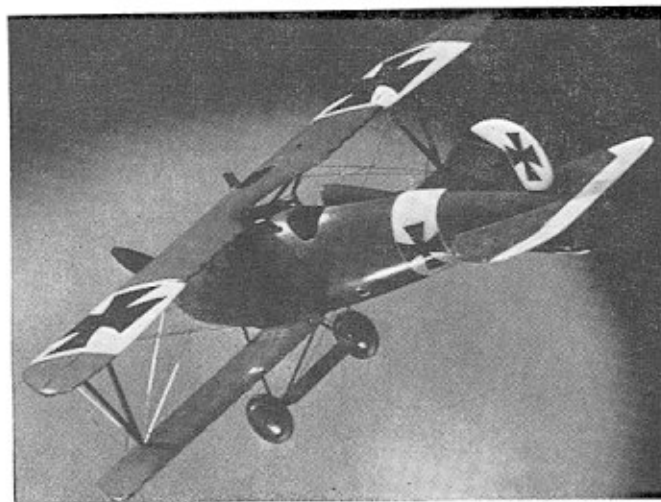


# albatros pole-liner

by FRANK EHLING

**Read here how to build and safely fly your own copy of the plane on this month's cover**



**S**CALE models have for some reason captured the heart of the model builders, and World War I models seem to hold the edge when it comes to building, for here the builder can really let himself go and turn out a realistic and colorful job.

The construction of our Albatros can be simple—there is no need to build up the fuselage as this would be a big task in itself. Just hollow out the fuselage enough to take the engine and tank. The wings are built up with no central spars, and the ribs are trimmed to shape after they are cemented in place.

The model can be flown U-Control, or on one line in the club room. Pole-line flying is probably the safest of all and is described later. The Albatros has great eye appeal, and the shine on your model will put a gleam in the judge's eye! The model builder can't use the excuse that he hasn't the required tools, for with a coping saw, razor blade, sandpaper, and a 3/8" sable brush, you can produce a fine model.

The original model, pictured here was built to carry an English *K Hawk* diesel engine which has a displacement of .012 cu. in. and weighs about 1 oz. The tiny American glow plug engines were not available then. When they came out, the plane was modified so that an Anderson *Spitfire* could be used, but any of the tiny diesel or glow engines can be fitted, or you could use an O. K. CO<sub>2</sub> power plant.

To start out, the fuselage can be carved first, and it is made from a soft balsa block. Shape the fuselage to cross section and

then hollow out to fit the engine; install a plywood firewall. Be sure that the area around the exhaust ports is open, as this will prevent fire.

Cut out the area for the landing gear to be installed a little larger than necessary, so each leg of the gear can be installed in a bead of plastic wood, as this is a fine way to hold it to the balsa fuselage. The spreader bar can be cut from balsa and cemented in place and be sure that it is *well* cemented. The cockpit is now cut out and fitted with any details that are desired.

If the builder wants a finished job, the dummy engine is a *must*. There are many ways to make this; however, the original was easy and all that is required is to mould the exhaust pipe out of plastic wood, carve the cylinders out of balsa (they can be capped with dress snaps for added realism) and the rest of the detail is made up with bent pins. Cement the engine parts together and paint black. Carve a slot in the fuselage to accept the scale engine, and after the fuselage is painted, the engine can then be slipped into place.

The wheels can be made true to scale if the sides are capped with balsa cones to form a cross section as shown on the plans. The guns can be made up with dowels or tubing. The tail assembly is cut out of 1/16" sheet balsa. It is not necessary to form a streamline shape, just be certain the edges are sanded

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round. The fuselage is slotted to accept these tail surfaces and they are then cemented in position.

The wings are now cemented together—that is about all there is to it! Just lay out the leading edge along with the tips and trailing edge and then cement in the rib pieces of 1/16" sheet that are later sanded to the airfoil section shown on the plan. When the wings are completed, they can be covered with silkspan. The lower wing can now be cemented in place, as this will not be in the way when the painting is going on.

The entire model should be given a few coats of clear dope, sanding in between to give a smooth finish. The finish color is light blue with white bands, red trim, and black crosses. (See cover of this issue for details of coloring.) After painting the entire model its final blue color, the finish details of white, red and black are best added by means of one of the solid color decal materials, such as Trim-Film. This will assure a neat job without smears, and will eliminate masking troubles.

The wing wires can now be installed, and if they are cut a little longer than necessary for exact fit, they can be fitted without cement in holes punched in the balsa, and can be removed at any time without disturbing the paint job. The windshield can now be cut and cemented in place.

The model must be fuel-proofed if it is to stand any use and still look well. And that is all that is needed to get the model in the air. However, that will be only the beginning if the model is to continue to look well; after flying, wash it off and when you fly again, the model will look as though it had just left your shop.

Although all control surfaces on the original were made movable, this is not really necessary. In fact, no movable surfaces at all are needed, as we recommend that a model of this type be flown as a

"pole-liner." The idea here is just to tether your ship to a pole, with the single wire or cord short enough so that the model cannot quite touch the ground when hanging straight down. It must, of course, be hand-launched, and after the motor cuts, it will drop down in decreasing circles, until the flier can grab it, or it can be allowed to settle safely against the base of the pole.

The single flying line is led through the support labeled "Flite guide" on the plan side view. The end of the line can be fastened to one of the screws that holds the motor in place. With the line in this position, it has generally been found unnecessary to use either rudder or motor offset. One last point—be sure the pole end of the line is able to swivel freely—it is a horrible sight to see your pride and joy winding inward on a stuck line, circling faster and faster and faster, until . . . !!!