

Weekend Projects – Aug 24, 2015

Box Joint Jig

This shop-made jig lets you "dial in" perfect-fitting box joints on your table saw or router table. The unique micro-adjustment system and locking feature make it easy and accurate.



Box Joint Jig

This was my project for this last weekend. I have a bunch of pictures. As you will find I am not much on writing and am still trying to get comfortable with the whole blogging thing. So hopefully you will stay with me and we'll see if I get any better. The plans for this project can be found at

<http://www.plansnow.com/>. They were also in one of the back issues of WoodSmith mag. I don't remember the issue number.

I did modify the plans a bit. I added a track for adjusting for miter slots. I may want to use this with my router table as well.

Now that I have finished this and have make some cuts. I am thinking I may make a different type that will only cut one size.

This one will be great for making different size box joints. But I want one that I can just throw it on the saw and cut without adjusting it and just think about the project at hand.

So I will update you on next Weekends Projects. The plan is to make a wall mounted portable tape dispenser organizer. Along with a wood floor desk carpet mat for my office. What project are you going to be working? See you next week.



Here's where I started, with some scraps and a couple dollars of hardware.



More scrap and hardware.



More of some of the scrap wood I will be using.

I started with some Oak scrap I had from a desk I got for free and about \$8 of hardware. I had the track that was a gift from my kids. Oh I did spend an additional \$3.59 for some Oak trim for the backer boards.

I was going to use hardboard as the plans had. But the smallest I could find was 4'x8' at around \$15. I got a trim Oak strip 1-1/2" x 48" and cut them to size at 1/5th the cost.



Backer boards. \$3.59 1-1/2" x 48" cut to 5" chunk and mount hole drilled



Dry fit Fence setting on base.



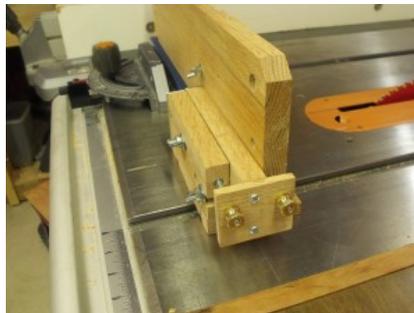
Dry fit movable fence setting on base.



Dry fit both movable and non-movable fence setting on base.



Dry fit on my saw



Dry fit on my saw



Dry fit on my saw



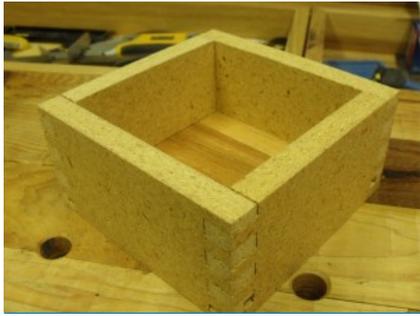
Dry fit test run



Dry fit test run



Test cuts



Playing around



Playing around



Playing around



Finished and put together



Finished and put together



Finished and put together



Finished and put together. With backer boards



Finished and put together



Finished and put together. Saw mounted



Finished and put together. Saw mounted



Finished and put together. Saw mounted



Finished and put together. Saw mounted

Crosscut Sled

The miter gauge that comes with most table saws is fine for crosscutting narrow pieces. But if you try to use it to crosscut a wide



panel, you'll quickly discover how inadequate it is.

It rocks back and forth in the slot or bumps into the edge of the table saw top, making crosscutting not only difficult, but potentially dangerous as well.

That's why I like to use a crosscut sled when cutting large panels. This jig works like a giant miter gauge, allowing you to crosscut wider pieces.

The large, flat base of the sled provides plenty of support for wide panels. A pair of runners guides the sled and the workpiece smoothly through the saw. And a fence on the trailing edge of the sled ensures that every cut will be square.

CONSTRUCTION. To build the jig, start by cutting a piece of 3/4"-thick plywood for the base. (I made mine about 16" x 30".)

