

FROM: http://purpleheartpens.com/html/making_a_double_cross_pen_0.html

Making a Double Cross Pen

Photos and description by: John Nystedt <jnystedt@gmail.com>

From: The Purple Heart Pen Company <http://purpleheartpens.com/>



Cutting Jig



Set-up for 1st Cut - Note alignment "stripe"



1st Cut



First Inset glued

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Second Cut



Another Pix of 2nd cut



Second insert glued in blank



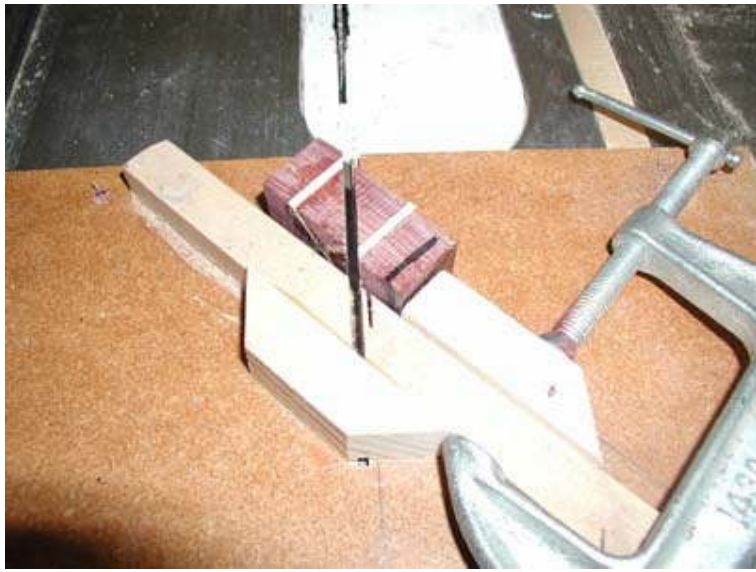
Stop now if you want a "single" cross



Set for the 3rd cut



another Picture of the third cut



More ...



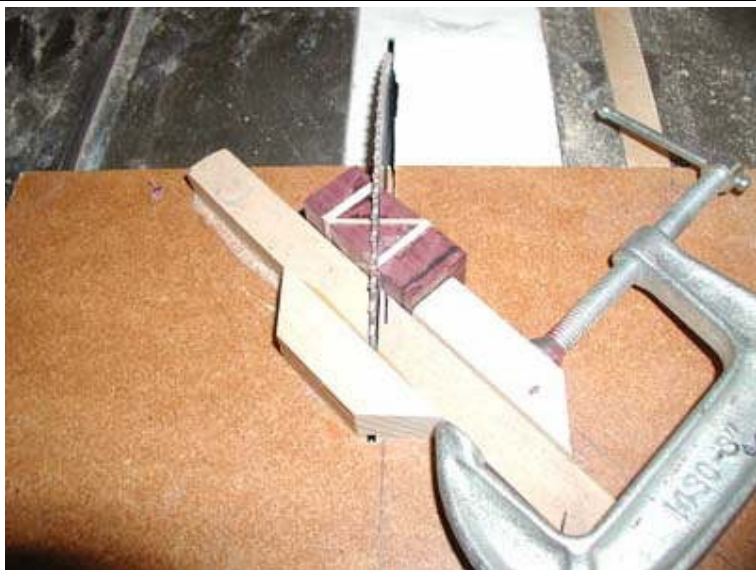
Third insert glued in place



Almost done ...



Set for the 4th and final cut



Another view



It's done!



Ready for drilling



On the lathe



Another view



Almost done



Final product ready for assembly



The Finished Pen !

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FAQ: (From the Y! Pen turners group)

Q: I don't understand why the segments must be the exact thickness of the blade. Why can't you use a thinner veneer? As long as the blank itself doesn't get too short you should be able to use whatever thickness you want. Am I missing something here? -- **David in Alabama** davesprvt@hotmail.com

A: I have no idea how thick veneer typically is so I will use 1/32" as an example. If this is an absurd size then I apologize in advance.

If you take your pen blank and cut your first 45 degree angle in it with lets say a 3/32" blade you have just removed 3/32" of the blank. On the first cut it really doesn't make much of a difference if you glue a 1/32" veneer into place and glue your blank back together. The second, third, and fourth cuts are where the problem shows up. If you make your second cut with the 3/32" blade and then glue a 1/32" veneer into place this piece will now be 2/32" above or below absolute center in regards to your first piece of veneer. So, when you turn it the second corner of the X will be higher or lower than the first and the third and fourth corners don't stand a chance of lining up..

Basically, To keep this design geometrically perfect you must replace the same amount of wood removed to keep everything in balance. -- **Ron McIntire** rmcintire@yourcrafts.com

Q: Do you reckon we may be able to use a bandsaw for cuts in making "XX"? -- **Snog** snoggerboy@hotmail.com

A: It seems to me that a band saw would be fine as long as you had a sharp blade and it cut a nice smooth cut. All of my segmented pens are made with a Miter saw. -- **Ron McIntire** rmcintire@yourcrafts.com