

# WOODTURNING FUNdamentals

**AAW**  
EDUCATION

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**MAKING STICK PENS**

**MY FIRST BOWL WAS A DOG DISH**

**TEAR-DROP CLOCK**

**LITTLE CRITTERS WITH CHARACTER**

**AAW** | AMERICAN ASSOCIATION  
OF WOODTURNERS

# Woodturning FUNdamentals

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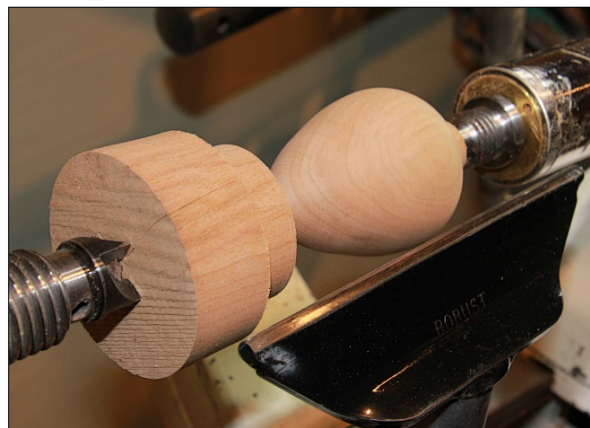
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*Cover photo: Bruce Garber*



## Introduction

As we look forward to the New Year, there are exciting initiatives from AAW. AAW Explore has just made searching for information in all thirty-one years of the *American Woodturner* journals and the cumulative collection of AAW publications, including *Woodturning FUNdamentals*, quick and easy. This makes searching the most extensive online woodturning library in the world and getting exactly what you want only clicks away. This issue's articles offer skill-building and inspiration for your next projects: Making Stick Pens, My First Bowl was a Dog Dish, Tear-Drop Clock, and Little Critters.

We continue with the spindle turning as a skill builder with fundamental advice: Addressing the Curve and Addressing the Equipment.

In this issue of *Woodturning FUNdamentals*, we continue with our "Ask the Expert" series. If you would like to submit a question for one of our experts, you can submit it at <http://www.woodturner.org/?page=Tips#TipForm2>. We'd love to hear from you!

As always, *Woodturning FUNdamentals* invites you to submit your questions, tips, projects, and problems. Every turner develops techniques that work and runs into frustrating obstacles from time to time. You're not alone. Please send your submissions to us at [linda@woodturner.org](mailto:linda@woodturner.org).

I welcome your suggestions and concerns.

Stay Sharp and Turn Safe,  
Linda Ferber  
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# MAKING STICK PENS

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## Why make stick pens?

*By Kurt Hertzog*

The advantage to making stick pens is that they are quickly and inexpensively made. There are no kit parts required and there is no limit to the creativity that can be incorporated in the turned body. Because it is a spindle turning, beads, coves, captive rings, and other spindle turning adornments are possible. We make and sell these types of stick pens at charity fund raising efforts at the local county fairs and other like events. Being low cost and quick to make allows customers to watch the pen being made and then buy it at a very reasonable price. Obviously, when we do them at the fair we have everything prepped and ready so we only have to do the actual turning itself.



### Selecting the Inkfills

The only need, other than the wood to be used for the body, is the inkfill to be used in the pen. The two most commonly used are the inkfills removed from the Bic “Round Stic” and the Papermate “Write Bros” pens. Both of these makes are available at the discount stationary supply store, Wal-Mart, or equivalent.

Purchased in quantity, they are very inexpensive. Both manufacturers offer black and blue ink. Selection of one or the other brands needs to be made since they are different dimensions and therefore not interchangeable. My choice is the Papermate for two reasons. First, it is a smaller diameter allowing for more freedom with regards to the pen body design. Because the drilled hole is smaller, there is more meat available for the body and more variation possible between the thick and thin sections. Second and more important, the inkfill used in the Papermate pen is shorter than the Bic. This shorter length means that you will have a shorter depth of drilling required. By requiring a shorter drilling, you are more likely to have less drill wandering and more success in making pens without “breakout.” While some cheat by clipping the inkfill length so they don’t have to drill as deeply, I use the inkfills at full length. By using the inkfills in their full length, versus cutting them to make them shorter, you allow the recipient to easily replace the inkfill with a standard inkfill when it runs out someday and you don’t create a potentially messy situation with leaking ink. I select the color inkfill to be used based on the species of wood used. Since the color of plastic left showing using the Papermate inkfill is also the color of the ink, I pick the color that best fits with the color of the wood being used for the pen body.



### **Removing the Inkfill from the Original Plastic Pen Body**

The pens, both Bic and Papermate, use a friction fit between the inkfill and the molded pen body. There are two easy ways to remove the inkfill. One way is to use a jar lid friction pad to grip the nose end of the inkfill, providing a slip-free grip, and simply twist the inkfill while pulling it away from the pen body. This can be done with a finger grip only and doesn't require pliers or the like.

Doing it this way makes no marks on the inkfill. If you do not have an easy time doing it by hand, you can use pliers over the rubber friction pad but take care not to damage or mar the inkfill. It is molded plastic and will show any scarring or squeeze deformation. Another method to separate the inkfill from the pen body is to use a utility knife. Put the blade at the intersection of the pen body and the inkfill and slightly press the blade into that small gap. It will split the two pieces far enough apart to let you easily separate them. If done carefully, there is usually little evidence seen on the inkfill. If you are too aggressive or pry them apart, you usually wind up with a small flat spot on the inkfill edge that can be seen. Once you have separated the inkfill from the pen body, you can throw the plastic pen body away since nobody has found a good use for them yet. At least not in the quantity that we generate when making stick pens. If you think of one, please let me know



since it seems like there should be something they can be used for. The pen caps can be saved and used if desired. It is possible to turn your stick pen to the proper dimension so the cap will press on and cover the tip. While it's pretty unsightly with a colored plastic cap and a nice piece of wood, it makes the pen usable for carrying in a lady's purse. They usually won't put an uncapped pen into their purse and have it poking other contents.

