

Create a Classic Fountain Pen

Writing with a finely made fountain pen harkens to the days of old. Drawing ink into the pen becomes a ritual. With a fine writing instrument, a little more thought goes into writing; I've found my handwriting tends to be a little neater.

If you really get into writing with a fountain pen, you'll discover they are customizable with different size nibs and amounts of flexibility to fit your writing style.

Turning a classic fountain pen is a fun project that can bring a lot of joy to you or to others. You'll find turning and assembly is no harder than making any other fine writing instrument.

There are a couple newer fountain models that get a lot of attention. The Gent Jr. and the El Grande are both nice pens that

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have been upgraded over previous pens. The El Grande, as the name indicates, is a larger pen and requires a fatter pen blank.

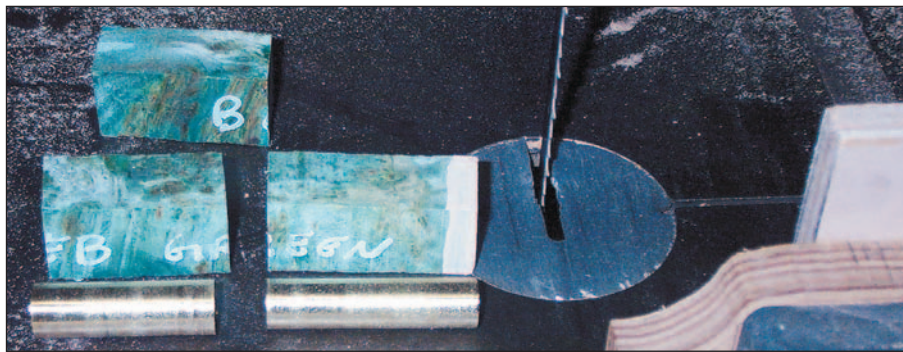
The El Grande kit for this project sells for about \$14 (gold plating) to \$19 (platinum plating) from mail-order suppliers.

Select a highly figured piece of $\frac{3}{4}$ " x $\frac{3}{4}$ " by $5\frac{1}{2}$ " wood for this project. I prefer stabilized woods for most of my pen projects because they turn nicely and take a finish well. The wood for the pen shown here is stabilized green-dyed box elder.



1. Cut the parts to length

using the brass tubes as a guide. Make sure to cut the blanks about $\frac{1}{16}$ " longer than the brass tubes; this allows extra stock for squaring up the blanks. I cut my blanks on a bandsaw, marking a line across the center cut to ensure grain alignment throughout the project and during final assembly.



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2. Drill the blanks.

Because the drill bits have a tendency to wander slightly while drilling the holes, I prefer a self-centering drill vise to hold my blanks. To combat wandering, I drill my holes at the centerband location. This makes the center of the pen line up. If the ends are slightly off, it is acceptable because they are not right next to each other. Drilling from the centerband position also helps with grain alignment.



6. Now, to the lathe

I prefer to use a skew chisel for the entire turning. A roughing gouge or a spindle gouge would work just as well. Turn the pieces down till they are just proud of the bushings. Stop the lathe and use your fingers to slide across the barrels. By touch, make sure the pen has a smooth transition.



3. Glue in the tubes

There are two reasons glue joints fail: Improper glue coverage and smooth or contaminated gluing surfaces. I prefer Medium Gap Filling CA glue for my pens. I make sure and apply plenty of CA glue. Rotate the brass tube and slide it up and down before pressing it in all the way. Some penturners use polyurethane glue that expands as it dries; this diminishes the coverage concerns.

4. Square the blanks.

I square my blanks with a disk sander. I use a holder that has a rod mounted at 90 degrees to the disc. This is a quick method of squaring the blanks to the brass tubes that are inserted in the wood. This is a critical step, since this will determine how the pen fits together after assembly.

