

Longwood Cigar

Les R. Elm © 2011

Revised 04/22/2012

The following instructions are for how I make my Longwood Cigar Pen. Longwood pens can be made from just about any twist ballpoint pen. The only kit part that is not used is the Center Band and any associated decorative rings.

This Longwood Cigar Barrel, excluding the Center Band and Decorative Ring, should be the same length as a normally completed Cigar pen with the length of the Upper and Lower barrels and the Center Band at a minimum of 4-5/16".

The barrel can be made longer, as long as the transmission will engage enough into the Clip Bushing Tube.

It is critical to ensure the hole is straight by drilling all the way through the blank from one end. The drill bit has to be long enough to go all the way through the blank.

Materials Required:

- Cigar Ballpoint Pen Kit
- Some extra replacement Cigar tubes
- Sierra Brass Tube
- Cigar Finial and Nib Bushings and a Sierra Bushing
- 10mm Drill Bit or a 25/64ths Drill Bit
- 27/64ths Drill Bit
- Finishing Materials



Preparing the Pen Barrel:

1. Using the Shorter (Upper) brass tube, Center Band with Decorative Ring and the Longer (Lower) tube for a total length of 4-5/16". Mark and cut a minimum size 3/4" square pen blank to a length of 4-1/2" which will allow room to mill the ends square with the brass tubes.



Mark the 3/4" Blank to Cut at 4-1/2"

2. Drill the blank all the way through the center from one end only with a 25/64th drill bit.



Drilling the Blank Through From One End

3. Check that the hole is straight by ensuring a Cigar tube will fall all the way through the drilled blank hole.
4. Mark the drilling depth for the Sierra tube on a 27/64th drill bit.



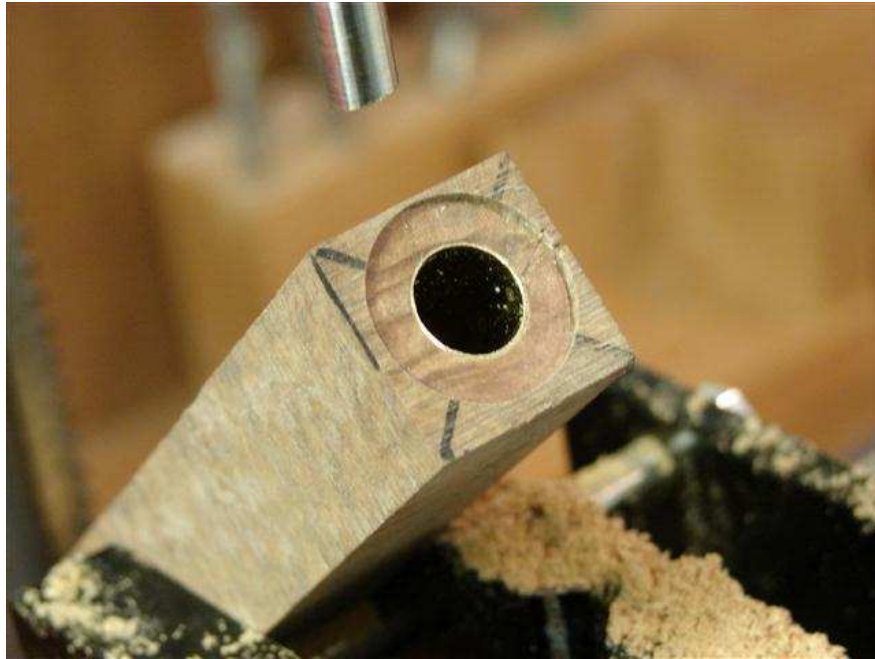
Drilling Depth Marked on 27/64ths Drill Bit

5. Drill one end of the blank with the 27/64th bit and check for depth with a Sierra tube.



Blank Drilled to Depth with 27/64ths Bit

6. Glue in a Upper (Short) Cigar tube into the $25/64^{\text{th}}$ hole. Glue the Sierra tube into the $27/64^{\text{th}}$ blank hole. Mill both ends of the blank square to end up with the blank length at a minimum of $4-5/16''$.



Blank Ends Squared For Total Minimum Blank Length of $4-5/16''$

7. Knock the 4 corners off the blanks with the band saw.



Remove The 4 Corners Off The Blank

Turning the Pen Barrel: (*Three Methods That Can Be Used*)

1. ***Mandrel Turning:*** Place a Cigar Finial Cap bushing on the Cap end of the blank and place a Sierra bushing on the Nib end of the blank and install on the lathe using an Adjustable A Mandrel and a 60° Live Center. Turn proud of the bushings to allow for applied finish.



Mandrel Turning with Bushings

2. ***Between Centers:*** Place a Cigar Finial Cap bushing on the Cap end of the blank and place a Sierra bushing on the Nib end of the blank. Install the blank on the lathe between the 60° Dead Center and the 60° Live Center. Turn proud of the bushing to allow for applied finish.



Turning Between Centers with Bushings

3. *Between Centers Without Bushings*: Install the blank on the lathe between the 60° Dead Center and the 60° Live Center. Calipers are used to turn blank ends to just proud of the Finial and Nib fittings to allow for applied finish.



Turning Between Centers Without Bushings



Blank Turned Down and Shaped Proud of Bushings

Finishing the Pen Barrel:

1. With the lathe running at 800 rpm, sand the barrel to 400 grit to match the dimensions of the Cigar Finial and Nib fittings.
2. With the lathe off, sand the barrel length-wise and wipe down with a Tack Cloth.
3. With the lathe running, burnish and buff with turned wood shavings and Oil Free Extra fine Steel Wool and wipe down with a Tack Cloth.
4. With the lathe off, rub the barrel length-wise with the Oil Free Extra fine Steel Wool and wipe down with a Tack Cloth.
5. Apply the finish of choice. I used MINWAX WBOM Clear Gloss Polyurethane applied using my Dipping Method.



Finished Brown Mallee Burl Cigar Barrel

Preparing the Nib Assembly:

1. Press the Twist Holder into one end of the Lower (Long) brass tube.



Twist Holder Pressed Into Lower (Long) Brass Tube

2. Machine off the Twist Holder Flange flush with the outside diameter of the brass tube.



Twist Holder Flange Removed

3. Assemble the Nib Adapter, Black Decorative Ring, Nib and press into the other end of the Lower (Long) tube.



Nib Installed on Lower (Long) Tube

4. Lay out of the Parker refill and Twist Mechanism with assembled Twist Holder and Nib tube.



Nib Assembly, Twist Mechanism and Parker Refill

5. Install Parker refill into the Nib tube, screw the Twist Mechanism onto the Twist Holder and check operation.



Assembled Nib Assembly

6. Assemble the Finial and Clip and Press Into the Shorter (Upper Tube).



Assembled Finial and Clip Pressed Into Finial End

7. Push the completed Nib Assembly through the barrel nib end and check the double twist action operation of the refill.



Nib Assembly Ready to Install Into Barrel

8. Twisting the nib clock-wise or counter clock-wise retracts the refill tip.
9. Unscrew the nib counter clock-wise or pull out the nib assembly to access the refill.

Completed Brown Mallee Longwood Cigar Ballpoint

