



YOU COULDN'T ASK FOR A MORE
SIMPLIFIED TOWLINE GLIDER

DROP ME A LINE

BY JERRY BROFMAN

DEAR JOE:

Knowing that you're the type of model builder who enjoys building and flying towline gliders, and knowing that you appreciate anything new in the way of technique, structure, and design in model aviation, I am sure you will be very much pleased with this set of towline glider plans.

This glider is the product of many years of practical experimentation. It combines lightness, extreme strength, and exceptional performance. It is a challenge to the builders of the large, high aspect ratio type of towline glider, and I am sure that with this ship you will have no trouble in competition against the very best in the model gliding and soaring field.

You will find the plans very complete. However, here is some information to help explain the interesting structure of this model.

The fuselage is constructed by first cutting the main horizontal keel of $\frac{1}{16}$ " medium hard sheet balsa. Then cut the upper and lower keels of the same material. Cement the upper and lower keels to the center on each side of the main horizontal keel. When this is dry add the cross braces which are of $\frac{1}{8}$ " square medium hard balsa, to the positions shown. I don't think you could ask for a fuselage more easy to build than this.

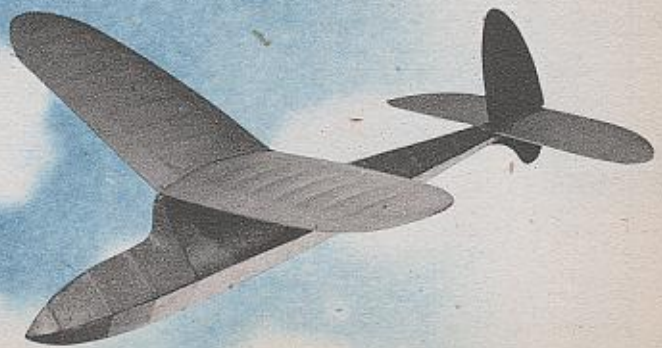
The tail surfaces are constructed by cutting them to outline shape from $\frac{1}{16}$ " medium hard sheet balsa. Sand them as usual and cover with colored rubber model type tissue, using dope as an adhesive. Cement the rudder to the stabilizer.

You have probably noticed that the wing is quite unusual. Well, Joe, this wing is really nothing new, but isn't too well known to the average model builder. Among the experts, it is called a "Ritz" wing. Its outstanding features are extremely high lift per square inch of area and high strength-to-weight ratio. Its

structure is quite simple as you will see. Begin by cutting the outline shape from $\frac{1}{8}$ " medium hard sheet balsa. Glue these sheet sections together as shown by the plans. Next cut the three templates (one for the center, one for each tip) of $\frac{3}{8}$ " sheet balsa. Moisten the entire wing with luke warm water and pin it to the templates as described on the plans. Allow this to dry for at least three hours—preferably overnight. This will "pre-form" the wing to its required airfoil shape. When dry, remove the pins from the wing and insert the ribs in their respective positions. These ribs are cut from $\frac{1}{8}$ " medium hard sheet balsa, using the template as a guide, as shown on the plans. Join the two wing halves just as you would those of a hand-launched glider. Three inches of dihedral is required at each tip. There is no need telling you that this joint should be strong, so don't spare the "stick-um."

You know how important sandpaper is in finishing a model; it is especially important to a glider and every drop of elbow grease used will repay you by your glider's ability to ride weak thermal currents. After sanding, cover with a good grade of (Turn to page 118)

● Full size plans not needed here! Read article, follow drawing.



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colored rubber model tissue. Choose a bright color such as red or orange for the sake of visibility. The fuselage and tail surfaces should be given three to four coats of clear dope; the wing, about six. You will notice that each successive coat of clear dope applied to the wing will increase its dihedral slightly. The final dihedral should approximate four inches at each tip and should assume a semi-elliptical curve.

Incidentals such as tow-hooks and wing retainers may now be securely cemented in place.

Before flying your model be sure to place your name and address in some conspicuous place, because this baby really likes to wander. The model may be flown in any type of weather but we all like those calm, sunny days. For calm weather use the rear hook. The forward hook should be used only in windy weather. You will find that this glider will tow practically straight with no compensating adjustments. You may adjust the glide for either right or left circle by warping the rudder or either trailing edge of the wing.

I am sure you will be amazed by the fine soaring ability of this model.