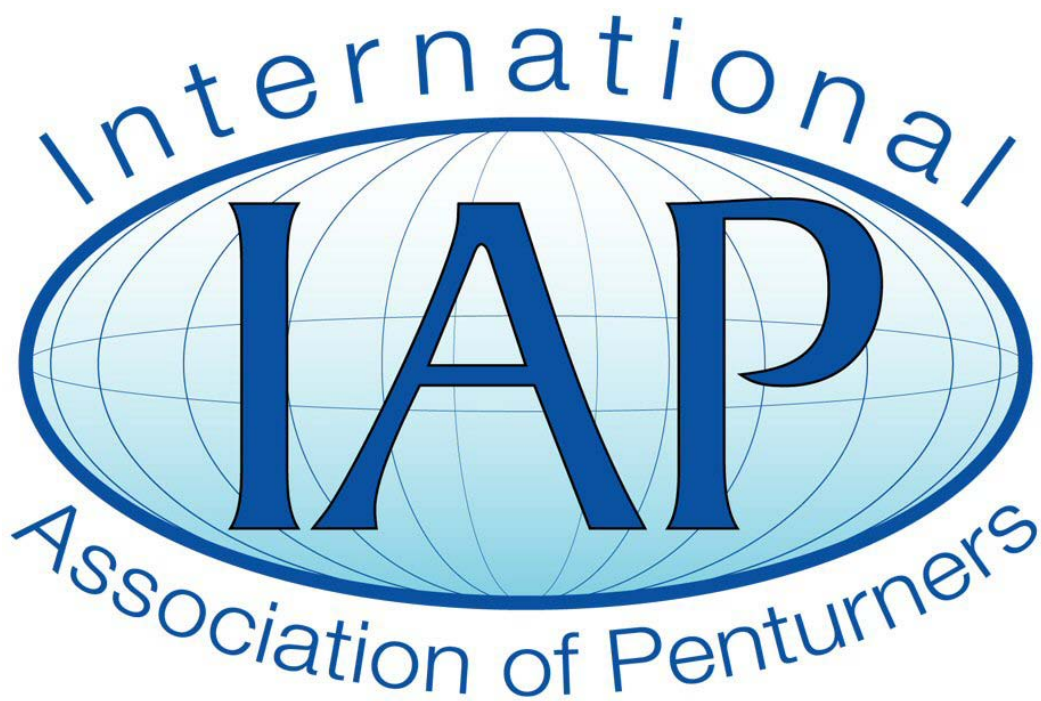


# Nibless Slimline Pens

Contributed by: Gord Kendall

A.K.A "Gord K"



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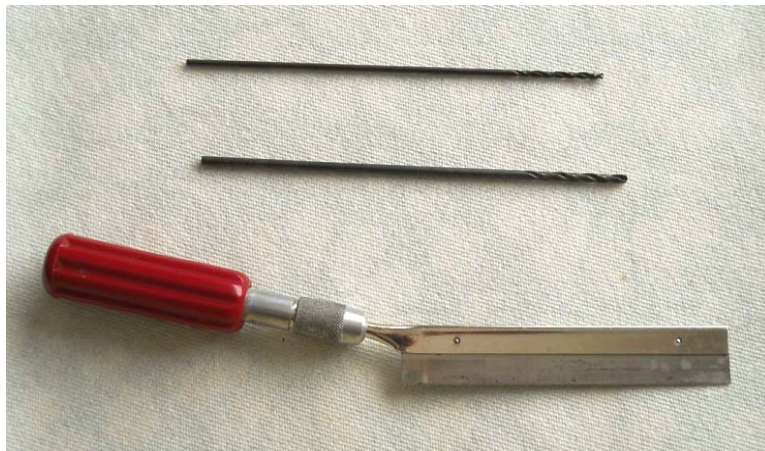
## Nibless Slimline Pens by Gord K.

My favourite purchased pen is either the Garland I got many years ago or a Cross pen. My favourite kit pens are the Mini European pens that Craft Supplies USA used to sell years ago. They used a stepped lower tube. I like thin pens!



From left to right: a Cross pen, a Garland pen, a Mini European made as per the kit instructions, and a Mini European made as a straight pen. The last one was my pocket pen for so long I have worn most of the gold off the hardware.

These pens are all very slender. A slimline can come close but the size of the nib limits how small the barrel can become and this is what led me to try to make a nibless slimline pen. So let's begin:



In addition to the normal pen-making tools, there are a few additional tools that are useful.

