

'Winghi and 'Winglo the two indoor flying models decorated and ready to fly. These easy-to-build models provide hours of entertainment flying round a pole

# FLYING INDOORS

**Fly these sleek speedsters indoors! Have flying fun and thrills—with no weather worries.**

**T**HE gales and storms of winter need not interfere with your enjoyment of flying model aeroplanes. This month, we introduce you to indoor Round-the-Pole or R.T.P. flying. To get you off to a 'flying' start on this exciting branch of aeromodelling, we are featuring full-size plans for not one—but two, small, indoor flying speedsters—one a high and the other a low wing model. Choose the one you prefer—'Winghi' or 'Winglo' or, if you are really enthusiastic, build them both.

These lightweight models, exclusive to Meccano Magazine, fly indoors on a thread line attached to a centre pole. The line length can be anything from four to eight feet, depending on how much space you have got. Fly anywhere indoors—your clubroom, schoolroom, garage, or a room in your own home. Introduce indoor model flying to your club, group or society. Once they've got the idea, all your friends will want to fly 'Round-the-Pole' this winter! At the end of this article, we will suggest some exciting competitions you can have with these simple-to-build, fast flying model aircraft.

You will see from the plan that both models use identical wings, tailplane, undercarriage and propeller assemblies. This makes for speedy building if you decide to build both models. Follow the 'easi-build' sketches and trace the parts on to tracing paper, transfer to sheet balsa and cut out. Note the nose slot takes a brass nose bush (18 s.w.g.). This is obtainable from your model shop. The wire undercarriage and skid are held in position by small pieces of linen tape or silk—cement with three or four coats of adhesive. Lightly sandpaper the edges of the wing to a rounded section. Assemble fin, tailplane and wing as shown. Note particularly the slits cut in the trailing edges of the fin and tailplane. These help trimming the model later. Pieces 2 reinforce the wing-fuselage joint.

The piece of tape or silk cemented under the right-hand wing tip (model viewed from the rear) reinforces the wing tip where the R.T.P. loop is tied. Add this loop where shown.

K.K. 3 or 2 blade plastic propellers cost 11d. each and you may use either. Decorate with coloured ball pens but do not dope.

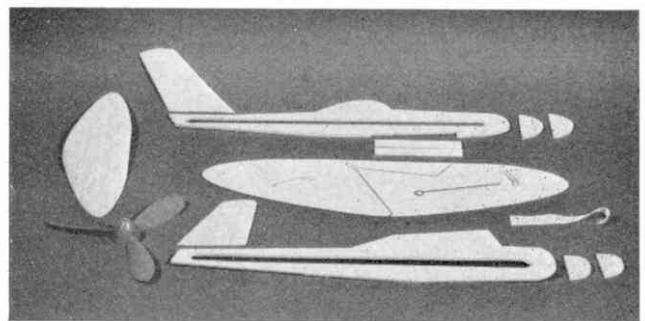
Power for test flying is 20 inches of  $\frac{1}{4}$  inch strip rubber. Thread the rubber strip around the rear anchor wire (part of tail-skid assembly). Tie the ends of the rubber strip *very tightly*.

Slip front of loop over drive shaft hook. Lubricate the rubber generously with rubber lubricant (4d. tube).

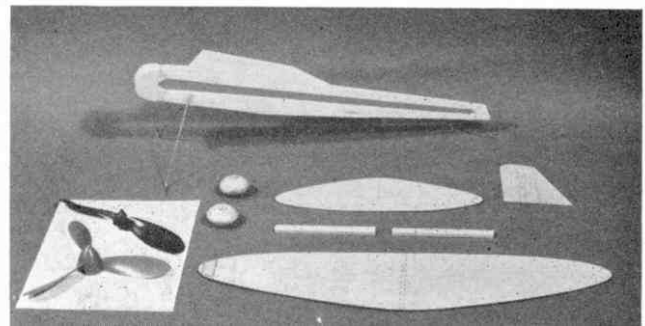
Now balance your model carefully. This is very important. Suspend your model from the point shown on the plan marked C.G. (balance point). It should hang level. A tiny amount of plasticine added to nose or tail may be necessary to achieve correct balance.

