
PEN TURNING IDEAS
Something for everyone
Bay Area Woodturners Association
January 11, 2013

Expanding our thinking

- Alternate materials
- Modification of conventional kits
- Pen turning without kits or bushings
- Methods of improving production quality
  - Drilling
  - Mounting/turning
- Alternate finishes

Materials Buffalo Horn

Materials - Antler

Materials - Acrylic

Materials - Stabilized

Custom Components

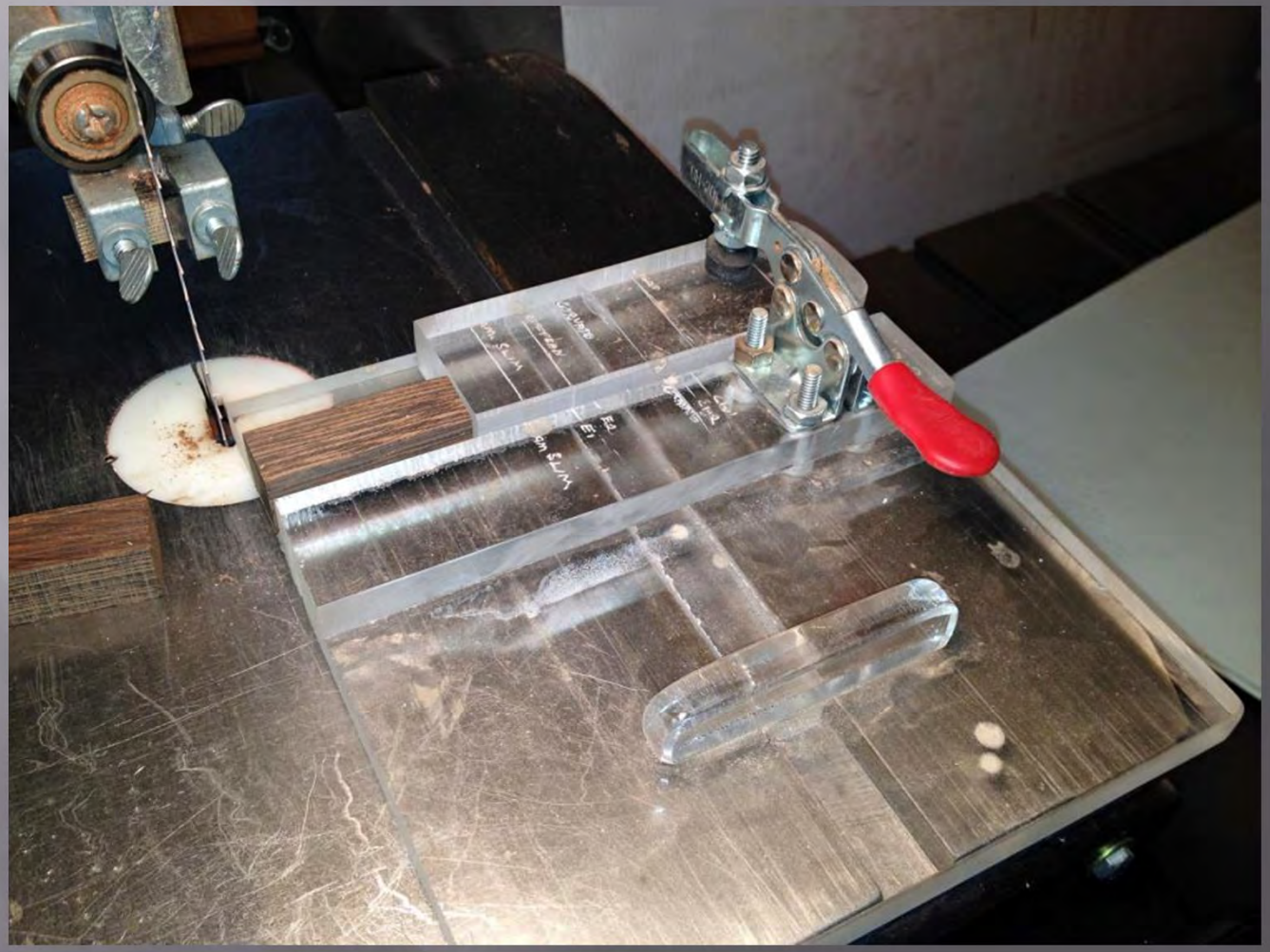
Stylus tips

Parts to build
a custom top

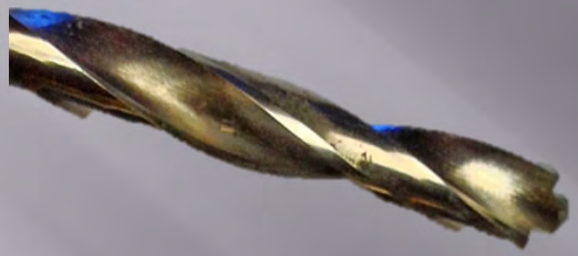
Accessory Sets

Specialized clips

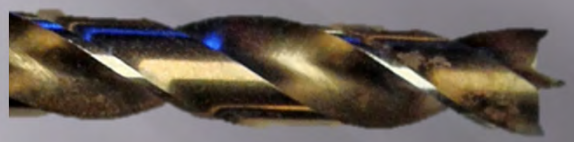
Cutting the blanks



