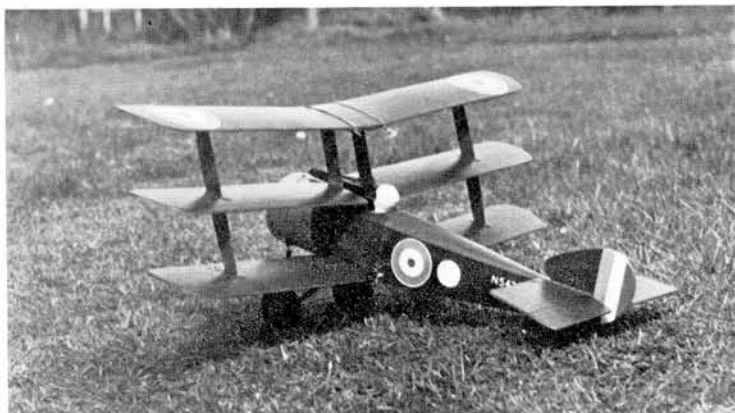


Sopwith Triplane

a fly-for-fun semi-scale sports model for 0.3-0.5cc engines, designed by
G. E. WHITEHEAD



FEELING NOSTALGIC? How about a spot of relaxation shaping a few sheets of balsa into this elegant little machine, then taking her out to the flying field for some rewarding flying? Anyone can have fun with this *Sopwith Tripe* – the youngster who is wanting to try his hand at something out-of-the-rut for the first time, or the oldster who has done everything, but wants to get back to basics to help him remember just what basics are all about!

The flying properties which endeared this design to the RNAS pilots who flew the full size originals, make

employed the built-up tail structure, as the Cox Pee Wee is so light; $\frac{3}{4}$ oz lighter than a .5cc diesel. However, I found that even the Pee Wee has sufficient power to carry the extra 1oz noseweight which would be needed to balance an all-sheet tail.

Constructionally, the hardest part to design was a simple yet strong cabane and middle wing root fixing; the arrangement eventually used is crash proof, provided you do not strap the wings in place immovably. One 1-inch rubber band in each position is sufficient. I rubber-banded on the tail because of its fragile nature; an

F3, and finish the fuselage as for a normal box. If you use a balsa mount, you may have to move F1 back about $\frac{1}{2}$ or $\frac{3}{4}$ in. I soldered the cabane runners together one joint at a time, checking alignment after each joint, before bending the ends. The wing camber is induced by dampening the top surface, before glueing and pinning the wing and ribs to the building board and leaving to dry. Pre-assemble the top and bottom outer 'slotted' ribs before fixing them to the wing panels. When all is dry, chock up each tip $\frac{3}{4}$ in. and sand in the root angle using the edge of your

YOUR TWO FREE

it an ideal model subject. Sopwiths had to reduce the prototype's tail area to enhance manoeuvrability, but I have increased the tail area from scale (though the unscale structure makes this point of academic interest) in order to enhance stability. I

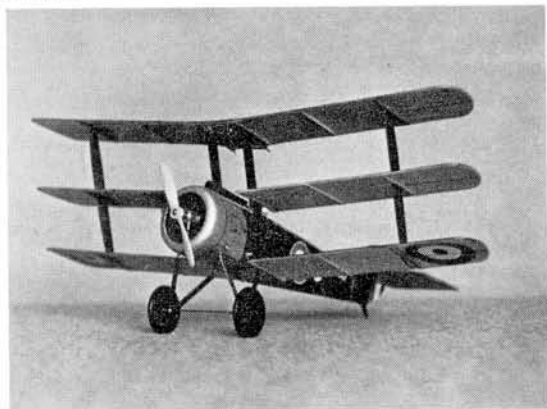
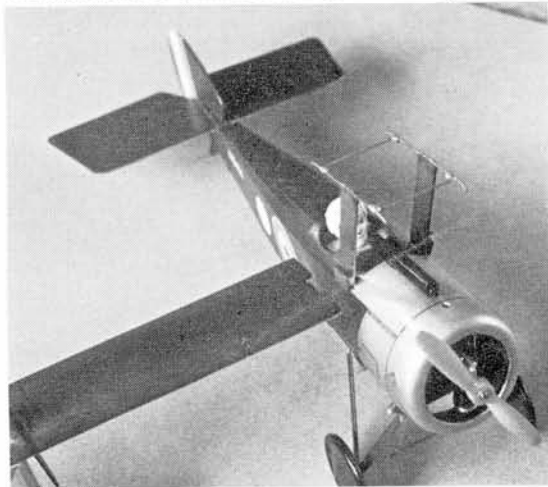
all sheet tail could be glued in place.

The overall assembly is fairly self-explanatory. Glue the cabane struts to the fuselage sides over the plan to ensure correct and identical alignment, before adding the doublers. Then join the sides with F1, F2 and

building board as a guide. When aligning the middle wing, rubber-band the top and bottom wings in place, check that the interplane struts clip into place, then epoxy the

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Pictures on this page reveal the simple but appealing lines of this craft – perfect for sports flying. Photo at left reveals the cabane structure for top wing mounting – make sure the incidence is as per plan.



SOPWITH TRIPLANE

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middle wing to the centre of its interplane strut. Any big holes you make in the middle wing will be covered over by the ply cuff! Check that all is parallel from top and front views – that is important.

The tail, undercarriage and cowl are dead easy. Finishing is detailed on the plan; for colours use *Profile Publication No. 73*, the Revell $\frac{1}{72}$ nd. plastic scale kit or your own imagination. If using a Cox Pee Wee engine, make a Junior hacksaw cut in the needle head for a screwdriver, which you can poke through a hole in the cowl. A standard Cox glowclip just fits through the air outlet below the cowl. Epoxy enough lead in the cowl to get the centre of gravity as shown; you will not get many 'wheeler' landings with this CG undercarriage set up, but it is the flight path that we are trying to guarantee.

Aim for a flat glide, and note any turn. With the engine on half revs, launch horizontally, and try for a

steady left turn. If she goes nicely under power, but spirals on the glide, move the engine thrustline *in small increments* towards the offending glide turn, and re-trim the powered flight with rudder, repeating until satisfied.

Ready for the take-off! Model is very sturdy, thanks to its all sheet construction – and this also makes it quick to build. Great fun to fly in even quite small fields.

My Triplane will take off from tarmac. From a standing start, pointing about 10° to right of wind, she raises her tail, banks a little to the left on one wheel, and after about 20 feet rises in a climbing left turn. She putters skywards, wings oscillating slightly as if in response to pilot corrections. The fuel exhausted, she then glides elegantly down, to a rough and tumble landing in the grass. Happy rough and tumbles!