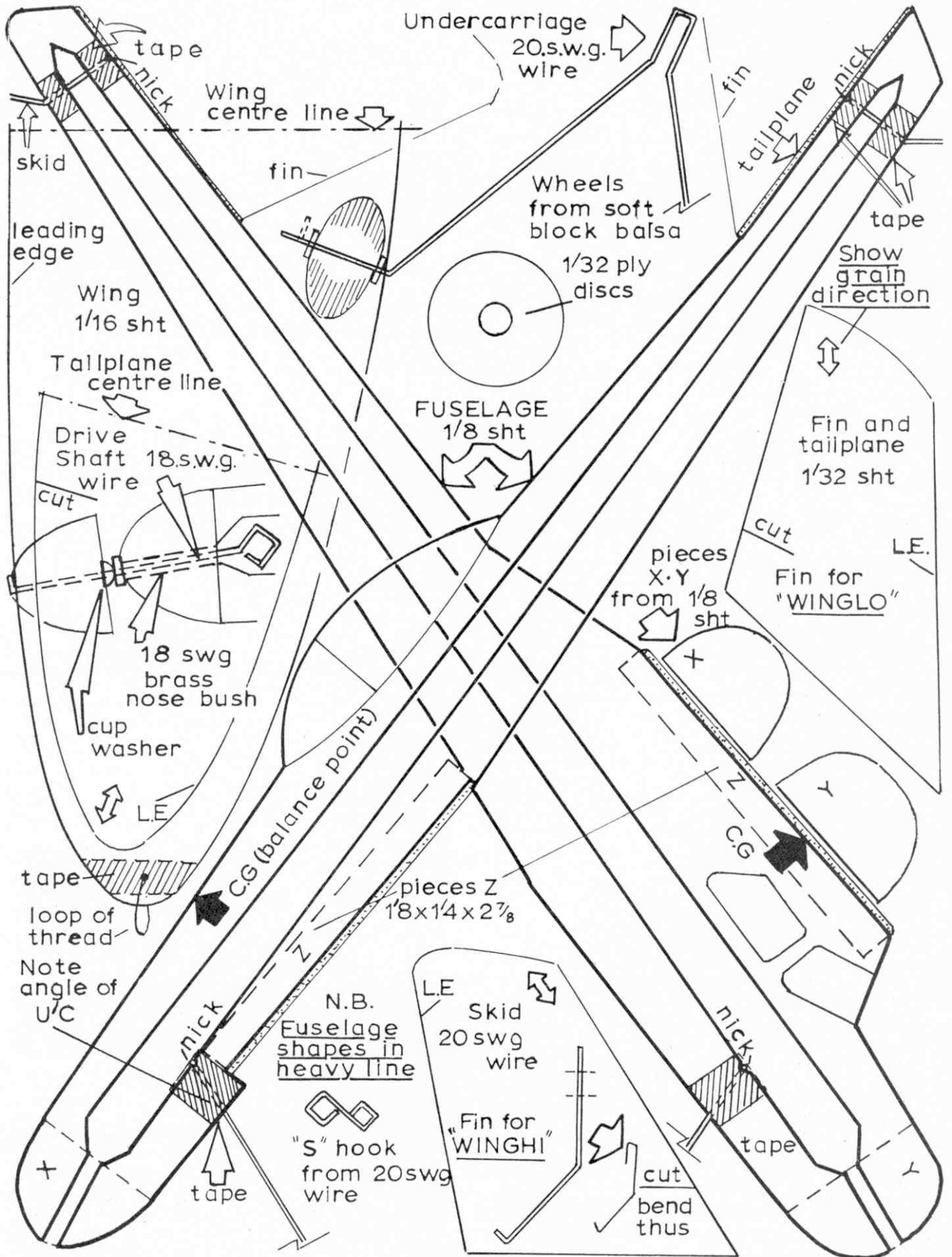
Details for making the very simple pole around which the models fly is included in the 'easi-build' sketches.