Drilling the Blanks

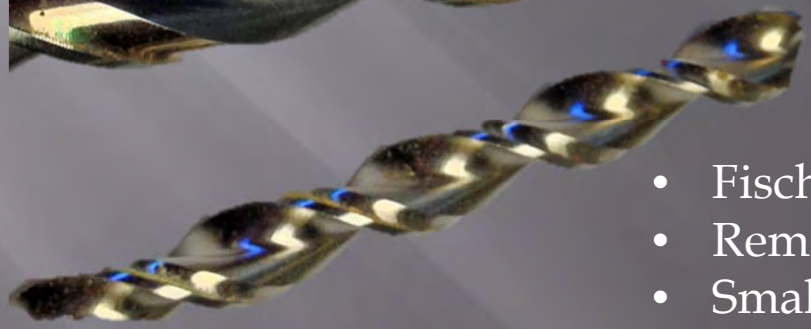


- Bullet Point – start straight
- Good for acrylics, hard woods



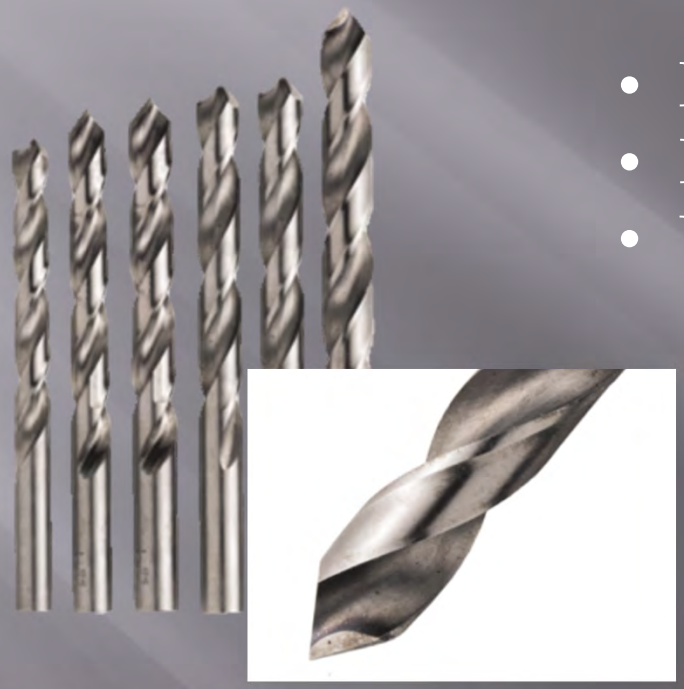
- Brad point – cut clean
- Tracks straight in softer woods

- Standard HSS – must be kept sharp
- Try split point for better tracking



- Fisch bits - greater length
- Removes chips faster
- Small sizes require a starter hole for stability

New Drill Bits



- New “parabolic” bits
- Recommended for acrylics
- Untested

Drilling on the lathe

Use #1 jaws on your chuck for accurate centering and control

From Penn State – a dedicated blank drilling chuck
Only available in 1 x 8 thread

