

Saturday Program Meeting Gerald Brennan – Inkra-Jig Use

Gerald Brennan demonstrated his Inkra-Jig and the techniques he uses to make some of the really nice show & tell items he brings to our meetings.

Basically, the Inkra-Jig is a very precise positioning device. It is usually used to position a fence on a router table but it can also be used on a table saw or drill press. There are several models available, but Gerald uses the 'Twin Linear' version. In addition to the standard 1/32" adjustment, the 'Twin Linear'



incorporates a micrometer that allows .001" adjustments. Gerald's set included the adjustable fence, stop blocks, height gauge, templates and project

books. The templates and project books work together to define the set points for the various cuts each project requires. Gerald also made a point that the templates and projects are designed to use certain bits – make sure you use bits designed for the Inkra-Jig. His set came from CMT.

As his first demonstration, Gerald showed us how he made the decorative dovetails on a jewelry box. He used a 1/2" by 14 degree dovetail bit and set the height to 1/4" +/- 1/64". He made test cuts until the dovetails fit perfectly. He took the four side pieces of the box (they should be made from a light colored wood



like maple or cherry) and marked one edge – this edge always stays against the fence. The pieces should be stacked together, along with a backing board, and cut at the

same time. Clamp the 'stack' to the right angle fence and cut the ends of the box sides in a vertical position. To get a cleaner cut on the edges of the boards, he cut them in two steps. The first pass

scored the edge of the board and the second pass finished cutting the dovetail in the proper position.

Without changing the height of the bit, he cut a



piece of walnut, the same width and thickness as the sides, in the horizontal position. Next, he will crosscut the walnut slightly thicker than the sides and glue it

into each end of the 'side pieces'. When the glue dries, he will sand the walnut pieces flush with the sides and then trim the length of the walnut ends 1/32" from the outermost glue joint. This is a critical



measurement, so you need to sneak up on it. Then he will cut dovetails in the walnut pieces. As a final step, he cuts and dovetails corner

pieces in another type wood and assembles the box. This produces a light colored box with a dark, zigzag, dovetail pattern on both sides of each corner. The plans for the box are included in the project box that comes with the Inkra-Jig.

Gerald made a decorative trivet for the second part of his demonstration. This project called for repetitive cuts at different depths with different router bits.

Gerald starts by temporarily attaching a handle to a 6" x 6" blank. The handle helps control the blank and keeps your hands



further away from the router bit. The fence stops are set so the cuts will stop 11/16" from the edge of the blank. Using the DOVG template, the spacing

between the 'A' marks (center to center of the router bits) will also be 11/16". Always make the cross-grain cuts first. If it produces a little 'tearout', the subsequent 'with the grain' cuts will clean most of it up.

The procedure calls for a lot of cuts and each one has to be precisely centered. This involves setting and



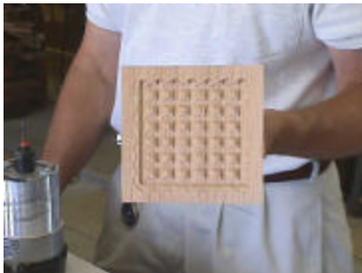
re-setting the fence many times. The Inkra-Jig 'sawtooth' alignment method provides a fast and easy way to make these repetitive adjustments.

Mark two adjacent sides and always keep those sides next to the fence. The first pass uses a 1/2" straight



cut bit and a cutting depth of 1/16". Make the cross-cuts first, then rotate the blank and make the other cuts. The next pass uses a 3/8" bit set to 1/8" depth and the

same marks on the template. Then use a 1/4" bit and a cutting depth of 3/16". Finally, use a 1/8" bit and a cutting depth of 1/4". When you've finished the



routing, you'll have a 6" x 6" block with a lot of little pyramids. Cleanup any 'fuzz' on the pyramids with an Exacto knife. Add a walnut frame and apply a walnut or

mineral oil finish and you have a really nice trivet to use or give as a gift. Gerald says this project can be done without an Inkra-Jig but it would be a lot harder to do and it would be almost impossible to do the exact, repetitive positioning with a regular fence. Gerald also emphasized good safety practices; he wears eye protection anytime the equipment is running and always unplugs his router before taking it out of the base to change bits.

Gerald has provided the club with a detailed procedure for each of these items. He included a lot of tips that are not in the Inkra-Jig book. The copies are in the club library and available for checkout. Thanks Gerald, for taking the mystery out of using an Inkra-Jig.

Gerald has a very nice shop with a lot of thought given to storage and safety. He's using his garage as

his shop and says one of the rules is that he 'has to put the cars in the garage every night.



While we were there, Gerald showed us a modification he's made to his Jet 12" planer that has virtually eliminated the 'snipe' on the ends of his boards. He took a

long piece of plywood and attached cleats to each end so that it fit snugly over ends of the out feed tables. He used a polyurethane finish on the insert to help his stock slide easier. The only downside - he has to remember to add the thickness of the insert to the reading on the scale so he gets his stock dimensioned correctly.