

IRRESISTIBLE—IF THE APPEAL OF THIS LIVING ROOM FLYING SCALE CAN BE RESISTED THEN MODEL BUILDING, BOTH FREE-FLIGHT AND 'ROUND THE POLE, HAS LOST ITS HOLD ON ALL OF US.



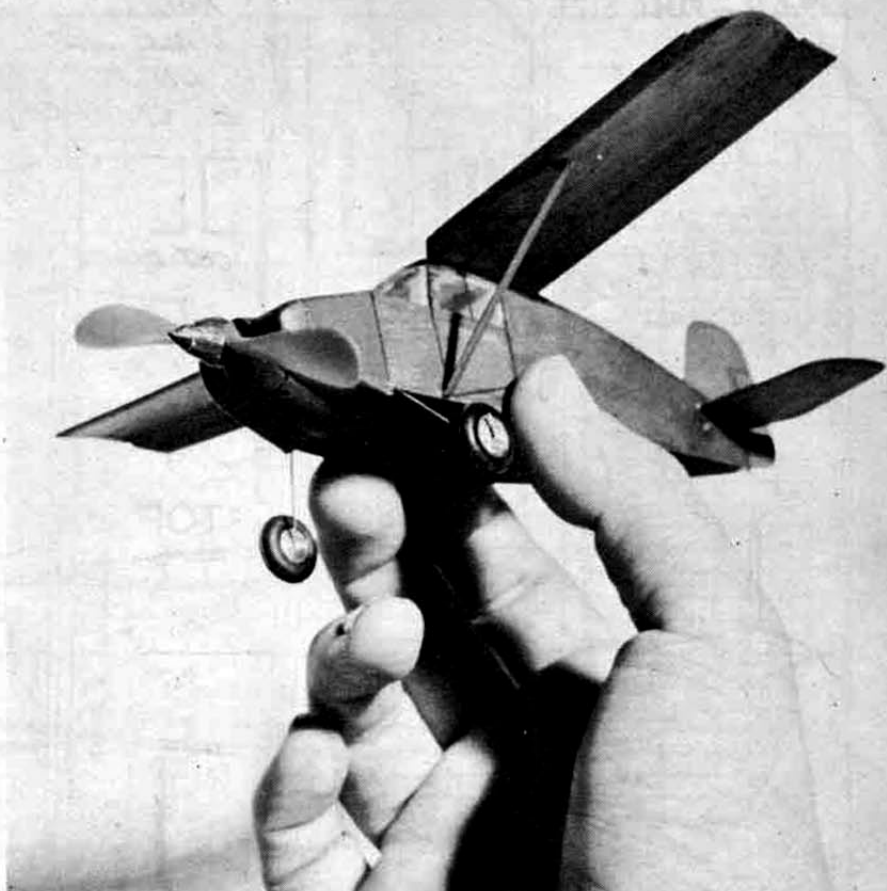
by **WALT MOONEY**

► Steve Wittman, one of America's greatest racing pilots, designed and built a small two place airplane for efficient cross-country flying. This design has such impressive performance that there have been a great many of them built by home builders all over the country. While not the most attractive design in the world, it is ideal for a small scale model using sheet balsa structure. The original, with an 85 hp Continental engine, cruises at 150 mph, tops at 175 mph and lands at 55 mph.

The model is presented full scale in the magazine and has only three deviations from full exact scale characteristics. The airfoil is changed, the horizontal tail area has been increased, and the dihedral is greater. The model shown in the photograph was made from half a sheet of 1/32" sheet balsa, (prop blank and nose block were laminated), six inches of 1/64 wire, two half inch wheels, a small piece of cellophane, a straight pin, some paint, ink and model cement.

Cut out all the parts from 1/32" sheet. If you are laminating the prop blank and the nose block cement the laminations first so they have plenty of time to dry.

