

Over in France they're still talking about it—and fifty million Frenchmen can't be wrong! We mean the "whizzing blur" that won the Deutsch de la Meurthe circuit race and chalked up a speed mark of 314 m.p.h. into the bargain. That "w.b." was the Caudron 460 Racer. And now here's a great treat for you—full instructions for building an exact scale flying model of this record-smashing job.

APRIL, 1936

Z-z-z-z! There she goes, flashing across the sub-stratosphere of the backyard. And she's TRAVELING, too—for it took a 1/253 of a second exposure for this film to "stop" it!



Build the Caudron Racer

THE real Caudron 460 is powered with a Supercharged Renault engine developing 330 h.p. This first place winner in the circuit race of France averaged better than 275 m.p.h. for more than 1,200 miles! Plywood covering is used in the big plane, but only the fuselage of our model is covered with wood, for we do not wish to add too much weight. True to its prototype, the model flies very fast and covers a lot of distance in doing so.

FUSELAGE

MAKE the body in the usual manner. Join Plates 1 and 3 together for the outline. The noseblock is carved from soft balsa and shaped and hollowed out as shown. Drill a hole in front to accommodate the nose plug. The long headrest after the cockpit should be carefully hollowed. To add realism to the model the fuselage should be covered with sheet balsa. (You may find it too heavy in comparison with others, but it is worth the extra weight in looks.) The original model had 1/64" stock on it, except the bottom of the fuselage which may be covered with regular tissue.

The sketch of the tail plug is self explanatory. Bend a rear hook of .029 music wire and cement it securely in the plug. The pilot's enclosure is made from bamboo and covered with thin celluloid, and the upper forepart is shaped out of 1/8" balsa. This forms a roof for the enclosure.

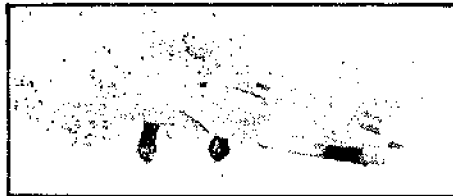
WING

THE wing is built in two separate panels. The right half can be traced by reversing the left one shown on Plate

By Marion Clarke and Robert Smith

2, thus completing the wing structure. Cut the ribs from 1/32" material, except the center one which is 1/16" thick. The leading edge must be rounded on one edge, while the opposite edge fits in the notches of the ribs. The trailing edge is, of course, tapered to a knife edge at the rear, and the wing tips are bent from 1/32" sq. bamboo.

When the wing halves are complete they should be glued securely at the center and the middle rib inserted. The



Here's the completed model—an exact copy of the real speedster of the French skyways.

amount of dihedral necessary for best flying results is 5/8" under each tip. The framework is now covered with a light grade of paper, using banana oil as the adhesive. This is now sprayed with colored, or clear dope (as the builder prefers). The authors finished their model in green. An opening similar in shape to the middle rib is cut out of the body covering on either side of the fuselage to allow the wing to be slipped through. Once fitted it is glued in the framework firmly.

EMPENNAGE

BOTH the rudder and the two sections of the tail can be built easily over the drawings. The spars for both are tapered from 1/16" x 3/32" material, the leading edges are cut from 3/32" sq. stock, and the trailing edge pieces are tapered from 1/32" x 3/16"

balsa. Carefully cut and sand the tips out of 1/32" sheet. The root ribs are 1/16" thick, and the other ribs are 1/32" thick. Cover these frameworks on both sides and dope them in the same manner as the wing. Glue them on the fuselage in the position shown in the plans.

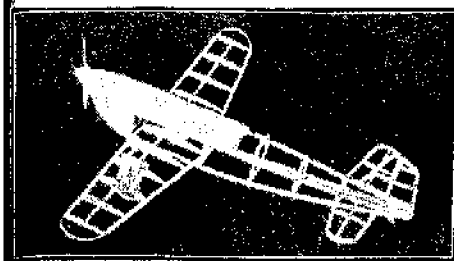
LANDING GEAR

CUT two struts from 1/32" sheet to the shape shown on Plate 4. Cut two more from 1/8" stock, but this time cut the bottom so the wheel will fit and turn without hitting the thicker strut. A piece of thin aluminum is cut and bent as shown. One end is glued between the thin and the thick struts. Repeat for the other leg of the gear. Pins serve as axles, on which turn 1/4" balsa wheels. Small beads between the wheel and aluminum and thin balsa strut will keep it in place.

A streamline block is glued on each leg of the landing gear (refer to Plate 4 and photos). Cut away paper on the bottom of the wing so that the struts will fit up in it, and then glue the legs on the spar and auxiliary spar. Be sure the landing gear struts are parallel to each other and that they are securely cemented. Mount the tailskid on the tailblock, and glue it in to stay!

PROPELLER AND FLYING

CUT the prop block out of a 3/4 x 1 1/4 x 7 1/2" balsa block and shape as in Plate 4. Carve the prop carefully and paint it silver a couple of times to represent the Ratier controllable pitch propeller which the real ship uses. Mount a hardwood noseplug and two thrust



Left: This view of the partly-covered framework will aid you in checking your work. Note how the undercarriage is fitted to the wing spars. Right: A front three-quarter photo of the structure.

