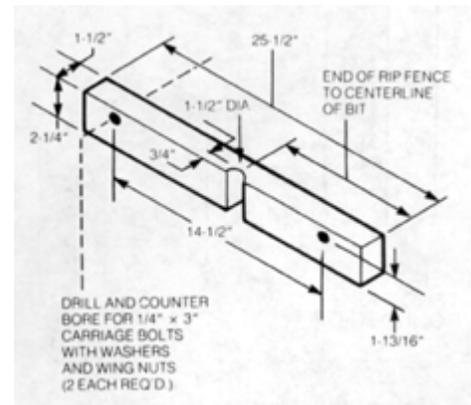


the cut on an extra-wide piece. Then you can remove the chipped edge using the table saw or jointer.

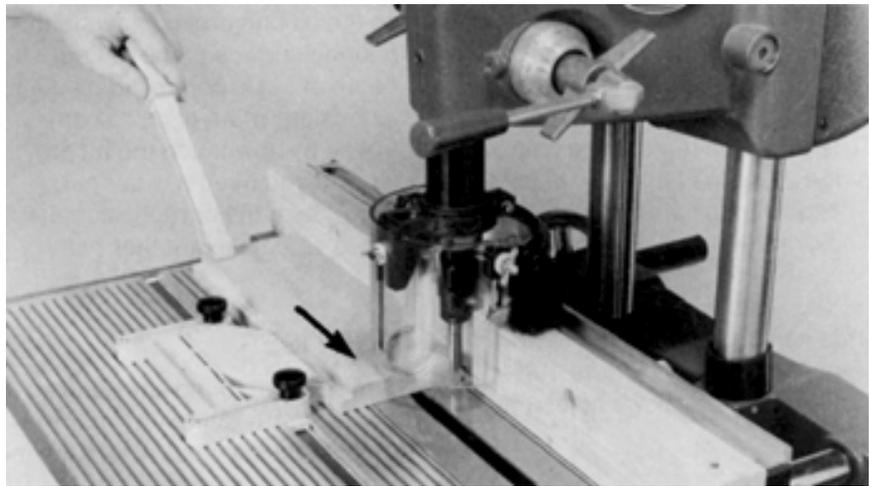
Stock edges are often routed to form rabbets. For this and similar kinds of work, make an auxiliary facing, as shown in Figure 10-5, that can be attached to the rip fence as shown in Figure 10-6. The relief area allows adjustments so the bit can project beyond the bearing surface of the facing. The depth of cut is controlled by quill extension; width of cut is controlled by how much the bit projects. If you need a wider cut, move the table or reposition the fence and make another pass.



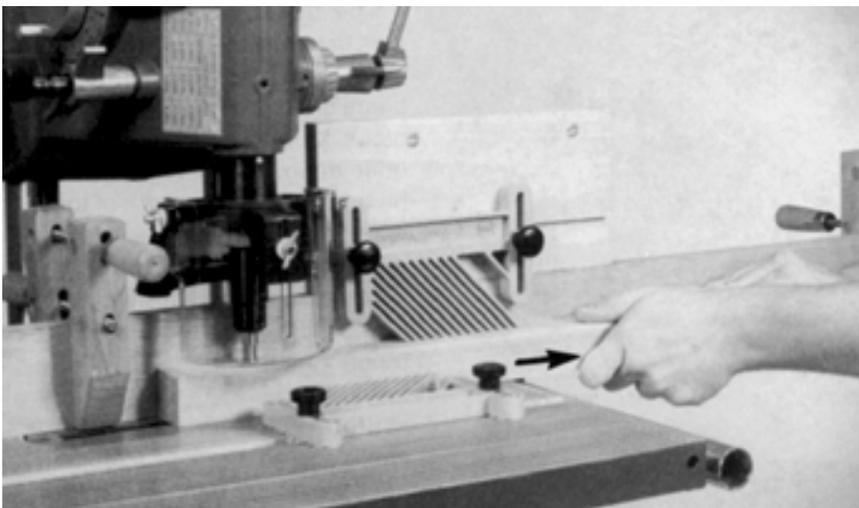
**Figure 10-5.** Construction details of the auxiliary facing.

