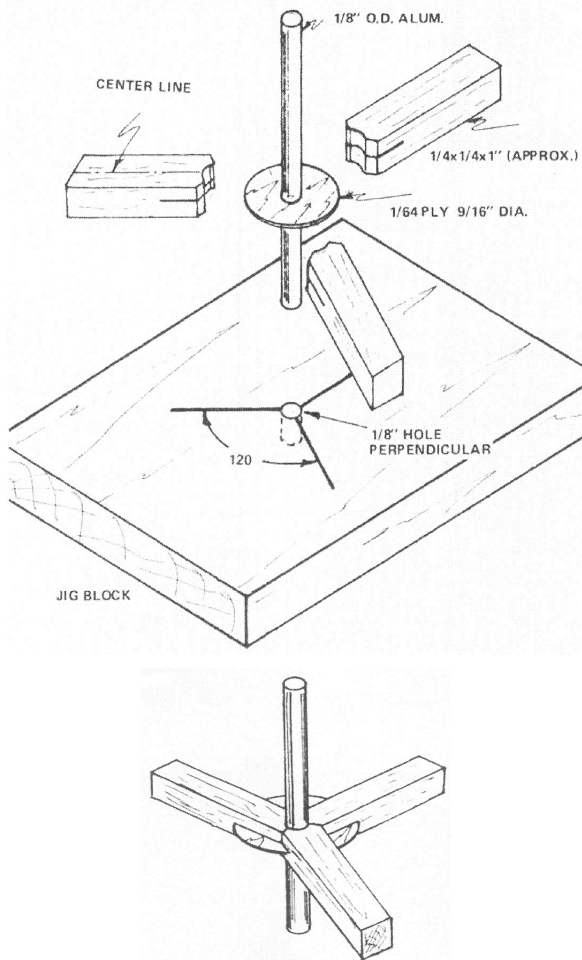


MULTI-BLADED PROPS WITHOUT SPINNERS

This article is based upon information contained in an article by Dick Howard in the August 1986 issue of the now defunct Model Builder



the center disk and the shaft, being careful not to glue assembly to the jig. Remove from jig and apply CA to bottom of hub.

Cut blade slots in the outer end of the slotted sections using a prop jig (see Dairy Product Prop Article in the -----issue of this rag) or by eye-balling 45 degrees corner to corner (make sure you cut the slots in the correct direction. Cut the slots well into ply disc and secure the blades in the slots with CA.

Cut tubing off at bottom 1/8 inch from hub and cut six-1/8-inch slots with a razor saw. Fold these flanges outboard and secure them with CA against the back of the prop. Cut the front portion of tubing off to the desired length and file a free-wheel notch. Cut and sand hub to shape. Dimensions given are only suggested!

Ed. Note: The 1" length of the slotted sections may be OK for a 9" or larger prop, but is far too long for peanut size models and in any case only needs to be long enough to get a decent grip on the blade and reinforce it at the center. Gene Smith uses an example of this method on his peanut F7F Tigercat. The slotted sections of his prop are made with 3/16" square hard balsa, 3/8" long seated onto 3/8" disks, with the 45° blade slots extending back into the disk, then trimmed down to meet the blade. Aluminum tubing is probably not the best material for this if you use a ramp-style free wheel. The shaft should be either brass, or a ramp collar of brass CA'd to the front of the aluminum shaft if you insist on an aluminum shaft.

Start by cutting the plywood reinforcing disc approximately 9/16 diameter (1/64 ply). Drill a 1/8-inch hole in center.

Draw a line down the center of a 6-inch length (approx) of 1/4-square balsa, pine, or bass. Cut three 1-inch lengths for a three-blade prop. Cut a slot in one end of each section using a Zona saw, clamped to a flat surface, using an 1/8-inch spacer under it. Cut by moving the hub section against the saw, rather than vice versa. Cut all sections with center line up, to ensure uniformity. The depth of the slot should be equal to the radius off the plywood disc less the radius of the center hole. The slotted end of hub sections should be chamfered and radiused for a butt joint against each other and the shaft.

To assemble—put the ply disc on a length of aluminum tubing with one half extending at one end. This will be at the bottom, or back of the hub. Place slotted sections onto the ply disc with center lines up. Put this assembly into the hole in jig board and align with lines on jig block. With slotted sections in place, clamp them to the jig board and apply small amount of thick CA with accelerator to the joints where the slotted sections encase