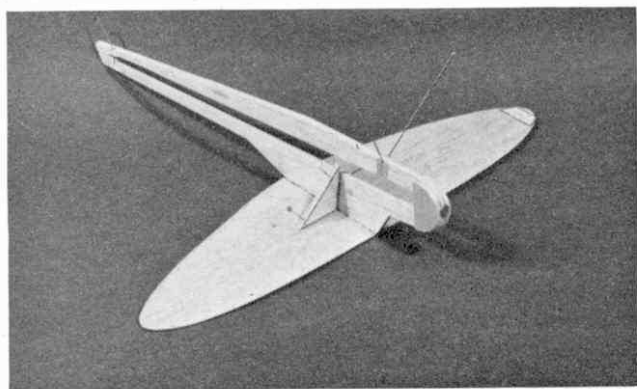
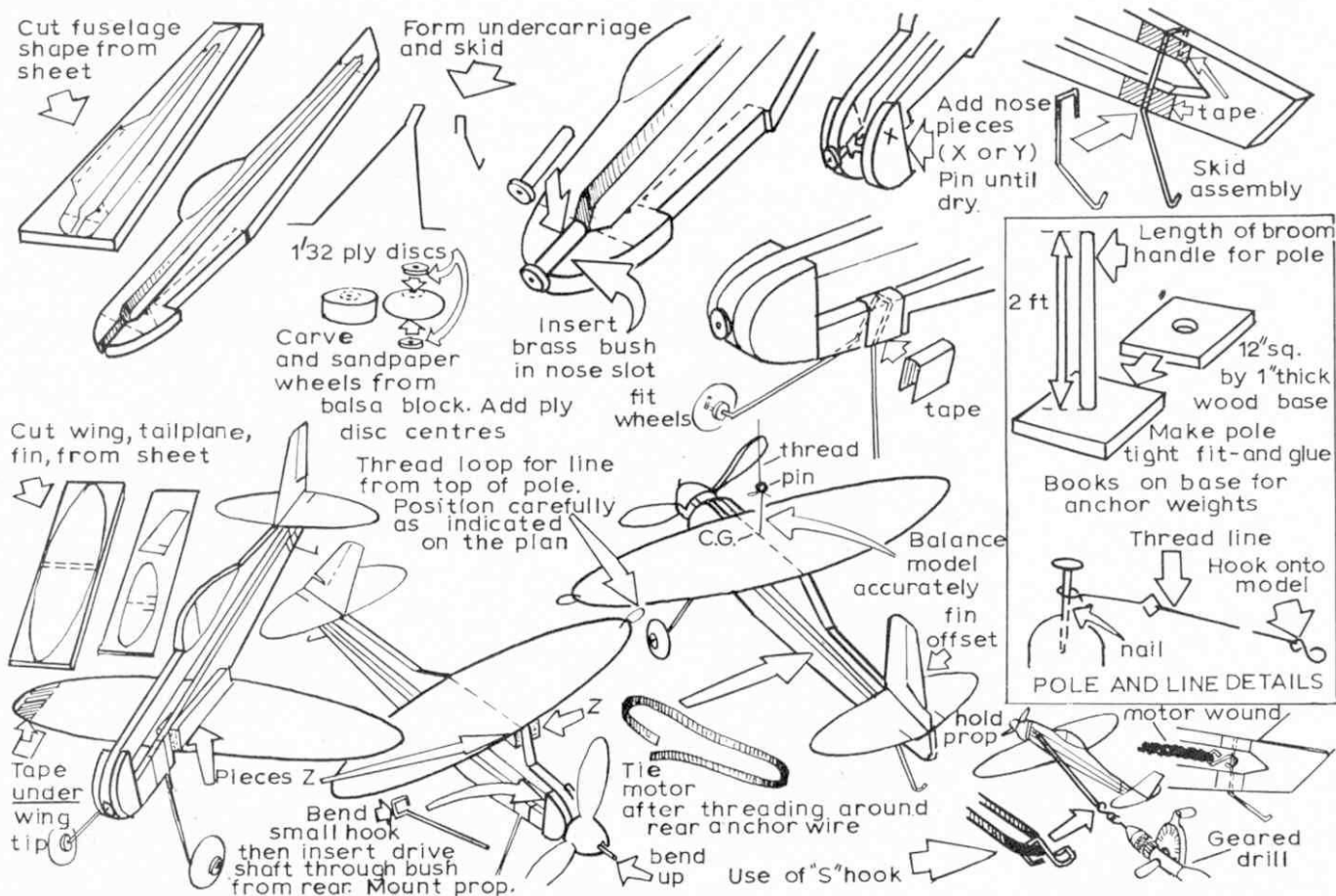
You should now almost be ready for your first test flight! Put about 150-200 turns on the rubber motor by turning the propeller clockwise, viewed from the front. Bend the rear edge of the fin about  $\frac{1}{4}$  of an inch to the left (model viewed from rear), hook the model on to the line and let go. The model should take-off, climb to about the height of the pole, make