Mounting the Blanks

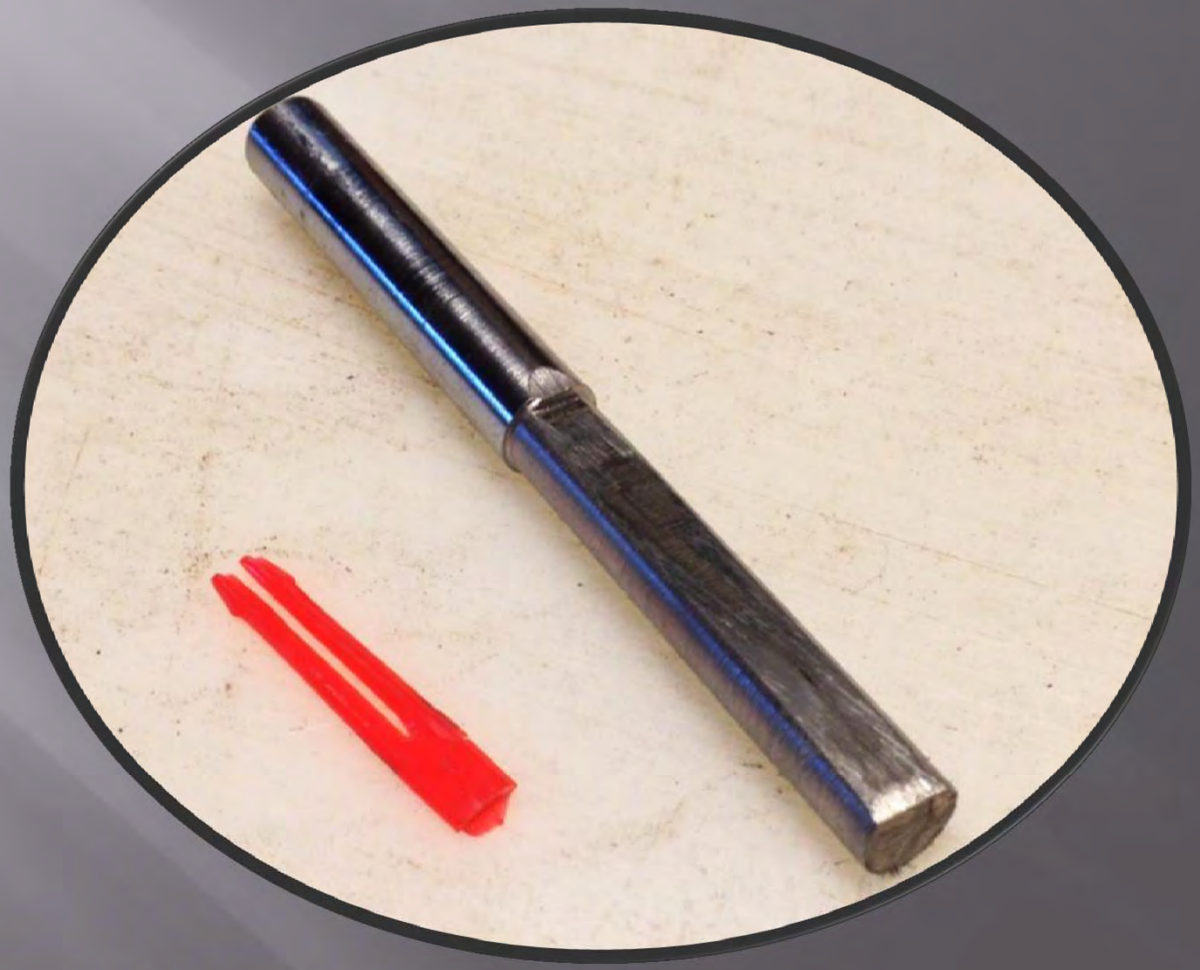
Craft Supplies version

- Most secure and accurate mounting
- Does not rely on the TS pressure
- No pressure on mandrel rod

PSI version

Closed end pens

Pin chuck required



Segmented Wood Pens

Adding simple elements

- Add contrasting wood and veneers
- Glue and clamp tightly
- Cut blank normally

Cut & Glue (repeat)

Cut two blanks at angle

Glue together w/ veneers

Recut at same angle

Glue back together w/ veneers

Build with slices

- Cut contrasting colors
- Cut at 15º, rotating 90º every slice
- Stack contrasting components
- Glue stacks to tubes

Basic steps for segmented pens

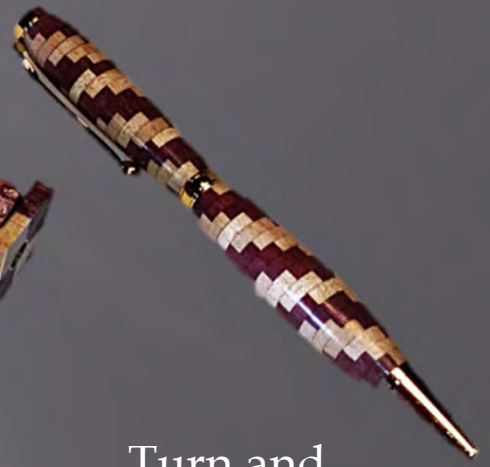
Glue up a blank

Mark & drill blank

Cut into slices

Assemble slices

Glue up blank



Turn and assemble pen

Prepare blank

- True & square contrasting woods in the ratio of ½ : 1
- Glue up and clamp

- Cut strip in half clean up
- Reverse one section and glue
- Lots of clamps !