## MORTISES

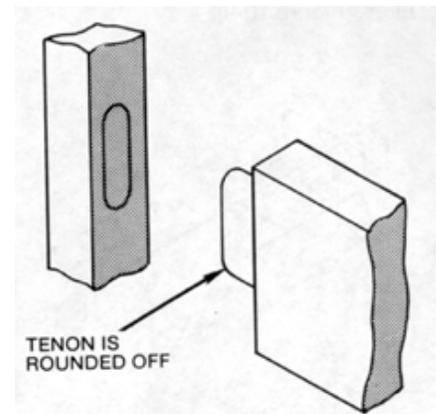
Mortises with round ends can be formed with a router bit (Figure 10-7). Mark the stock where the mortise begins; clamp stop blocks to a fence extension to control the length of the mortise in both directions. Position the workpiece against the left stop block so the bit will be at the first mark, extend the quill to penetrate the workpiece, and lock it. Then move the workpiece until it contacts the right stop block. Mortise cuts are usually quite deep, so repeat passes will be necessary. The width of the mortise depends on the size of the bit.



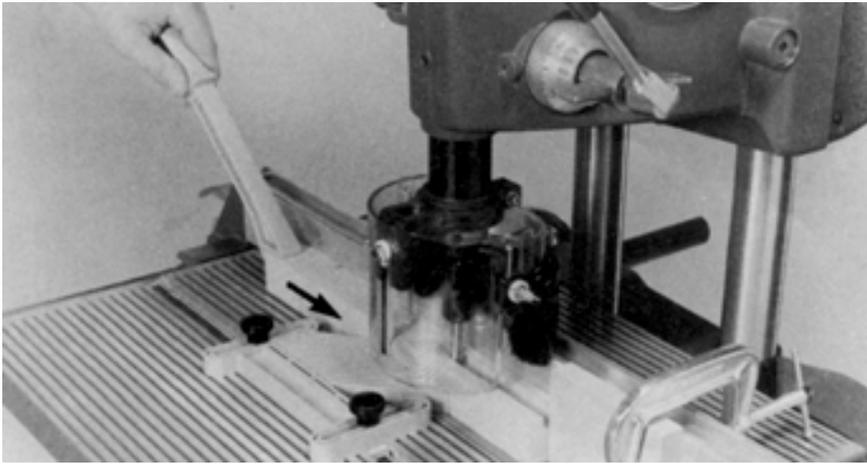
**Figure 10-6.** An auxiliary facing that can be bolted to the rip fence is a must for many routing operations. The relief area allows for setting the bit so cuts like the rabbet can be made.



**Figure 10-7.** The stop blocks determine the length of the mortise. Full mortise depth is reached by making repeat passes.



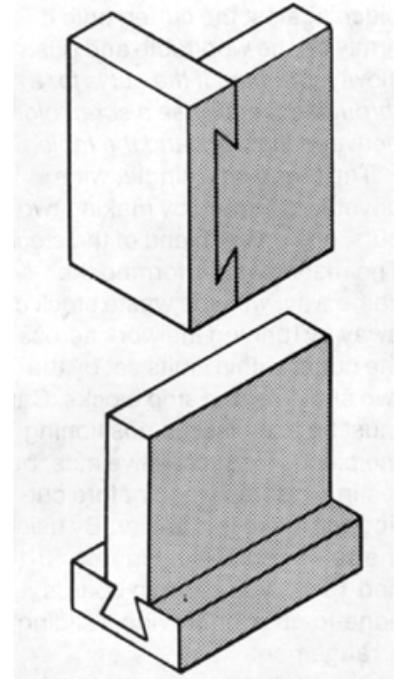
**Figure 10-8.** Mortises formed with a router bit will have round ends, so the tenon must be shaped to fit.



**Figure 10-9.** Slots are formed like mortises except that the cut starts at the end of the workpiece.

Mortises formed this way will have round ends; therefore, the tenon must be shaped to fit (Figure 10-8).

**Slots**—Slots are formed the same way as mortises except that after the quill is extended and locked in position, the cut starts at the end of the workpiece and continues until it contacts the stop block (Figure 10-9).



