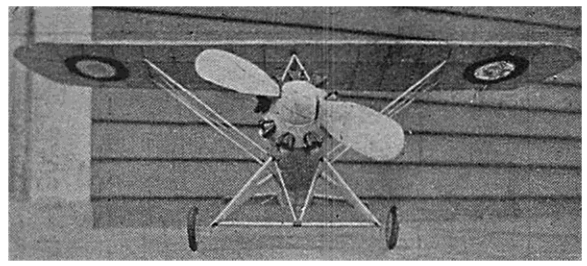


The completed model is very realistic and an excellent flyer

Just like the large ship, with bracing, shock absorbers, and engine.



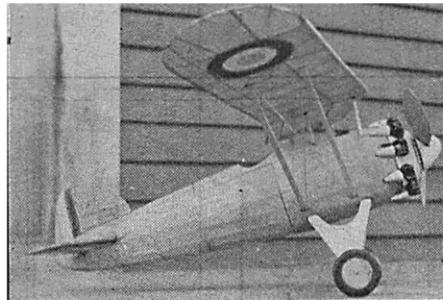
Building the Morane-Saulnier "Pursuit"

FRANCE is air-minded; there is no doubt about it. The French Air Force is one of Europe's best policemen. You should make a comparison of the foreign planes with those of this country.

The first of the modern French pursuit ships to come before the model builders of America was the Bernard C1, then the Dewoitine D27-C1, which the skillful French pilot, Marcel Doret, so cleverly demonstrated at the National Air Races in Chicago in 1930. Now I take the privilege to present to the readers of *UNIVERSAL MODEL AIRPLANE NEWS*, the Morane-Saulnier Type 221-C1 pursuit ship. The makers of this stubby little job have been making monoplanes for years; the World War saw many ancestors of this plane. The real ship is powered with a Gnome-Jupiter 650 horsepower motor, and "grabs altitude like a homesick angel."

Patience While Building This Model Will Give You a Flying Replica of a Modern French Pursuit Ship

By Richard Rioux



This model will "grab" an altitude of seventy-five feet

The Fuselage

The fuselage of this model is rather difficult to build, but is very light. It looks bulky, though it is well streamlined. First cut the formers of 1/16" balsa veneer as shown in Figs. 3 and 5. There are no main longerons, the formers are separated by stringers only. The stringers are numbered from the top clockwise around the fuselage. Put stringers 1, 5, 9 and 13 in place first. Then add stringers 3, 7, 11 and 15 in place and line up the fuselage. Between formers E and F, near the positions of the stringers 3, 7, 11 and 15, place beams of 1/8" x 1/4" balsa. These beams will absorb the shock of the landing gear and wing. Between formers E and L are diagonal struts meeting the formers at the junction of stringers 3, 7, 11 and 15. Stringers 2, 4, 6, 8, 10, 12, 14 and 16 run back to former L and end there. Notice the numbering of the formers L and K in Fig. 5. In back of former H and just above stringers 5 and 13, place the rear hook base. This base is made of 1/8" x 1/4" balsa, a rear hook of No. 10 music wire is securely mounted in the center of it.

Cover the top of the fuselage between stringers 3 and 15 with smooth 1/64" veneer. Cover as far back as former H. The rest of the nose to a short distance past former F is covered the same way. Veneer covering is not as hard as it seems and it looks great; making the model resemble its metal-clad big brother. Make the tail-piece N of soft balsa and bore three holes through it to lighten it. Now finish covering the fuselage. I

use superfine, but that is optional.

Landing Gear

THE hardest part is completed and you must be anxious to finish; so here goes.

Plane down a piece of 1/4" veneer to 3/16" thick. Cut the two pieces 3 1/4" long and 2 1/2" wide and shape to the form of P in Fig. 5. Sand the edges round and do the same with pieces Q and T (see Fig. 6). Prop the fuselage up and cement the pieces P in place. Spread them with piece Q and brace with pieces T, from the center of Q to the front of P. See detail in Fig. 1. Make the axles, Fig. 1, and skid, Fig. 2, of No. 10 music wire. While the fuselage is propped up cement these parts in place. Cut 2 wheel centers of 1/8" stock and 4 sides of 1/16" veneer, see Fig. 7. Cement parts together, sand edges round, and attach brass bushings to each side of each wheel. Mark the tire lines on with a compass and place the wheels on their axles. The model can now stand on its own "feet."

Tail Surfaces

The rudder is built up of 1/16" x 1/8" balsa and outlined with 1/32" square bamboo. Cover both sides. The spars and ribs are composed of 1/16" x 1/4" stock. The leading edges are shaped from 1/8" x 1/4" material and the trailing edges of 1/8" x 1/16" strip. The tips M are shaped from soft balsa and have three holes bored through for lightness. (See Figs. 2 and 5.) Cover the halves of the stabilizer and cement in place as shown in Fig. 2, bracing them with the 1/16" x 1/32" bamboo struts from the rudder.

Motor, Etc.

The motor may be made up of balsa cylinders or of a 3" diameter celluloid motor. The exhaust stacks can be made of radio spaghetti or aluminum tubing. The cylinder streamlining pieces are made of balsa. Don't be afraid of making the nose heavy because you will probably have to add lead to (Continued on page 39)

Editor's Note—When you desire a true scale model, construct the tail surfaces as shown by the heavy black lines. However, if you wish a model of superior flying quality, construct the tail surfaces as indicated by the dotted lines on the plans. I suggest also that you set the stabilizer at a positive angle of incidence of one degree positive. (Front edge raised about 1/16" above horizontal position.)