



International Association of Penturners

Studies in Segmenting II:

Simple Brick Chevron Blank

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As a preface to this tutorial, I would like to make a few simple comments which are simply my opinion, and I have no issue with anyone who may disagree.

If you are the type of person that would rather “figure it out” for yourself, stop now! However I will say this; the real challenge is execution. Yes, seeing how it may be done is very, very helpful, but will not insure quality and precision - that will only come with trial and error.

Most of what I have learned about pen turning was a result of my involvement with IAP, it's library articles, advice written in thousands of threads and personal contact with individual members who shared their knowledge. I have probably zero individual contributions that came from my own inspiration. I believe in sharing whatever I (we) can with others, because that is how our craft will move forward.

To be clear - This tutorial is being written in the hopes that it is useful to the membership. Gain what you can from it, improve upon it and we all can be better artists!

So, I wanted to make a pen blank with a chevron pattern (or any number of other inlay patterns) on 4 sides of the blank. Commercially bought inlays are only between 1/32" - 1/16" thick, so it was necessary to construct my own inlays to have the greater thickness.

The end result that I was looking for was to have 4 inlays, slightly less than 1/4" wide, and 1/2" thick and 2 1/4" long.



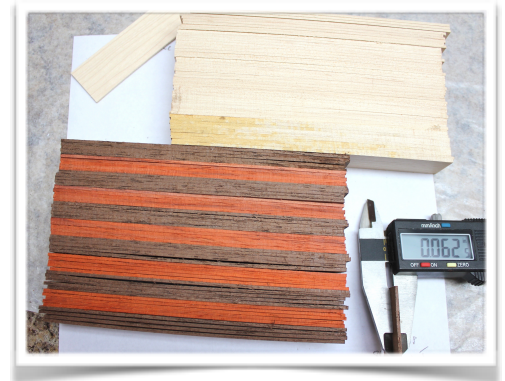
Procedure

NOTE: Safety First!!!

Know your skill level, know how to operate your machines.

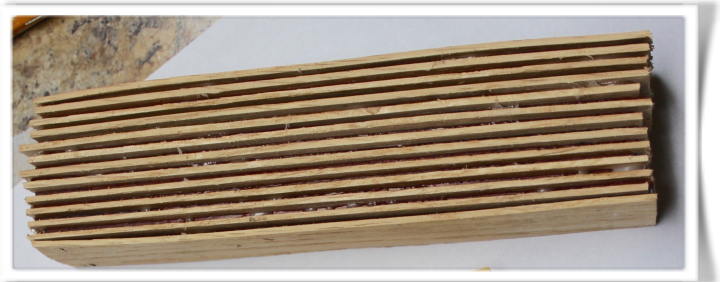
Don't make the mistake of being overconfident.

1. I cut a series of thin slices on my table saw in Bloodwood and Oak, approximately 1" high x 1/8" thick x 6" long. (The photograph also has some Walnut).



2. I used a Byrnes thickness sander to mill the 1/8" (.125)" thick slices down to 1/16" thick (.0625").

3. The stack was then glued up and let set overnight (I used Titebond Translucent Glue).

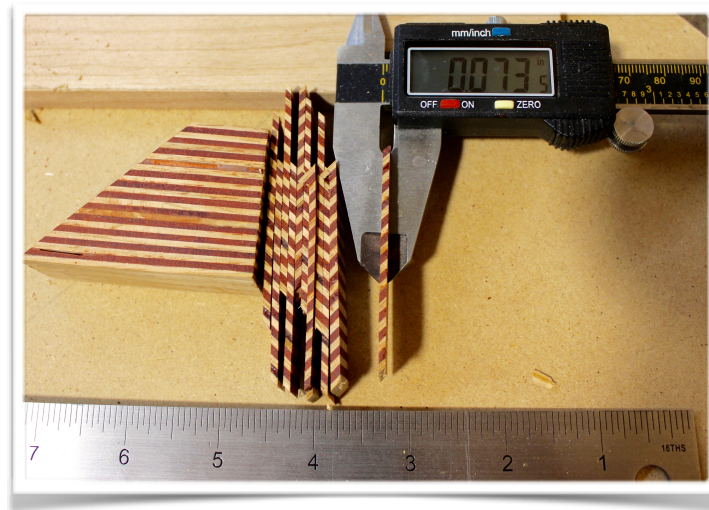
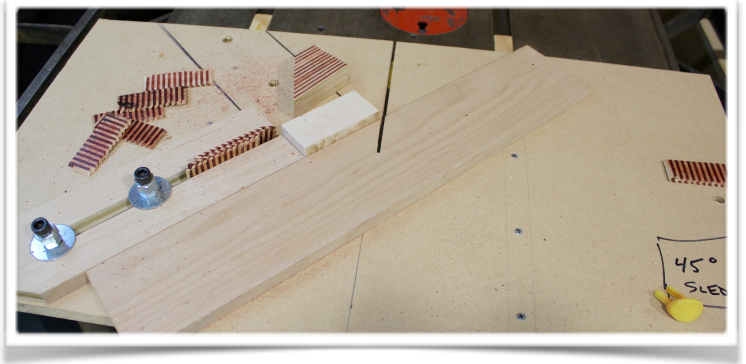


4. My end "stack" was to be approximately 1" high by 1 1/2" wide by 6" long, so I needed about 25 slices.

5. If you construct a 1.5" stack and cut the slices on a 45 degree angle, you will get approximately 2 1/4" long slices. Similarly, if your stack is about 1" thick, your slices will be about 1 1/4" long.



