

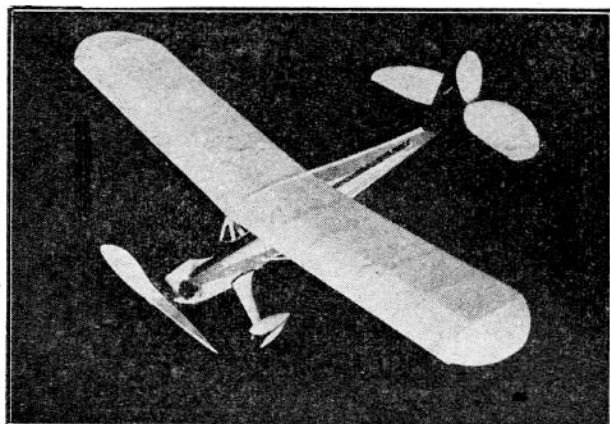
You'll like this

Aeronca Profile Flyer

Wind 'er up, let 'er go—then
remember that we told you so!

BY REX HALL

MODEL BUILDERS in search of types easily adaptable to model work invariably turn to ships of the light plane field. In doing so, the writer has chosen a popular job of this classification and produced it in profile scale. The chief advantage in this type of construction is that much weight is eliminated and good flying still retained.



A true prototype, it embodies well-designed construction.

FUSELAGE CONSTRUCTION

BEGIN BY laying the two sections of plans on a flat board. The fuselage is made almost entirely of 3/32" sq., hard balsa. After cementing each strip of balsa in place, allow sufficient time for cement to harden. It is a good idea to place a heavy flat object on the top of the assembly while drying, to prevent warping. The nose section is the most important part of the fuselage, it is made up of six different pieces cut from 1/4" sheet which are glued in position and are later cut and sanded down into shape. It is best to allow the laminated parts to dry thoroughly before cementing them.

The nose plug is a conventional one, with the sides of the base cut off. Bend the rear hook from No. 14 piano wire and glue in position as indicated on the plans. There are four other wire braces, two on each side of the fuselage which hold the body in position after the model has been

wound up and ready for flight. The landing gear struts are cut from 1/8" sheet and sanded to shape. Using stringy grained wood will help take up the shock jolts imposed on the landing gear.

No. 8 piano wire is used for strengthening the landing gear, as indicated on plans. The wheels are 5/8" diameter, hard wood or balsa. The pants covering the wheels are made of laminated 1/4" sheet balsa in the following manner.

First, take a piece of 1/4" sheet and cut it to the required shape. Then cut the round section out where the wheel is placed and a piece of 1/8" sheet to each side of the center section. These are finally cut and sanded to shape.

WING AND TAIL

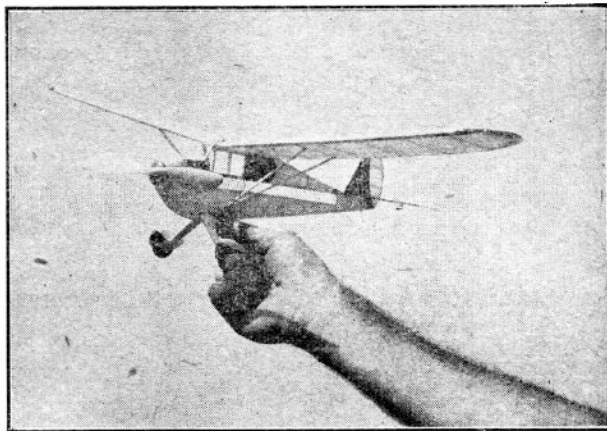
THESE surfaces are constructed in the same manner as for any other rubber powered model.

Begin the wing, by making one panel at a time. The ribs are cut from 1/32" sheet medium hard. After the bottom spar is laid the ribs are placed in position. Next, the leading, trailing, and top spars are added. The last section of the wing, are the tips which are cut from 1/8" sheet. The wing tip outlines may be traced onto the wood directly from the plans.

Note that the tail surfaces are made entirely of 1/16" sq. stock. Allow sufficient time for the cement to harden. Place a heavy flat object on top of the assembly while the parts dry to prevent warping.

ASSEMBLY AND FLYING

A ONE INCH dihedral angle is required at each tip.



The ship is a fine outdoor performer and exceptionally stable.

Care should be given in lining up the parts correctly by checking with the drawings. The builder himself can best decide as to the color scheme best for his model. Don't put too much paint on the ship because of the weight and warping tendencies.

Solid parts such as the nose, landing gear, wing, and tail tips can be painted as indicated on plans by a dotted line. Yellow paper can be used for covering. The color generally used by the original Aeronca is yellow, striped with black. Motive power consists of six strands of 1/8" flat brown rubber.

The flying qualities of the ship will be bettered if the propeller is carefully selected. The prop shown on the plans may easily be carved. However, if you are not experienced in making props, it would be advisable to use the machine carved variety.

The machine-carved propellers usually come with rather thick blades. In this case, simply use a knife or razor to whittle down to correct proportions. Finish the prop by a gentle rubbing with both coarse and smooth sandpaper.

Test glide the ship correctly before flying it under power. Flights always begin with the nose of the craft directed into the wind. Careful inspection should follow each flight as a safety measure. The writer is almost positive that when you have finished this little job, you'll be sold on its construction and flying ability.

THE END

Simple features all add up to give this craft realism.