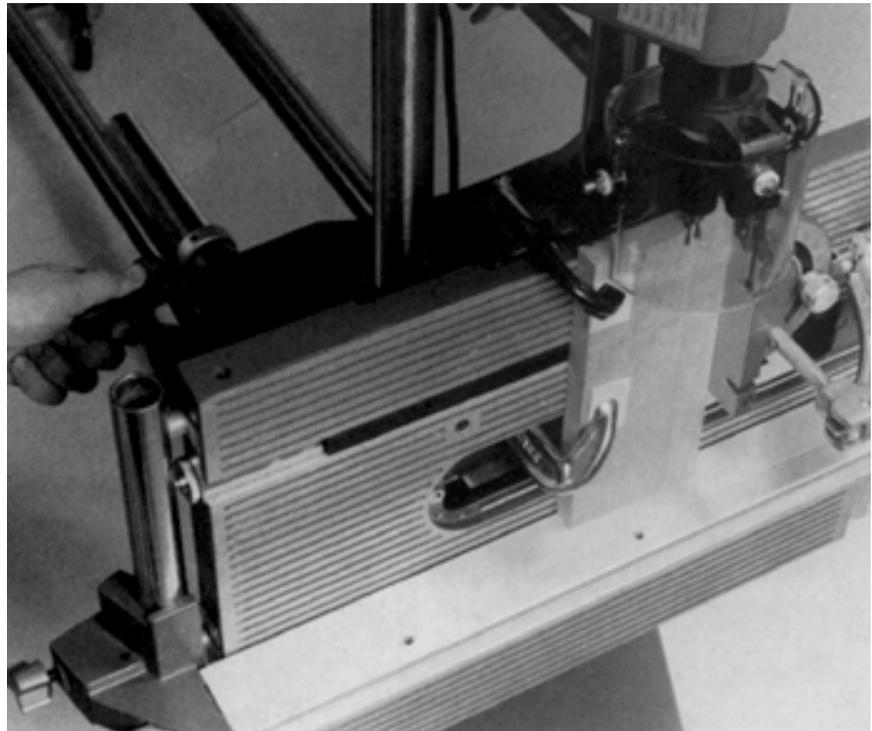
**Figure 10-10.** These are typical examples of dovetail joints.

## DOVETAILES

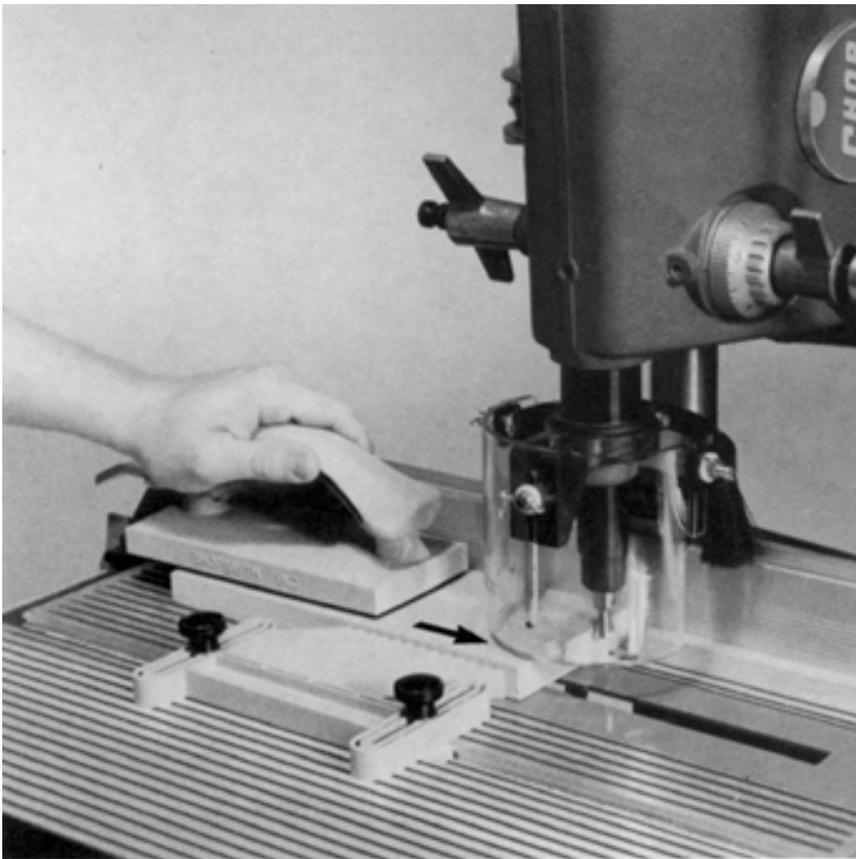
A dovetail is one of the strongest joints in woodworking because it will resist a pulling strain in every direction but the one from which the tenons are inserted into the slots. Two common applications are shown in Figure 10-10.

