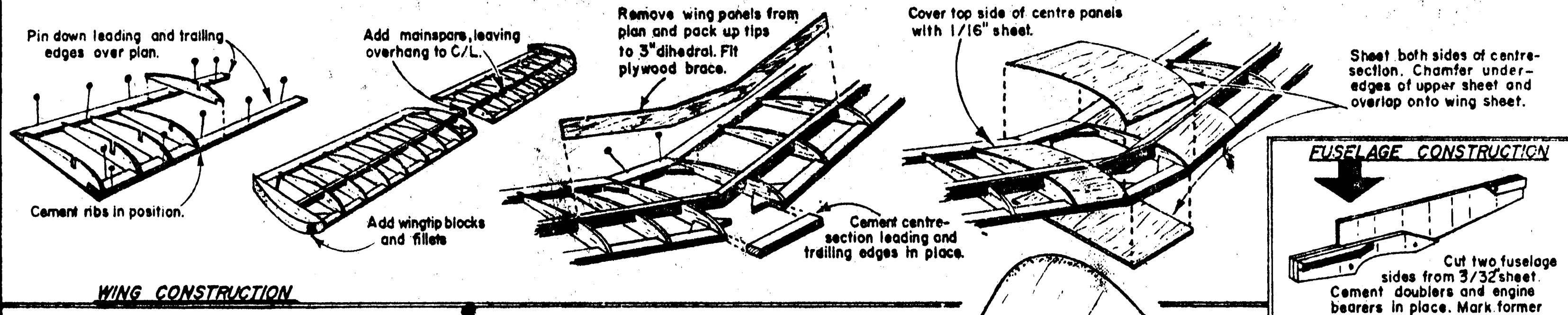


# WEE SNIFTER

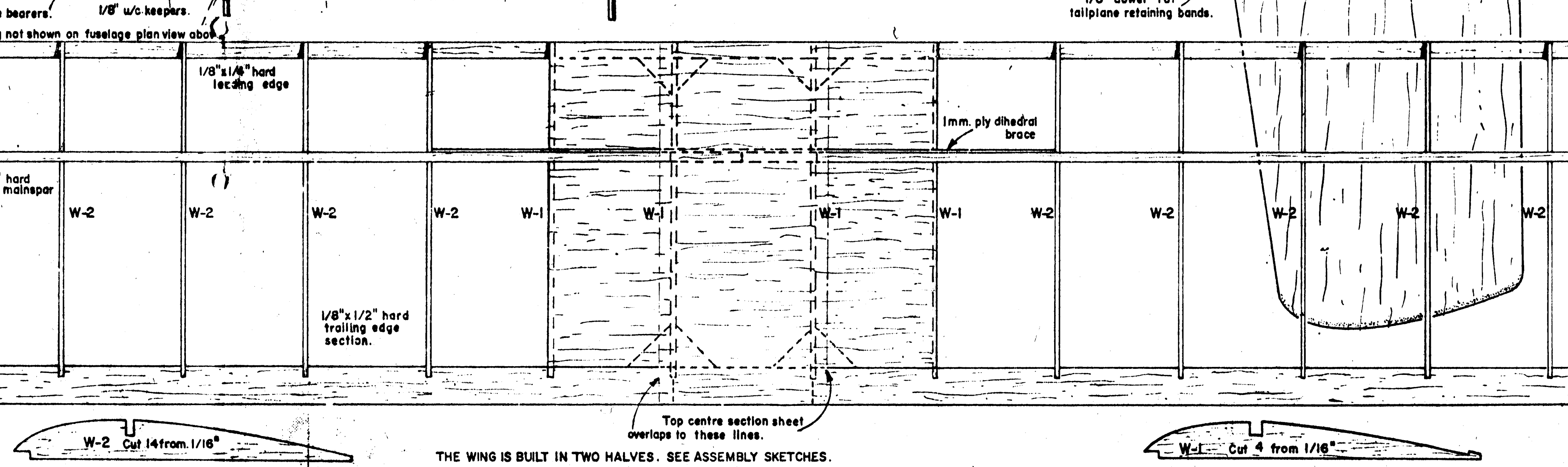
