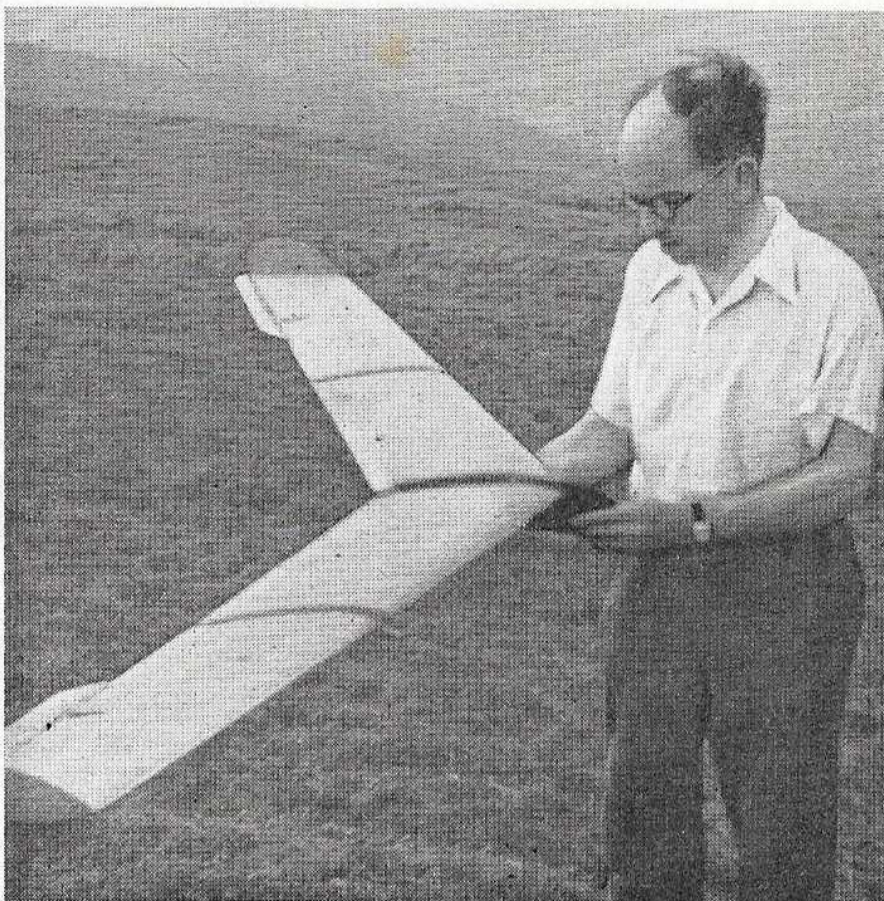


# The Clywd Queen

A UNIVERSAL 63in.  
SPAN TAILLESS MODEL  
THAT CAN BE EITHER  
POWER OR GLIDER.  
BRITISH RECORD HOLDER  
IN TWO CLASSES.  
by H. F. WILDE



WITH LESS construction involved, and definitely less susceptibility to damage, the tailless model is a fascinating subject, particularly when one is presented with a design that holds two British National records. The "Queen" of which no less than three have been lost on the Clwyd slopes, established a lightweight record of 9 : 51 in 1954 and a record with F.A.I. wing loading of 3 : 17 as far back as 1949. In its latest version, as presented here, it can be flown in three forms, either for slope soaring, two-launching or as a power model for up to 1.5 c.c.

Construction is both simple and inexpensive and naturally enough begins with cutting out the wing ribs which change in section from root to tip.

Pin down the two lower spars over the plan, cementing the ribs in place, using packing strips where necessary to provide a wash-out and add the two top spars. Make sure that the root tip is at a slight angle, to allow for dihedral, and the tip rib W.12 should be inclined at the same angle to keep the tip fins vertical. Now add the leading edge to the ribs, remove the wing from the plan. Joint the

trailing edge at W.6, then fit to follow the lower profile of the ribs at all points. Now pin down wing on the board except for the outer trailing edge portion and insert packing under the trailing edge to obtain the correct wash-out angle before cementing firm. Linen patches over the trailing edge joints are advised. Attach the leading edge sheeting on the upper surface, remove from the board and build on the underside.

Now make the two wing boxes from hard balsa, pre-cementing or using a slow-drying glue. Before fixing the wings, check for alignment with the tongue in place between the two wing panels. Fit the elevons while the box assembly is drying in position, and then finally complete the wing by sheeting the centre bay on both surfaces, then cover with heavyweight Modelspan. The original is covered with yellow tissue to show up amongst the countryside when landing on the slopes of Clwyd.

Trim for hand-launch on level ground, the correct position of elevons being with them following the contour of the underside of the wing. If the "Queen" turns right or left, screw down the elevon on the outside of the turn. When a satisfactory glide has been obtained, add an extra ounce of nose weight for flying from a slope. It should sweep away, climbing steadily in the wind. The power version has actually flown with an Elfin 2.49, but more modest power is recommended, at least to start with. For a safe flight pattern use a left hand circuit with the port elevon screwed down half a turn at a time on the trimming bolt to obtain the desired rate of turn.