



Mew

Gull

THE FAMOUS
PERCIVAL
RACER
IN MINIATURE
BY
H. C. THOMAS

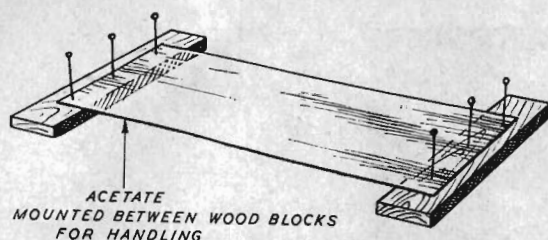
An inch to the foot scale class "A" team racer which combines realism with high performance and durability



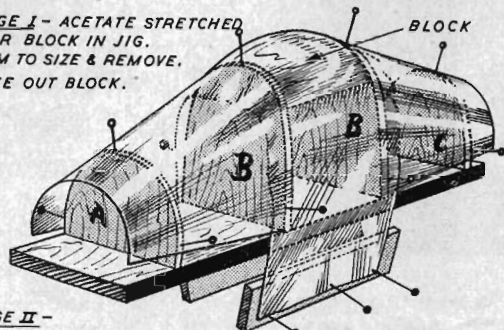
ONE OF THE RULES with which one must comply when building a team racer is that the design should be "scale or semi-scale". Unfortunately this rule is not always enforced by organisers of team races and the result has been a gradual degeneration of appearance bordering on the hideous rather than realistic. However, there are very few scale subjects which lend themselves to the proportions of wing area, fuselage depth, etc., as required by the rules. The TK4, already in the APS range, is one suitable type; but for the wing area needed the fuselage becomes larger than one might desire for high speed performance, though 75 m.p.h. is still a possibility with a good engine. The earlier Percival Mew Gull possessed the right fuselage lines for high speed, and the blister type canopy fitted to G-AEXF soon after its return to Britain after the war allowed it to fill the requirement for fuselage depth at the cockpit—so this was chosen by H. C. Thomas for the most attractive model we describe here.

Wing area is 80 sq. in. and speed approaches the 80's with a plain bearing Elfin 2.49, so its potentialities will be recognised by all and the few concessions made for better T/R operation do not detract from scale appearance. These are the sweep forward of the undercarriage, and the very slightly increased tail area, plus the use of a fully symmetrical wing section. Three prototypes have been made, and apart from needing slight tail ballast to get the C.G. located correctly, have proved entirely trouble-free. Latest of the line has the elevator area increased to 50 per cent. of the total tailplane and this is a wise modification for the tempo of modern Class "A" team racing. For scale work, the elevator shown gives full control with ample reaction for sport flying.

Start with the wing by making the 3/16th spar over the plan complete with brace, fitting ribs, leading edge, and top sheet, and binding the u/c to ribs W.2. Make up the bellcrank assembly and lead-out wires, fit to wing by means of upper ply plate in top surface, add push rod passing through

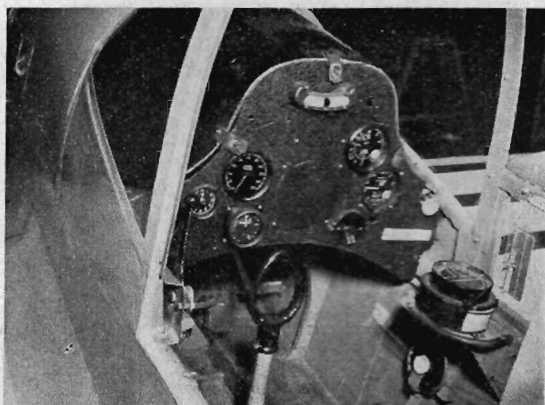
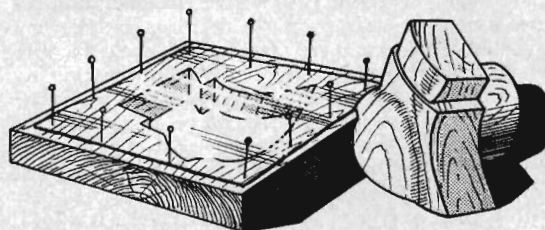


STAGE I - ACETATE STRETCHED
OVER BLOCK IN JIG.
TRIM TO SIZE & REMOVE.
TAKE OUT BLOCK.