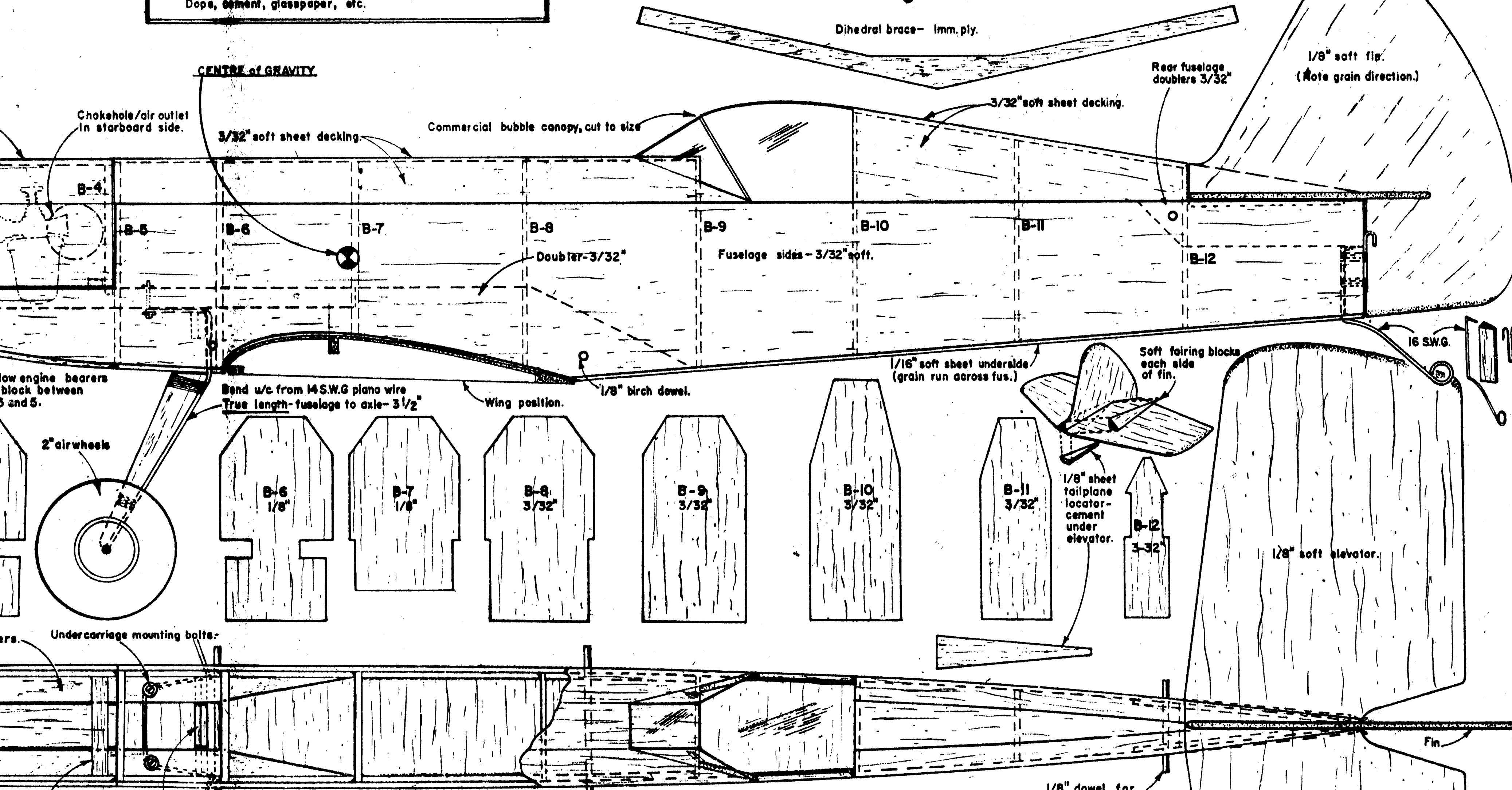
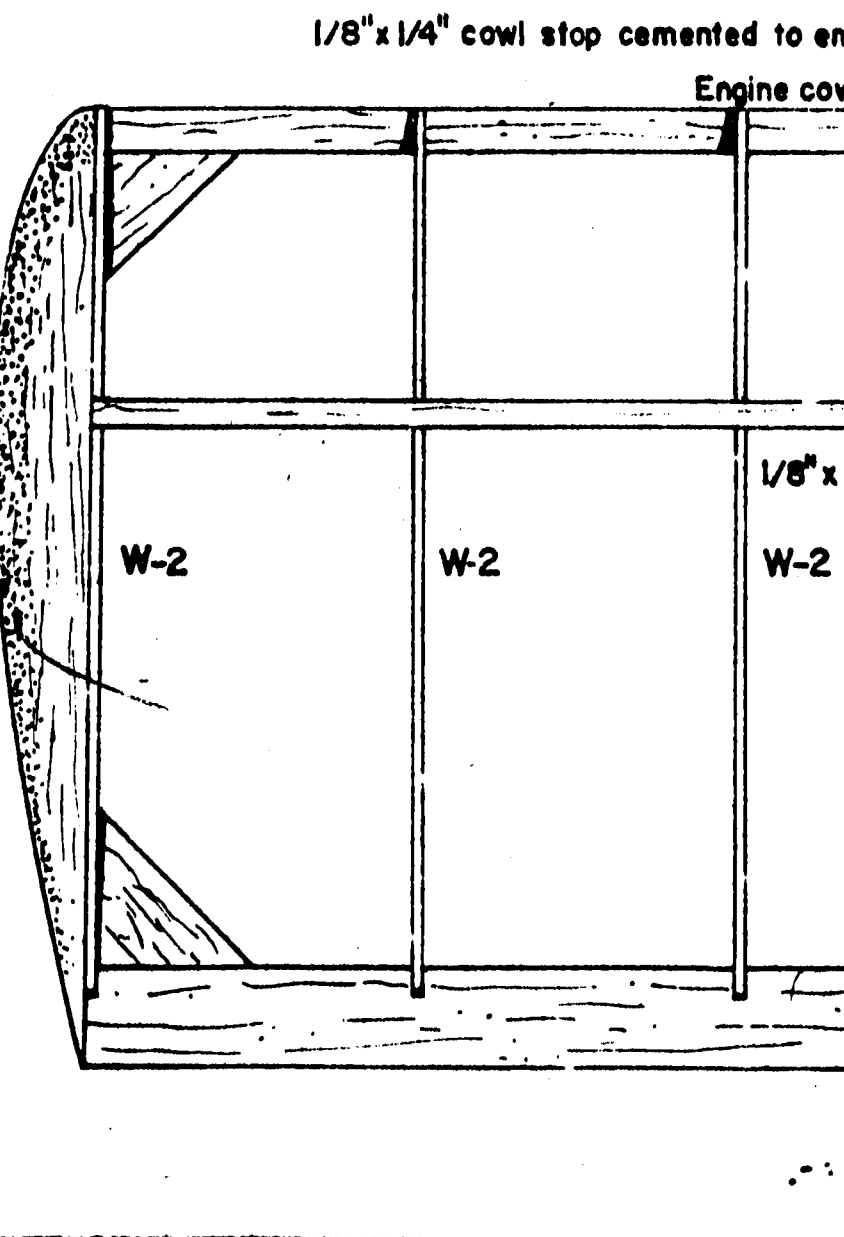
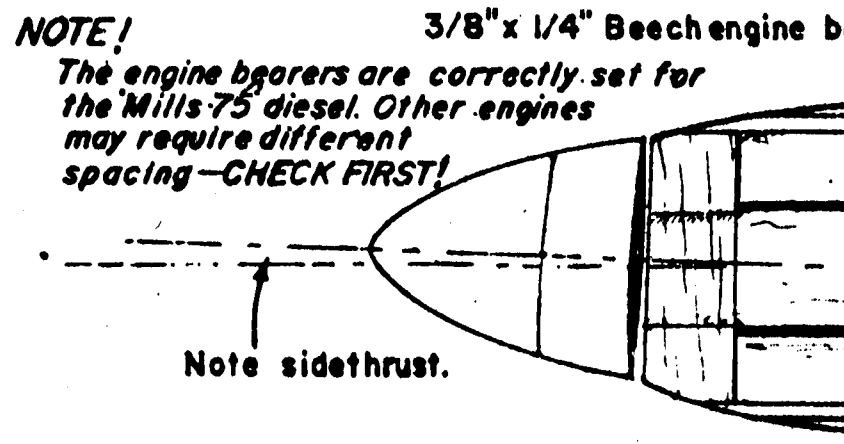
