Box Joint

The 'box joint' which is also known as the 'finger joint' is a very strong and easy to make joint. You mainly see it on drawers, but there are many other uses for it.

There are two main reasons why its such a strong joint:-

- Its got a lot of glue area.
- Its interlocking fingers.

Another good point is you can use it on any sizes and thickness of timber, (well nearly all sizes.)

As I said the box joint is an easy to make joint, you can make it by hand, with a table saw or a router table. Today we're going to show you how to make the box joint with a router table with a very simple home made jig.

Step 1 - Building the Jig:

The jig is simply a bit of MDF or plywood screwed on to the router table's mitre gauge with a key. The jig's fence can be as long as you want, it depends on how big the work pieces are. We are using this jig to make draw joints. The sides of the drawers are 3" high. We made our jig from some scrap 3/4" plywood and cut it down to 10" long and 4" high.

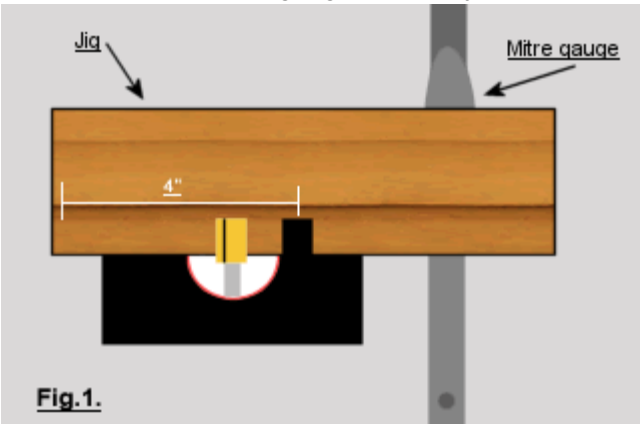

Fig.1.

The router bit is just a straight bit, the width of the bit will equal the size of the fingers.

Set the depth of the bit to the thickness of your work piece.

Position then screw your new fence about 4" from the end to the center of the router bit, turn on the router and run the fence through router bit.

Next, unscrew the fence and reposition it so that the gap between the finger and the bit equals the width of the bit, screw the fence back onto the mitre gauge in its new position.

Turn the router back on and make the second cut, unscrew the fence again.

From a bit of scrap wood the same thickness as your work piece, cut a piece of the same width as the router bit. That piece is now your key.

Glue and screw the key into the first notch you made on your fence, screw the fence back onto the mitre gauge. Your jig is ready for action...

Step 2

Place your work piece in the jig and butt its edge against the key (Fig.2.) hold the work piece tightly to the jigs fence (or you can use a clamp) then run the jig through the router bit.

Your first finger is now cut, place the notch over the key and then out it through the router again.

We only needed to rout two notch's but if you have a wider board or you wanted more fingers so you use a smaller router bit, just keep on moving the work piece over the key.

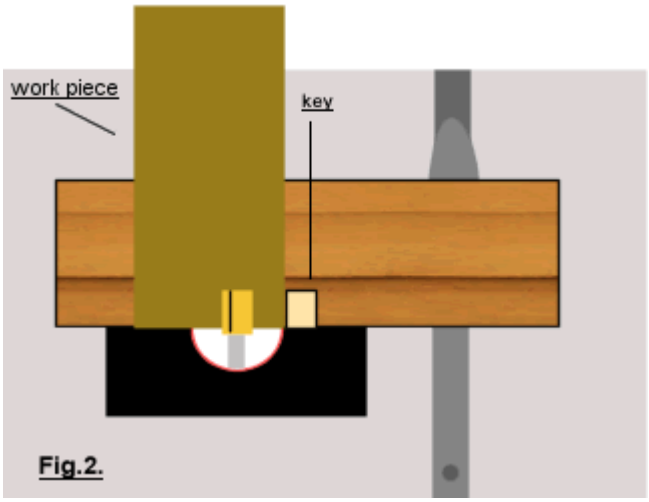

Fig.2.

Step 3 - The Mating Piece

Have a look at (Fig.3.) All you do is place the last notch of your first work piece over the key then butt the mating piece tight against the first work piece and put the jig through the router.

You can now take the first work piece away and you finish the mating piece the same way as you did in step 2.

You should now be able to rout perfect box joints.

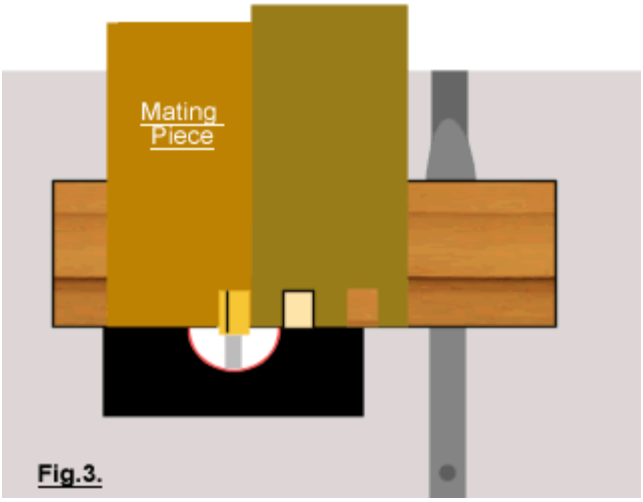

Fig.3.