### **Preparing the New Pen Blanks**

You can use any type of wood (plastic or whatever you care to turn) that you wish. If you are using wood, select something that has some character and is attention getting. The domestic woods are usually too plain to be eye-catching and don't sell very well. An exotic wood with some wild grain or color can be used to make a very attractive and eye-catching pen. The quantity of wood is small so cost isn't usually a factor. Since most stick pens are done in a desk pen length, most people cut their own stock to their own desired dimension rather than buying pre-cut pen blanks. The pre-cut pen blanks are usually too short and they are a bit pricey compared to having a plank of the desired species and cutting your own.

The thickness of the pen blank can be whatever you desire. Remember that the minimum thickness of your pen blank will be your maximum diameter possible, before accounting for off center drilling or drill wandering.

You will do well to start with stock erring on the thicker side until you develop a knack for it. The length of the blank can be as desired. Again, you need sufficient length to mount and hold the stock in your chuck as well as provide enough material for the desired length. It's easier to waste a bit of stock by turning off an excess than it is to skin your knuckles by working too close to the chuck. When cutting your stock, make your width the same as your thickness so your blank is sort of square. This will make holding and drilling easier.



### **Drilling Your Pen Blanks**

At this point you have pen blanks in a species you wish, that are long enough to work with, and are reasonably square. Depending on which manufacturer you selected, you'll need the drill sized for the friction fit part of the inkfill. Since these are molded parts and they do vary slightly from lot to lot, you'll do well to use a pair of dial calipers or micrometer to measure the diameter needed. It is easiest to make one drilling rather than a small diameter for the ink reservoir and a larger one as needed for the friction fit portion of the inkfill. The sizing is important since the wood will be very thin at the press in area and will split easily. It is best to size your drill for a best fit and then do one of two things later. You can open up the entry hole slightly with a rat-tail file to allow for

less of a press fit. You can also get a tighter fit by scoring the plastic on the inkfill in the press fit area. A slight scoring around the diameter of the inkfill in the press fit area with a utility knife will raise enough flash to provide a tighter fit should you drill a bit too large. Having the calipers or micrometer allows you to measure the actual dimension of the inkfill and the actual dimension of the drill. What's marked on the drill case index only means what they intended the size to be. How close they actually came is a different matter. You will need a drill long enough to make the drilling to at least the proper depth plus some cushion. You will only be drilling from one side so you will probably need to buy long length drill bits. A local industrial supply house can provide you with longer drill lengths or you can order them from MSC, Enco, or other mail order tool supply companies.

The actual drilling can be done in a drill press but there are two problems doing it this way. The stroke on the quill will probably be too short. You will have to drill to its maximum depth of stroke and then re-adjust the table or use a step block to raise your stock. Either way is a pain and not conducive to accuracy.

The blank is also hard to hold accurately and there is a tendency for the drill bit to wander as it encounters various grain patterns or hardness variations. I have found that drilling the blanks in the lathe provides better results. You will still need a drill bit that is long enough to make the required depth in one pass.



Hold the blank in a four-jaw chuck (spigot jaws work nicely) in the headstock. Use a Jacobs's chuck in the tailstock with the proper sized drill bit. You will need to relocate the tailstock to continue drilling when you reach the end of extension of your tailstock feed. While this is the same problem that you would have faced on the drill press, you have the advantage of the stock being held well, and the ways of the lathe to accurately control the tailstock alignment. Drill to the required depth plus allow for some cushion. Remember, you may need to do a bit of work on the nose of the pen so any stock removed will make the inkfill sit deeper. Having a bit of cushion is much better than trying to drill deeper when the pen is finished or being forced to nip the end of the ink reservoir to get it to fit. Once the hole is drilled, repeat for the balance of your pen blank stock since you are already set up. I check the depth and fit of each blank with an actual inkfill to make sure I am deep enough and to test for the "fit." Now is the time to know if the press is too tight rather than after you split the pen once it's done and much thinner material. If it's too tight, perhaps a different drill bit is in order, at least for the first inch or so. Often the same sized bit from a different index or different manufacturer varies enough in its tolerance to make a proper fit. There also is some variation on how accurate the finished hole will be based on the species. Some will wind up tighter than the drill dimension and some will be looser. Once you have a comfortable slip fit, you are ready for turning.

The interference fit needs to only keep the inkfill from slipping out. There will be no force trying to pull it out in use so it need not be very tight.

### Turning the Blank

Depending on how serious you are about making this style of pen, you may want to make up a few turning jigs to help yourself. The simplest way to turn these pens is to make a drive fixture. Get a piece of drill rod that is the same diameter as you inkfill drill size. The length needs to be longer than the drill depth by a couple of inches. You put some teeth on both ends of the drill rod. Use a Dremel tool with a grinding wheel or cutoff wheel. You can also use your bench grinder if necessary. You are trying to replicate, in function, the spurs on the end of the traditional drive center. You don't really need a 4-spur drive. A two-spur drive will work nicely. Any "teeth" you can impart to the drill rod ends will help drive the pen blank. This will be a mandrel for the pen blank to be turned on. You will use a Jacobs's chuck in the headstock with the drill rod mounted in it sticking out slightly farther than the depth of the hole in the pen blank. The pen blank will be slid over the drill rod and the tail center brought up to hold the blank in place and pressured against the teeth in the end of the drill rod.



This will provide the drive for the blank while you are turning it. The reason you prepped both ends of the drill rod is so that you don't care which way you install it in the chuck and you have a "fresh" set of teeth ready to use on the other end someday down the road. The beauty of this type of drive mechanism is that the blank runs on the hole as drilled and not with respect to the outside surfaces of the blank. Therefore, any wandering of the drilled hole is accounted and compensated for.



