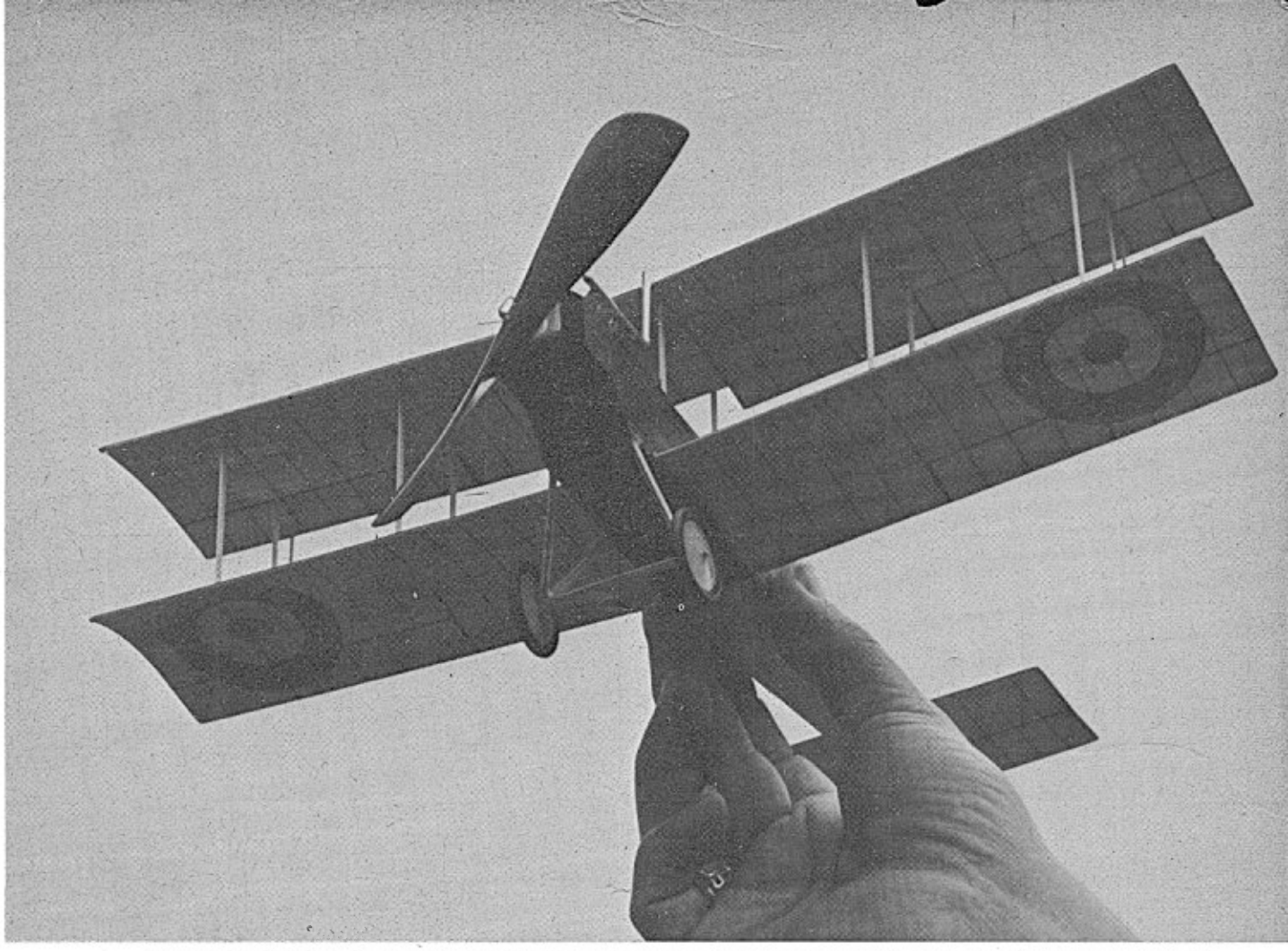


Peanut Scale is best shown by comparison of hand and model! Note the many small details for which this series is famous, rib indications etc.

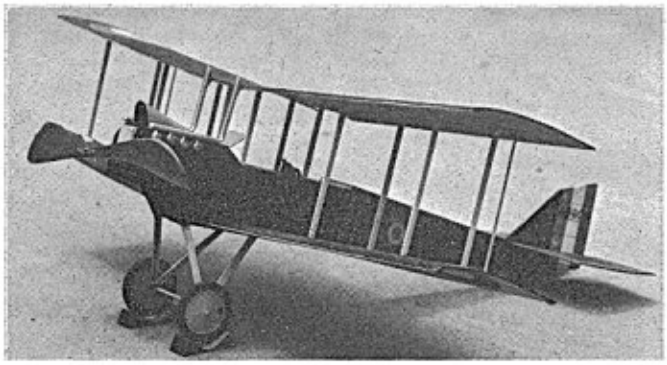
DeHaviland DH-6...Peanut Scale

By WALTER MOONEY . . . the old perfessor has done it again! Here he continues his fabulous line of small rubber powered free flight birds, this time in 'Peanut Scale' the fastest growing fun scale event in the country. Small all-balsa plane a winner.

More than 2000 DH–6 primary trainers were built during 1917 and 1918 but because they were neither fighter or bomber they are relatively little known to the present day modeler. While some airplanes appeal to the modeler because of their sleek graceful lines, such as the Spitfire, the DH–6 appeals to the Ole- Prof because it's such a straight lined aircraft. When he read accounts that said it was easy–even too easy–to fly and unbelievably safe; he decided it would make a nice, rubber power, scale bird. The wing had a lot of under camber in the airfoil which resulted in a soubriquet of, "Clutching Hands" for the design. This feature decided the Ole Prof to make an all sheet balsa, Peanut Scale model of the DH–6.