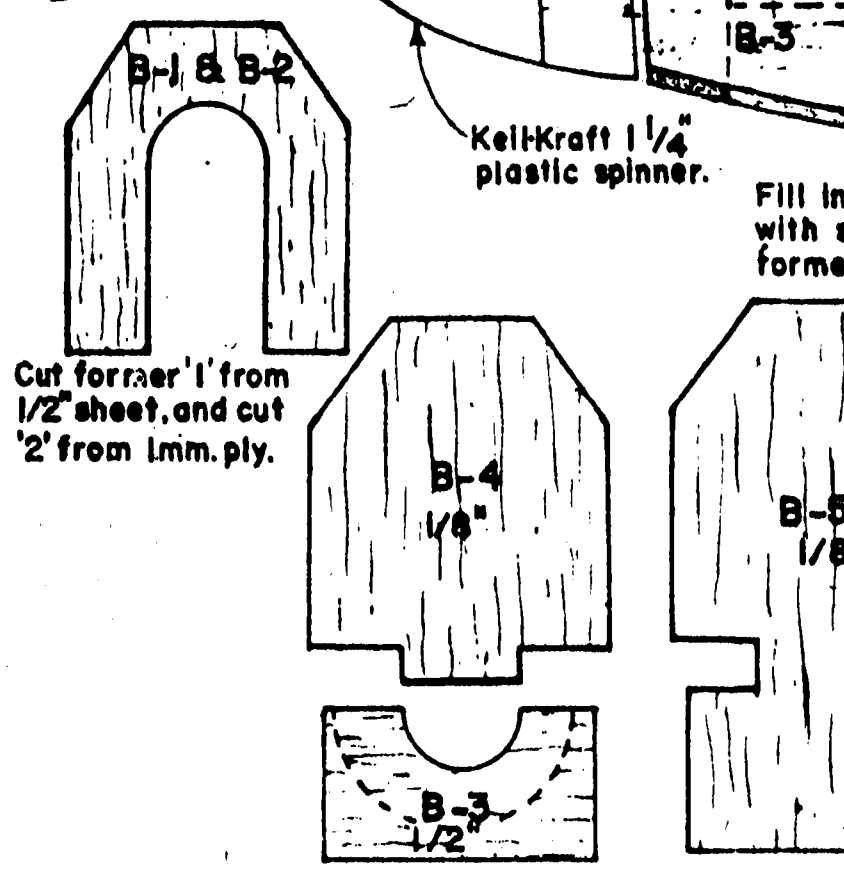
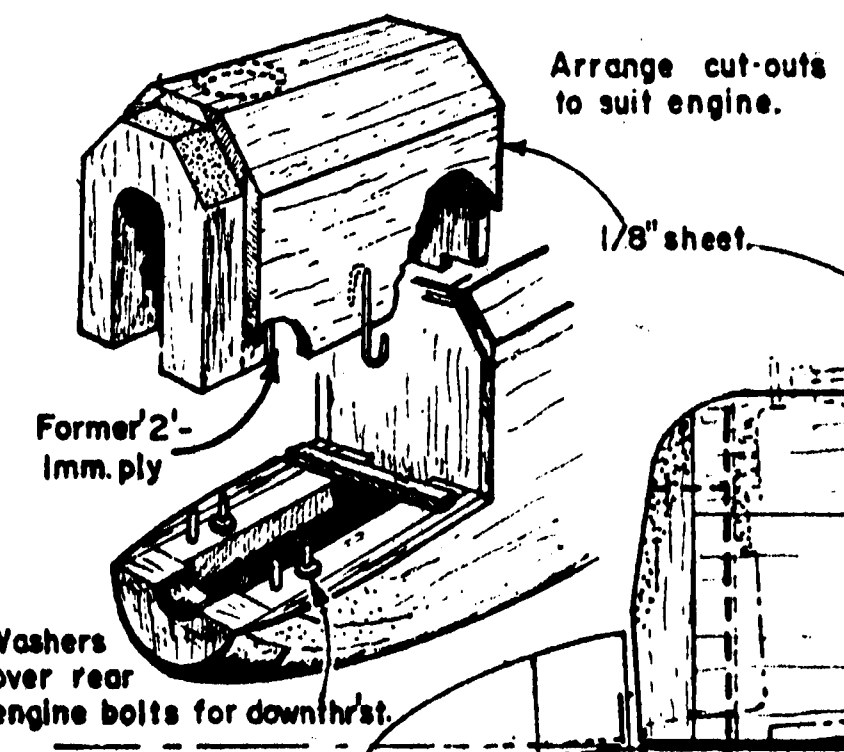
M.A. 340 J.D.McHARD 4/6  
 LENGTH 24 3/4" SPAN 30"  
 FOR 5 TO 8 C.C. ENGINES  
 MODEL AIRCRAFT 1960  
 19-20 NOEL STREET LONDON W.1