Actual use is pretty simple. Install the Jacobs chuck in the headstock and insert the drill rod drive mandrel. You want the pen blank end to be close to the chuck while you are turning but not too close. You'll want some room to work on the end of the pen blank so insert the drill rod to the desired depth and tighten the chuck.

Hopefully, the drill rod will run pretty true on the lathe. Errors in the alignment and accuracy of the chuck and the drill rod straightness are amplified by the time you reach the far end of the mandrel. If the mandrel doesn't run very true, you may wish to realign it, straighten it, or do something to make it run as true as possible. When you are happy with the mandrel alignment, slide the pen blank onto the mandrel until it seats in the bottom of the hole. Turn on the lathe at a slow rpm so that mandrel and blank are spinning while you

bring up and tighten the tail center. This allows the blank to spin on whatever center it wants rather than you forcing it to be on the center you think it should be. With the tailstock up tight enough to hold the blank on the drive spurs at the bottom of the hole, turn your desired pen shape. It needs to be long enough that the top end of the pen is solid wood so I usually mark the approximate end of the infill location. This lets me style and shape based on that minimum length. Turn the pen leaving sufficient material at the top end so the tail stock can still support the pen and the pressure required to hold it firmly to the drive teeth. After turning, sand, and then finish your pen. I usually use a skew to part off the far end so there is a nice surface to a point at the top end of the pen. The excess that is cut away just falls off as you finish cutting through with the skew.

There are other ways of holding the pen blank for turning. I use a chuck with spigot jaws at the headstock end to grip the undrilled end of the pen blank. I can then rely on that for the turning force and bring the tailstock with a wide-angle cone up to the drilled hole. Since all of the drive is provided by the grip of the chuck, the tail center only needs to be lightly in place to support the back end. This light force shouldn't split the pen as you thin the walls.





The disadvantage of this method is that the headstock end of the wood isn't centered according to your drilled hole. It's aligned based on the outside square of the stock. If there is drill wander or inaccuracy in the drilled hole, this method makes no compensation for it at the headstock end. It does center based on the drilled hole at the tailstock end. Another method of holding is to use the Morse taper. The old hands used to size the end of their stock so they could drive it into the Morse taper for support and drive. You still use the tailstock for support and alignment by locating light pressure into the drilled hole. I do enough of these that I have a tail cone that is sized for the drilled opening and a shoulder with the desired outside dimension to fit the inkfill's shoulder outside dimension. This allows for good alignment and support and a sizing bushing as well. I am sure you can think of other methods in addition to these.

### **Assembly and Sale**

Once the pen body is completed, assemble the pen by pressing the inkfill into the new pen body until the inkfill shoulder presses against the pen body. If the fit is too tight, STOP. The pen's wooden sidewalls will split easily because they are pretty thin at that point. Open the hole up by using a small rat-tail file. It only needs to be opened for about an inch. You can also use a slightly larger drill bit, held in a tap handle, to open up that short length. Turning it by hand with the tap handle with a slightly larger drill works the best for me. If the hole is too loose, you can do the scoring with a

knife as mentioned. Using a utility knife on the friction fit plastic portion of the inkfill will raise sufficient material to tighten a slightly loose fit. If you have more than that to fill, a piece of Scotch tape wrapped around that interference fit area will tighten it up.

One of the things to make sure to do is to show the recipient how to remove the current inkfill and replace it when it becomes necessary. Most people are so tickled to have a custom made pen that they will use it for years. Once they know how to obtain and install another inkfill, the pen's lifetime becomes almost indefinite.

*Kurt Hertzog is a past president of the AAW, past chairman of the Rochester Woodworkers Society, and a council member of the Pen Makers Guild. He has written about woodturning and woodworking extensively for various publications, including Woodturning and Woodturning Design, where he published a long-running pen making column.*



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# My first bowl was a Dog Dish

By Donna Zils Banfield

And here's how to avoid my mistake

There's nothing wrong with a good dog dish. They're always wide at the bottom, not much narrower than the rim. That's because dogs can't resist playing with their dishes, jumping into them with the front paws, splashing the bowl's contents all over the floor. They're sturdy, with a wide-rimmed top and a wide-rimmed bottom. They come in metal, plastic and ceramic - but I've never bought one in wood. Wood bowls don't need to have a wide base; most people don't feed their dog from a wood bowl. And if you have dinner parties with people who keep tipping the contents of the bowls onto the table or floor, I think you need to find some new friends.

My first bowls (Photo 1) resembled the classic dog dish. Thick straight walls and a base almost as wide as the rim. Many beginning bowl turners make dog dishes. Even after reading the books and watching videos from legendary world-class woodturners (Richard Raffin, David Ellsworth, Alan Lacer, Mike Mahoney), dog dishes are still being turned.

I've been teaching woodturning since 2007, and have seen hundreds of dog dishes turned by students. Here's what I have learned. If a dog dish is turned, it's usually because of one of two reasons. First, the beginning bowl turner has a really beautiful piece of wood, with



Photo 1: first bowls

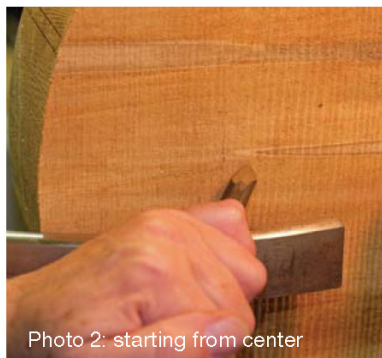


Photo 2: starting from center

stunning grain and color. They were either given it, or just bought it at the local woodworking store, and paid a chunk of money. So excited, they can't wait to get it on the lathe and make the most beautiful bowl that anyone has seen. As they begin to make shavings, a little voice in their head is saying, "Look at all that beautiful wood landing at your feet." Or, "Look at all that money falling on the floor." To maximize the wood, they'll remove as little as possible, and, this is especially true if the blank was purchased, the