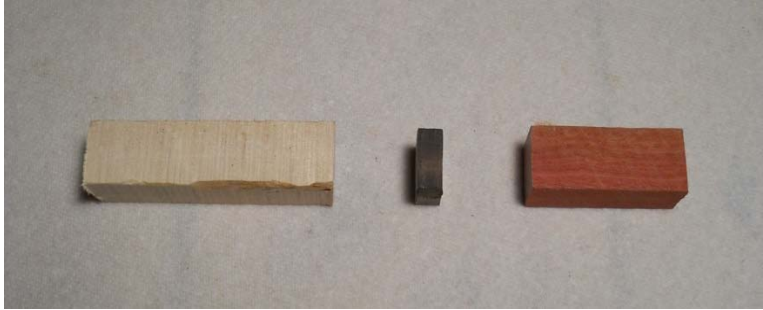
A six inch long 3/32" bit and 1/8" bit. These are necessary the way I make the pens.

A razor saw such as the Xacto saw in the picture is useful but there are other ways to accomplish the same result.



I use this clamp because I don't have a pen press. Again, there are other tools that will accomplish the same end result but this method is very controllable.

Here are the materials to make the pen body.



The bottom is a 3" piece of maple which a 5/16" center band of ebony will be epoxied to. A normal slimline bottom is approximately 2.8" including the nib so we are making a bottom blank that will be roughly half an inch too long. The top of the pen is a 2" piece of pink ivory.

Once the ebony is epoxied onto the maple the blanks can be drilled with a 7mm drill bit. I have my 7mm bit marked with a permanent marker so I can drill the pen bottom to the depth of the tube plus a fraction of an inch to allow for squaring the blank.



The 3/32" bit is then used to drill a pilot hole the rest of the way through the blank.

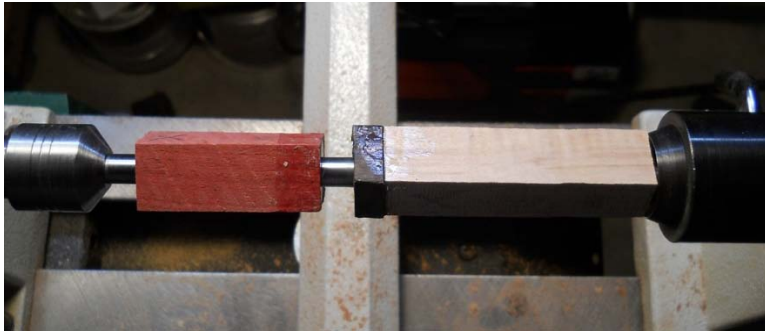
This needs to be done slowly because this long thin bit will flex if you go too fast and then the resulting hole will not be true. DAMHIKT!

Back off to clear the flutes frequently. The bit I bought only has flutes on the bottom inch of the bit.

Here are the parts. The blanks are already drilled, the tubes are already glued in and the ends have been squared off with a pen mill.

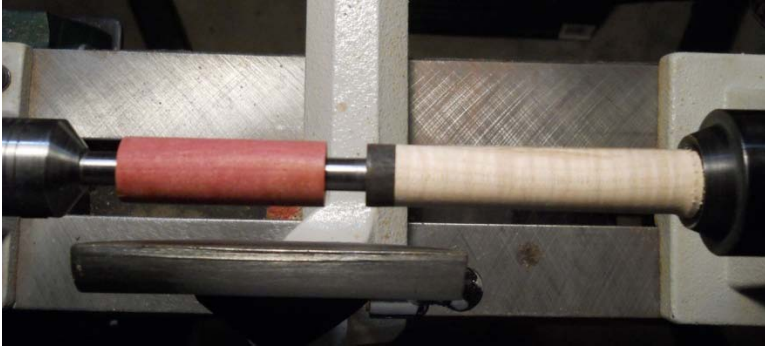


The parts come from a chrome slimline kit. The nib and center band are not used and the clip is being replaced with the pink ribbon clip.



