

J. D. McHARD'S SUPER-SCALE DOUGLAS O-46A

A $\frac{3}{4}$ in. to 1 ft. Rubber Power Model



Winner at the 1953 SHEFFIELD S.A.M. Exhibition.

RUBBER powered flying scale models are rare birds these days, but there is a certain satisfaction in knowing that the motor *will* start first time and having started, will flap the prop over silently. Then to see the model soar effortlessly into the air with no exhaust and diesel oil ruining that smart paint job!

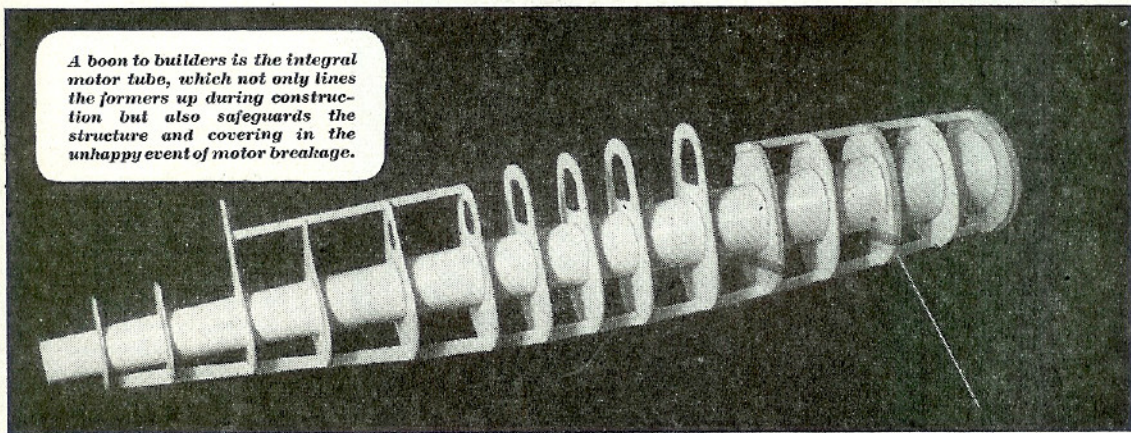
The O.46a was selected as a prototype for several reasons. The fuselage is long, giving a reasonable distance between motor hooks. The tailplane is of such a size as to need little enlargement to produce a stable machine. The position of the wing is perfect for satisfactory performance and the

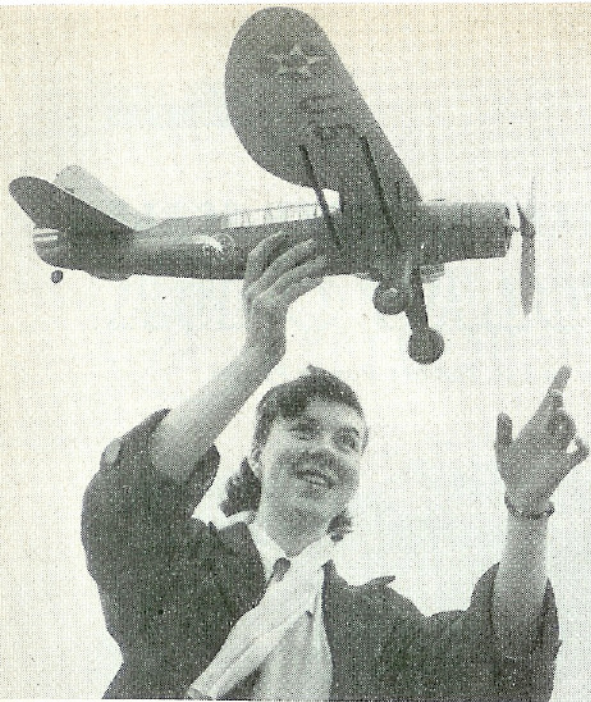
fixings are very adaptable to "knock-off" mountings.

The machine was originally in service with the U.S. Army Air Corps from 1936 until the beginning of the recent war. It became affectionately known as the "Flying Razor", chiefly because of its very narrow fuselage. As the service designation indicates it was an "observation ship" and it fulfilled roughly the same role as the Meteor 9 does to-day, though at a more leisurely pace!

The odd device on the fuselage side is the insignia of the 22nd Observation Squadron, Brooks Field, Texas, used during World War One by the

A boon to builders is the integral motor tube, which not only lines the formers up during construction but also safeguards the structure and covering in the unhappy event of motor breakage.





One reason for the increasing interest in Service clubs? W.R.A.F. member "Ray" of Wellesbourne Mountford club releases the O-46a for a trial flip with the three-blade airscrew fitted.

