

Figure 9-4. Examples of three-lip shaper cutters.

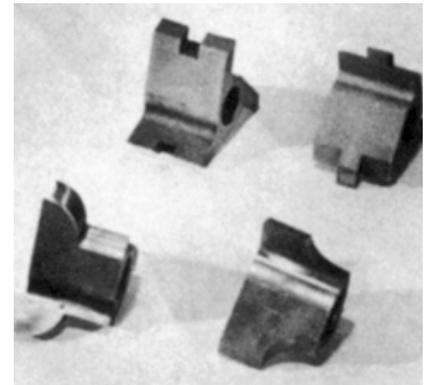


Figure 9-5. Examples of cutters that should be purchased in sets. At the top, tongue-and-groove cutters. The others are mating cutters for the drop leaf table joint.

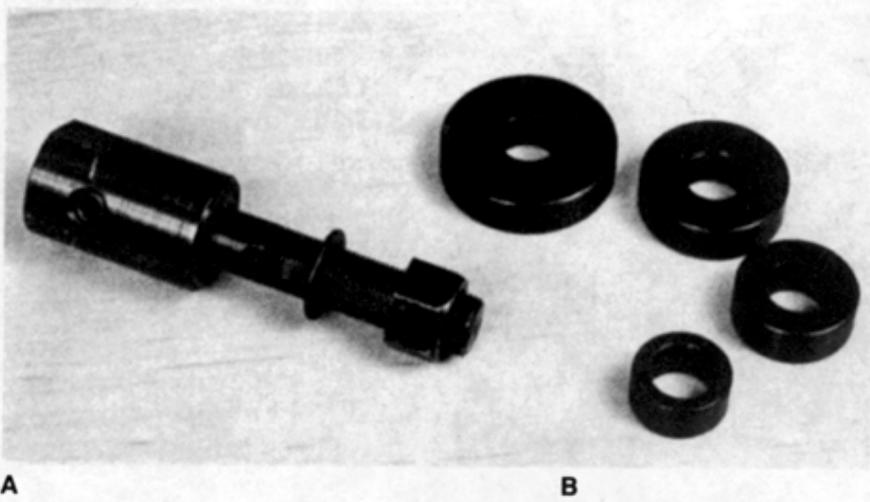


Figure 9-6. (A) The shaper arbor and (B) various collars.

It is not usually desirable to use the full shape of the cutter to form a molding. How one versatile cutter is intended to be used is partially described and shown in Figure 9-7.

A wide variety of shapes can be made by changing one or more of the following:

- The depth of cut, which is adjusted by moving the table or the fence or by using collars.
- The height of the cutter in relation to the work, which is controlled by the table or the quill feed lever.
- The position of the work when making the pass.

Figure 9-8 shows a few shapes formed by a single cutter; in this case a combination cutter that can be used to shape a bead or two sizes of quarter-round was utilized. Some of the shapes were cut in a single pass, others required two or more passes, but the same cutter was used every time.

The important thing to remember is that not all cutters are intended to cut their full-profile shape, even though they can be used that way. Most of them are combination cutters.

Collars come in various sizes and are used to control the depth of cut and to position the cutter. As shown in Figure 9-9, they may be set over, under or between cutters. Be sure to position the keyed washer so it seats correctly in the arbor slot. Never set up cutter/collar assortments that don't allow the arbor nut threads to be fully engaged.