## MATERIALS LIST.

- 1 sheet of 1/16" x 3" x 36" medium balsa.
- 2 sheets of 3/32" x 3" x 36" soft balsa.
- 1 " " 1/8" x 3" x 36" medium balsa.
- 2 strips " 1/8" x 1/4" x 36" hard balsa
- 1 " " 1/8" x 1/2" x 36" hard balsa 1/2 section.
- 1 piece " 1/2" x 3" x 12" soft balsa.
- 1 " " 3/8" x 1/4" x 12" Beech engine bearers.
- 1 " " 1mm. x 3" x 12" plywood.
- 1 " " 1/8" diam. x 12" dowel.
- 1 " " 14 S.W.G. x 36" piano wire.
- 1 " " 16 S.W.G. x 12" " "
- 1 pair of 2" diam. airwheels.
- 1 large bubble cockpit canopy.
- 1 spinner (1 1/4"), 2 sheets lightweight Modelspan.
- Dope, cement, glasspaper, etc.



## COWLING ASSEMBLY before carving to shape.



THE WING IS BUILT IN TWO HALVES. SEE ASSEMBLY SKETCHES.

J.D.McH.

# Wee Snifter

by  
J. D. McHARD



- Scalish Appearance but Easy to Build and Fly
- Rugged Construction Endures Hours of Flying Fun
- Cheap to Build for any 1/2A Motor
- Wings Club Members see page 21 for Plans Special Offer

MODELS built purely for "sports" flying greatly outnumber the specialist contest types, and this month we present a really sharp F/F sportster, especially designed for M.A. readers, that will attract attention wherever it is flown!

Despite its good looks and racy lines it is very easy to build, especially as the plan is completely self-explanatory, incorporating, as you can see, a number of helpful "how to do it" drawings. In addition, you will find overleaf, a series of photographs taken during the building of one of our original models, and which show the complete construction in step-by-step stages.

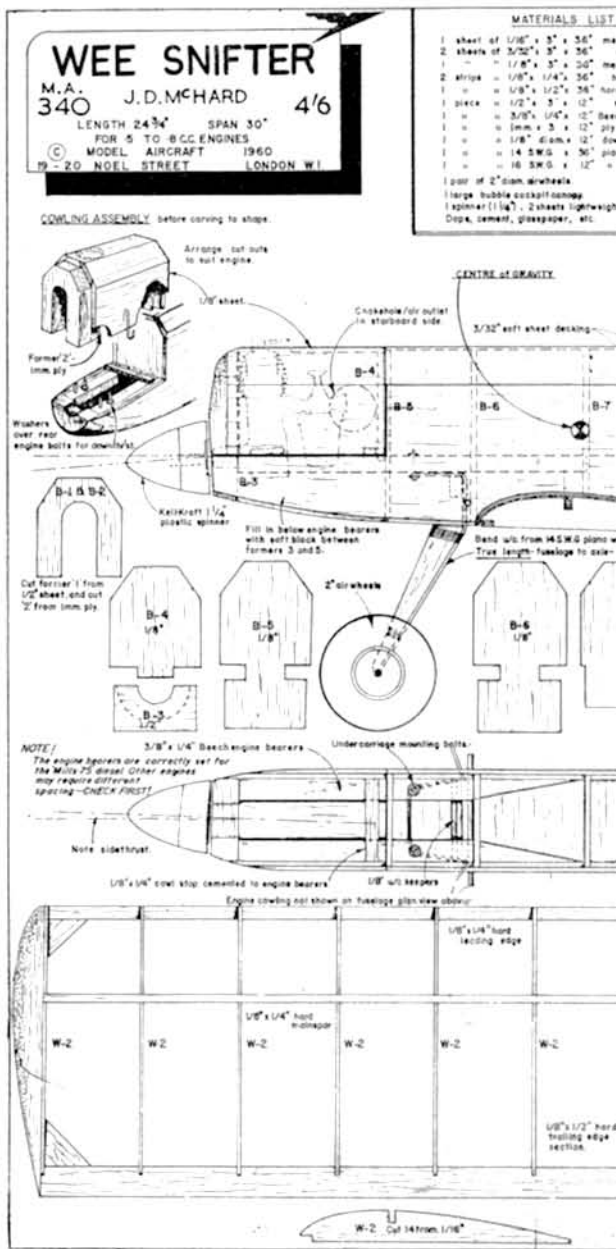
Many people shy away from the low wing layout believing it to be difficult to fly; however, *Wee Snifter* has had all its vices ironed out during development and is just as easy to trim as a cabin job. For those who are still a little mystified by the trimming process, we have devoted our "Wings Club Workbench" (page 21) this month to explaining the correct way to safely trim the model to give its best performance.

*Wee Snifter* is very tough and will take rough handling in its stride. It will accept a wide variety of engines between 0.5 and 0.8 c.c. which, of course, includes the new 1/2A glow motors, for which it is ideally suited.

Colour schemes are, of course, a matter of individual choice, but we think you will agree that the orange, black and white trim shown on the cover photo is most attractive. *Wee Snifter* has been chosen for demonstration in the MODEL AIRCRAFT enclosure at the Schoolboys' Exhibition in January, and those of you who visit the exhibition will be able to see one of our original models actually being flown.

Members of the MODEL AIRCRAFT Wings Club can buy the *Wee Snifter* plan at a specially reduced price and we hope that you will send us a photograph of your own model which, we know, will give you many hours of exciting flying.