6. I then used a 45 degree table saw sled to cut as many thin slices as I could out of the block. In the end I had enough for 3 pens blanks. I was able to cut them to .073", so I did not need to sand them much to get back to .0625" thickness. I did this also on a Byrnes thickness sander.

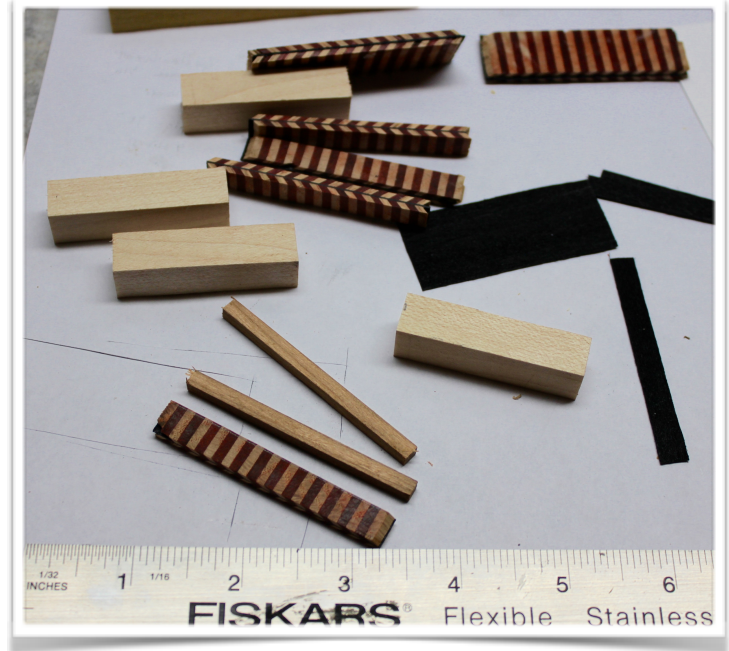


7. I then cut black veneer strips to fit in between the half chevron slices, and glued them together. As seen in the picture, it is actually easy to get the chevrons to match. The key is starting with slices that are the same thickness.



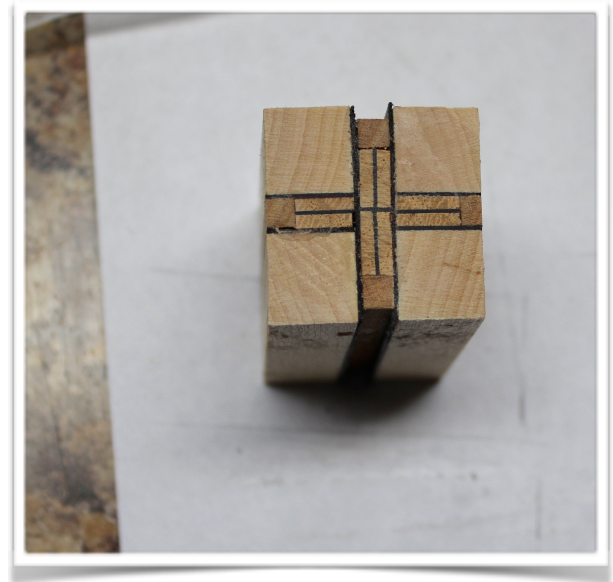
8. I then cut off the top and bottom ends of each 1" wide full chevron strip; being careful to match the ends to be at the same place in the pattern.

9. Then I cut both strips in half, so that I had (4) 1/2" chevron patterns.



10. I then cut (4) 2 1/2" x 1/2" square maple sections. The inside angles need to be very precise to keep the pattern well spaced from side to side and top to bottom. The outsides are not as crucial as you will be turning it round.

11. I then added black veneer to each chevron slice, and used 4 spacers to fill in the gaps. I wanted no gaps so that when clamped, each side had a solid joint from the middle outwards.



12. Working backwards... My three black veneers were each .025" in thickness (= .075") total. Each chevron slice was .0625". So my final insert was .200" (.0625" + .0625" + .075"), or slightly less than 1/4" (.25").

13. Using the exact intersections of the black veneers for my center lines, I mounted the blank between Steb centers and turned it round. When to the proper diameter, I placed the blank in a collet chuck, and drilled the tube hole on the lathe, then glued the tube into the blank (I prefer 2 part epoxy and let set overnight).



14. Then next day I turned the two ends down to the brass tube, about 3/8" thick, and then glued a black veneer and maple end cap onto the tube. I also let this set overnight.

15. The next day I sanded the ends flush with the tube, then did my final turning.



16. I used compressed air to clean the blank off, then applied one coat of Myland's Sanding Sealer, allowed to dry, then proceeded to sand with Abranet up to 600 grit.

17. Finally, I applied 8 coats of Wipe On Polyurethane allowing 6 hours between coats. I let the blank set for 2 more days before handling it and assembling the pen.

This was a fun project and in total honesty... It came out better than I imagined!

I welcome and encourage anyone to make this design, and most importantly, use it to spur you own creative efforts!

Have FUN!