



Makin' Shavin's

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Write on!

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I attended a monthly meeting of The Southern Bayou Wood Turners in Hammond over the past weekend. It was interesting because, just like other clubs, they sort of scramble for in-club demonstrators. In the recent past, the demonstrators have performed in a team-like fashion. One turner's demonstration led to the other turners' demonstration. This month the presentation was turning pens. Okay, I've heard this noise in the past, "I don't do pens, I'm way above that". But there is nothing farther from the truth as that statement. A pen turner is the same critter who turns bowls, platters, urns, pepper mills, etc. The real difference is the fact that their work is designed to be held, used, adored and bragged upon. The set-up, turning, sanding, and finishing is steps required to complete all these projects. It's just that their presentation piece is much smaller, the art is there, just smaller.



Brief History: (me)

When I started turning for fun, because the profit thing just didn't attract me, I found a Penn State Industries (PSI) catalog in the library. At that time it was like a pamphlet, a few pages on pens, tools, finishes, wood, lathes, etc. I was intrigued to see a Mont Blanc style pen made from shop scraps and just had to get involved. Now, at that time, I didn't understand my limitations. I didn't know that this was not just a hobby, but a passion for a lot of woodturners. But I was a fast learner and found out the hard way that there are steps.

After I spent way too much time and money attempting to turn a pen, I decided to find out how. (yes, I'm a male and yes, I ignore directions)

I discovered that the secret was really simple. I studied a few videos from PSI, and others, to find out how to KISS. (Keep it Simple Stupid)



Materials:

The pens, and other art, I viewed in the catalogs were created using some weird materials and combinations of materials.

From the exotics to the scraps, wood is a great material for pens. It should be conditioned or seasoned. Which means that it has been rough cut and allowed to breathe for a while. How long is really up to you, but turning a piece of green wood will be a challenge

Then there are the man-created materials; acrylics, Corian, cast resin, copper, brass, aluminum, steel, and on and on. If I can cut it with my tools, I've made a pen out of it.

But if you get bored, mix them up. Laminate two strips of stock together, strips of different woods, or veneers, or plastic, or copper or _____ and create your blank. If you can think of it, glue it up and make it work.

But gluing up this stuff can be a real trick, considering the beginning and the favored ending. Small pieces, which will become even smaller pieces, held together by an adhesive or glue, only to be handled by the foulest, dirtiest, parts of the human body, the human hand. When in doubt, beat it out. That may be a good slogan for the lamination of materials. If you can glue it up, get the effect, and then slap it with a hammer, you've done good. Which is the type of wear they will be subjected to? Dropping an ink pen five feet to a concrete floor is the same as you falling off a five-story building. It's not the fall, It's the stop which will kill you.

Kits, or not?

When you turn a pen, you have to add something to it to make it a pen. From a full-blown kit, with bells and whistles, to a simple refill from a Bic ink pen. You have to apply hardware to your art. I have researched a few sources for kits, and they range in cost from really cheap to "whoa!" But when you select a kit, be sure to consider all the parts and pieces like a puzzle. There are basic instructions included, but they are basic and just provide a guideline as to which bushing, refill, clip, etc. They won't tell you how to turn or finish the piece which you place in your friend's hand.

One of my favorite pens is one I call the Kitless Pen Kit. That's right, a pen without a kit. I created a video more than 10 years ago I called the "**12 cent pen**". This was a simple project which used some wood, a drill bit, and a refill right out of a Bic ink pen. This was a great project because you could turn pens for friends and family, using shop scraps and a twelve cent insert. The mandrel is a simple drill bit, held in your Jacob's chuck, which will drill and hold your work. I plan on providing more detail, but the video is linked to the references section.

Mandrels, etc:

To turn a pen, you have to hold the material you're turning. This is where a mandrel comes into play. A mandrel is just a bar, or rod, which holds your material, bushings, and guidelines, right in front of you. There are lots of commercial brands and types available, just ask me, I have most of them. The one I use the most came from Craft Supplies and is adjustable. Why adjustable? Because without adjustment the shaft must be "bushing" to size. With an adjustable mandrel you set up for the type and size pen you want and you're ready.

But if you're on a budget, and who isn't, then go for the full-sized mandrel and use old bushings to get to the right length. It may be one more step, but who's counting steps.



The mandrel can also be used to turn other marketed items, from duck calls to bottle stoppers to Yo-Yos, and lots more. This is where the adjustable model is of the most value, versatility.