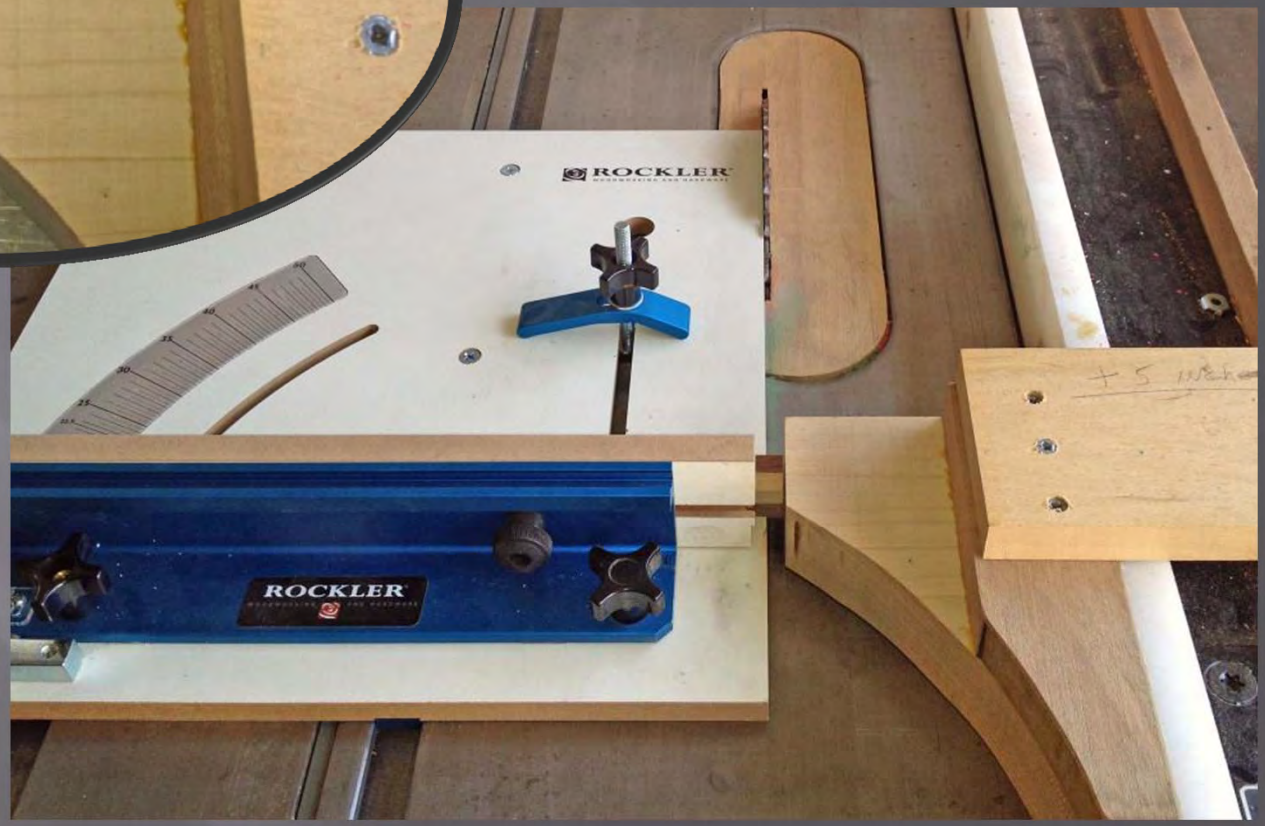
Cut and drill blanks

- Cut into lengths
- Scribe a line on all lengths

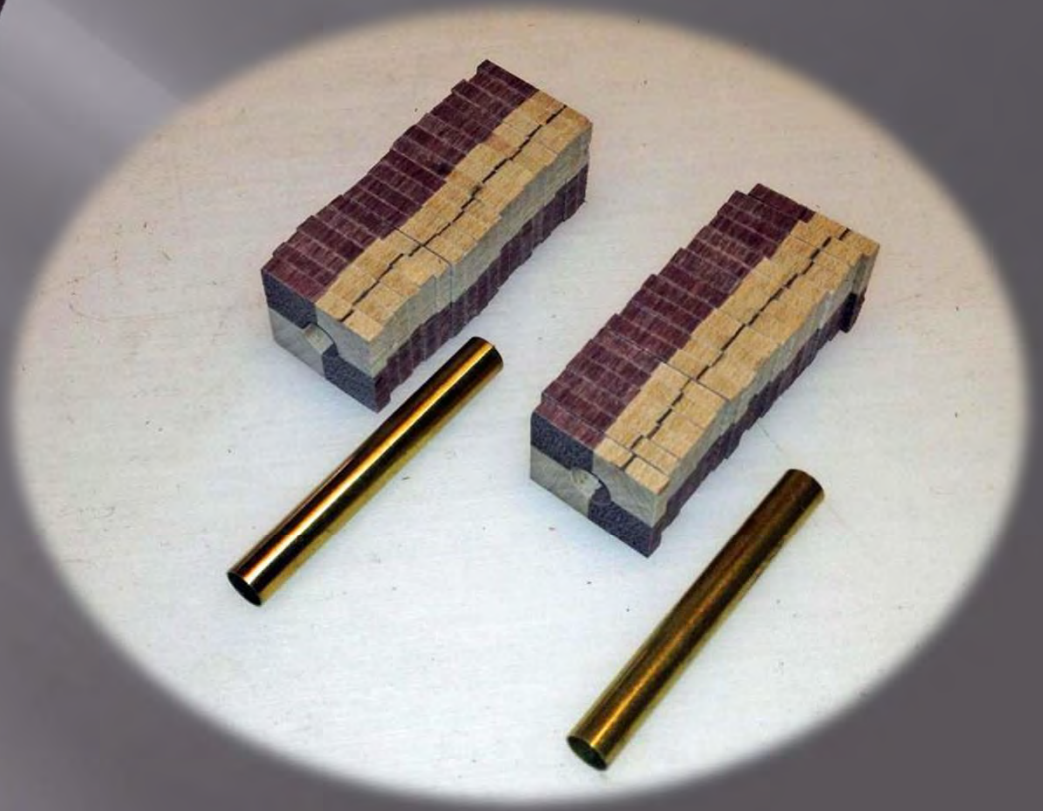
- Drill each length

- Drill carefully
- Assure all holes are straight

Cut into slices



Prepare Slices for assembly



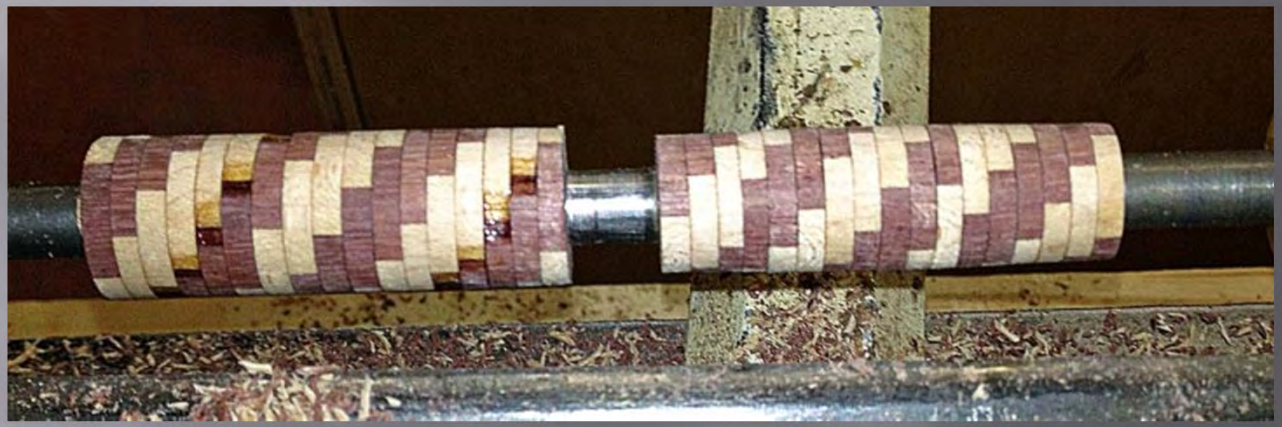
Build the assembly

- Glue first slice to tube with medium CA glue
- Add second slice – aligning pencil mark