FULL SIZE WORKING DRAWINGS ARE OBTAINABLE FROM YOUR LOCAL DEALER, OR BY POST FROM THE "MODEL AIRCRAFT" PLANS DEPARTMENT, 19-20, NOEL STREET, LONDON, W.1, PRICE 4s. 6d., POST FREE





## Ensure success with Use this building sequence

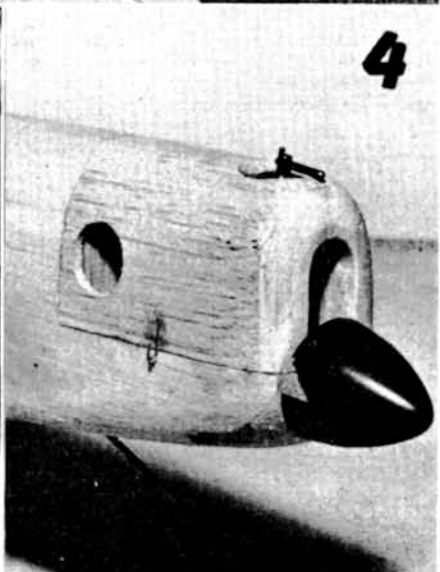
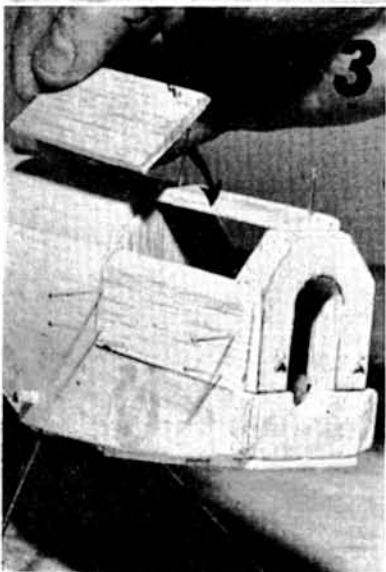
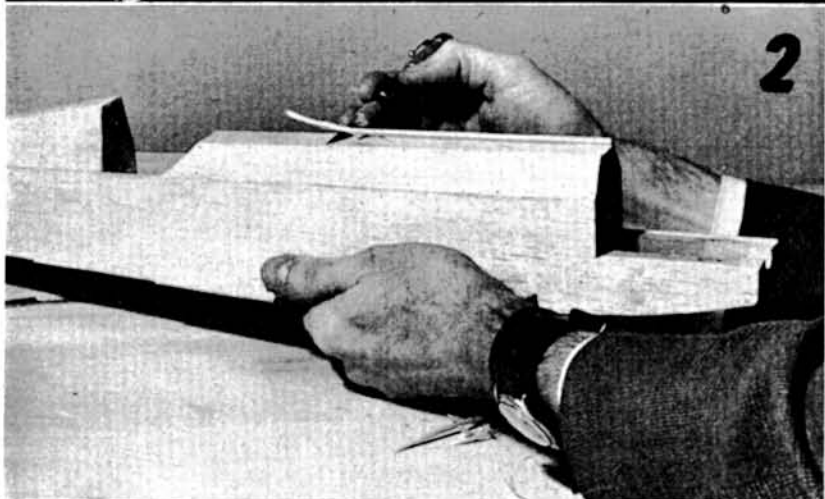
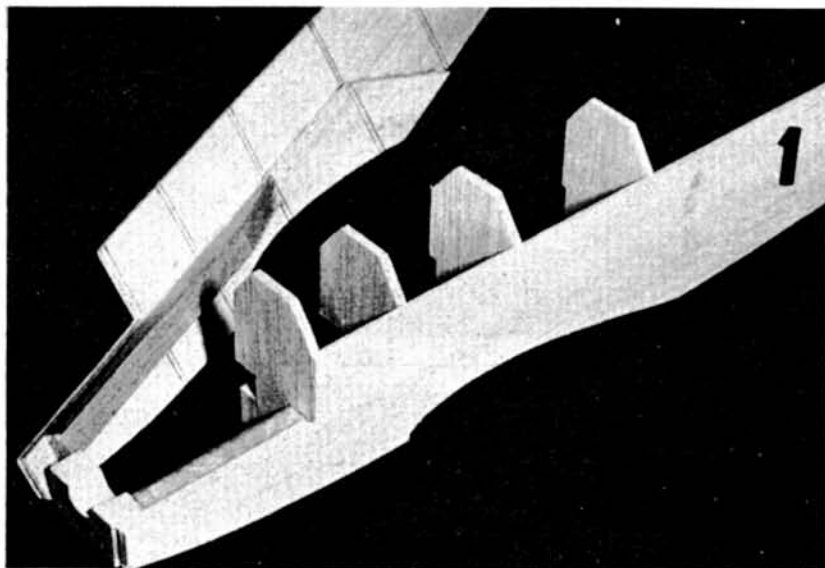
ALTHOUGH the building notes on the full size plan are quite comprehensive, the instructions and photographs on this page will further assist beginners to successfully complete their own *Wee Snifter*.

