

Also shape the wing tip, and then with the air of a sandpaper block, finish the entire portion.

Build the other half of the wing in the same manner. The center section details for joining the two halves are shown on the drawing. Cement $1/16$ " sheet balsa on the back of the front spar joint and wrap with thread. Sheet balsa is also cemented on the front of the rear spar joint and wrapped. Fill in the bottom of the center section with $3/32$ " sheet balsa. Wrap a piece of 32 gauge aluminum, $3/8$ " x $3 1/4$ ", around the trailing edge to prevent damage.

The dihedral should prove enough, although more can be used if desired.

Landing Gear

Bend both pieces of the landing gear of $1/8$ " piano wire as shown in detail No. 2. Wrap the joint of the two pieces with small copper wire and solder firmly.

Next make the fittings, noticing that allowance must be made for the curve in each. Drill out $1/16$ " and then solder them to the landing gear.

The wheels should be about $3 1/4$ " in diameter, preferably Airwheels.

Fuselage

Unless otherwise noted, all the longerons, vertical and horizontal pieces, wing rest (or top of cabin) and the cross bracing forward of former No. 4, are $3/16$ " square spruce. The remaining cross bracing is $3/16$ " square balsa. Do NOT use balsa where spruce is mentioned, as strength is considered more important than weight. Since $1/2$ " wire nails are used to hold the spruce in addition to the cement joint, it will be necessary to drill each longeron with a drill made of a piece of No. 12 piano wire to prevent splitting.

The two sides are made in the conventional manner. After they are dry, add all the horizontal pieces, this giving a box-like fuselage. Note that the $3/16$ " x $1/2$ " pieces at the very front are set back $1/16$ " to form a mount for the motor plate. Before

going further, it will be necessary to attach the landing gear and the rudder attachment plate. These are held in place with $3/8$ " No. 0 wood screws and cement.

Make the top of the cabin, nailing each joint. Now cement and nail spruce formers to T, 3T and 4T, in place. Cement and nail the top of cabin to this. Cut and cement the remaining formers in place and cement on the stringers. Fill in between formers 1T and W. The vee brace at the windshield is made of $1/8$ " square spruce. The outline of the rear window is made of $1/8$ " sheet soft balsa. Fill in between the bottom longeron and the first stringer for better appearance, if desired. Cement and bind with thread, a $1/4$ " dia. x $2 1/4$ " aluminum tubing at the rear of the fuselage as a rudder mount. Cement a small block at former 8T to hold down the leading edge of the stabilizer. Fill in the section past 8B with sheet balsa and spruce as shown.

See Detail No. 4 for the tail wheel. Note that the entire fork is one piece of piano wire and is bound on the bottom of the fuselage. It will be necessary to slit the aluminum tubing part way so that the wire may be bent back. The fork is in no way

(Continued on page 32)

Raise rib $1/16$ " when constructing wing

End Rib Pattern
Make 2 of $3/32$ " Balsa

Trailing Edge
 $3/16$ " x $1/2$ " Balsa

Fill in after constructing

Rear Spars
 $3/16$ " Sq. Balsa

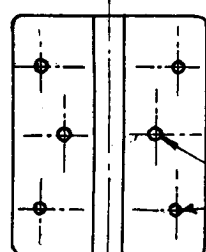
$3/64$ " Sheet Balsa cemented to spars between ribs after ribs have been cemented to spars

Wing Rib Pattern
Make 2 of $1/8$ " Balsa (Center Ribs)
Make 14 of $3/32$ " Balsa

Front Spars
 $1/4$ " Sq. Balsa

Leading Edge
 $1/4$ " x $1/8$ " Balsa

False Ribs end here
Make 14 of $1/16$ " Balsa



Front Landing Gear Fitting
Make 2 of $3/32$ " Spring Brass

$1/16$ " holes



Rear Landing Gear Fitting
Make 2 of $3/32$ " Spring Brass

$1/16$ " holes



Rudder Adjustment Plate
Make 1 of $3/32$ " Spring Brass

(Full Size)

