Angle of approach and blade height are the key variables in determining your final cove. The sharper the angle at which your stock moves over the blade, the more circular your cove will be. The closer your stock is to the plane of the saw blade, the narrower and more elliptical your cove will be. The blade height will equal the final depth of your cove.

1. **Before setting up your Cove Cutting Jig,** trace your cove pattern on the end of the molding stock and remove the bulk of the material with a dado blade or multiple saw cuts. Cut up to an 1/8" shy of the line. This will make cutting your cove faster and safer. (see Figure 1)

2. **Set your cove depth.** The blade height will equal the final depth of your cove. Raise the saw blade to the final depth you wish your cove to be and fix a strip of masking tape on the throat plate at the two points where the saw blade protrudes from the table (see Figure 2).

3. **Determine your angle using a template.** Cut a template from a piece of scrap 1/4" plywood or rigid cardboard. Make the outside width equal to the width of your molding blank. Now cut out the inside of the template, and make the inside dimension equal to the width of your cove. The template should be long enough to provide a good reference edge for your fences, at least two feet. Now place the template on the saw table and angle it so that the inside edges line up with the two points at which the saw blade protrudes from the table (indicated by the masking tape). Use masking tape to temporarily secure the template to the saw table. This will show you exactly where to secure both fences of your Cove Cutting Jig (see Figure 3).
4. Positioning your cove cutting jig. Position both fences of your Cove Cutting Jig so that they straddle the outside edges of the template. The front-right and front-left miter-track clamps should both sit in the right miter-track. The rear-right and rear-left miter-track clamps should both sit in the left miter track. After making sure BOTH fences are snug against the template, tighten all four miter-track clamps. Tighten all four tie-bar knurled knobs at either end of the jig. Finally position the featherboard so it is centered over the sawblade and slightly below the surface of your molding blank. Tighten all fastening knobs. (see Figure 4)

IMPORTANT NOTE: If you are cutting a very narrow cove, you may have to remove the front-left and rear-right miter-track clamps from the miter tracks to allow for the necessary angle. (see Figures 5A)

WARNING: In this situation, you must be absolutely certain that all four tie-bar knurled knobs are fastened tightly. Failure to do so could result in the fence moving and a risk of kickback. Remove the miter-track clamps not in use, or slide them against the saw table and tighten them down.

5. Double check your set up. While the saw is off, double check your set up by raising the blade to the proper height and sliding the workpiece with the cove pattern on the end between the fences. When you sight from behind the saw, the profile of the sawblade should match the pattern of your cove.

6. Cut your cove. Lower the blade all the way and slide your molding blank between the fences, making sure it slides smoothly and without any play. Once you are sure the fences are properly adjusted, raise the blade so it will take about 1/16" off your prepared stock and turn on the saw. Using a pushstick, push the workpiece slowly over the sawblade. If the workpiece starts to burn, move it a little faster. Repeat, raising the blade another 1/16" every time until you are within 1/32" of the line. At this point, you should be close to the final width of your cove.

7. The final pass. For the final pass, take off no more than 1/32" and feed the workpiece very slowly. Use a curved cabinet scraper and sandpaper to smooth out any saw marks.