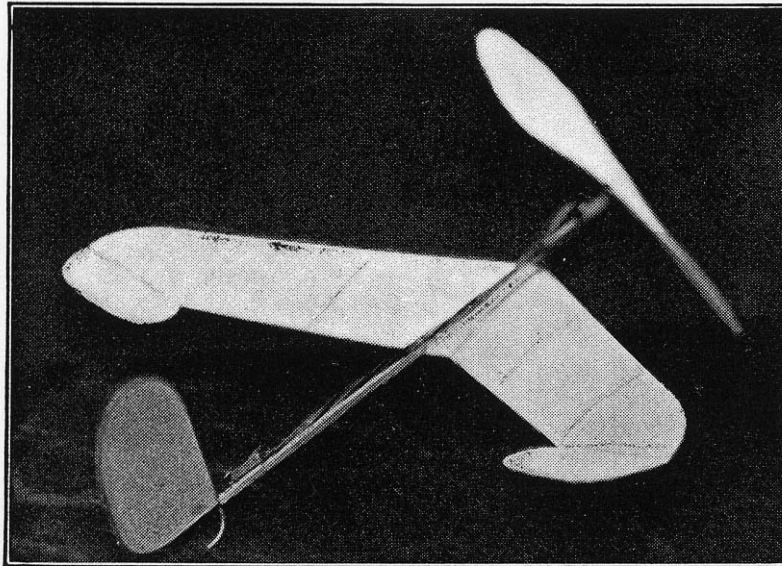


The Tail-less R.O.G. Special

A UNIQUE SHIP AND A SWELL FLYER—THAT'S THE TAIL-LESS SPECIAL! YOU'LL ALL WANT TO MAKE ONE, TOO; FOR THOUGH WE OFFER IT PRIMARILY FOR THE STICK MODEL FANS, IT HAS SEVERAL FEATURES THAT YOU EXPERT BUILDERS WILL WANT TO TRY OUT. BOASTING LOTS OF SWEEPBACK AND WITH ELEVATOR SURFACES BUILT INTO THE WING TIPS, IT FOLLOWS THE LINES OF THE WESTLAND PTERODACTYL THAT WE SHOWED YOU IN THESE PAGES LAST MONTH.