Keep in mind, you don't need a mandrel to turn a kitless pen and I'm trying to photograph how to hold other blanks in your midi-lathe without a mandrel. I've done it, but I need to get a photo put together.

Bushings are an important part of your pen making. They not only hold your work onto the mandrel but also give you the final dimensions you must obtain for greatness. If you've ever held a shop-made pen and noticed that the nib, band, cap, or other parts; just didn't line up. It was because the bushing was either wrong or not adhered to.



The size of the material where the nib, band, cap, clip, etc makes contact is governed by the bushing. Kits use different bushings for different mandrels. Stick with a style until you can run with the big dogs, then just go for it.

Preparation:

We want to turn a Slimline pen kit from PSI, the cost is about \$2.00 or so. I have selected some mahogany from the scrap box and cut out the blanks. I now have two pieces of $\frac{3}{4}$ " x $\frac{3}{4}$ " X 3" stock on the table. I need a 2" and 2-1/4" piece for the top and bottom. Please don't go thinner than $\frac{3}{4}$ " x $\frac{3}{4}$ " on this material, why hunt for a problem when you don't need one.

I now have to drill a hole for the tube to slide into. The tube supports the pen and is what the nib, band, and cap attach to. Slimline is normally a 7mm pen drill, this is to insert the tube into the material. That size will change when you change kits, but using a brad-tipped bit is the best way to go, but please go slow. This is a friction/glue attachment and you want as much of both as you can get.



I drill my blanks, using a pen holder, or a screw clamp, as shown. I have a tip of using a low air pressure air chuck to clear the shavings and cool the bit, works every time.



Then we have to glue them into place, and for that, I use medium thick CA glue from *Starbond*. I have tried others, but keep going back to what works.

Turning:

Once the tubes are glued and ready to turn, trim off the excess material and get the ends square to the shaft. There are pen trimmers on the market, look for a set that can be changed to allow trimming for other kits and bushings, buy smart and buy once. I use a pistol drill to trim the brass, rather than the drill press.



Then it's off to the mandrel and the lathe. Select the proper bushings for your kit, place them into the material and onto the mandrel. Now is the time to decide if you want to use the lock-nut, which came with the mandrel, or the hollowed tailstock bearing available in some catalogs. Here's the drill, if you put on the lock-nut, tighten it up, turn the piece and then get finish all over the place, the locknut will be difficult to remove. But if you use the hollowed tailpiece, no lock nut, fewer parts and pieces, and you can turn faster and smoother. I made my own to fit on my *OneWay* revolving live center. A little work, lots of pleasure.



Then get out your entire set of tools and make a pen. Well, that's what it may seem like. I can manage to go from soup to nuts with a single tool. I cut wood with what is called a roughing gouge, a bad name for an awesome tool. I have ground mine back a little and use the 45-degree cutter from rough to finish, just have to read the bevel. But then I have those days when the Skew is calling my name and I do the same thing. It only needs a touch-up with a diamond card during the process.

Or I can get out my Ellsworth Grind $\frac{3}{8}$ " bowl gouge and go to it, or my radius square carbide, or my other bowl gouges, etc. If it will cut it smoothly, then it will make a pen.

If there is a secret to turning pens, it is simple. Turn it round, speed it up, stick to your bushings and cut something which you don't have to sand to death. A good cut is far better than a sanded cut.

Finishes:

It is never finished until it's finished. Pens are the same as other turnings, just smaller. Following a good cut, adhering to the bushing sizes, and then sanded. Just how much do you sand, as much as you need to. On wood and other soft products, I start with 80 grit and do ½ steps up to 400 grit. I'm not crazy, my momma had me tested. Once you cross 400 grit on the wood you've entered another dimension. Some of the hard exotic woods can handle a sanded finish to 800, 1200 or more. But are you still sanding, or just polishing? I stop at 400 grit, splash on some thinned sealer and take a hard look at the piece. This is what will show through whatever I put on top. I buff the sealer with a Scotch-Bright pad (white) and then apply another thinned coat.

I have just set the base for my finish. Whatever I put on this piece will not be absorbed into the sealed material, it will be applied to the surface.