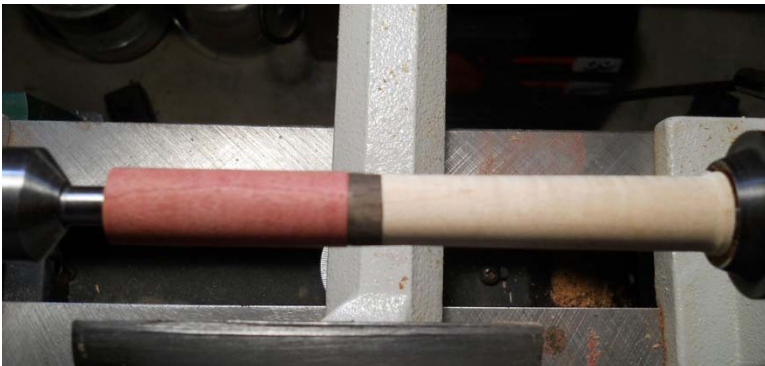
I use an adjustable mandrel and start with two slimline bushings.

The live center is centered on the 3/32" hole that was drilled all the way through the bottom blank.



At this point the blanks have been turned so that they are round and about 5/8" in diameter.

Because the pen is not using the kit's center band, I remove the bushing between the two blanks and readjust the mandrel at this point.



After readjusting the mandrel and resetting the live center we are ready to continue.



My tool rest is too short to do the entire pen body. I shape the top end first and then shift the rest over and do the bottom section.



At this point the shape is roughed out. I use a caliper to check the end of the nib where it meets the scrap. I stop shaping it with the skew when I get to between 0.15" and 0.175".

The type (hardness) of material you are using will determine how small you can go here without having problems.



I have been using Shellawax for finishing my pens and apply it at this time.



Here are the parts ready for assembly and the final touches.



Press the finial and clip onto the pen top as per your usual method.

I generally press the twist mechanism into the bottom of the pen up the end of the brass coloured section and then do some fine tuning.

Since the pen is nibless, if you push the mechanism in too far, you would have to destroy the blank to get it back out. It's better to have to press it in further in small increments than to waste a blank.



Cut off the scrap at the end of the bottom blank. I use the Xacto razor saw after I have pressed the mechanism in to its initial depth.

I have a permanent marker line drawn on the 1/8" drill bit 3.75" from the end. I use a cordless drill on the low speed setting to hand drill the inside of the bottom blank, through the twist mechanism.

The body of a Cross refill is about 1/8" in diameter and the writing end of the refill is closer to 5/64" in diameter. The 3/32" bit gives us a hole large enough for the end of the refill to fit through but we still need to enlarge the inside of the pen bottom to accommodate the body of the refill itself. That's where the long 1/8" bit comes in.

I drill to the permanent marker line on the 1/8" bit, install the refill and check it's travel, remove the refill and press the mechanism further into the body, and repeat this process until about 1/16" of the refill tip sticks out when the mechanism is turned all the way.



I remove the refill and take the bottom of the pen to my drill press.

I tighten the jaws of the drill press chuck onto the twist mechanism finger tight.

I turn on the drill press and use 50 grit sandpaper to fine tune the shape of the nib of the pen. I also touch up the very end of the nib that could be out of square from being cut with the razor saw.

I clean this up with 150, 220, 400 and 600 grit papers and then the micro mesh pad that I have but don't remember what grit it is!

I apply (or should I say reapply) the Shellawax finish and then the pen is ready for final assembly.



I use the hand clamp to tweak the setting of the pen mechanism so that I have just under 1/8" of the refill sticking out with it fully extended.

In addition to the rubber pad on the clamp I add several layers of cloth to cushion the end of the pen. The very tip of the pen, depending on material, can be very fragile so proceed with caution.



**The Finished Pen.**

*Some closing thoughts in no particular order:*

The methods I use are based on the tools I have available to me.

Through trial and error I have learned that patience is a key. It is better to do things in small increments repeatedly than to go for broke and waste a blank.

I have tried using just half a tube in the bottom section of the pen. My thinking is that the pen blank material would be stronger if I drilled less of it. The problem that you run into, however, is that you can't use a pen mill to square off the end of the blank because the shaft is too long. If you use a disc sander to square your blanks this would not be an issue.

I use Shellawax for my finish. I haven't tried to use CA or CA/BLO yet. I went to a pen-making workshop where a pen was finished with CA and I think the smell of the accelerator is too overpowering for me to use in my basement.

As I said earlier, the harder the material, the easier this is. I have used maple, holly, rosewood, tulipwood and corian for nibless pens. I really like the look and feel of the two I did in rosewood.

I welcome your comments, critiques and suggestions.

Gord K.