- Tack into place with thin CA glue
- Continue to build assembly

Complete assembly

- Flood each assembly with thin CA glue

Turn the pen



- Start tuning carefully until all corners and removed
- Complete in the normal manner

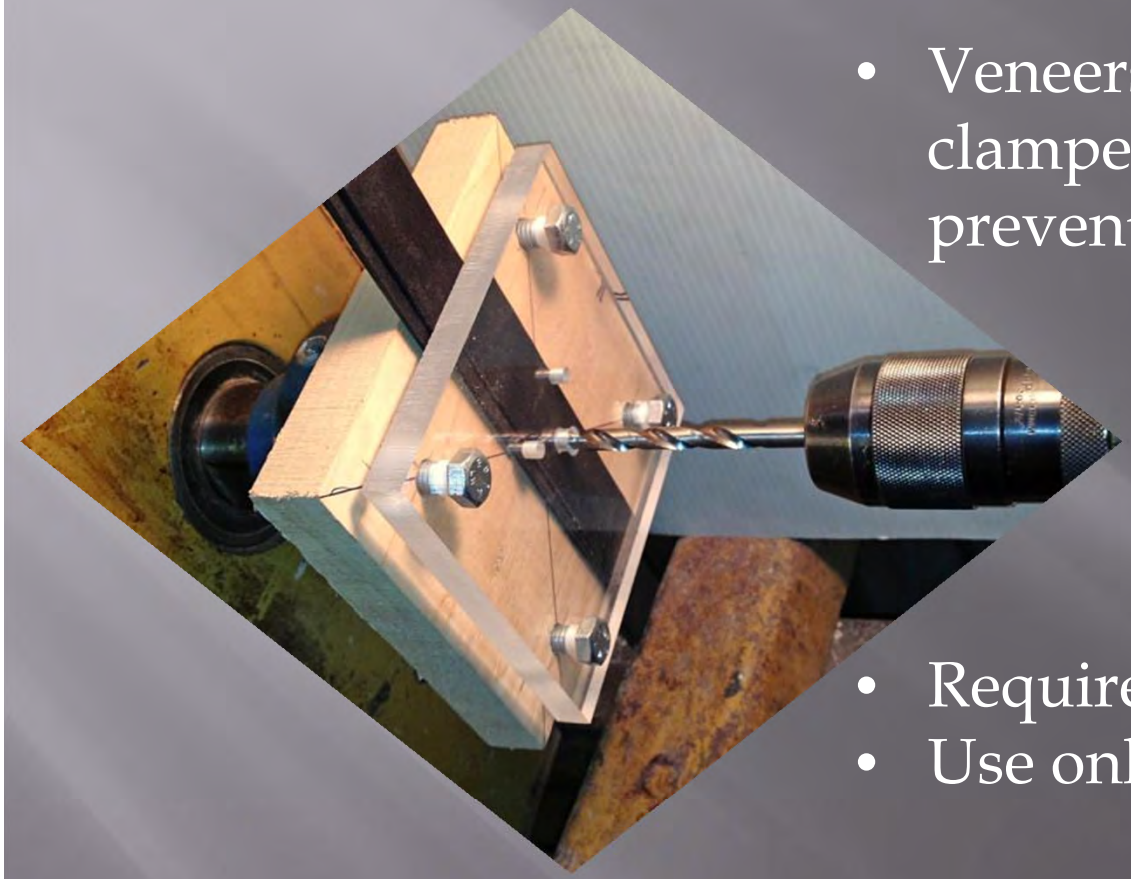
Complete and assemble

Adding veneers

- Veneers add definition and crispness
- Veneers separate color elements
- Veneers aid fit