Parts for these models are few. Fuselage for 'Winghi and 'Winglo' as shown above. Constructional details of 'Winghi' are shown below. Note: 2 or 3 blade props are suitable

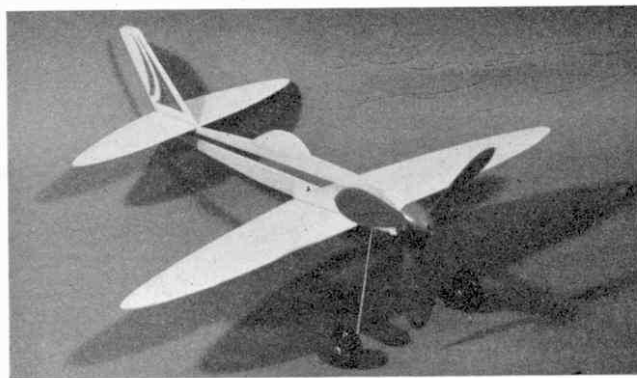






Use a right-angled piece of sheet to get accurate alignment of wing to fuselage. Pin firmly until cement sets.

'Winglo' almost complete and ready to fly



#### MATERIALS REQUIRED

- 1 sheet  $\frac{1}{2}$  in. by 3 in. by 36 in. balsawood.
- 1 sheet  $\frac{3}{4}$  in. by 3 in. by 36 in. balsawood.
- 1 sheet  $\frac{1}{8}$  in. by 3 in. by 36 in. balsawood.
- 2 1 in. sq. balsawood blocks.
- Small piece  $\frac{1}{2}$  in. plywood.
- 3 in. length 20 s.w.g. wire.
- 3 in. length 18 s.w.g. wire.
- 1 18 s.w.g. brass nose bush.
- 1 cup washer.
- Small piece of linen tape or silk.
- Short length of thin thread.
- 36 in.  $\frac{1}{8}$ th strip rubber.
- 1 K.K. 5 in. diameter plastic propeller (3 or 2 blade).
- Small tube of balsa cement.
- Small tube of rubber lubricant.

two or three circuits and land. If model fails to take off, bend the rear edges of the tailplane UP about  $\frac{1}{4}$  of an inch. If it climbs too steeply and falls back (stalls), add a little weight to the nose.

When trimmed, you can increase the turns to a maximum of about 350. For really longer flights, use a 16 inch loop of rubber ( $\frac{1}{8}$  inch strip) and wind with a small "S" hook. After winding (maximum turns 750) this "S" hook is slipped on to the rear anchor wire. Do this carefully, remembering that these are lightweight indoor models and must be handled accordingly. Also, they will *not* fly outdoors.

Finally, here are those exciting competition suggestions:

**DURATION:** Competitor making longest flight time wins. Each competitor allowed three flights.

**SCRAMBLE:** Competitor makes as many flights as possible in three minutes.

**SPOT LANDING:** Take off anywhere around circle. Competitor landing nearest to a line drawn from the centre to the outside of the flight circle wins. Flights of less than two circuits disqualified.