STAGE II -

ACETATE PINNED IN POSITION AT EACH END, SMEAR WITH
CEMENT AT FORMERS 'B' & PIN MOULDED PIECE IN PLACE.
REMOVE WHEN SET & CUT TO FIT FUSE.



Above is a view of the full size cockpit showing the throttle, instrument panel, joystick and compass for those who want to model in detail. The seat is almost at floor level as will be appreciated by the size of the scale figure on the plan opposite. Lower pictures compare lettering changes and alterations to the cockpit which have been made to the full-size (bottom) since Mr. Thomas made his version of the '51 Mew Gull.—

Full size copies of the 1/3rd scale reproduction of the APS plan opposite can be obtained priced 3/6 post free from APS,
38 Clarendon Road, Watford

top sheet and fit bottom surface with edges bevelled at trailing edge. Secure the bellcrank by fitting bottom ply plate, centralising the crank with washers or tube spacers. Add tips, lead-out tubes and sand the wing smooth.

The tail components are simple sheet structure, tailplane and elevator having a sandwiched "hidden" hinge. Now start the fuselage by assembling formers F4 to F7 on the engine bearers. Make the crutch for the rear fuselage over the plan, adding F8 to F12 and sternpost. Add the fuselage sides, and, when set, the bearer assembly. Fit the tank and plank upper nose and sheet rear decking. Cement the wing in place after arranging push rod length and then fit the tailplane, the fairing block, fin and rudder. The tailskid and 1/16-in. sheet fuselage bottom complete the structure except for the nose cowl and the moulded canopy and spats.

The sketches demonstrate how a dummy jig is made to obtain the duo-curvature of the cabin roof. Heat the acetate sheet until floppy by holding it about 15 inches from an electric fire, and pull over the moulding block, cutting away excess when cool. Wheelspats are made by the system of heating acetate stretched across a profile hole of the spat, cut in ply or similar stout material, and pushing a wooden shaped spat half against the softened acetate. Two halves must be made, but the effort is rewarded with a quick lightweight reproduction of the full-size which is most realistic when doped.

Cover the entire model with Lightweight Model-span, give at least two coats of sanding sealer and rub down, then several thin coats of gloss white all over. Letters of this version were bottle green, with racing numbers in black, whilst the latest scheme for 'EXF' is white with deep navy blue lettering rearranged as photo, bottom left. Propeller and spinner should have a natural aluminium finish.



H.C.Thomas

3'6

38, CLARENDON RD., WATFORD, HERTS.

ALL WOODS ARE BALSA UNLESS OTHERWISE STATED

MISCELLANEOUS

<u>SHEET Balsa 36" LONG</u>		
3	SHEETS OF	1/16" X 3"
2	"	" 3/32" X 3"
1	SHEET	" 1/8" X 3"
<u>STRIP Balsa 36" LONG</u>		
2	STRIPS OF	3/16" SQ.
3	"	" 3/32" X 1/4"

BLOCK BALSA 1" X 1½ X 2¼
6½" OF ¼" X 3"
SCRAP ¾" SHEET
3" X 6" OF ¼" PLY
15" OF ¼" X ¾" HARDWOOD
1 SQ.FT. OF .010" MOULDING
ACETATE

1	PIECE	OF	14 S.W.G. WIRE
1	"	"	16 " "
1	"	"	20 " "
1	PAIR	OF	1½" STREAMLINE WHEELS
1	-	1¼"	SPINNER
15	CC.	T.R.	TANK



T.B.U. BADGE
APPROX FULL SIZE

