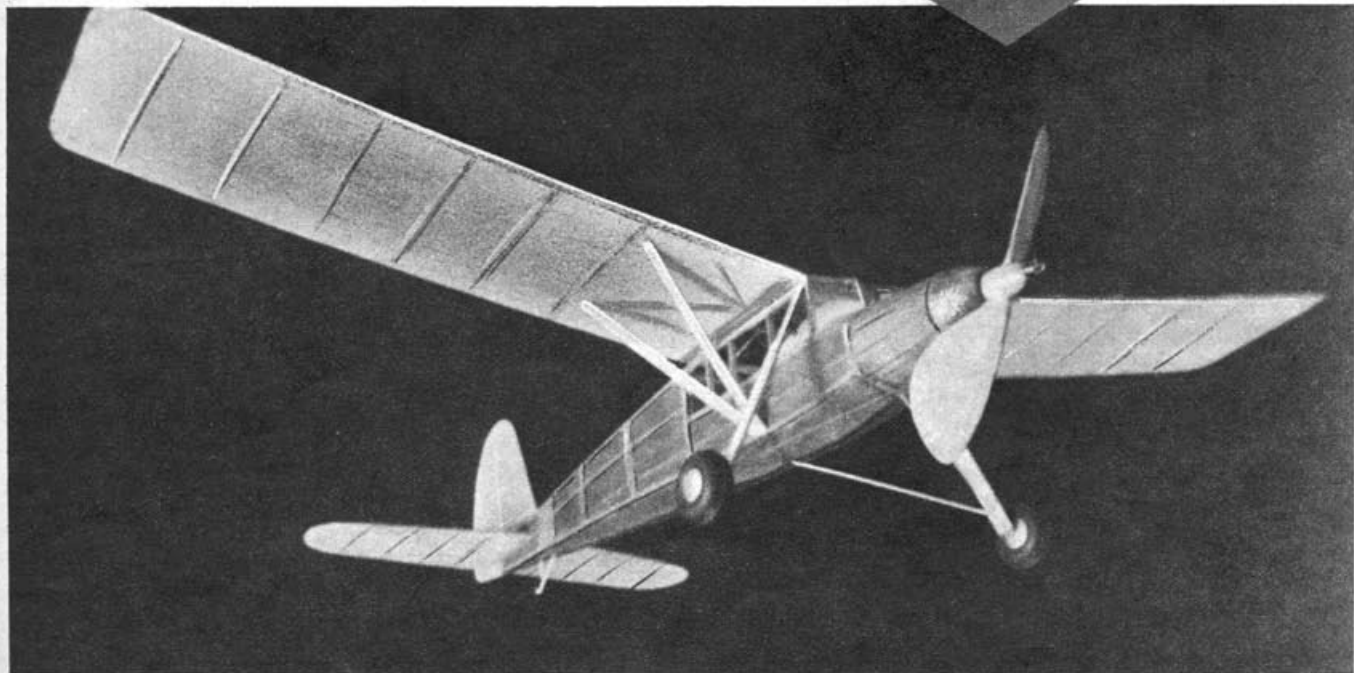


FIESELER

STORCH

An outstanding prewar ship, the *Storch* has ideal proportions for modeling



by LEN MARLOW

THIS pre-war German lightplane, it will be noted, bears more than a little resemblance to the famed Curtiss *Robin*. Like the *Robin*, it also offers the model builder an opportunity to produce a truly fine flying scale. With the exception of slightly increased dihedral and incidence—and, of course, the omission of "fancy" details—the adherence to actual scale is as close as the available drawings and photographs would permit.

To begin construction, cut out two of the 1/16" sheet formers to which the wing base is cemented. Pin one of these in place over the side plan view and add the 1/8" sq. hard balsa longerons and uprights, and the 1/16" x 1/8" cabin members, all of which are indicated by heavy black lines. It will be found necessary to soak the lower longeron in water in order to correctly form the required curve. After pinning this longeron in place allow it to dry thoroughly before cementing the uprights. Two sides are built in this manner, the second directly on top of the first for accuracy.

When the two sides have been completed, remove them from the plans and add the 1/8" sq. crossbraces and 1/16" sq. upper cabin members as shown on top plan view, working from front to back. Cut from 1/16" rock hard sheet and cement in place the two rear mounts which hold the 1/8" dowel motor mount. The fuselage formers are cut from 1/32" medium hard sheet and cemented in place, the lower formers being lightly nicked to take the 3/64" sq. stringer. Stringers of the latter size are also added to the sides, as indicated on the plans (for these and for other specified sizes which may not be available, substitute the nearest size or sand it to the required dimensions).

