

REPUBLIC THUNDERBOLT

with rolling motion to achieve the smooth convex surface.

In view of the unusual dihedral, it was found necessary to run the control lead-out lines through the wing in lieu of using the more common guides. We could have raised the bellcrank location but this would cause a "mushing" tendency at high angles of attack. Carefully pass a sharpened shaft of $3/32"$ or $1/8"$ wire through the wing. Enlarge this hole with a long drill or by passing the wire through several times. Line these holes with plastic tubing. This should be the hard variety of plastic similar to the sipping straws available at the dime store. Cement these in place, and when dry cut ends flush with the upper and lower wing contour.

A decent finish cannot be attained without applying several coats of sanding sealer or similar wood-filling mixture before the paint is added. The first coat should be applied liberally with a brush and sanded with 3/0 sandpaper. Follow with at least four more coats and sand well. This can be continued if desired until glass-like finish results.

Carefully cut away the cockpit opening and the engine hatch using a very sharp razor blade. Apply silver dope to the cowl interior and follow this with several coats of clear fuel proofer. Fit the engine in place and bolt securely. We have successfully used $3/8"$ wood screws on engines up to .14" size; however, this is optional. The engine cylinder should clear the cowl by at least

$3/32"$ and preferably $1/8"$. Openings must be cut for needle-valve extension and for engine choking. It may be wise to add a rubber tube extension to engines with intakes at the rear. This extension can be led out through the fuselage side to insure easy choking and fresh air supply to the engine.

The entire model is painted silver with trim as illustrated. We brushed on six coats, thinning the last two progressively 10 and 25 percent. Sand the first two coats with very fine finishing paper. The last coat can be rubbed to a high luster by applying rubbing compound with a wad of absorbent cotton. Finish off with a soft flannel cloth.

Complete building details are available on the full-size plans.

