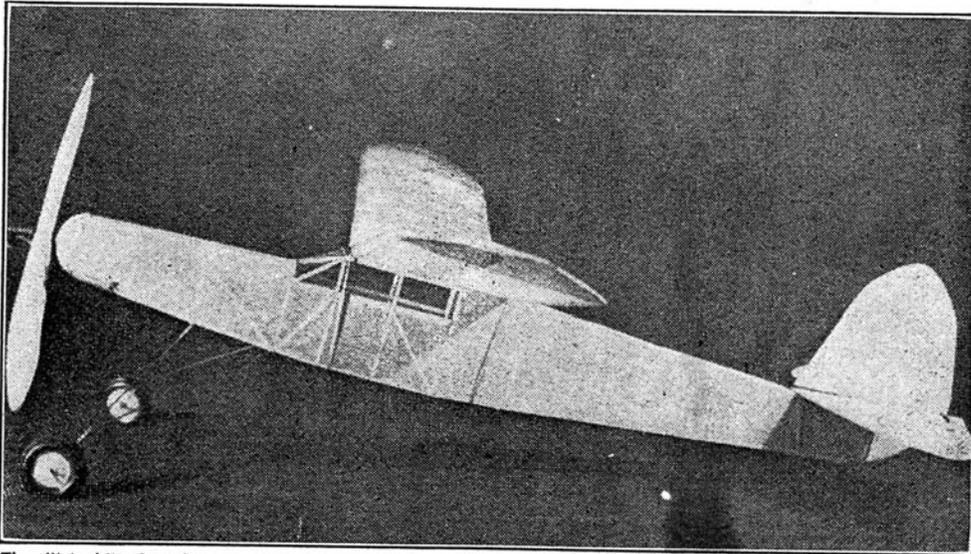


FLYING ACES "MOTH"

HERE AT LAST, ARE THE PLANS AND INSTRUCTIONS FOR BUILDING ONE OF THE MOST POPULAR MODEL PLANES IN THE HISTORY OF FLYING ACES... REPRINTED AT YOUR OWN REQUEST — WHICH WAS TERRIFIC! WE ARE GLAD TO MAKE POSSIBLE FOR OUR THOUSANDS OF MODELERS THIS OPPORTUNITY TO BUILD AN UNUSUAL OUTDOOR CABIN FLYER.

By Herb Spatz



The "Moth"! Simple in design and construction, this craft has won many contests throughout the United States and Canada. First published in August, 1937, its popularity became far-reaching and has been responsible in getting many aero enthusiasts to become model builders.

OUTDOOR CABIN SHIPS seem possessed of a certain popularity that entices even the most indifferent model builder to at least try building one of its type. This month's presentation is by no means a "glamour girl" for looks, but we'll guarantee that if you'll build her, and she can be made in a jiffy, too, she'll turn in a flying performance that'll dispel such indifference once and for all.

The only way to become an outdoor flying model fan is to have a model that consistently turns in good flights and gives

you an even chance of winning in any rubber flying model contest. The FLYING ACES "Moth" is such a ship. (*Editor's Note: Thousands of model builders have built, flown it, and won—they know!*)

FUSELAGE CONSTRUCTION

THE FIRST STEP is to join Plates 1 and 3 at A-A. The fuselage is constructed of 1/16" sq, medium hard balsa, excepting the longerons and such members as are marked otherwise on the plan. These are 3/32" sq. medium balsa. Make sure that the longerons all have the same degree of hardness, or the body won't be straight. Build both sides and don't use too much glue—just enough to keep the members together. When the sides are made, glue in the top members, the size of which can be obtained by doubling those on the plan. Be sure to get these straight.

Cut formers 1-4 from 1/16" sheet balsa and affix in their respective places. Cement the 1/16" sq. stringers in place and put in the two windshield pieces. Next, take a block of 1/2" by 1 1/4" by 1 1/4" balsa and cut it down to fit the nose. Run a piece of 1/16" O.D. aluminum tubing through it and cement. The rear motor mount pieces of 1/16" by 3/16" are glued into the body as in Plate 3. The crosspiece of 1/16" by 1/8" is cut to fit in the notches between the mount pieces. The rear hook of .028 music wire is looped around the crosspiece and cemented securely. The entire unit is then cemented into place between the mount pieces. Before attempting to cover the body, go over the entire fuselage frame and remove all the bumpy particles of dried-up cement.

TAIL AND LANDING GEAR

RUDDER PARTS, shown on Plate 3 are made of 1/16" sq. balsa. The stabilizer is built from the drawings and parts described on Plate 2. The rib shape is obtained by sanding the ribs down from the spar as shown.

The landing gear is bent from .034 music wire. The front struts are 4 1/2" long. The axle is bent on the front struts. The latter are bound to the body at station 3 and cemented. The rear struts can now be formed. The angle the front struts should have can be obtained by checking with the plans. The rear struts can now be measured from station 4 to the axles, then bound and glued in place. Use a pair of 1 3/8" diameter wheels.

MOTOR AND WINGS

CARVE THE prop from a block of balsa measuring $\frac{3}{4}$ " by 1 $\frac{1}{8}$ " by 8 $\frac{1}{2}$ ". Any measurements desired may be obtained by doubling the dimensions on the plan (Plate 1). Cut away the shaded portions on the plan and carve very carefully. Sandpaper the prop as smooth as possible. A free wheeling device should be used for maximum efficiency, the builder choosing one of his own liking. The prop shaft is bent from .028 wire and slipped through the noseblock after several washers have been slipped on. For power use 4-6 strands of 1/8" flat.

For the wing, join Plates 2 and 3 at P-P. Lay out the leading and trailing edges. Make 14 ribs of 1/16" sheet balsa and put them in the proper places. Cut out the tips and put them in. The side of the wing shown is the right. To make the other side, take a sheet of white paper and place it under the plan. Then take a sheet of carbon paper and place it black-side up under the sheet of paper and trace its shape.

Before putting in the spar, crack the leading and trailing edges at the center section shown on Plate 2. There should be 1 $\frac{1}{2}$ " dihedral.

ASSEMBLY AND FLYING

WING AND BODY are covered in sections. The tail group may be covered in two pieces each. Use dope as the adhesive. Cover the cabin with cellophane. Pin the surfaces down and spray everything with water to shrink the paper. The builder may use his own discretion as to what color he will paint his model. The original was colored yellow.

After everything is dry, give the-ship two coats of dope. Glue the rudder to the rear of the body, put on the wing and stabilizer with small rubber bands, and place an incidence block beneath the stabilizer spar. Next put the prop shaft on the rubber motor, and you are ready for testing your "sky chariot."

THE END

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