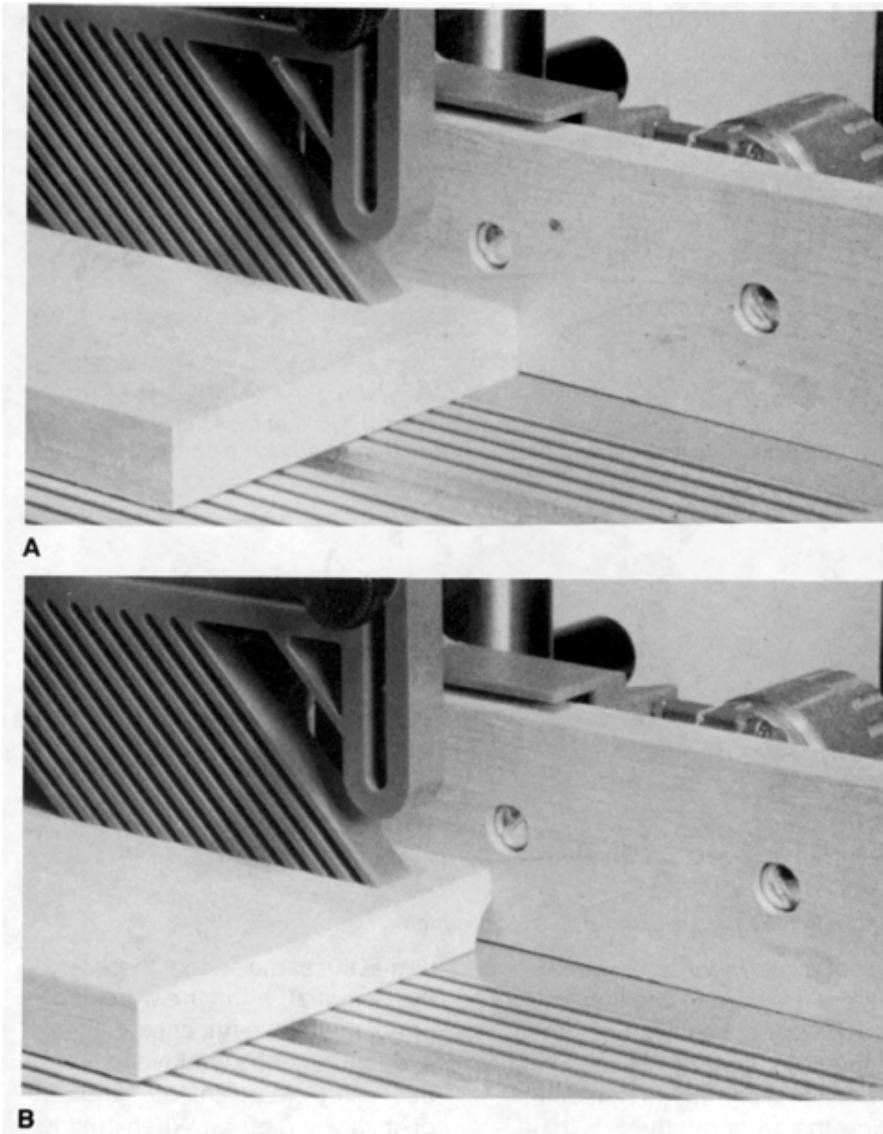


Figure 9-7. Combination cutters can do various jobs. (A) Here a quarter-round and cove cutter is used to round off the edge of a workpiece. (B) The same cutter is shown forming a cove.

Since the collars lock on the arbor together with the cutters and turn at the same speed, there is the potential, when the workpiece bears against them, of scoring or even burning the workpiece. Keep the collars clean, smooth, and free of nicks and burrs. When cutting, hold the workpiece against the collars with just enough pressure to maintain contact.

CUTTER STORAGE

Three-lip shaper cutters should be respectfully cared for. They are an investment, and they work best when they are clean and sharp. They can be kept in the plastic cases they are packed in, but selecting the cutter you want will be more convenient if you make the case shown in Figure 9-10. It will hold up to 30 cutters, or you can use some of the dowel posts for storing the collars. Use gummed labels near each post to identify the cutter. Construction details for the case are shown in Figure 9-11. Cutters should be carefully cleaned before storage.

FENCE SHAPING

When fence shaping the width of the stock determines the position of the stock and the shaping accessories used:

