in. strip rubber.
20 ft. thread.
1 paper clip.
1 tube balsa cement.
1 small bottle clear dope.
Plastic enamels (colours as desired).



Above: Wings held with modelling pins while the cement sets
Below: Engine casings assembled on the wing structure