Although the drawings show several thicknesses of wood in the model, if you don't mind laminating the thicker

(Continued on page 48)



Side view of DH-6, note wheel chocks, carved prop and engine details.

And here we have the peanut doing what it does best, off on good flight.

FULL SIZE PLANS ON FOLLOWING TWO PAGES

DeHavilland DH-6

(*continued from page 17*)

pieces, two sheets of one thirty-second thick sheet balsa will provide enough wood to make the entire model with quite a bit of wood to spare.

Wings and tail surfaces are made to the size shown on the plans. Cement leading edge doubler on the wing panels and when dry sand the leading and trailing edges of all surfaces to a round shape.

The fuselage is essentially a long tapered, rectangular cross-section box, except at the front. Here the top is made of three pieces instead of a single flat cross sheet. In the cockpit area below the wing there is no upper cover. The original DH–6 aircraft had no cowl around the engine at all, so the model front end has been simplified a little making it a box shape. The aircooled V-8 engine is simulated on the slanted panels of the nose with four exposed cylinders on each side and a bent aluminum tube exhaust stack. The Center of Gravity balance point of model is indicated on the side view and may seem pretty far forward, however, with the small horizontal tail used, this CG position is necessary. On the model in the photographs the engine cylinders are short lengths of 3/16" diameter bolts used as ballast as well as detail.

After the fuselage is assembled give all the separate parts one very light coat of thinned dope or sanding sealer. The Ole Prof used a spray can of Magic Brand Lacquer Sanding Sealer; available in Southern California from the Standard Brands paint stores. The idea is to seal the balsa pores very lightly so that the felt pen ink, used in decorating the model, won't run when you apply it. Care must be taken not to warp the wood with too much sealer. One very light coat is sufficient. When the sealer is dry, very lightly sand all the surfaces to remove the roughness raised on the balsa. Felt pens can now be used to put on all the decorative detail you want.

The model in the photographs was decorated as a trainer in the English service. The roundels on the upper surface of the top wing and the lower surface of the bottom wing at the tips, have red centers and blue outside circles. The same roundels are on the fuselage just behind the cockpit. White felt pens aren't readily available so the white intermediate circle is left balsa colored. The vertical tail has a blue forward stripe and a red aft stripe. Use a fine dark brown or black felt pen to lightly indicate the ribs on the top and bottom of all flying surfaces. Use a fine black pen to put the serial number on both sides of the vertical tail. Use a grey or black felt pen to color the entire front end of the fuselage to a point about ¼ inch aft of station four. Now use a brown felt pen to color the top of the wings, top of the fuselage, sides of the fuselage, both sides of the vertical tail. Be careful not to overlap your roundels because you can't erase felt pen from balsa.

In actuality any color scheme is all right for the DH-6 because many of them were used as civilian aircraft after WW-II. One had the license "G-EARL" in a white panel on each side of the fuselage and on the lower side of the bottom wing. For the real scale enthu-

siast, a good three-view and some photos can be found in "British Civil Aircraft 1919-1959" Vol I by A.J. Jackson.

Both the upper and lower wing panels now should be cambered, that is, given their airfoil curve. To do this give the lower side, only, of each wing panel and the center section, a single coat of dope. Leave a ¼ inch strip at the leading edge and ½ inch at the trailing edge free of dope. As it drys, the dope will shrink slightly and warp the camber into the wings. The exact amount of camber is not too important but the wing panels on either side of the fuselage should have the same curvature. Be careful to only apply one coat and do not rebrush it after the very first application; the dope tends to make the felt pen markings streak if you do.

Now cement the upper wing panels to the center section and block up the tips to obtain the correct dihedral angle. The side view shows the correct length for the struts. Make four pair exactly as shown for the interplane struts and two pair long enough to reach the inside bottom of the fuselage for the cabane struts. Install the cabane struts in the fuselage cementing them to the sides. The X's on the wing panel drawing show where the struts attach. Mark these points on the wings and cement the upper wing onto the cabane struts. Lay the fuselage flat on the work board and cement the lower wing panels in place on the fuselage sides. Block them up for the correct dihedral and incidence. Now install the interplane struts.

Cement the horizontal and then the vertical tail in place on the aft end of the fuselage. The aileron interconnect struts are in line with the outermost set of interplane struts. Bend a landing gear brace wire to match the shape of the bottom of the fuselage and each forward leg as shown in the front view. Make each landing gear leg 1/16" longer than shown in the side view to compensate for the spread angle. The axle bar is made as long as shown in the front view. Cement the landing gear assembly in place on the fuselage with the wire brace along the front of the forward legs. The Williams Brothers' Company makes beautiful WW-I wheels which were used on the original model. They require a short bushing of 1/16" diameter aluminum tubing and are supported on straight pin axles cemented to the bottom surface of the wooden cross axle.

The inlet shroud can be carved from balsa or bent out of thin metal as on the model in the photographs. The propeller can be made from any ready made commercially available propeller of approximately the right diameter. Of course you can carve your own if you so desire. The original has a cut down Paulownia hardwood propeller that works well. Many of the plastic propellers will work well also. Use an aluminum tube propeller shaft bearing and a couple of washers for a thrust bearing.

Details such as the engine, exhaust stacks, wing tip skids, and tail skid can be added now. The flying wires can be added if desired, however, on the original model they were left off in the interest of less drag.

A single loop of one eighth flat rubber is enough to power the model; although slightly more power won't hurt. Two loops of 3/32" flat rubber would be OK. Bend the elevator to improve the gliding flight of your model and use shims between the nose block and the fuselage to angle the propeller shaft to improve the power flight characteristics. The original model flies in wide left hand circles.

Let's go out and qualify for the Peanut Scale Royal Flying Corps! ■