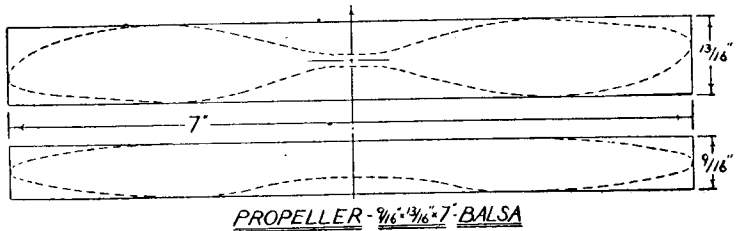
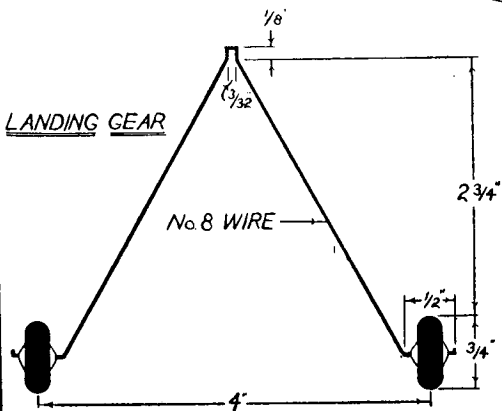
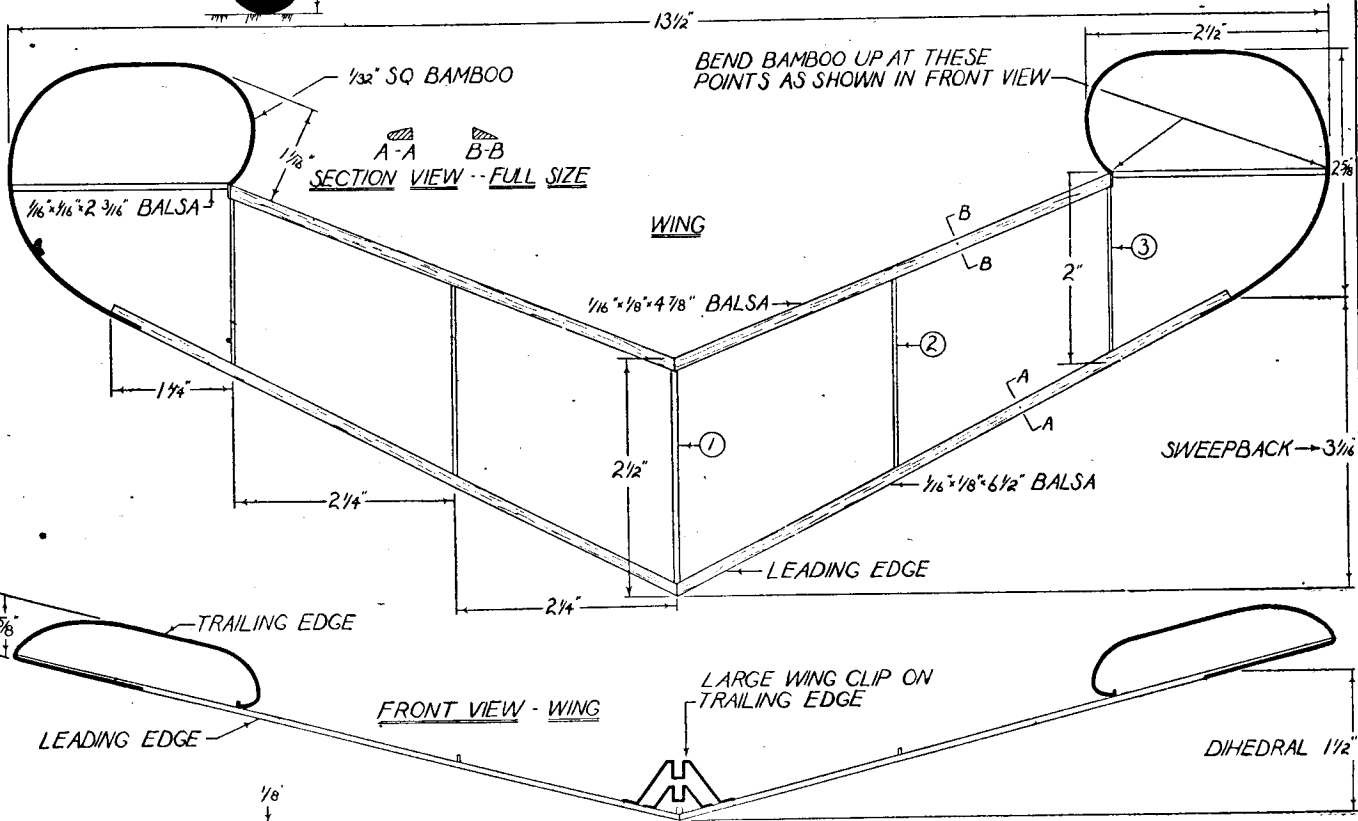
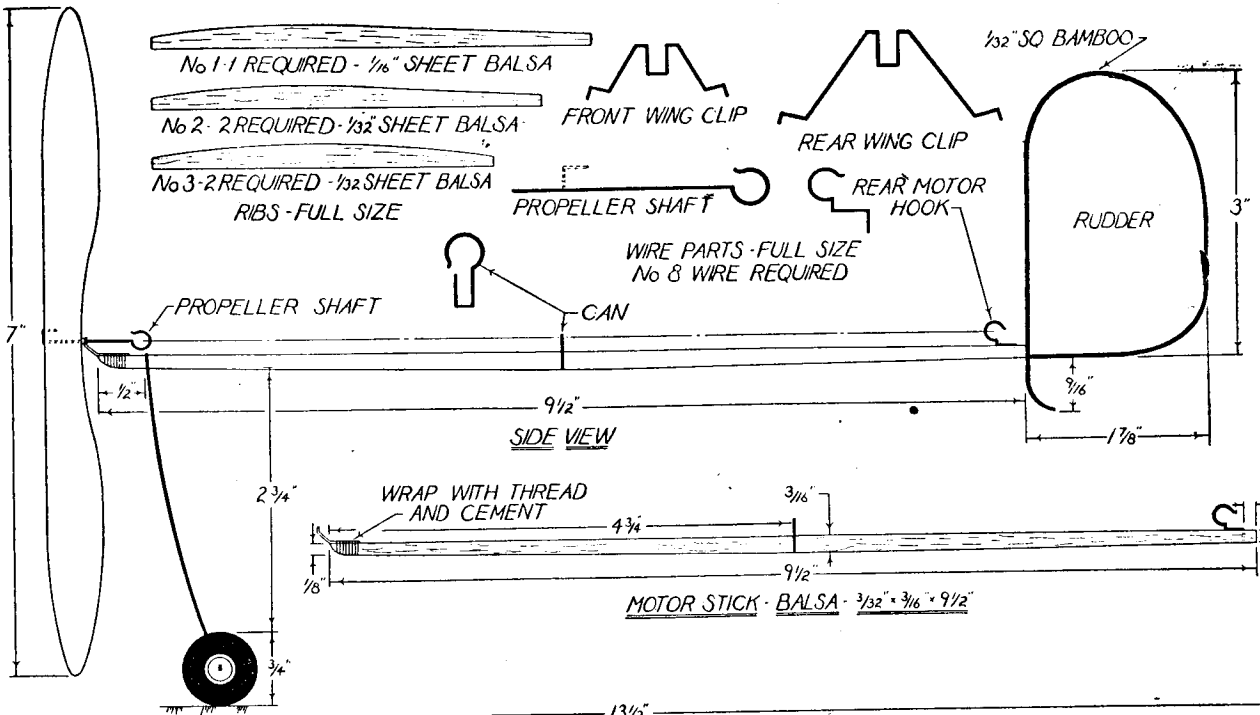