In building up the nose section, lay out two strips of 1/16" x 3/32" over the side plan view. Cut two "A" formers from 1/16" sheet and cement together crossgrain (be sure to save the two circular sections cut from the center of these formers, as they will later be used to hold the noseblock in place). Cut one "B" former from 1/32" sheet. Split the two formers in half along the center line shown

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on the plans, and cement half of each to the 1/16" x 3/32" strips. Add the additional 1/16" x 3/32" strip as indicated, remove from the plans and add the remaining formers to the opposite side. Cement the "B" former to front of the fuselage, and plank the assembly with strips of 1/16" x 1/8" balsa. When completed, this planking is sanded down to an approximate thickness of 1/32". Trim the longerons down to fair smoothly into the nose section, and cover between formers "C" and "D" with stiff cardboard.

Shape the noseblock from medium hard balsa and recess to take a small, metal-bushed hardwood thrust bearing. Cement

the two circular sections cut from former "A" to the rear of the noseblock, making sure this assembly will line up properly when inserted into the nose of the model. Add the two 1/16" dowel aligning pegs and a 1/8" dowel rubber tensioner stop as indicated on the plans.

The landing gear, added after the fuselage has been covered, is composed of 1/8" x 5/16" main struts and 1/16" dowel braces. Fill in around the lower stringer with scraps of 1/16" sheet balsa at the points where these braces are cemented to the fuselage.

Lay out all wing ribs except the two base ribs on a piece of 1/32" sheet and cut

out the lightening holes first, using a bow pencil or compasses into which a small cutting tool broken from a razor blade has been inserted. Use care in selecting hard, straight grained wood and in seeing that the holes are not cut too large or too close to edges of the ribs, as this will weaken the ribs and cause buckling when the covering is applied. When all lightening holes have been made, cut the ribs to outline shape, sand to uniform section, and notch for leading edge and spars. Two base ribs and four braces are cut from 1/16" sheet.

Pin the 1/16" x 3/16" rear spar and the 1/16" x 1/4" front spar in place over the wing plan view. Cement the ribs and end rib braces in place, and add the 3/32" x 3/16" trailing edge, 3/32" sq. leading edge, 3/32" sq. tip and 3/32" sheet tip formers. Fill in on the undersurface of the wing with 1/16" sheet for the wing strut plates. Remove the wing assembly from the plan, round leading edge, and tip and taper the trailing edge. To build the opposite wing half, trace and reverse the view shown. Rudder and stabilizer are constructed directly over the plans, using the sizes indicated, and the completed assemblies sanded to an approximately streamline section.

Cut the propeller from a hard balsa blank shaped to dimensions shown on the plan. Drill center of spinner and insert a section of 1/16" I.D. aluminum tubing or small brass bushing. Insert off-center tubing as shown for free wheeling engagement. One end of a length of 1/16" dia. steel wire is bent to form the motor hook. Insert the opposite end through rear of nose block and thrust bearing. Slip a ball bearing washer, prop, plain washer, light coil spring, and an additional plain washer over the end of the shaft, in order named. Bend the end of the shaft as shown to form winding hook and free wheeling engagement, making sure this part slips freely in and out of the tubing. Bend the rubber tensioner stop from 1/16" steel wire, bind to the shaft with light copper wire and solder *securely*. When there is no tension on the shaft the free wheeling should be disengaged, and the rubber tensioner stop should engage the dowel pin *only* sufficiently to prevent the shaft from turning. A short piece of neoprene tubing is slipped over the motor hook to prevent cutting of the rubber.

Cover the stabilizer first, using lightweight tissue applied with clear dope or banana liquid. Spray lightly with water and pin down over a flat surface to dry. This procedure prevents warping; it is also followed when covering rudder and wing surfaces. When the covering has dried, cut out a portion of the two rear fuselage uprights and cement the stabilizer into the slot in rear of the fuselage.

If colored tissue is used, dope 1/16" wide strips of tissue over the outside edges of the cabin members. The noseblock, struts and other parts are covered in similar manner. This method eliminates the added weight of color doping such parts, and from the standpoint of appearance is more attractive due to uniform coloring.

The completed model is given two coats of clear dope thinned 50%, and with three or four drops of castor oil added to an ounce of the dope. For power, use 8 to 10 strands of 1/8" flat rubber, 14" long, and well lubricated. For test flights put in 75 to 100 turns by hand. When the model has been properly adjusted, a winder is used.