The same dovetail cutter is used to form both the tenon and the slot. Mating the parts is a matter of positioning the cuts in proper relationship to each other.

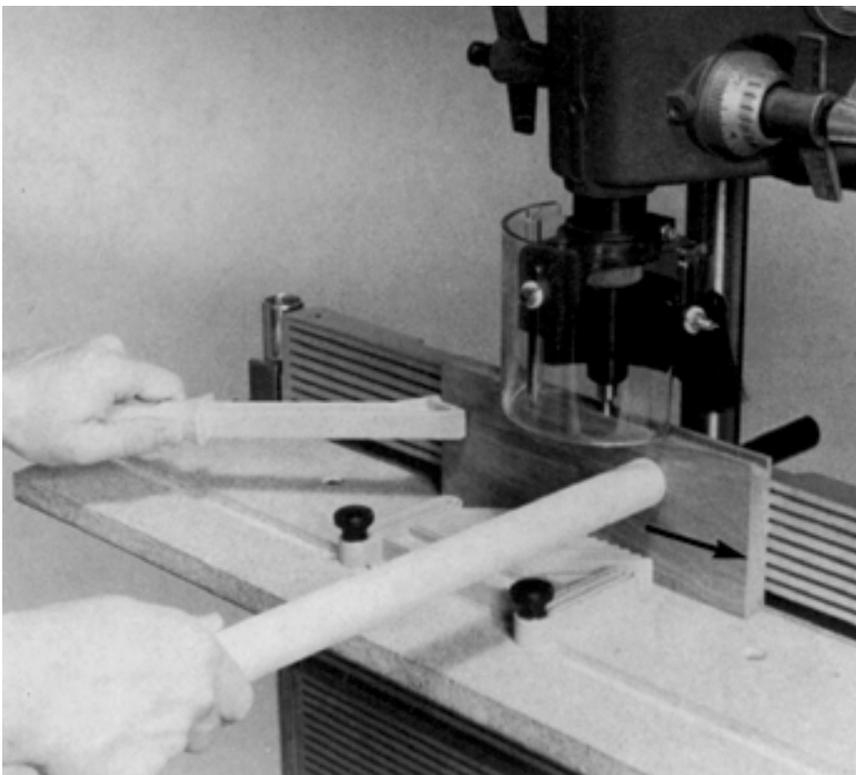
Spacing of the cuts is determined by the size of the cutter and the design of the joint. One method is to mark the workpiece and align each cut with the cutter. Another method is to pencil mark the worktable so that the edge of the workpiece can be moved forward to a new mark after each cut. When you mark the worktable, first



**Figure 10-11.** Dovetail tenons can be formed as shown. The table height lever (Model 500) or table height crank (Model 510) is used as the forward feed mechanism.



**Figure 10-12.** Make dovetail slots using a feather board and push block.



**Figure 10-13.** This long dovetail slot might be required for a sliding assembly. Note the position of the worktable and the rip fence and the use of the feather board and fence extension.

determine the centerline of the spindle; then mark the cutlines by measuring toward the worktable edges, front and rear. One technique is to use measuring tape which has a gummed side. This may be placed on the worktable and then removed when not in use.

To cut dovetail tenons as shown in Figure 10-11, position the worktable parallel to the way tubes. Use the table height lever (Model 500) or table height crank (Model 510) as a forward feed mechanism, the stop collars from the lathe tailstock to control table movement, the quill feed lever to obtain exact depth of cut, the rip fence as a platform for the workpiece and the miter gauge to square the workpiece to the cutter. When feeding the workpiece forward against the cutter, move the worktable slowly, and be sure the workpiece is clamped securely in place. After the cut is made, turn off the Mark V and return the worktable to the starting position. If desired, place the workpiece for the next cut and repeat the procedure.

The mating cuts are formed with the worktable in the horizontal position and with the fence used as a guide (Figure 10-12). The table is brought up as close to the cutter as possible, and the final adjustment is made by extending the quill. The workpiece is fed forward against the cutter. A stop is clamped on the fence to control the length of cut. For spacing, the fence can be moved for each new cut or the worktable can be advanced-again by using the table height mechanism as a forward feed device. When feeding the workpiece against the cutter, hold it firmly on the work-