Photo 3: starting from center

turner tends to follow the contour of the original wood blank - a square. Yes, that's exactly what I did in the taller cherry bowl in photo 1. You can see that square, can't you? Of all the people that admired my bowls (friends, family and customers), I have never heard this: "What a beautifully turned





Photo 4: straight cuts along the profile

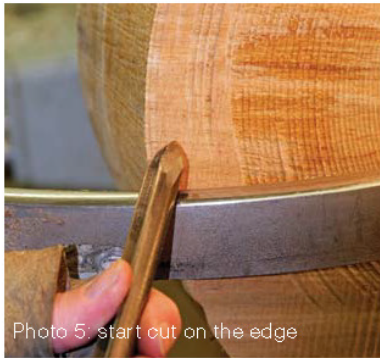


Photo 5: start out on the edge



Photo 6: block illustration 1

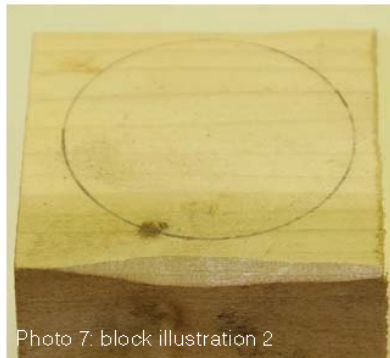


Photo 7: block illustration 2

bowl. Too bad you left 75% of it on the floor of your shop." You are the only one who knew how much wood was there when you began, so don't worry about removing it to create your bowl. Solving this problem is straightforward. If you MUST buy that block of wood, practice on some scrap pieces first, and don't be afraid to leave a lot of it on the floor. But please continue reading.

Here's the second reason I think dog dishes are common among beginning bowl turners. A bowl is turned from the outside, in. We shape the profile first, working from the bottom or base of the bowl, to the rim, or top. Start that cut too close to the center of the blank, (Photo 2) and you're probably going to make a cut that follows the very shape of that blank, edges and all. (Photos 3 and 4). Experienced bowl turners have superior tool control, and can make a cut that can throw the  $\frac{1}{2}$ " or more shaving and long curls. Most beginning bowl turners



Photo 8: block illustration 3

are just praying they don't get a catch. They usually don't have the ability to control a deep aggressive cut. So when the cut starts in the center of the blank, and all they can control is a  $\frac{1}{8}$ " or  $\frac{1}{4}$ " wide cut, the cut will follow the shape of the blank, right around the sharp corner. (Photo 4). As a beginning bowl turner, try beginning your cut near the corner or edge of the blank (Photo 5). As you begin to round the corner of the blank, you can gradually move your gouge more toward the center or tailstock.

Here's a better way to visualize it. Let's try to cut a sphere from

a square piece of wood, using a pocket knife. For this illustration, I'm using a piece of kiln dried poplar, on which I have drawn a circle using a compass. Securely hold your square cube of wood in one hand, and with a freshly sharpened pocket knife, try cutting away a corner of that cube by starting your cut at the center. (Photo 6). No matter how sharp your knife, you can't do it. (Photo 7). Because from that starting point at the center of the blank, the cut may be  $\frac{1}{8}$ ", but as you get closer to the corner, the amount of wood you need to remove gets wider. It goes

from 1/8" to 1/4", 3/8" maybe even beyond a half-inch. You can't make that cut in one movement.

Now move your knife closer to the edge - the corner of the block, and make your cut. (Photo 8). With very little effort, you removed the corner. Now, take another cut, but starting just a bit further back from the first cut, and remove another corner. (Photo 9). Repeat this step several more times on all your corners, and you will have the beginnings of a sphere. Woodcarvers working with traditional carving tools understand this principle quite well.

Like I said, the dog dish bowl is functional. But with straight walls,

the turner will have a problem with hollowing the interior using the bowl gouge. As you near the bottom of your bowl, you can't make the bowl gouge swing a 90-degree corner. Your gouge takes a less than 90-degree turn, and the result is a bowl that has a very thick wall at the transition point of the curve. If you're roughing out bowl blanks from green timber, that bowl will eventually crack because the thinner part of the wall (near the rim) is losing moisture at a faster rate than the thicker part (near the transition from wall to bottom). This creates tension in the cells, which causes your cracks. The key to successfully turning green bowl

blanks is uniform wall thickness from rim to foot.

The next time you turn a bowl, think about the square poplar block and pocket knife illustration. Start your cut nearer the corner or edge of your blank and take smaller cuts to nibble away at the edge. (Photo 5). As the corner of your bowl blank begins to round, continue moving your gouge starting point at little further back each time toward the center. Apply this principle when shaping your next bowl profile and you'll avoid the dog dish. After just a few bowls, you'll begin to create a gentle, fair curve, with a beautiful flow. (Photo 11). An added advantage to a gentle, fair curve is the ease with which the interior hollowing becomes.

