

# ROARING 20

A nifty sport biplane for small engines by **B. C. Striegler** from Houston, Texas



THE PERIOD AFTER World War I is now known as the Roaring '20s in the United States. During this time of prohibition and prosperity women daringly exposed their ankles for all to see, and men wore raccoon coats (complete with pocket flask of gin). Many small biplanes flitted through the peaceful skies of the 1920's and it is from this period that the "Roaring 20" gets its name.

This small sport model was developed out of a desire to have a model that performed realistically without danger of thermal flights. Another requirement was that the model must be easy to transport.

With these specifications in mind, a biplane configuration was chosen for the following reasons:

1. Biplanes are realistic in flight, and have a universal appeal among modellers.
2. Biplanes are relatively poor soarers because of interference drag between the wings and around the necessary struts.
3. Biplanes are usually more compact than monoplanes of the same wing area, and are therefore easier to transport.

The result is not only pleasing to the eye; but also boasts the type of sport performance that will endear it to all "week-end" fliers for Roaring 20 is easy to build, very easy to fly and will give years of service.

Cut out two fuselage sides from firm  $\frac{3}{16}$ -in. sheet balsa. Glue on the two motor mounts, making sure that they are of the proper width for the engine you intend to use. The mounts shown on the plans are suitable for the Mills .75. Then bind the front and rear wire cabane struts to their respective plywood formers with thread and glue firmly in place. Also bind the landing gear struts in place to the proper formers in a similar manner.

Assemble the fuselage sides to all the formers back to the rear of the cockpit, making sure that

the sides and formers are in correct alignment. Allow the fuselage to dry overnight, then add the additional formers. Be sure the fuselage is straight before the two sides are glued together at the tail.

Plank the forward deck of the fuselage with soft  $\frac{1}{16}$ -in. sheet and add the  $\frac{1}{4}$ -in. square stringers to the rear deck. Finally, plank the bottom with soft  $\frac{3}{32}$ -in. sheet and add the scrap block nose fairing. The cowling and cockpit cover can be made of card or light aluminium. The cabane strut fairings are bound in place with thread.

The wings are quite simple and no instructions should be necessary, except that one should avoid warps and ensure that each half is true to its opposite side.

The rudder and tailplane outlines are made from light  $\frac{3}{32}$ -in. sheet balsa. Cover both the rudder and the stabiliser with medium weight tissue, and fit temporarily in place on the fuselage. Then add the soft balsa fairing blocks on either side of the rudder and cement the tail assembly together as a detachable unit which can be fixed permanently after test flights are concluded.

Cover the entire model, except for the tail, with heavyweight tissue. Add the soft balsa head rest, and give the entire model five coats of clear dope thinned 50 per cent. Sand lightly between each coat of dope and finish the model with three coats of colour dope. The original is cream with black trim. Now glue on the acetate windscreen, bolt the engine in place, and the "Roaring 20" is ready to go!

Balance the model as shown on the plans and test glide. Any tendency to stall or dive should be corrected with weight in the nose, or tail, respectively, as the correct incidence is built-in; but tail movement can be used, limiting the packing to a maximum of  $\frac{1}{16}$  in. Make the first flights under low power, and adjust the rudder tab for a gentle turn to the left. The original "Roaring 20" is powered with a Mills .75 turning an 8 x 4 Tornado prop. All-up weight should be around 13 ounces. Good flying!