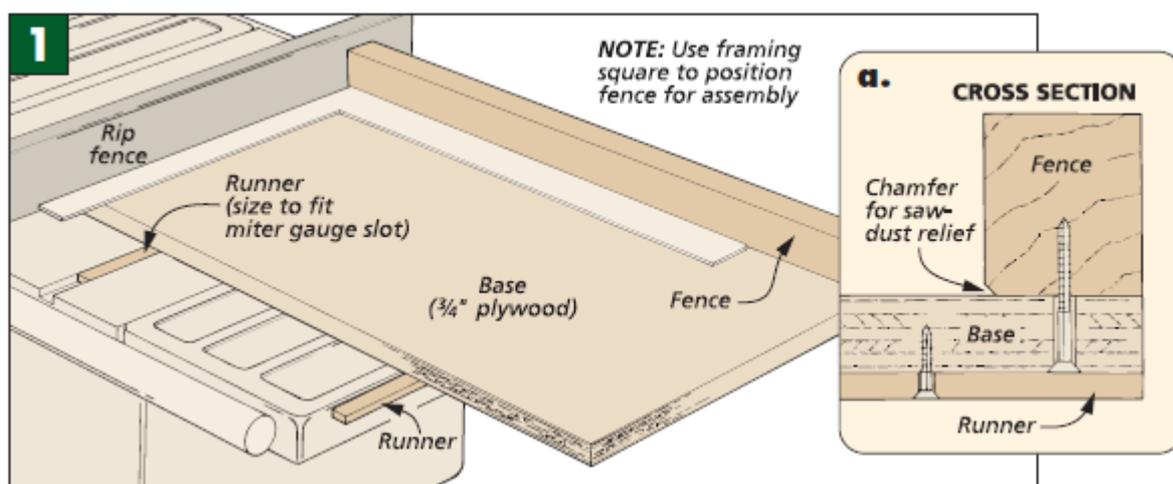
Next cut a hardwood runner to fit in the miter gauge slot of your table saw. Size the runner so it slides smoothly in the slot. Then glue and screw it to the bottom of the base.

To keep the jig aligned, a second runner is added to the bottom of the base. This one rides against the edge of the table saw extension wing, see photo.

Once both runners are attached, place the jig on your saw and trim off the right edge of the base.

FENCE. For the fence, I used a piece of "2-by" stock with a chamfer routed on the bottom edge for a sawdust relief, see Fig. 1a.

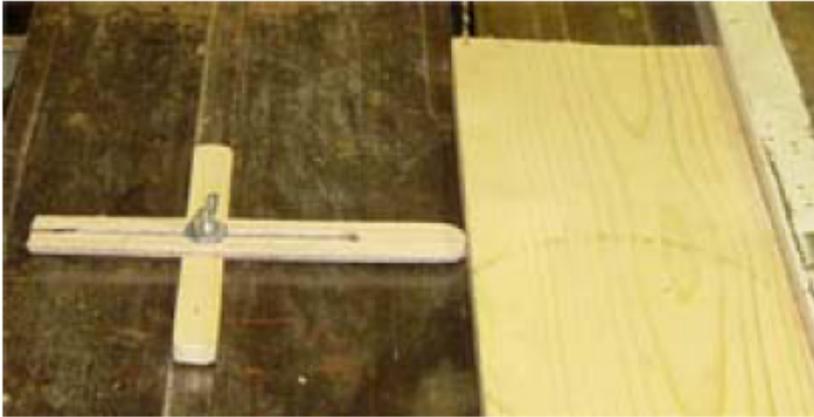
To position the fence so that it's square to the blade, use a framing square, see Fig. 1. Then just screw the fence to the base.



Strip Cutting Gauge

Thin strips should be cut on a table saw with the wide board against the fence and the fence moved in for each cut, however it is difficult to accurately adjust the fence for each strip to be the same

thickness. This gauge allows you to simply slide the fence over until the stock hits the guide. Because there are so many different types of table saws I have not given any measurements for the lengths of the parts, this should be obvious when the strip is in the miter slot.



Cut a strip that fits snugly in the miter slot of the table, with a 5/8" spade bit drill a pocket for the bolt head about 1/8" deep, then drill 1/4" hole for bolt. Cut a slot in a piece 1" wide hardwood that is long enough to extend to line up with the saw blade, round the outer end. Fasten the two pieces together with a 1/4" carriage bolt, washer and thumb screw.



Mark the width of the strip to be cut on the material, set fence, then place gauge in miter slot and adjust guide to touch material. Remove gauge, make the cut, insert gauge, with material against fence, slide fence over until material touches gauge, remove gauge, cut, continue in this manner.