Donna Zils Banfield, Derry New Hampshire



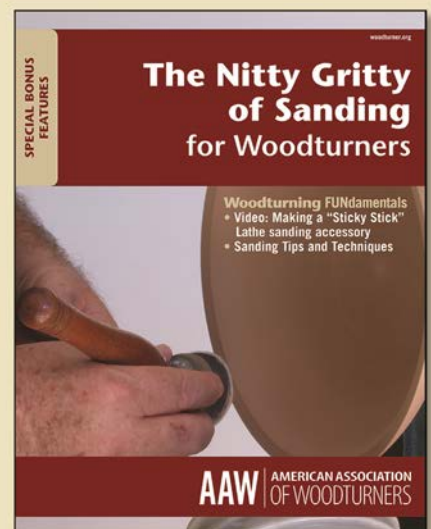
Photo 9: block illustration 4



Photo 10: block illustration 5



Photo 11: finished bowl



## Special Edition!

Woodturning  
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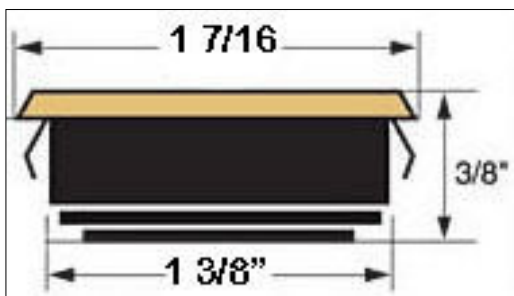
# TEAR-DROP CLOCK

## Time to Turn a Small Desk Clock

By Frank Hutchison



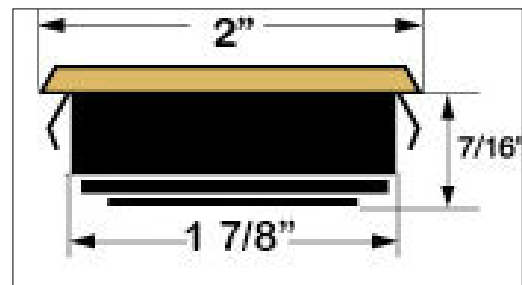
If you are ever in need of a small gift that reeks of elegance but you don't have a lot of time, then may I suggest a clock, particularly a tear-drop clock? Clocks have a universal appeal and one-of-a-kind clocks always provide a great impression. For wood turners, tear-drop clocks are quick and simple.



The simplicity of the tear-drop clock - or other turned clocks - starts with the clock insert itself.

The clock insert is a complete functional clock that fits into a shallow hole that is usually drilled with a Forstner bit.

The inserts come in four sizes, but check the insert supply you purchase to confirm the measurements.



- Mini (1" diameter, requires a hole 1 1/8" diameter hole)
- Small (1 1/2" diameter, requires a hole 1 3/8" diameter hole)
- Regular (2" diameter, requires a hole 1 7/8" diameter hole)
- Extra Large (3 1/2" diameter, requires a 3" diameter hole)



To turn a small tear-drop clock, select a suitable piece of wood (2" x 2" x 2" is the smallest I use to make the blank size appropriate for the clock insert).

Drill the appropriate-sized hole for the clock insert in the center of one face of the wood. (For the small inserts, I have a 1 3/8" Forstner drill that I use and drill approximately 1/4" deep.) A tip from the manufacturer: If the clock insert is too loose when you get it, you can put a rubber band around the back of the unit to fill up the space some. No one will see the rubber band and it makes the clock inserts fit tighter.

When ordering the clock inserts you will need to choose the dial face color and then also Arabic or Roman numbers. Roman numbers are the kind where 12 will be displayed as XII and Arabic would be displayed as 12. I generally order the white face inserts as it coordinates well with most woods.

I use an expanding collet chuck (shown at right) but a jam chuck can also be used, mounting the piece of wood so the hole is secured on the chuck and bringing the tailstock up for support (Important safety tip!!).

Turn the body to the desired shape. Depending on the grain orientation, you will be either spindle turning or face turning (same as bowl turning). You will notice on the diagram above there is a slight ring that raises the face of the clock insert above the turned clock body.

Keep that in mind as you are turning. Usually I do a test fit to make sure I am

happy with how the insert rests on the turning. Beware and turn safely!



Sand and finish on the lathe. I cut/sand a flat spot on what I want to be the bottom so the clock will not rock or roll. You can sign your work on the flat spot.

After you have applied a finish, you can just press the insert in place and you're done! For the clocks I make, I use friction hold. The clock inserts are battery operated and this will allow for removal for battery replacement. I mostly use the small clock inserts and keep a supply on hand for quick gifts, but I have used the larger inserts on occasion when an extra special gift is needed.

Once you have started, the design possibilities are endless. Below are some examples that I've made and not all are turned. In addition, because there are picture and weather inserts sized the same as the clock inserts, you can make very attractive displays.

~ Frank E Hutchison, Spokane Valley, WA, Vice-President, Inland Northwest Woodturner

# LITTLE CRITTERS WITH CHARACTER

## Spindle Turning for FUN

*By Linda Ferber*



### About these critters:

I attended a Steve Pritchard demo in Georgia on making small critters. He turned a mouse, a pig and a cat. I was inspired by Steve's demo and decided to give it a try and quickly became hooked.

There have been many turners creating critters for fun and for craft shows. I recently read an article about honorary AAW member Ray Key in which he was reminiscing about his early turning days. Ray recalled that he turned everything from candlesticks to "mice with little leather tails and ears."

Inspired by the darn little critters that try to invade our house every fall, I decided to start with the mouse project.

When turning a small mouse, you can use a 2 1/2" x 2 1/2" x 2" blank, but you will quickly discover this project will be an excellent use for all your small scraps. This will build your spindle skills, use small scraps, and delight the new owner, so, a win-win!

You will discover there are many design options that will give these critters personality.

Make these in batches; I am sure you will not have any problem finding new homes for your critters.