Photo 1 shows how the two  $\frac{3}{32}$  in. soft balsa fuselage sides, complete with engine bearers and strengthening doublers, are first assembled with formers F.5, F.7 and F.8. The nose former (F.3) and the under-bearer block (built up from soft  $\frac{1}{2}$  in. sheet) are also fitted. A slot should be cut in each side of the block to allow access to the engine mounting bolts. Hold these parts in place with pins until dry. The tailskid and tailplane fixing hooks are bound to the  $\frac{1}{4} \times \frac{1}{4}$  in. tailpost, and this is sandwiched between the rear ends of the fuselage sides which are drawn together and pinned until the cement has set.

Bend the undercarriage from 14 S.W.G. piano wire and bolt it to the engine bearers as shown. "J" bolts are useful here, but large washers under the heads of ordinary 6 B.A. bolts will do the job almost as well. A spot of solder under the washers will hold the undercarriage securely. The  $\frac{1}{2}$  in. undercarriage keeper will hold everything firmly, but use plenty of cement!

The remaining formers are now cemented in position, and the  $\frac{3}{32}$  in. sheet upper decking and  $\frac{1}{16}$  in. undersheeting fixed in place. Leave this sheet covering slightly oversize so that it can be neatly trimmed to size when set as shown in photo 2. Fit the  $\frac{1}{2}$  in. dowels for the wing and tail-retaining bands.

To ensure a perfect fit, the removable cowling is assembled on the model. Photo 3 shows the best method of doing



## your Wee Snifter— in conjunction with the plan

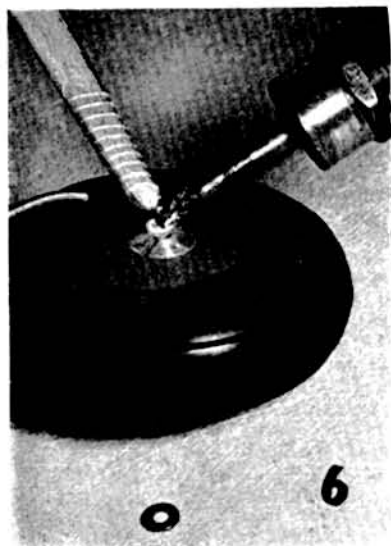
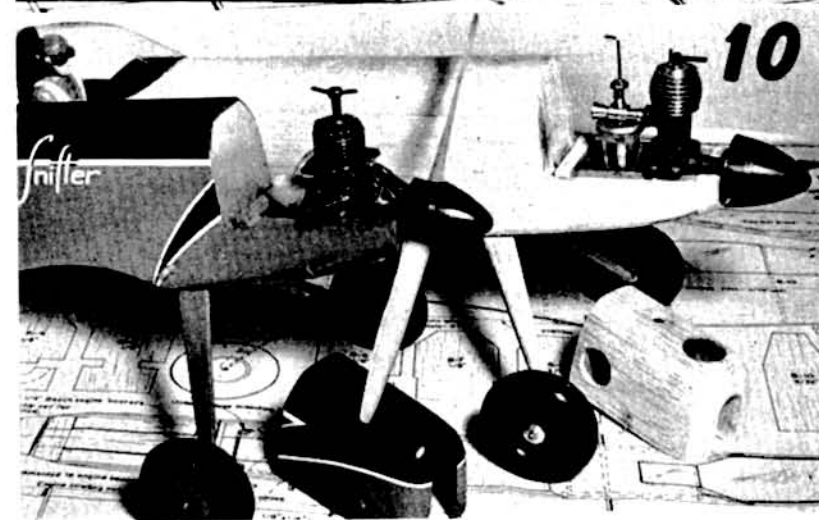
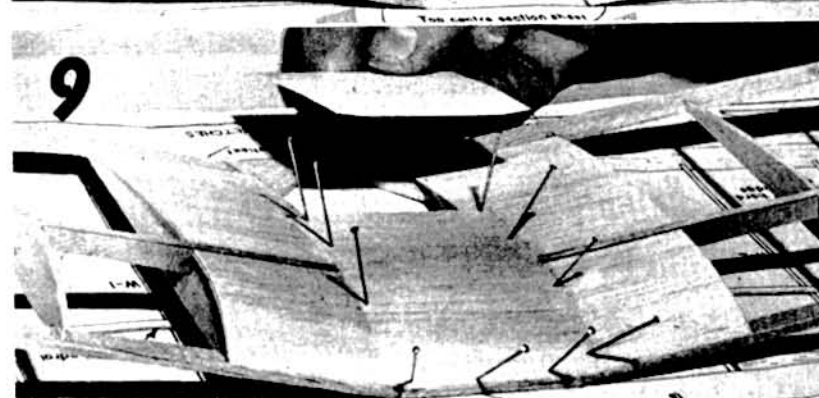
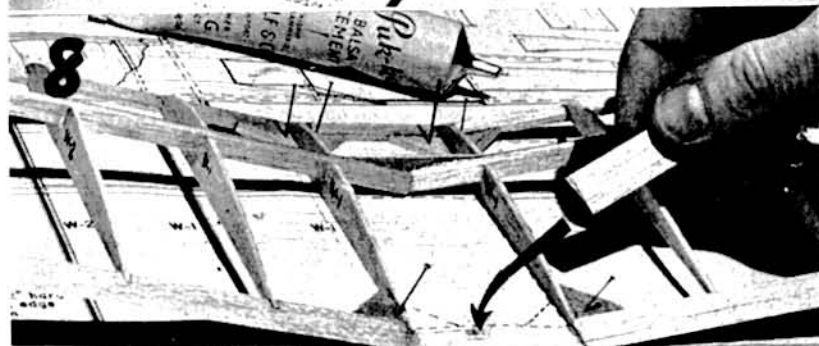
this. Formers B.1 and B.2 are cemented together and like former B.4 are temporarily held in place with pins. Check, at this stage, whether your engine can be fitted with the correct downthrust angle. It may be necessary to cut away part of the rear face of B.2 in order to allow the cylinder head to tilt forward. Remove the engine and cover the cowl with  $\frac{1}{4}$  in. sheet. When dry sand it to shape and separate from the fuselage and fit former B.2 A, and the retaining hooks.