Now to decide what to finish with. You go immediately to a varnish or poly product and get a pretty good finish. Apply a few light coats, with light scuffing to remove fuzz and other blemishes, then you're

finished. Or decide to get slick and apply a few coats of O.B. Shine Juice as a smoothing base to make it slick. This just puts a shellac finish on your work, but that is not the finish. Following the Shine Juice, you buff off your beauty, only because it is simply beautiful at this point, and apply a real finish. Now I'm talking about a CA finish, but hold your horses, the CA finish I prefer is what I'll explain. (*Just so you know, we can meet out behind the gym to fight over who's CA finish works best.*)

I go with the CA by **Starbond** and sold as thin. Thin CA is all I need and all I can work with. If I try to apply a thicker product and hope for a thick coating, that's a lot of hope. I apply my CA at a speed of about 400 RPM, not exactly, just about 400. This allows me time to apply a light, quick pass across the pen. The reference to light is intentional, the coating was curing as fast as I could go. I apply three coats, Scotch-Brite between coats, and then lightly apply some accelerator. I said lightly because too much will cause a speed dry and that brings out blemishes. If I'm going to make it bullet-proof, I'll go three more coats before I scuff and apply a coat of wax.



Assembly:

I was all finished with this newsletter when I realized that I missed the boat on assembly. I guess that when you have bad dreams, it's best not to relive them. Pen assembly can be as complicated as you want it to be. When I started making pens, I didn't know about pen presses and adjustable presses or staged presses. All I knew was the fact that the nib, band, cap and clip were all pressed into place to complete the project. Believe it or not, my first pen press was my drill press. It had a quill, table and flexibility to push the parts together. Then I saw someone assemble a kit with one of those squeeze type clamps. I was off to the races. I then built my personal press by using an antique nut cracker and some hardware store parts. But buying a good press is the best advice I can give you. Don't go cheap.



When I found pen presses, and presses with adjustable gauges, stops and moveable fences, I was a really happy turner. But not having a press didn't stop the bus, we made pens, lots of pens. The simplicity of the assembly is as complex as you make it. With a pen press, and some gauge blocks, you can properly set the location of the mechanism. This location determines if a twist pen opens and closes to the right position. Nothing worse than having a twist pen which does not close to protect the refill, and my shirt pocket.

Programs:

Turning ink pens is a real skill builder. But they do have worth, not for sales, but friends. I got involved with the *Freedom Pen Foundation* over 10 years ago. With the help of Sgt. Joe Kelly, The Bayou Woodturners generated just over 1,000 pens in one calendar year. I turned just over 200 kits in my shop, and some guys put me to shame. The pens go into the hands of active-duty service members in all five branches of the military. It's our way of saying "Thanks for a good job." The Southern Bayou Woodturners will host another Turn-a-thon in September of 2019 with hopes of getting some new turners into the pen making hobby. I love to bring a handful of pens to the doctor's office for a visit, even the Kitless pens are a hit there. And upon checking, nobody has enough pens, just check for yourself.

Finale:

Turning pens is more than a hobby, I know turners who turn pens as gifts, special favors and a few who even sell them. I'm just a woodturner who appreciates the game and the art. Make a few pens, give them away, see how you feel and then do it all again.

Disclaimer:

This newsletter is a publication by Cap'n Eddie Castelin and reflects his personal opinions and experiences. Cap'n Eddie has no allegiance to any supplier or manufacturer which will dictate or limit his comments on pretty much any matter.

Brand names are to be used as a reference tool; I have to help you find it.

There are a lot of cows in the herd, no need to go the same one for milk every single time.

Cap'n Eddie Castelin, Woodturner

S.W.A.T.

Hey, I was just informed that I can go back to pedaling raffle tickets at the SWAT, look for me.

This August 22 through 25, 2019, **S.W.A.T.** (South West Association of Turners) will hold its annual symposium at the Waco Convention Center in Downtown Waco Texas. In my opinion, this is one of the finest woodturning symposiums in the world. A group of almost 30 clubs or organizations gather together for the simple goal of teaching and spreading woodturning. It offers an excellent tool and material show, along with three days of demonstrations by some of the best in the business. Your membership entitles you to the classes and lunch, a great deal. More information is available at www.swaturners.org

I'll see you there.

This is a non-solicited, and unpaid, support for a great program.

References:

Penn State Industries for kits, equipment and tools, <https://www.pennstateind.com>

Craft Supplies for kits, equipment and tools <https://www.woodturnerscatalog.com>

Bereahard Woods for for kits, equipment and tools <https://www.bereahardwoods.com>

Capt. Eddie's 12 cent pens on YouTube at <https://youtu.be/Tp1YtLDPeqk>

OneWay Manufacturing Company, lathes, parts and centers. <https://oneway.ca>

Starbond CA glue for finishes <https://www.starbond.com>

Vince's Wooden Wonders for abrasive supplies <https://vinceswoodnwonders.com>