### Tools you will need:

- Spindle roughing gouge (SRG)
- Spindle gouge or detail gouge
- Parting tool
- Japanese saw, or other small-toothed saw



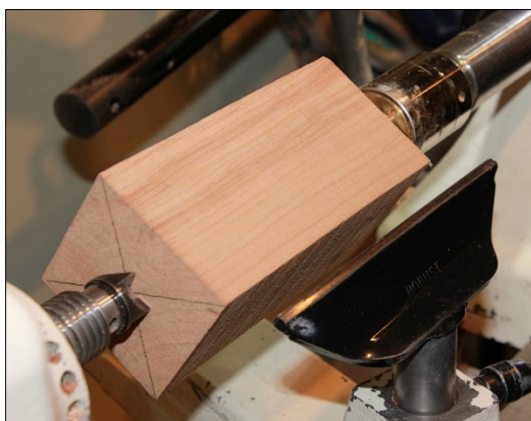
### Materials and supplies you will need:

- Wood: small scraps
- Leather scraps for ears
- Sharp scissors
- Wire or leather for tails
- Fabric puff paint for eyes
- Wire cutters
- Pliers
- Dental tool
- Basic drill with various sized drill bits
- Medium CA glue
- Drill press or turn a mandrel to sand on your lathe

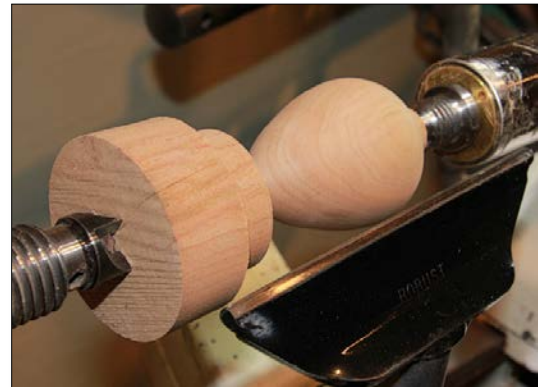


### Optional supplies:

- Rare earth magnet
- Dr. Kirk's Scratch Free Woodturners Polishing Wax
- Renaissance Wax



### Making the mouse body:



You will notice that the body of the mouse looks very similar to an egg. In fact, you can start with that presumption. Prepare your blank by drawing lines from corner to corner on both ends. Use an awl or center finder to mark the center points on each end. Mount your blank on the lathe in traditional spindle set-up using a drive center in the head stock and a live center in the tail stock. Tighten your tail stock and position your tool rest for your tool to cut at the center line. Hand-turn the piece several times to make sure everything is going to clear. The first turning step is to use your SRG to turn the blank into a cylinder.

An egg is a complex shape; the bottom end is a half sphere with a gentle curve to the top. With a spindle gouge starting at the tail stock end of the blank, start turning the half sphere, and practice your tool control with each cut. This cut will be similar to turning a bead; start with the flute of the gouge pointing up and gradually ending up with the flute pointing to the side. You can use the eggs in your fridge as reference, but this mouse is egg-like in shape, but not an exact replica.

Once the half sphere is turned, take your parting tool and make a mark on the head stock end of your blank to mark where the end of your egg-shaped mouse will be. There are measurements of ratio of width to length for eggs, as well as the Golden Mean to use as guides. You will be able to judge as you go and make slight adjustments. It is better to start with extra length to allow room for parting off. From your two points, the height of the sphere to the nose of the egg, turn a gentle curve. With each cut you are practicing tool control and improving the curve. Reduce the ends of your turning to continue the shape as far as possible to the ends.

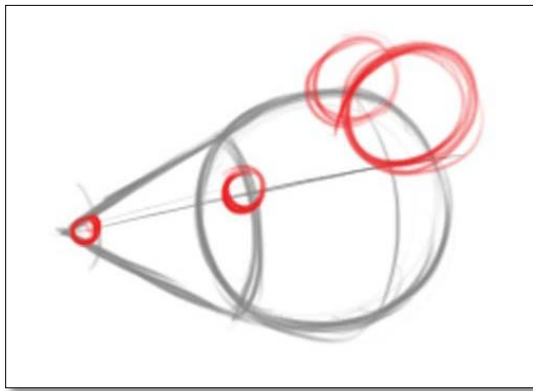
At this point, go through your sanding grits, smoothing out any tool marks and sanding scratches as you go. If I am not going to paint the mouse, I will apply Dr Kirk's Scratch Free Wax before it is parted off. Then the ends can be reduced even smaller. At about 1/8" I like to stop turning and use my Japanese saw to cut the work from the waste material.

This prevents any grain tear-out, and any saw marks can be sanded out in the next step.



Select which side of the new mouse body you want positioned on the top to take advantage of interesting grain patterns. This will help give your mouse personality. View all the sides of the new mouse body for options to select which features in the wood grain will be the top or side. Select an area that will become the bottom base for the mouse. At this point you also have a decision to make on how your mouse will stand. Will he/she be lying down or will its nose be in the air?

For a medium sized mouse, I like the mouse to be sitting up with her nose in the air. With this in mind, select the area to be sanded flat to become the mouse base. There are several ways you can do this. If you have a belt sander, that is a good option, but if you don't have one, a drill press will work. I use a sanding pad with Velcro sanding discs attached. My drill press has a dust collector hose nearby but I still wear a dust mask. If you don't have a belt sander, you can turn a wooden mandrel with a sanding pad attached. This will enable you to do the sanding on your lathe. Always wear a dust mask and run the dust collector. While I am sanding the base, I check to see if there is touch-up sanding needed on the nose or on the back end of the mouse.



### **Preparing the ears:**

I use leather scraps to make the mouse ears. At many craft stores you will be able to purchase a bag of leather scraps, but this is not your only source. At the second-hand stores, you can buy reasonably priced purses or leather coats. I needed a pink ear so with a little searching, I was able to find a hot pink purse that I ended up cutting apart. A word of caution in buying a purse—you will not know what the inside of the “leather” or synthetic material will look like, but worth the risk to expand your color options. Select colors that will coordinate with or accent the colors of the mouse body. The pattern for the ears needs to include a little tab at the base of the ear to be used for securely gluing the ear onto the mouse body. The ears are one of the defining traits of a mouse. Draw a circle with a small tab on cardboard (See example). A cereal box works well and holds up to multiple uses. I like for the ears to be oversized, giving the mouse a caricature look with an expressive face.

There are several materials available at the hobby stores that work well for the tails. Leather and suede strips that are intended for necklaces or pendants are sold in small packages and come in various colors from the basic black and brown to white. A variety package is a good option. Wires provide an opportunity to shape the tail with a nice curve and there are many to select from. They vary in width and from plain to fabric-coated.