Add Veneers

Drilling veneer

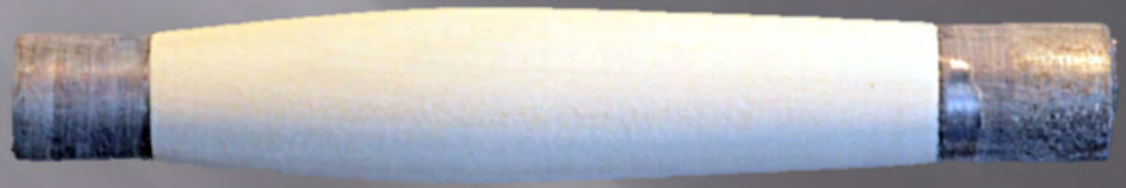


- Veneers must be tightly clamped when drilling to prevent tear out

- Requires a solid support
- Use only brad point drill bits

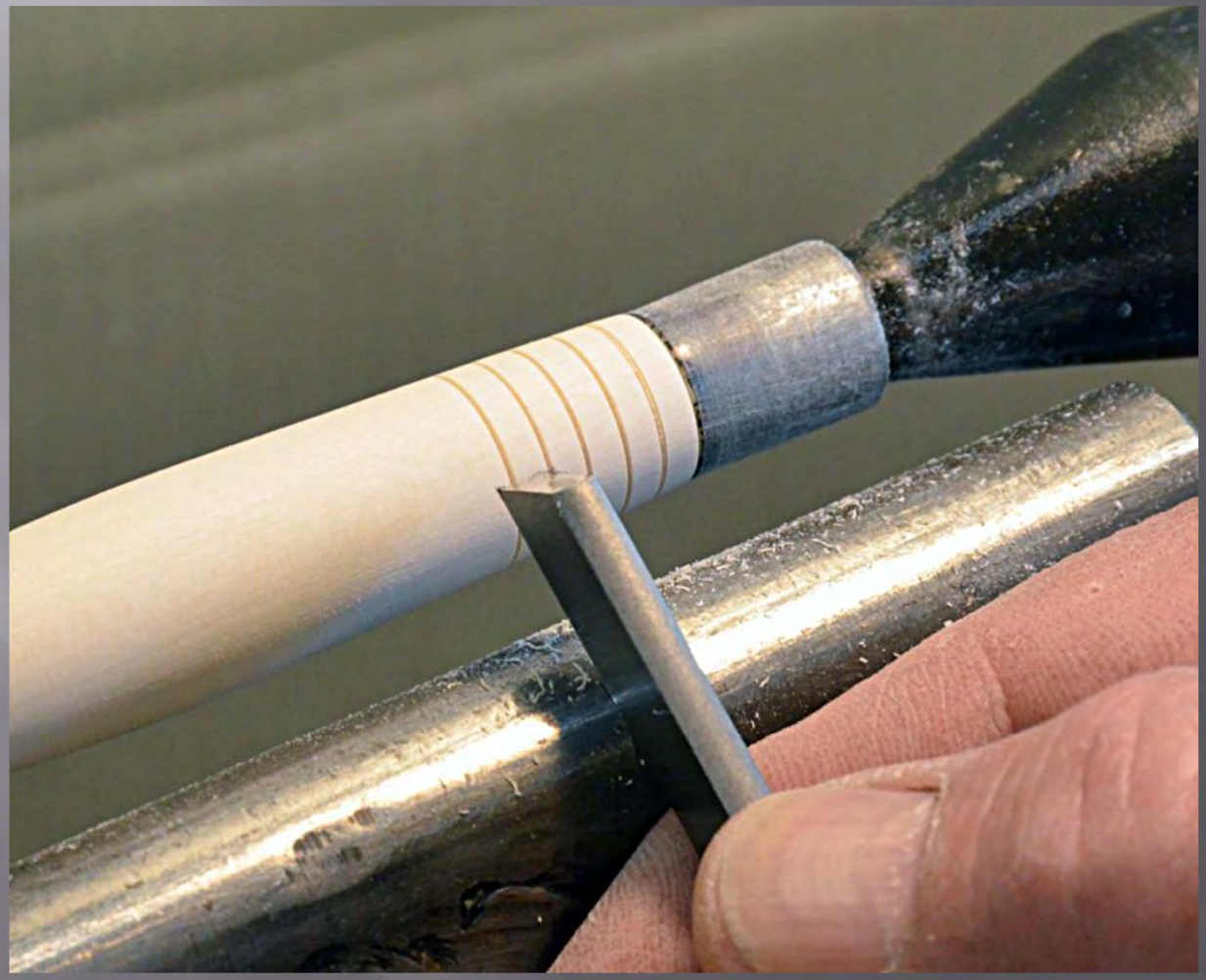
But it looks segmented!