Bolt the engine in place again, and cut out the openings for the cylinder head, needle valve and the choke hole. If a short stroke diesel such as a Frog 80 is used (photo 10), a long compression lever will be needed. The Mills .75 is a long stroke engine and so does not need this item, but adjustment will be made easier if a piece of wire is soldered to the needle valve to extend it outside the cowl (photo 5).

The wheels are retained on the axles with soldered washers and one soldered to the shaft each side of the wheel will make for reliable, easy running (photo 6). Be sure to use a lightweight pair of wheels such as Keilkraft airwheels, soft sorbo wheels or plastic wheels, but don't use the harder type of sorbo wheel which is very heavy. If you use plastic wheels be very careful not to melt them with the soldering iron, in fact, it may be easier to retain the wheels with tightly bound thread, well cemented around the axle ends. The u/c leg fairing should be bound to the wire with strong thread well cemented, and then the entire undercarriage leg is covered with silk or nylon. Don't cement the top of the leg to the fuselage.

Now paint the cockpit and pilot, if

*Continued on page 22*



## Wee Snifter building sequence

*continued from page 19*

fitted, and cement the cockpit cover in place (see photo 10).

The tailplane is simply cut to shape from soft  $\frac{1}{8}$  in. sheet—butt-joint the 3 in. wide sheet to give the necessary width. Photo 7 shows the fin pattern transferred to the balsa, using carbon paper under the plan. All the sheet parts can be marked out in this way. Cement the fin to the elevator making sure it is "square" and true both fore, aft and vertically. Use small scraps of  $\frac{1}{2}$  in. sheet to build up the fairing blocks and cement the locator under the elevator. This locator must be a good fit between the fuselage sides to prevent sideways movement of the tailplane, but should be tapered as shown, to allow the tail to knock off in a crash without damaging the model.

The wing construction is very straightforward and is clearly shown on the drawing. Photo 8 shows the centre section being built up after the ply dihedral brace has been fitted, note the hard balsa mainspars which are left "long" when the wing halves are built. Photo 9 indicates the correct way to sheet cover the centre of the wing, the  $\frac{1}{16}$  in. sheet being chamfered where it overlaps the wing sheet.

Two engine installations are seen in photo 10, the Frog 80 in the foreground and the Mills 75 in the rear.

The entire model is covered with lightweight Modelspan and the wing covering first watershrunk before giving the whole model two coats of clear dope. Do not warp the flying surfaces by over shrinking the tissue. Colour dope (Butyrate for preference) should be thinly applied as an excessively thick coat adds considerable performance-destroying weight. Full flying instructions are given on page 21 of this issue.

Fuller notes on the finer points of covering were given in the Wings Club Workbench feature in our March, 1960, edition and finishing sheet balsa and soldering were described in Workbench for April, 1960. Both these copies are obtainable from our sales department.