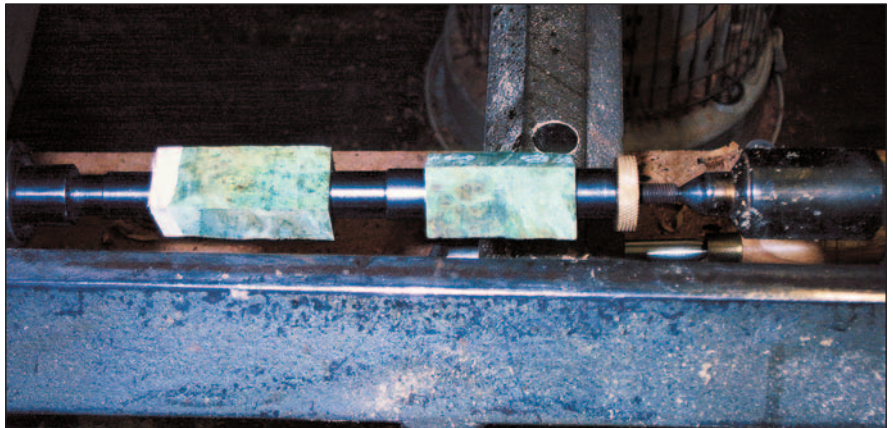
5. Mount the blanks on a mandrel

The mandrel is a metal rod held on the lathe using either a Morse taper or a Jacobs's chuck. Each pen kit uses metal bushings that slide onto the mandrel on each end of the pen blanks. The size of these bushings is matched to the components on the pen.

I measure these bushings with my dial calipers to ensure I place them in the right order. Slide on the first bushing, the first blank, and then the second bushing.

Slide the third bushing on and check the alignment of the second pen blank.

Make sure the grain runs through from one blank to the other. Finally, slide on the last bushing. I bring up the tailstock and tighten the live center slightly before tightening the brass nut on the mandrel. If you over-tighten the tailstock or the nut on the mandrel, your pen will not be round when you finish.





8. Final assembly

The instructions packaged with your kit should describe the order of parts assembly. I use a pen press (available from most mail-order sources) to assemble my pen, but a clamp or a vice used with care also works.



7. Sand and finish

Sanding removes some of the wood, which is why you should leave the stock proud of the bushing. I stack my sandpaper sheets and cut them into 1" x 3" strips. Each stack contains 120, 220, 400, 600, 800, 1000, and 1,200 grits. I find these strips are just enough paper for a pen sanding; I throw away the paper after use.

I sand with the lathe running. Between each new piece of paper, I wipe the blanks with my hand to remove particles that could scratch the surface.

Before the 600-grit paper, I slow the lathe down to about 100 rpm and apply two coats of CA medium gap-filling finish. After the second coat dries, I return to 220-grit paper and work my way

through 800 grit. With the 1,000 and 1,200 grits, I stop the lathe and sand with the grain.

After sanding, I wipe the blanks clean, then buff the pieces. This is easiest done with the barrels still on the mandrel. I hold the mandrel at a 45-degree angle; this helps remove any sanding scratches that might appear after applying finish. I use a three-wheel buffing system: red rouge, white diamond, and carnauba wax. It only takes slight pressure with each of the wheels. Make sure you have a firm grip on the piece you are buffing; the wheel will try to pull the piece away from you.

When removing the barrels from the mandrel, keep them in the proper order for final assembly.

Breaking in a new pen

To break in a new pen, doodle 10 or 12 curly-Qs on a piece of 600-grit sandpaper with no ink in the pen. Then do the same thing on a paper grocery bag. This wears in the nib (the tip of the pen).

Most fountain pens use either an ink cartridge or a pump. The pumps draw ink into the center and then it is drawn out through the nib. The conversion pumps generally hold a little more ink than the cartridges.

If you put ink in your pen and don't use it for an extended period, it will dry up. This requires cleaning to get the pen working again.

If you sell pens, either dip a pen in ink for a customer or ink up a demonstration pen of each model. (If you put ink in a fountain pen, it is not considered new anymore.) When you let customers try out your demonstration pens, make sure you supply some good quality paper (not paper from your printer).

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