RENARD R-2 by AL CASANO

Scientific Leader A.M.A.

THIS MODEL IS A NATURAL FOR FLYING SCALE COMPETITION

THE Renard R-2, an observation plane used extensively by the Belgian Air Force, comes pretty nearly being the absolute tops in performance for flying scale models. The long, sleek fuselage, parasol wing, and ample nose moment arm make for stability and performance to a degree seldom found in a scale model.

This job is easy to construct, is rugged, and has only about fourteen hours of work in it.

Fuselage: Scale fuselage plans up to full size, then make two sides, using 1/8" square throughout. Be sure to use wax paper over your plans, as it prevents sticking to plans. Now invert fuselage sides and lay on scaled-up plan view of fuselage. Cement in cross braces, and let dry. Next, cement soft 1/4" block on bottom of fuselage from nose to first station; let dry, then carve to rounded shape. Make all top formers from 1/16" sheet, as shown in the drawings. When dry, cut notches for 5 1/16" square stringers. Cement in 1/16" round balsa tail skid as shown on plans and put in rear hook, making sure that it is bent to safety shape. Carve nose block from 1/2" x 1" x 1 1/2" balsa block. The shaft hole in nose block should have two degrees down thrust and two degrees right thrust. Cover fuselage yellow with black turtle back.

Wing: Make ribs as per pattern. The leading edge is 1/8" square with 1/8" x 3/8" trailing edge and four 1/8" x 1/16" spars, all of which are laid on edge. The tips are solid 1/8" sheet, which, although it adds little to the weight, greatly strengthens the wing and prevents tip warp. The two halves are cemented together with a 2" tip dihedral. Sand trailing edge to shape, then cover wing all yellow with insignias, as shown. Position of struts at wing is clearly marked with "X" on plans.

Wing mount: The wing mount is made from 1/8" hard balsa and is mounted as shown, first being sanded and covered with black tissue. All relative positions are clearly marked on drawings. In the event of a bad collision the wing usually comes off clean at the mount, saving much damage and grief.

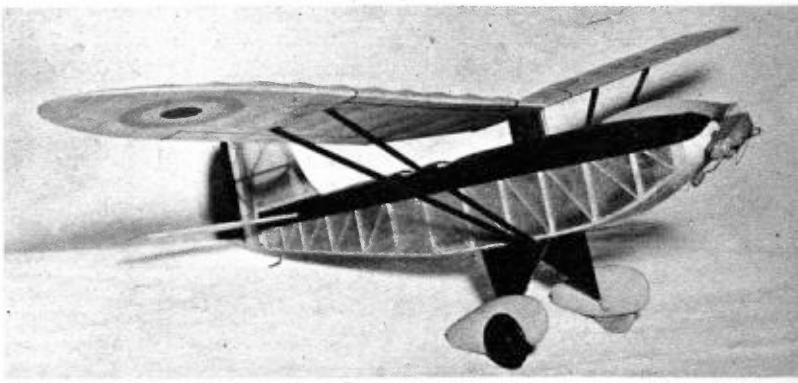
The stabilizer is made to half scale on the drawing and needs little explanation. The hinges are made from milk bottle top wire, making adjustment very easy. The rudder likewise is self-explanatory.

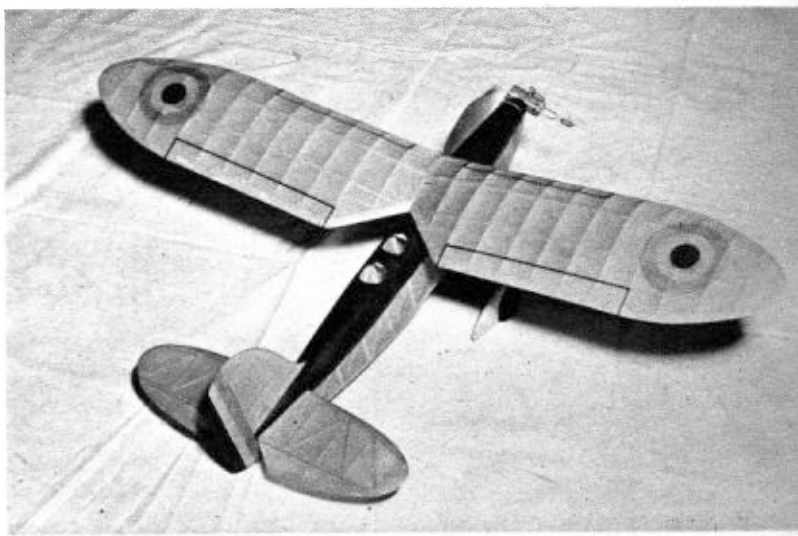
Wheel pants are made by cementing one inside and one outside wheel pants pattern together as per plans. These must be sanded to streamline section. Be sure to make one left and one right. Use 1 3/8" diameter by 1/4" thick wheels. It is important that wheels roll freely in axle.

Landing gear: The landing gear outline is made as shown on drawing. Bind front and back half together and fill in between with 1/16" sheet. Cover with black tissue which will serve to hold sheet balsa in place. Fasten pants and wheels on axle and sew landing gear to bottom of fuselage at position shown.

Propeller: Since there is nothing in the book that says we can't, we're going to use a one-bladed folding prop. This is laid out and carved in the usual way, with a positioner and tensioner of the Korda type employed. Ten strands of T-56 1/8" flat rubber, well lubed, are used as power, leaving six inches of slack in the motor.

Flying: Make all necessary adjustments to obtain a long, flat glide with a slight right turn. These adjustments should be made with the movable tail surfaces. Wind ship about 300 winds and launch into the wind. If any slight adjustments are needed, make them in the thrust line at the nose. Increase the winds with satisfactory flights until the maximum, ap- (*Turn to page 119*)





● The parasol wing and ample nose moment arm, combined with a folding prop, make flights of long duration commonplace.

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(*Continued from page 65*)

proximately 1,500 turns, is reached. The author has hit two minutes consistently with this plane, and had one flight of five minutes and 23 seconds.

Bill of Materials

1 pc. 1" by 1½" by 6"
5 pc. ⅛" by ⅞" by 36"
1 pc. ⅛" by ¼" by 36"
4 pc. 1/16" by 3/16" by 36"
2 pc. 1/16" by 2" by 36" sheet
1 pc. ⅛" by 2" by 18" sheet
1 pr. 1⅜" diameter by ¼" wheels
1 pc. ¼" by 2" by 18" sheet
1 pc. .040 music wire 36"
4 pc. 1/16" by ⅛" by 36"
1 pc. ½" by 1" by 1½"
1 small piece 1/16" bamboo
1 Jasco bearing
2 Yellow Jap tissue
1 Black Jap tissue
1 Red Jap tissue
1 ounce cement
2 ounces clear dope
20 feet ⅛" flat T-56 brown rubber