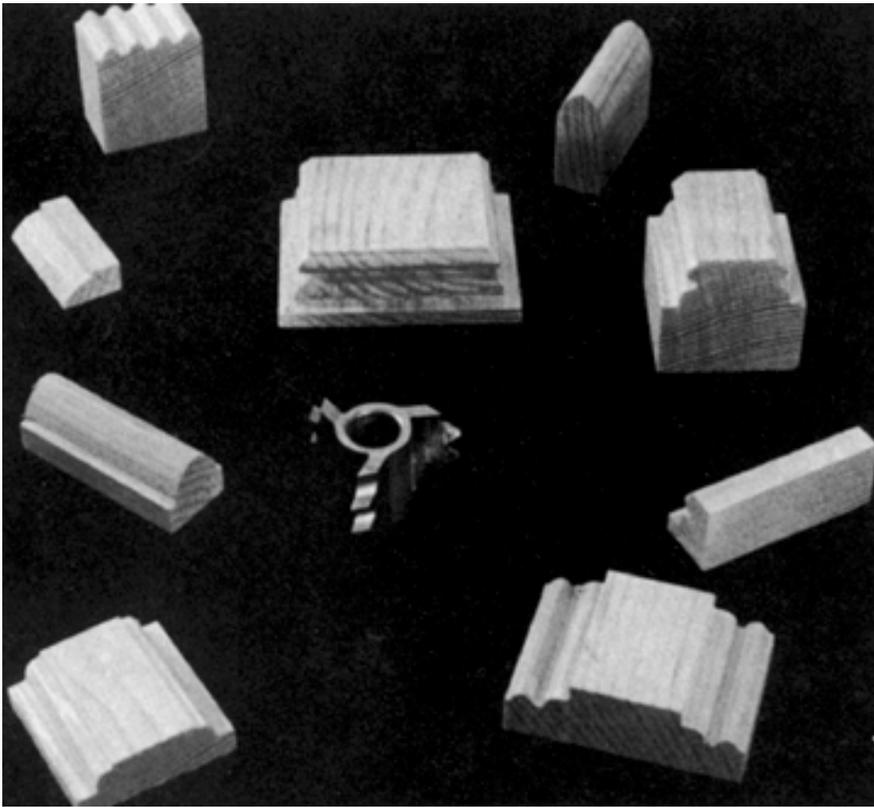


Figure 9-8. One combination cutter, in this case a bead and a quarter-round, can produce many shapes. Some forms are done with one pass, others require two or more passes.

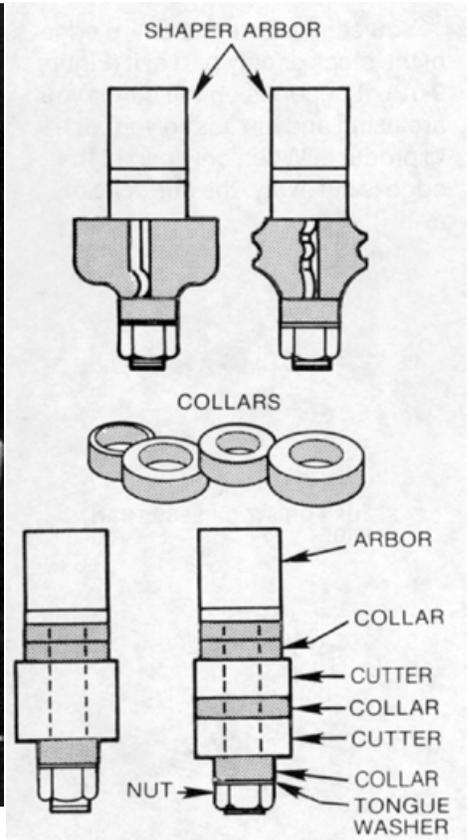


Figure 9-9. Collars are used above, below, even between cutters as controls for depth of cut and, when doing pin shaping, to provide bearing surface for the workpiece.



Figure 9-10. This shaper cutter storage case hold up to 30 three-lip shaper cutters.

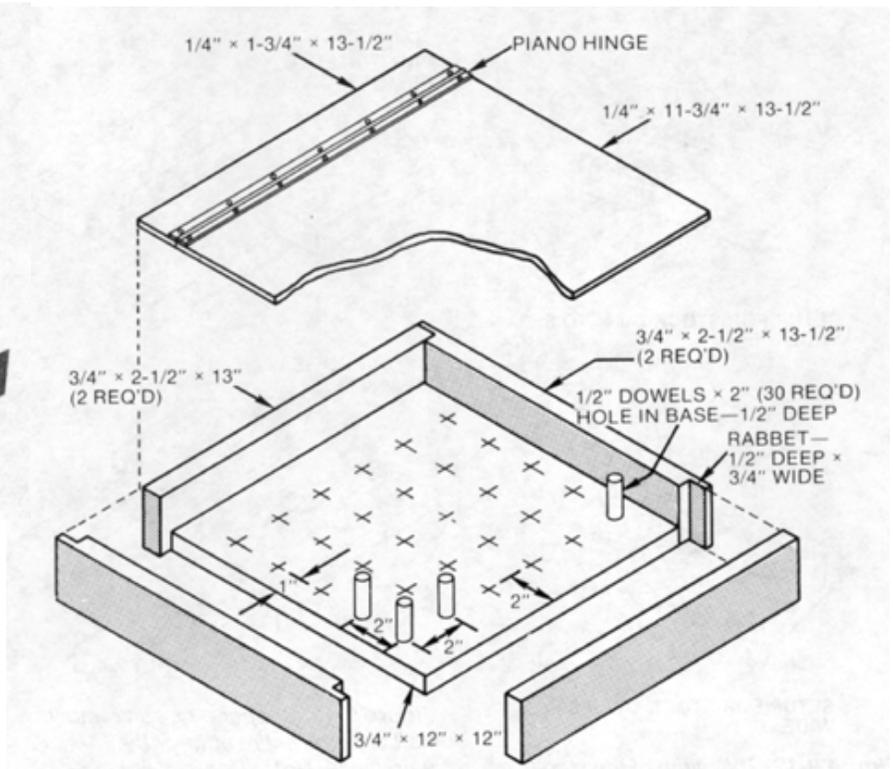


Figure 9-11. Construction details of a shaper cutter storage case.