### Drilling:

You will need to drill three holes into the mouse body—two for the ears and one for the tail. Drill a hole on the back of the base for the tail. This hole should be slightly larger than the diameter of the materials you are using for the tail—large enough to insert the leather strip but small enough to eliminate slop. I measure the tail material using a plastic or metal drill bit gauge to select the best size drill bit to use. I recommend drilling the hole to a depth of about 1/4", filling it with medium CA glue, and inserting the tail. I don't use accelerator for gluing the mouse and always wipe and clean up around the glued area. I usually will hold the material in place for a few seconds to make sure it doesn't come apart.

The positioning of the ears and eyes give the mouse personality. You have your mouse body turned, you have your ears prepared, your next decision is the placement of the eyes and ears. The nose, eyes and ears form a triangle. Mice have big round hairless ears and big eyes in comparison to the head size (see sketch from Wikipedia on drawing a mouse head.)

I like to place the ears at a slight angle to give additional personality to the mouse. I think it makes them look quizzical.



The leather tab on the ears should be pinched together to give the ear a folded look. I measure the width of the pinched tab with a plastic or metal drill bit gauge to get a good fit. After I have drilled the holes to a depth of 1/4" and poured CA glue into the hole, I hold the ear in a pinched position and use a dental tool to push the leather into the hole. You will need the ear far enough into the hole so the ear maintains its pinched position. Make sure the hole is deep enough to hold the ear. You don't want mice to lose their ears or tail so make sure there is enough glue to hold it in place!

### Painting the eyes:

I have been using a fabric 3D paint for the eyes, using enough paint so the eyes are three-dimensional. I always paint the eyes last, to avoid the risk of smearing the paint.

The next step is to apply a finish. I like to use Renaissance wax. It's easy to apply, buffs up nicely, and gives a nice feel to the finished product.

Optional magnet on the base:

On the smaller mice, I like to have the option of attaching the mouse to a fridge or a lamp. I buy rare earth magnets in the small size (Rare-Earth Disc Magnets, 0.25" Diameter x 0.1" Thick). Measure the drill bit size with that plastic or metal drill bit gauge and drill a hole a little deeper than the depth of the magnet. I do this step after the ears, eyes and tail have been attached and the glue is dry. Fill the drilled hole with CA glue and insert the rare earth magnet leaving the mouse upside down for the glue to dry.

Mouse and critter construction can be done as a production project. In addition to the mice, I have made pigs and owls. Who knows what critter will be next? I find that the more attention I pay to the details, the more satisfaction I have with the end product.

-Linda Ferber, St. Paul, MN

I am on the board of my local chapter, The Minnesota Woodturners Association. I have been involved in woodturning since I purchased my first lathe at my father's tool auction in 1999. I enjoy the process of creating and making wood projects with my hands.

*Photos courtesy of Bruce Garber, St. Paul, MN*

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# SIMPLE BUFFING ROLLER

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## Shop Made Buffing Jig Using Items From a Big Box Store

By Frank E. Hutchison



I would like to discuss a simple way of giving your work a better finish without a lot of expensive equipment and with materials you can get at the big box stores—buffing. You can just take the plunge and buy the Beall Buffing System, but this will give you a chance to try the concept before spending the big money.

In woodworking, buffing is the act of creating and coating a smoother surface using three compounds:

- **Tripoli** - Also called brown Tripoli. Designed for both buffing and polishing work depending on whether the compound is loose or glued to the buffing pad. The compound easily cuts and removes scratches - leaving a smooth finish. It is used "on softer metals like brass, copper, aluminum and various pot metals. It can also be safely used on things like stainless steel and wood surfaces, giving the wood a lustrous finish when you are done."

- **White Diamond** - Further refines the surface - it's the last stage before applying a layer of carnauba wax. It removes the smallest scratches to give a perfectly smooth surface.
- **Carnauba Wax** - The hardest natural wax, it gives a little added protection and softens the reflection of light from the surface.

There are many other compounds but Tripoli, White Diamond and Carnauba Wax are the three used for wood buffing. You can think of them as three grades of sand paper only of very high grit numbers.

Now to constructing your buffing roll.

1. First obtain a refill for a painter's roller - the type you use for painting a large flat area. You may already have some on hand. If not, they are very inexpensive so get one for each of the three compounds. Results will vary depending on the nap (length of the fibers) of the roller, so get a long nap, medium and short, try all three to check your results.



2. Turn two plugs to fit the interior of each roller you'll use, they don't have to extend very far into the roller  $\frac{1}{2}$ " is enough if the fit is snug. Be sure to create a shoulder that the roller can press against.
  - a. For the plug on the tail stock end, create a dimple for the tail stock to fit into.
  - b. For the head stock end, either create a tenon to fit your 4-jaw chuck or create a dimple for a spur drive.
3. Fit a roller to the plugs and mount it on your lathe. Start with the Tripoli compound and apply a **little** by holding the Tripoli bar against the roller while the lathe is turning at least 1000 RPM. The Tripoli bar should be held so it is pointing down and touching the roller at the 5:00 o'clock position. I cannot emphasize enough that just a little Tripoli is needed. You can always add more, but you should start over if you apply too much.
4. With the Tripoli on the roller and without changing speed, gently but firmly hold your turning against the roller while constantly moving it to cover all the desired surface. You don't normally have to wait long before you see a difference in the surface.
5. Repeat the process with the white diamond followed by the Carnauba wax. (**Tip:** use a different roller for each product.)

This will work for the exterior of bowls and for spindle work but if you want to do bowl interiors, you will have to break down and buy the Beall bowl buffing system. But with the system I described, you can try buffing without the expense of the buffing wheels and balls and see if you like the results.