Turn blank normally



- Use a light colored – plain wood (Holly)
- Sand to 200 grit only

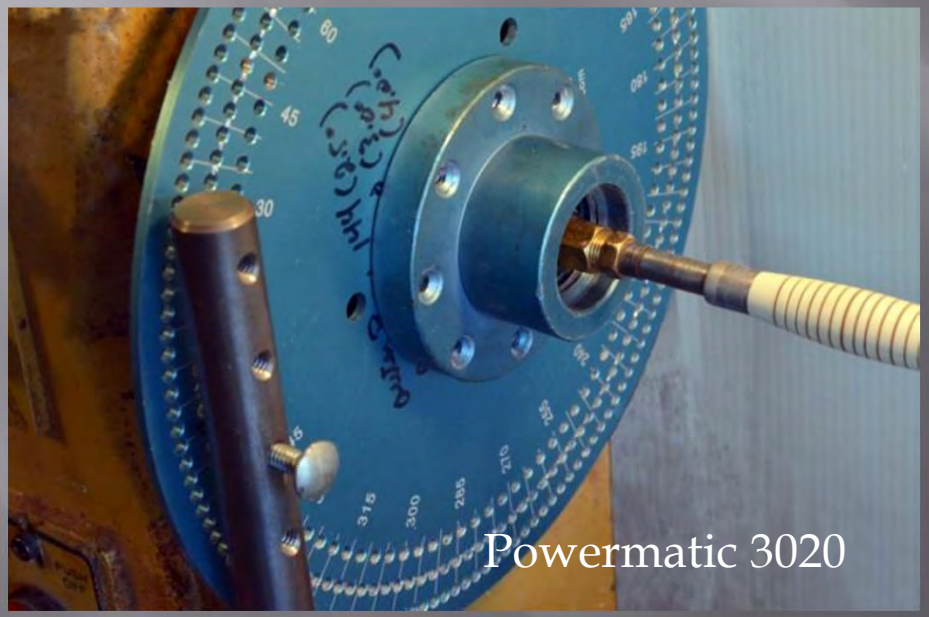
Create circumferential marks

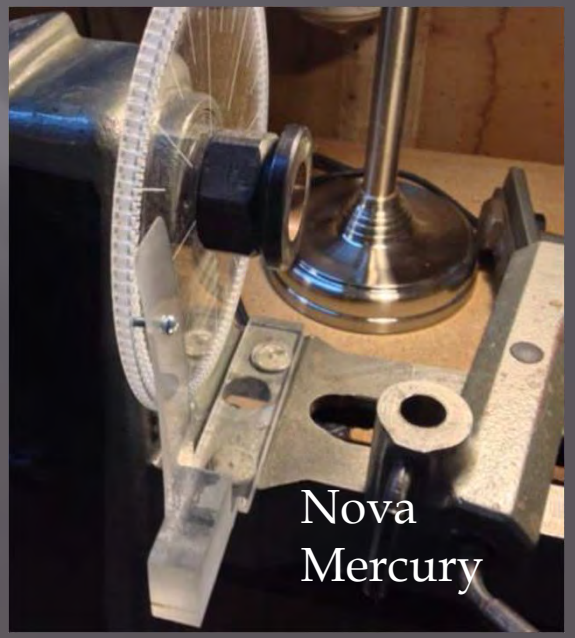


Burn the marks

Set up next step

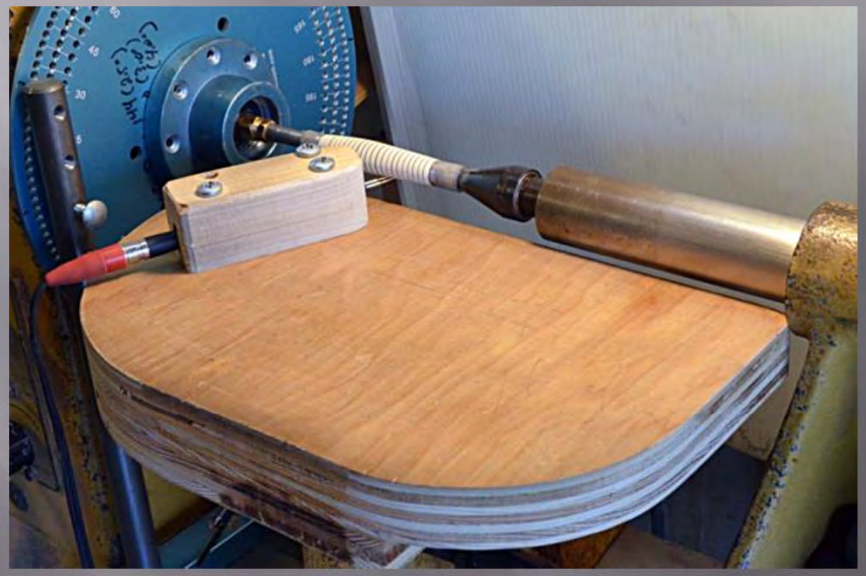
- Many mini lathes have indexing in built
- Some older machines (mine) require external indexing attachments
- For pens 24 steps are sufficient