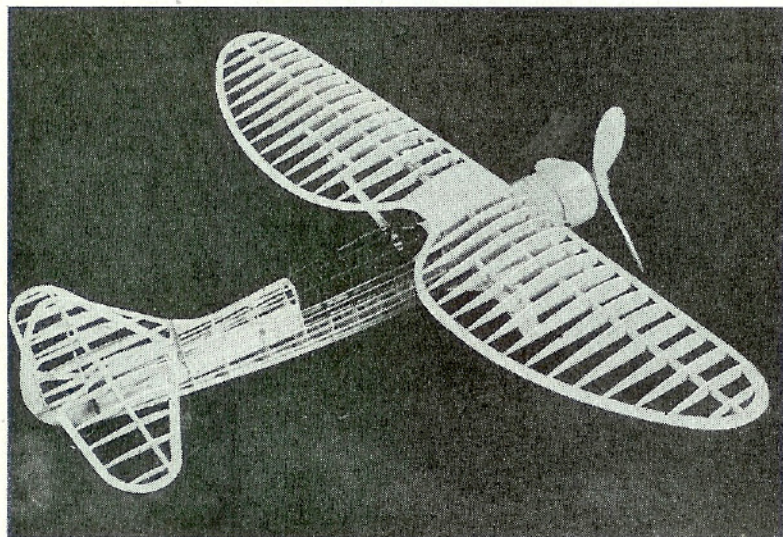
the building instructions which are issued with each full-size A.P.S. plan. Readers will note the close wing rib spacing and almost scale stringer positions on the fuselage which have been used to produce a model capable of winning flying contests as well as exhibition prizes.

Correct colouring is with fuselage and struts in dark blue and the wings and tailplane in orange-yellow. To keep the weight down to a minimum for best flying performance, it is advisable to use coloured Modelspan, rather than colour dope. However, the original O.46 model manages consistent 90 second flights in spite of its all-up weight of $7\frac{1}{2}$ oz., of which no less than $1\frac{1}{2}$ oz. can be attributed to use of colour dope and fitting sundry oddments to improve the scale detail and appearance.

135th squadron flying S.P.A.D.s! The background is blue, surrounded by a yellow outer band. Stars are white and the comet tail starts as red and merges into yellow and then white at the extreme tip. (On the original model the colours of the tail are reversed, but this boob remained undiscovered until after the photos were taken!)

