

By Lonnie Bird

Creating molding with CMT's Crown Molding Set

CMT's Lonnie Bird Crown Molding Set allows you to shape elegant moldings with your tablesaw and router table. The set consists of a cove cutter and six router bits with inverted profiles. The cove cutter mounts on your tablesaw and is used in conjunction with a pair of angled fences. Changing the fence angle and cutter height allows you to create an almost infinite variety of cove shapes and sizes. After milling the cove, you can use the special router bits with inverted profiles to complete the molding.

PLAN YOUR CUTS

Begin with a drawing of your design or use one of the designs shown below. Next, sketch the cove outline on each end of the stock as shown at right.

PREPARE THE STOCK

In order to get the best possible yield from your stock, we suggest that you rip the stock diagonally on a bandsaw before milling the cove as shown in Illustration 1.

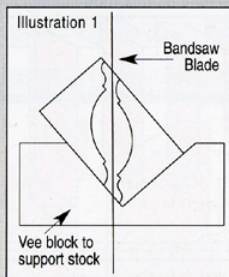
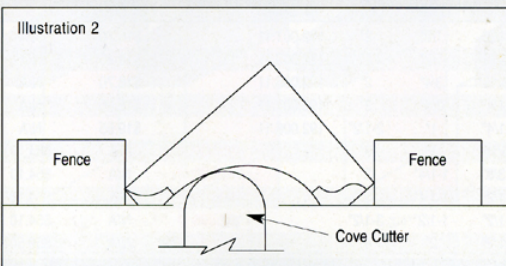
MOUNTING THE CUTTERHEAD

Begin by disconnecting the tablesaw from its power source and removing the blade. To mount the cutterhead, first position the 2-5/8" diameter spacer that came with the set against the flange on the saw arbor. The spacer will center the cutterhead within the throat plate opening. Next, position the cutterhead on the arbor and secure the assembly with the washer and arbor nut. Finally, place the dado throat plate in position. Before turning on the power, rotate the cutterhead by hand to be certain that it clears the throat plate.

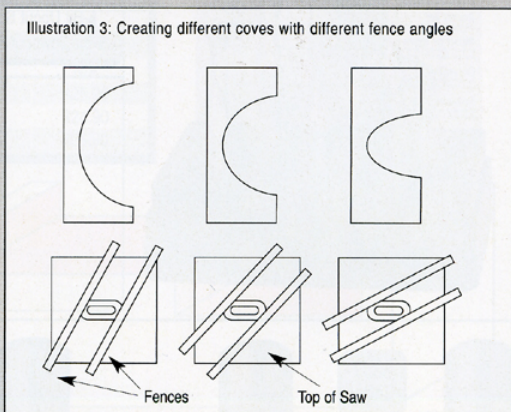
MILLING COVES

This process is very similar to cutting coves with a standard saw blade on a table saw. If this operation is new to you or if you have questions beyond the instructions, we highly recommend you take time to further study this technique in either a woodworking class or a woodworking book that teaches the safest way to perform this operation.

Always make your molding by milling the cove first while the stock has the greatest mass. To safely use the cove cutter, it's necessary to have a dado head insert plate for your saw. Use a dual fence set up as shown in Illustrations 2 & 3 to guide and support the workpiece as the cove is shaped. The fences are clamped to the top of the tablesaw and the stock passes between them, running at an angle to the cutting blade. With the cutterhead height set at the depth of the cove to be cut, position a fence at an angle so that the stock enters the cutter along the left leading edge and exits the stock along the right trailing edge.



Before making the first cut, lower the cutterhead to 1/16" above the table top. Turn on the power and feed the stock slowly between the fences; after each pass raise the cutterhead another 1/16". Remember to use a guard and push blocks for added safety.



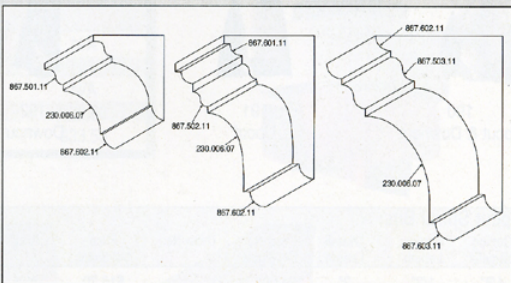
ROUTING MOLDINGS WITH THE INVERTED BITS

Because the profiles are inverted on the shank, you can rout large moldings that are impossible to shape with ordinary router bits.

Before routing, always begin with a drawing of the molding that you would like to produce. Remember, begin by shaping the cove with the cove cutter on your tablesaw, then set up the routing tasks.

Afterwards, rout the profiles that flank each side of the cove. Use your router table and a fence for the best support of the stock.

For added safety and the smoothest possible surface, always take multiple light cuts and support the workpiece with featherboards.



MILLING CURVED MOLDINGS

The inverted router bits each have a bearing mounted on the shank. This feature allows you to shape curved profiles such as gooseneck and circular moldings. When routing curved moldings, first attach a plywood template to the workpiece to serve as a guide for the bearing to ride on.