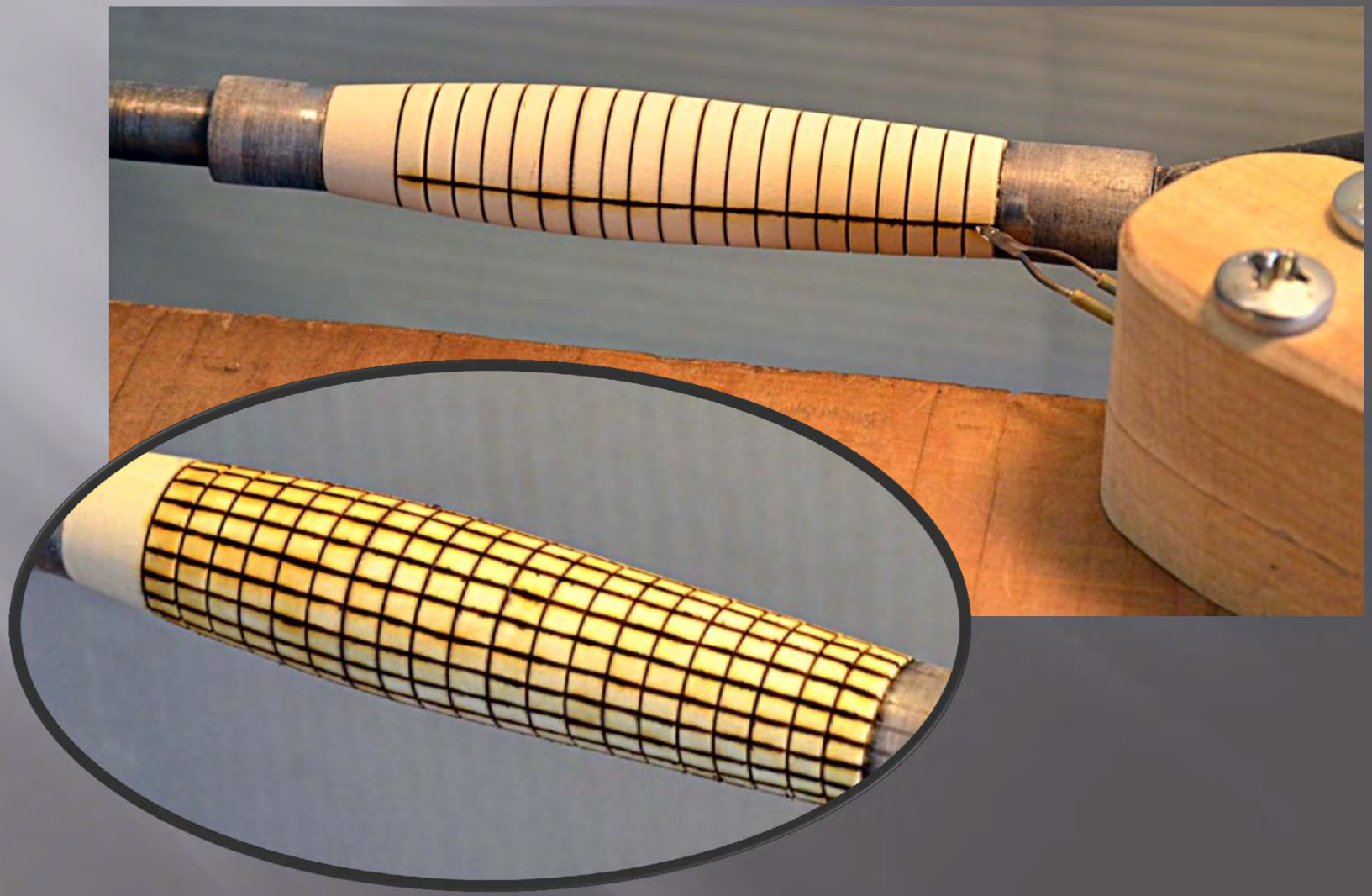
Set up next step

Mount a pyrographic pen in a flat wood holder

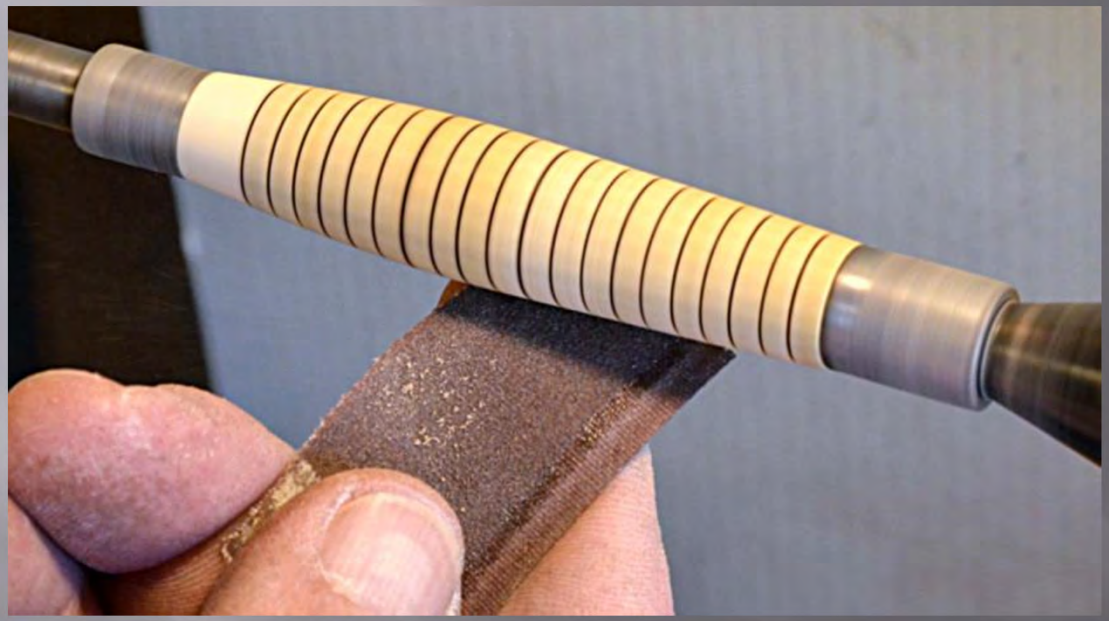


Construct a tool post table to position burning tip at center line

Burn horizontal lines



Re-sand



- Re-sand to 400 grit
- Use a light touch
- Remove blank from the lathe

Prepare to add color

Remount and finsh

After coloring add 2-3 coats of spray fixative

Complete with 3-5 coats of spray Krylon

Assemble Pen