

# 4 great bits for Router Table Joinery

A router table can be a pretty handy tool when it comes to cutting joinery. Dadoes, rabbets, grooves, and other simple cuts can easily be made using standard straight bits.

But in the past few years, router bit manufacturers have come out with several new bits that open up some really interesting joinery possibilities. So I decided to pick up several of these bits for a trial run. And what I found in my quick test was pretty impressive.

You can view a video of these router bits in use by going to: [www.Woodsmith.com](http://www.Woodsmith.com)

**ONLINE EXTRA**  
video workshop



The four bits that I looked at all allow you to quickly and accurately cut joints on the router table that would be tricky or next to impossible to do otherwise. The key is that each "single" bit cuts both halves of a locking joint.

These bits are all fairly big, so you'll need a router with a 1/2" collet and enough horsepower to handle them. And I got the best results by slowing them down with a variable speed router. (For sources, see page 49.)

## Lock Miter Bit

I've seen lock miter bits in catalogs and on store shelves for a few years and the idea intrigued me. Just *cutting* an accurate miter on the table saw is no easy job. But then you still have to figure out how to glue and clamp the joint afterwards. Well, here's a router bit that can easily take the hassle out of both these operations.



▲ A lock miter bit can take a lot of the hassle out of cutting and assembling miter joints.

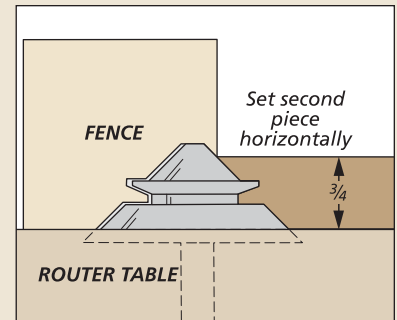
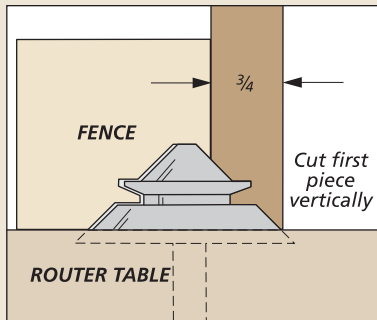


If you take a look at the photo below, you'll see how it works. The bit will cut a 45° miter on the ends or edges of boards to be joined together. At the same time it cuts matching tongues that "lock" the two halves of the joint together during assembly. This makes gluing and clamping the joint a snap.

As you can see in the drawings below and the photo above, the

matching miter joint is made by running one piece horizontally and the other piece vertically.

To do this accurately and with better control, I cut an L-shaped plywood guide piece and then clamped the workpieces to it. (You can see it behind the workpiece in the photo above.) This both backs up the cut and steadies the workpiece as you make the cut.



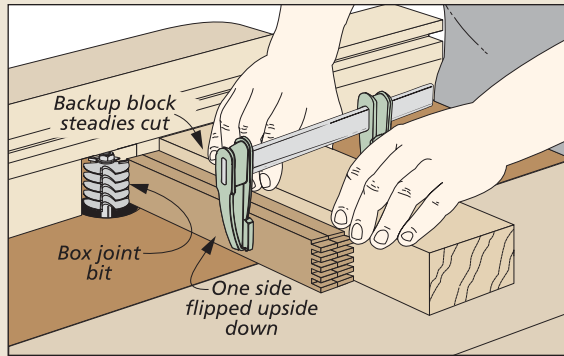
## 2 Box Joint Bit

This new box joint bit (made by *Amana*) gets my award for inventiveness. It will cut small box joints in material up to 1/2" thick and from 3/4" to 1 1/2" in height with a sin-



gle pass. And as the photo at left shows, the result is an easy-to-assemble, tight-fitting joint. But maybe best of all, I found it a real treat to use.

The drawing at right shows how it works. I cut one corner at a time by flipping one of the workpieces upside down and then clamping both workpieces to a backup block. Then with a single pass



across the bit, both halves of the joint are cut simultaneously. After the cut, just flip one piece over and the joint will fit together like a hand in a glove.



▲ With this clever bit you can cut box joints for small drawers and boxes.

## 3 Glue Joint Bit

Edge joining boards is a pretty common operation in any shop and this handy glue joint bit is designed to make the process a little easier and the joint stronger.

The glue joint created by this bit offers a couple of advantages over a simple butt joint. As you can see in the first photo at right, the shape of the joint greatly increases the amount of gluing surface and gives you a much stronger joint. Second, the joint becomes self aligning so

achieving a smooth, flush surface is almost foolproof (second photo below). Anyone who has had to glue up large panels can certainly appreciate this feature.



A match is made by adjusting the bit to the proper height and then routing one piece face up and the second piece face down. It worked great for me.



▲ A glue joint bit will create a strong, self-aligning joint.

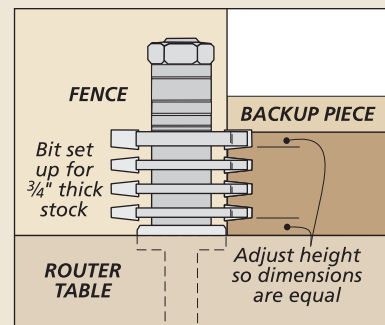
## 4 Finger Joint Bit

At one time or another, just about every woodworker has wished for a board stretcher. Well, the adjustable finger joint bit in the photo at right might be the next best thing. With this bit, you can rout tightly interlocking fingers on the ends of boards that allow you to join them together. The fingers create

both a mechanical lock and a large amount of gluing surface. And as you can see, end-to-end joints are a reality. (Check out the cherry/walnut board in the left photo).

There are just a few simple tricks to getting good results with this bit. First, it needs to be adjusted to the thickness of your stock. This just involves adding or removing cutters and shims (right photo).

Next, in order for the two faces of the workpieces to end up flush, the bit has to be set to the correct height in the router table (drawing at right). This requires a test cut or two. Then, using a backup piece to give me a little better control, I routed one piece face up and one face down. Once glued, the joint is surprisingly strong. **W**



▲ This adjustable finger joint bit will cut a tight-fitting interlocking joint in stock from 7/16" to 1 3/8" thick.