In all tail-less planes, the wing's the thing! And this "shot" shows the wing of our R.O.G. Special to great advantage. It certainly doesn't take more than a glance to tell you that this job packs real power!

By Jesse Davidson

SIMPLICITY is this R.O.G.'s middle name. Though lacking the usual elevator, its capabilities are not hindered in the least; for the absence of the elevator is compensated by the specially designed wing whose upturned trailing edge tips are actually small elevators built integral with the wing. The tail-less is powered with two strands of 1/6" sq. rubber, and when fully wound up it takes off in zero run, climbs almost like an autogiro, and when through cutting capers glides to a neat landing like a secondary sailplane.

THE TAIL-LESS R.O.G. SPECIAL



SCALE - 1/2" = 1"

First of all, have the necessary working materials on hand besides the usual cutting and round nose pliers to shape the metal fittings.

MOTOR STICK AND RUDDER

THE motor stick is chosen from a length of hard balsa measuring $3/32$ " x $3/16$ " x $9 \frac{1}{2}$ ". Taper the front and rear ends as shown in the plan, then shape all the metal fittings and cement them in place. The thrust bearing is held securely by wrapping white silk thread several times about the stick.

One piece of bamboo $1/32$ " sq. forms the outline of the rudder. Note how it is made in combination with the tail skid. Cover one side only with Jap tissue using banana oil for the adhesive. Attach to the extreme end of the stick with an application of cement.

WING

MAKE a full scale working drawing of the wing. Then shape the leading and trailing edge parts as shown in the plan, designated by A-A and B-B. Pin these down on the plan. Next, cut all the ribs to shape and cement each one in its proper position. Now shape a piece of bamboo $1/32$ " sq. (about 7" long) over steam to resemble the trailing tips. Keep curving the bamboo by placing it directly over the pencil outline, and when it is near enough to the shape as on the plan put small pins around the curved edges to hold the bamboo in place until it dries thoroughly. Snip off any, excess length and cement well to the joining ends. Of course, this must be done to the remaining side of the wing also.

The next step is to give the wing dihedral angle measuring $1 \frac{1}{2}$ ". With this done, bend the bamboo trailing tips upward as shown in the front view. (See dimensions on drawing.) Now cover the wing, one half at a time and, on one side only, the top. Complete the wing structure by cementing the wing clips in their respective positions. If desired, water-spray the wings one half at a time and allow the moisture to dry naturally. Do not place near any heat.

PROPELLER AND LANDING GEAR

CARVE the prop to the shape shown. Use a hard block which can "take it." Insert the prop shaft the usual way and place a couple of brass washers on the shaft. Balance the prop carefully. The landing gear is shaped from No. 8 wire to the

design shown., Note the slight curve as shown in the side view. Use $\frac{3}{4}$ " diameter balsa (or celluloid) wheels and complete the landing gear by bending the outer tips up as shown in the front view. The landing gear may be attached to the stick permanently with an application of cement or clipped on directly underneath the prop shaft as shown. (See front view.)

From the photograph you can assume the approximate position of the wing. Glide the model without winding the rubber. If the glide results in a stall, move the wing slightly back; if the model dives, move the wing forward a little. Test the glides until you obtain the longest glide possible while releasing the model from your eye level.

Rub a little machine oil on the rubber to lubricate it. A drop of oil between the shaft and thrust bearing won't hurt, either. To get the model to spiral in tight circles, raise or lower any one of the trailing tips slightly. Always launch into the wind.

All workbenches clear? Okay, then, let's go!