

1946

# AEROMODELLER 1/3



*Small figure - 1/16*

# Miles M. 48.

ONE INCH  
TO THE FOOT  
FLYING  
SCALE  
MODEL



BY H. J. PRIDMORE

THIS month's cover painting by our artist C. Rupert Moore, shows the M.48 which is a development of the well-known Messenger communications aeroplane used by "Monty" during the war. 1/72 in. scale drawings with specifications of the full-size machine are given on page 560.

As the drawing of this model is well detailed and many constructional features are clearly explained thereon, these building instructions are cut down to the minimum.

### Fuselage.

Pin keel to drawing, cement half formers in place, add stringers, and leave half fuselage until cement is set. Remove from drawing and cement on remaining formers and stringers. Glue on ply nose former, cement centre section spar in place, and proceed to cover fuselage with 1/32 sheet balsa. After fuselage is covered, cement wing fairings in place, glue celluloid on for cabin and cement on strips of 1/64 sheet balsa to represent the frames. Finally add the tail-wheel and exhaust pipes and give the fuselage a very light rub down with flour paper (*i.e.*, the very finest grade of sand paper).

### Wings.

These are built on the drawing in the usual way and

when completed are very strong. It will be found easier to build one complete wing at a time, and then cut off the centre section afterwards. After cutting them off cement in wing boxes and ply tongues, and cement centre sections to fuselage, checking to see that they are set to give 4 in. dihedral under each wing tip and 3 degrees incidence.

### Tail Unit.

This is easily built and no difficulties should be encountered, build up as on drawing.

### Undercarriage.

This is constructed from 16 and 18 S.W.G. piano wire and faired with balsa and paper tube. Bend wire parts to shape and solder where shown. Fair to the required thickness and sandwich top of legs into block balsa in leading edge of centre section. Push wheels on axles and solder on a small cup washer to retain them in place.

### Propeller, etc.

Carve propeller from a block of hard wood, such as deal or mahogany, to the sizes given on drawing and balance blades as finely as possible. Cement on a hard balsa spinner and bush with brass tubing. Cut and sand nose-block to shape and hollow out as shown.



**Gear Box.**

Purchase one  $\frac{1}{8}$  in. and one  $\frac{3}{8}$  in. gear wheel and obtain some thin brass or Dural sheet. As the detailed drawing makes assembly clear no instructions will be necessary here.

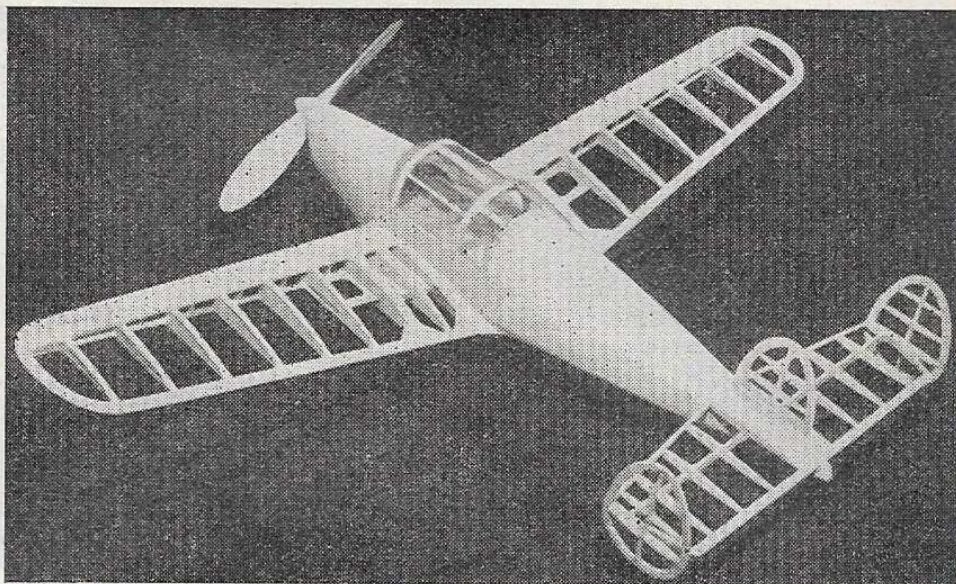
**Covering and Finishing.**

Cover entire model with good quality white tissue, applying this in the usual manner. Flour paste is the best adhesive and will be found most suitable. After covering is complete spray with water and when dry brush on one or two coats of clear dope. As this machine is a civilian type colouring may be left to the individual taste. The original model was coloured creamy yellow, and a light shade is recommended as dark colours do not show models to the best advantage. By far the best method of applying colour is by spraying, as this gives a more even finish and adds less weight to the machine than the brush method gives. Dope should be diluted with thinners to suit the spraying equipment available. Spray guns such as are available for use with vacuum cleaners are very suitable. Registration letters may be added and the control surfaces marked with Indian ink.

**Flying.**

Make up a motor of 12 strands of  $\frac{1}{4}$  flat rubber, lubricate well, pre-tension and instal in the fuselage. Assemble model, and holding it in line with the C.G. add lead to nose until it balances. Put a spot of oil on the gears and prepare for test flights. When a good flat glide is obtained wind on about 200 turns and launch gently into the wind. No up or down thrust was necessary on the author's model, but 1/16 sidethrust was required to counteract torque. Due to the construction of this model it will stand up to a great deal of rough handling.

Full-size plans of this model may be obtained from Aeromodeller Plans Service, Ltd., Allen House, Newarke Street, Leicester, price 2/6.



Working to the scale of one inch to the foot, Mr. Pridmore has produced a model which would be hard to surpass for realism as the accompanying photographs show.

The strong method of construction is shown to great advantage by the top and bottom photographs on this page, and the  $\frac{1}{2}$  scale reduced drawing opposite.

Heading photograph shows the full-size M.48 in its drab war-time colours. Sticklers for realism will avoid the registration letters shown on the model—these we believe will ultimately be borne by a Bristol Type 170—M.48 letters to date are given on page 560.