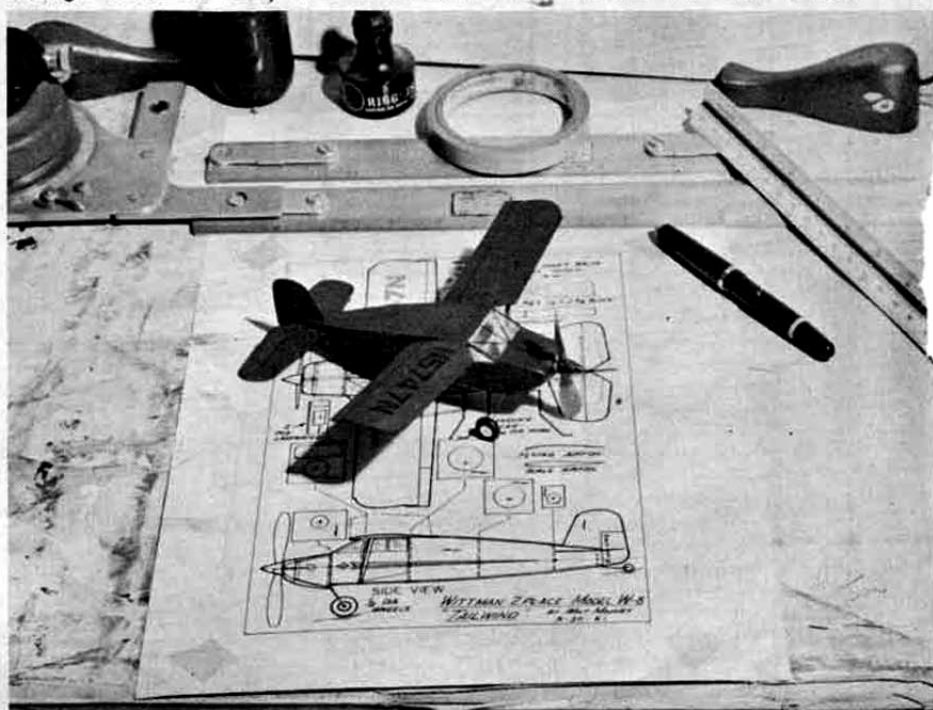
Assemble the fuselage first, starting at the tail and cementing in the formers as you proceed forward. You may have less trouble if the side windows are cut out after the (Continued on page 38)



Both plan and the model took only a small corner of Walt Mooney's always busy drafting board.

WITTMAN "TAILWIND"

Free-flight version can hardly be called a handfull. Plans also have exact scale surfaces.



Wittman "Tailwind"

(Continued from page 28)

fuselage is assembled. Note the direction of the grain is crosswise on the top and bottom planking. The landing gear is bent up and installed before planking the bottom. Cement it securely to the back face of the bulkhead. Note the fairings that run back on the cowl from the spinner, these are carved from laminations of 1/32" sheet cemented to the top and bottom cowl planking. Spot glue the cowl block to the front former and carve it and the fairings to correct contour at the same time.

Sand the wings and tail pieces to a streamlined cross-section. A thin coat of cement on the lower side of the wings, (a half inch width starting a quarter of an inch from the leading edge and going spanwise is enough), will give the flying airfoil shape. Cement wings and tail in place on the fuselage. Raise the tips of the wings by the amount shown in the side view. Add struts, install the wheels, a carefully placed drop of cement will hold them on or you can bend the end of the axle over. Install the tailwheel by forcing it into the tailpost area and cementing.

Add windshield and windows. Carve the propeller and install the hook as shown using a piece of 1/16" diameter aluminum tube as a bearing in the nose block and a couple of small washers or a bead between the propeller and the nose block for a thrust bearing. Use a straight common pin for the rear rubber post, it pokes through the fuselage sides on the center line under the leading edge of the horizontal tail. A five inch loop of 1/16" flat rubber is plenty of power.

The original airplane was red with gray trim. The model has one thin coat of

dark red dope with India ink trim. Leaving off the paint will save a little weight.

Flying this model is not difficult and because of its small size and weight it is almost indestructable allowing plenty of time for adjustment. If there are no unsymmetrical warps the model should fly okay. Warp the trailing edge of the horizontal tail up if it dives or down if it climbs too steep and stalls. Use rudder warp to make it turn the way you want it. If it tends to wobble at the top of a sharp climb but does not stall, (as mine did), warping each aileron area up which gives effective washout will cure it.

A good none flying exact scale model can be build from the plan if you use the scale tail outline, carve the wings from 1/8" sheet to the scale airfoil, and put them on with no dihedral, i.e., flat. The small propeller indicated on the top view is scale diameter.