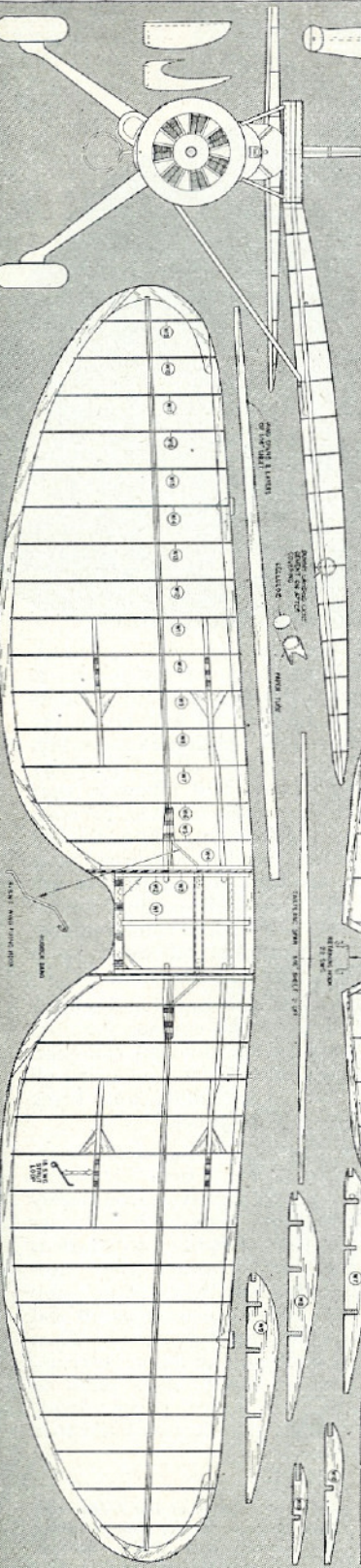
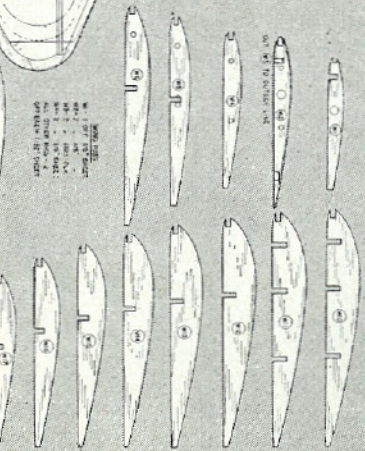
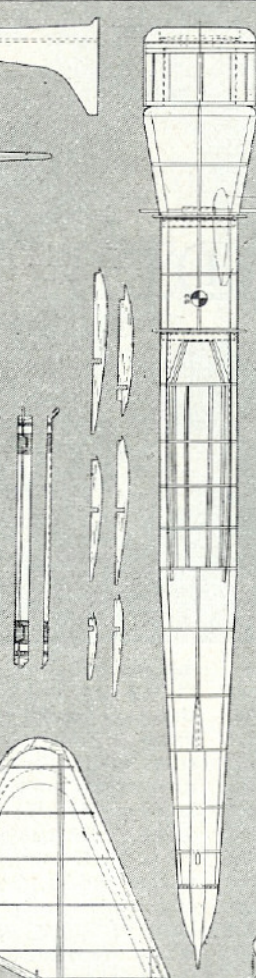
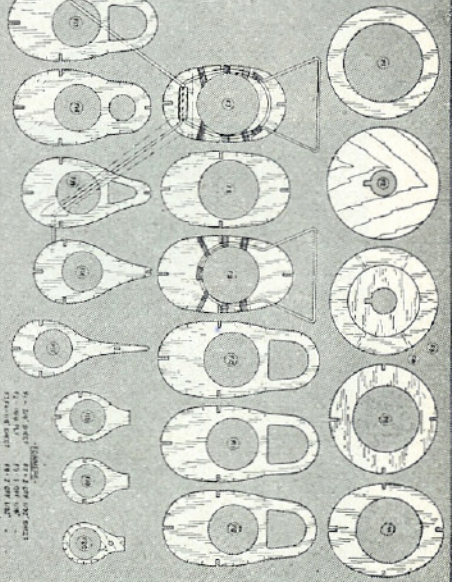
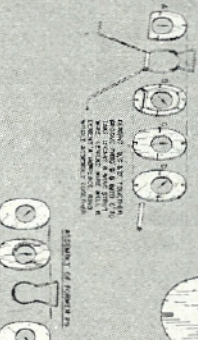
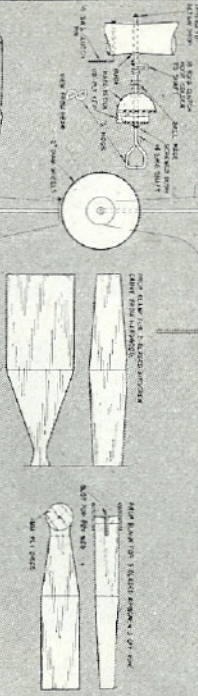
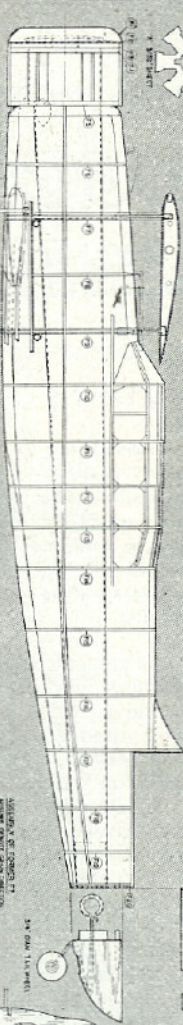
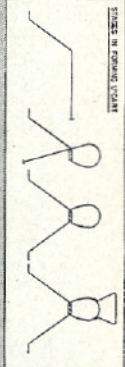
A motor tube is used on the model, to act as a building jig and also strengthen the finished fuselage. It minimises the risk of writing off the fuselage when the motor breaks! Formers have sharp inner edges and rubber whips around as it unwinds; by using a motor tube the life of the rubber motor can be prolonged considerably, particularly with such a narrow fuselage as the O.46a. This and many other novel constructional features of the McHard model are fully detailed in

The rubber motor consists of eight 30 in. loops of $\frac{3}{16}$ th flat strip, pre-tensioned by the "White" method, and this gives quite a realistic snappy climb after take-off. 3° downthrust was required on the original and a little sidethrust may be found necessary. To bring the centre of gravity forward to the right place, it is best to add ballast beneath the cowling surface so that it will be discreetly hidden. The propeller shaft is so arranged that three or two-blade airscrews can be interchanged in experiment to find the best performance.



There are thousands of model-builders who prefer their models to have a little more than the bare minimum of structure. There are also those who delight in the multi-stringer and former type of fuselage which has always held a fascination of its own. Couple this with top-notch performance and true scale appearance and you'd have to look a long way to find a nicer job than this "Flying Razor."

DOUGLAS O46A
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FULL SIZE COPIES OF THE 1/5th SCALE PLAN CAN BE OBTAINED FROM THE AEROMODELLER PLANS SERVICE. PRICE 6/- POST FREE.

NUMBER AIRPLANES 102, 103, 122, 123