## MARCH 1960

models of old biplanes the scale wing section is very thin and the wings, consequently, are inclined to warp. Where wire cable was used on the real plane, stranded control line wire can be used on the model—single strand does not look realistic. It is not possible to find the correct scale section when streamlined wires were

wire is perfectly straight. For steel wire, the piece attached to the wing longerons, or to the end of the struts, is small section tube. It will eventually look like a turnbuckle. The wire, previously cut a fraction shorter than required, is then tinned and soldered on both ends to the attachment tubes using the same bending



Cesare Milani's Fiat C.R.20.

used, so in these cases it is best to stick to normal round section steel wire. But check the diameter for head-on view effect !

Wires must be tight, for nothing is worse than seeing bracing wires sagging and out of line and I use two methods to get the correct tension. For stranded wire, I cut the wire slightly longer than required and fit two small lengths of tubing over both ends. The wire is then looped through a hole in a piece of metal attached to the wing spar, near or on both ends of the struts, and passed through the small tube which is then flattened to grip the wire securely. Repeat the operation on the other end (see Fig. 5). To get a good tension, gently bend the wing before fixing the second end of the wire. When you let it go, the



These two photographs and the one at the top of page 81 show the enormous amount of detail incorporated in the metal cowlings of this model.

technique to obtain the correct tension. (Fig. 6.)

With thin section wings, especially when the span is quite big, bracing wires are essential to the structural strength so do not put in your wires



Another view of the Ansaldo S.V.A. This is an exact model of the plane the writer's father flew.

The cowlings of all my models are made of metal. Aluminium and copper are easy to work. One just has to have the patience to beat them to the correct shape. There is a very simple way of making aluminium pliable. Wet one surface and smear it with common salt. Then heat it with a lamp or spirit burner. Copper just needs heating. If you take the trouble to go round shops and look for the right size of saucepan or cake mould, etc., you will eventually find a shape and size that is very near to your requirement. Actually the radiator rim of my Bristol Fighter is made out of a copper ball from a lavatory cistern !

Louvres are another black spot. If they are not regular and all of the same shape, they will spoil your model, so take your time. After having drawn lines in the exact position of the louvres on the metal panel, drill a small hole at one end

## MODEL AIRCRAFT

just for appearances' sake. Make them work !

Quite often one can see a wellmade model irremediably spoilt by its ailcrons. Ailcrons are part of the wing all right, but separate parts, nonetheless. So, never draw a black line to simulate this separation. It is easy enough to build them up and hinge them to the wing in the correct way, and to ensure complete authenticity take the trouble to see how the ailcron control wires are attached to their horns.

For covering I generally use nylon, which is both strong and light, but one thing should be remembered: every part of the wooden frame that shows under the fabric, e.g. formers, ribs, leading edges, etc., should be carefully prepared with sanding sealer and smoothed down to a satin finish, otherwise the grain will show badly.