

Box Bits #11

Wooden Hinges Part B - Derek Cohen's Wooden hinge

Introduction

Derek has been kind enough to allow us access to the pics he published in a blog on the site <http://www.finewoodworking.com/item/15165/making-a-wooden-hinge-for-a-box>.

Derek often uses traditional woodworking tools for his projects, and this article shows his use of a combination of powered and non-powered tools to produce an item that is a little bit different from the normal rectangular hinge.



Using Standard Methods,
Mill and Mark the stock in
your normal fashion



Set up as if you are to cut a dovetail, but mark out for a box joint instead ..

When the stock is marked, commence sawing.



Very nice Veritas Dovetail Saw Derek



And then saw some more...
This time with a Fret saw

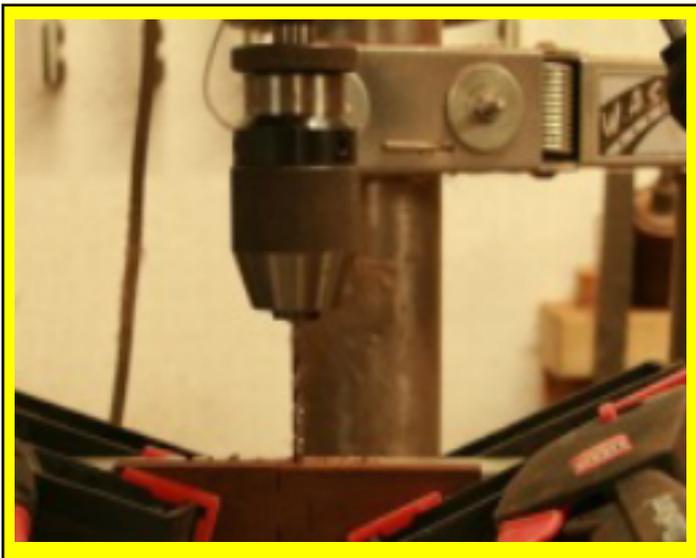
Now that the sawing is done for that leaf, select the appropriate chisel and pare away the residue.



Use the first leaf to accurately mark out the second leaf, and then guess what???

Start sawing again.

Follow the procedures above until you have completed two pairs of leaves to make two hinges.



Now drill the two hinges ensuring that the leaves are vertical and plumb with the drill bit and fence.



A Test Fit.

In his case, Derek had chosen to use a nail as the pivot pin, and used a drill size to give a tight friction fit

Here Derek shows the use of a washer to mark the required "round over" of the pins



And so the rounding begins. Derek used a rasp for this task, as in contrast to a router it allows the user to listen to the Three B's.....or even a Couple of L's ***

*** Explanation on the Last Page



Derek then rounded the body of the leaves where the pins rotate

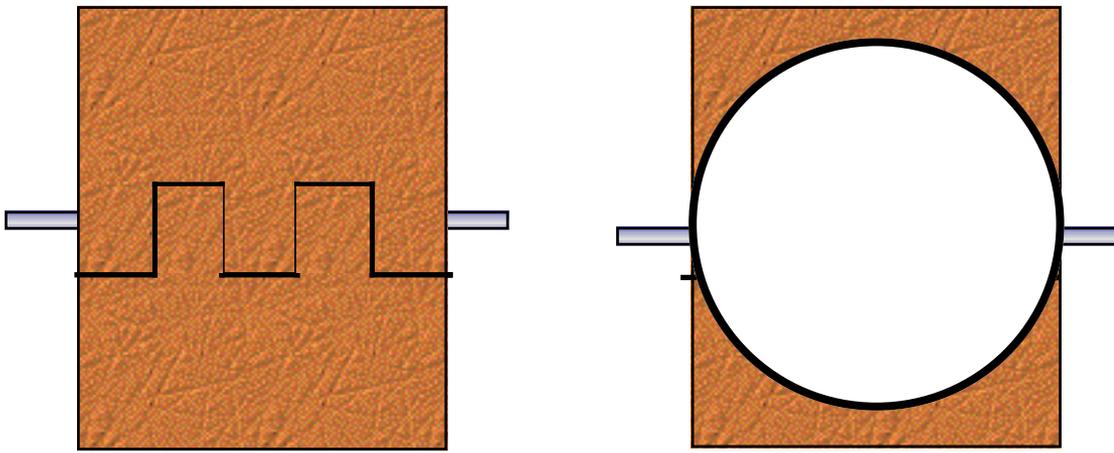
This allows the hinge to rotate over 90°



NOTE:

During this article we have not discussed any technicalities such as the application of a Pivot Point Fudge Factor (which is mentioned in Part A and dealt with at length in Part F of this series of Box Bits # 11.

Derek has provided us with a “how to”, showing tools and techniques, some of which negate the application of the Fudge Factor.



Now assemble the hinges and with an appropriately sized circular object mark a circle as shown in the drawings above.

Cut the inscribed circle on a bandsaw or your weapon of choice, then smooth the hinge edges on a disc sander as Derek has shown below.



Continue shaping with a rasp until you have achieved a pleasing, smooth shape on all hinge leaves on the outward facing sides. That means, leave the box sides flat.



After a bit of rasp work and a few B's and maybe some L's, the following shapes will evolve. (see the note below)



To mount the hinges, Derek then drilled holes (lots) in the rear of the hinges and also the hinge mounting area of the box. The hinges were glued to the box with epoxy, and the multiple holes provided a very effective “key” for the epoxy.



There we have one of Derek Cohen's WIP's on a “different” box hinge, and please join me in saying a big **“Thank You”** to Derek..

Note: The three B's are Bach/Beethoven/Brahms and the couple of L's are Lynard Skynard and Led Zeppelin.