~ Frank E Hutchison, Spokane Valley, WA, Vice-President, Inland Northwest Woodturners

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A promotional banner for the American Association of Woodturners (AAW) 'EXPLORE!' online library. The banner features the AAW logo and the word 'EXPLORE!' in large, bold, blue letters. Below this, it says 'DISCOVER PROJECTS, ARTICLES, TIPS, AND MORE!' in yellow. The main text reads 'Explore the most extensive online woodturning library in the world in only seconds.' To the left, a list of benefits is provided: 'Fast. Easy. 3 mouse clicks.', 'Solve a problem. Research a technique. Find a new project. Get inspired.', and 'Designed by woodturners for woodturners.' On the right, a magnifying glass is shown over a collage of various woodturning projects and articles. At the bottom, it says 'Visit woodturner.org or tiny.cc/AAWExplore'.

# SPINDLE TURNING

## Essential Tips: Addressing the Curve

By Jon Siegel

### Repetition and duplication

It is amazing how often I am asked, “How do you make spindle turnings that are all the same?” I respond, “They are not the same; they just look the same.”

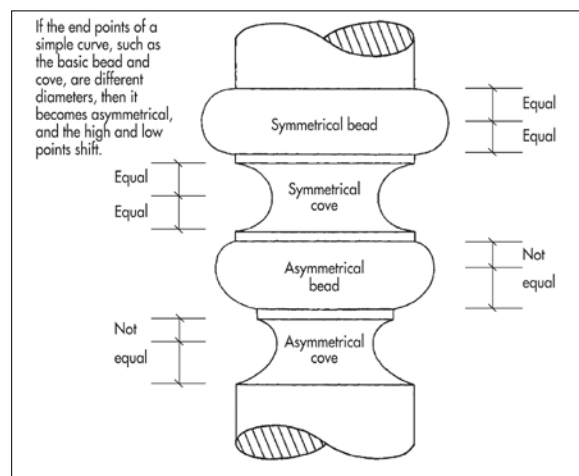
In order for spindle parts to look alike, they must possess two characteristics; the measurements must be alike, and the curves must have the same shape. The measurements are taken from critical points and measured in an x-y fashion: a certain distance from the end or some other feature (*axial*), and a certain diameter (*diametral*, which is what we measure with a caliper). Very few critical points actually need to be measured in order to successfully duplicate a design.

### How to visualize curves

Often it is useful to think of curves as parts of familiar geometric figures: circles, ellipses, parabolas, etc. These forms tend to make our designs somewhat rigid, however. Straight lines and true circles should be used with caution in turning design because they tend to look mechanical and artificial, not organic or graceful. There are exceptions to this, such as the ball finial, which has a simple elegance that overcomes its mechanical character. Of course cylinders and tapers have their place as well. Tapers underlie the forms of table legs and bedposts, but they usually need other details to balance them.

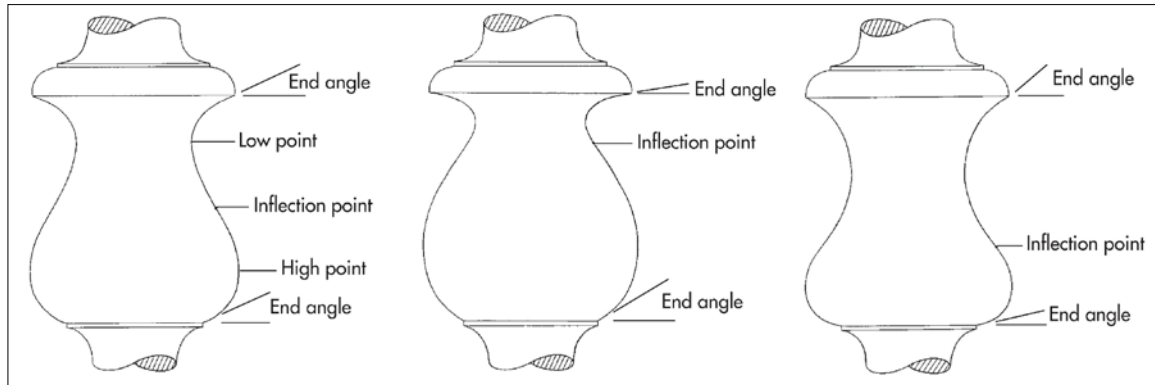
For these reasons, most spindle turning involves curves predominantly in their design, and attention to their shape is a big part of woodturning for furniture. The most important features that describe the shape of a curve are the *high* and *low points*, the *end angles*, and the inflection points.

The line of a cove has a low point, usually in the center, but not always (See drawing, below). If the end points of the line forming the cove are not the same diameter, the low point will be off-center, dividing the axial length of the cove into two unequal parts. The same can be done with a bead's high point to some extent.



All curves begin and end somewhere, and usually this is at a shoulder or corner of some kind. A line that is tangent to the curve at the end point makes an angle with a line normal to the axis, called the end angle.

Simple curves such as the shapes of beads or coves continue their curvature in one direction only, but S-curves must reverse. The point at which the curve changes from convex to concave is called the inflection point. An S-curve has both a high and a low point, so its length is divided into three parts. At the same time, the inflection point divides the curve into two parts, which may or may not be equal. The proportions of these parts play a major role in defining the curve.



*Variations in end angle and inflection point affect each other and the character of the curve.*

The drawings above show how variations in the location of the inflection point result in turnings that do not look alike, even though the end points are the same. These variations affect the locations of the high and low points as well as the end angles.

Successful duplication of curves is easy if attention is paid to the proportion of the length as divided by the locations of the high and low points and, perhaps more importantly, the inflection point.

~Jon Siegel, Wilmot, NH, is a life-long turner who specializes in making furniture and architectural components.

*This article is adapted from American Woodturner, Fall 1997.*

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Photo by Andi Wolfe



# SHOP TIP

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## Knuckle-Saving Idea



About four months ago, I suffered a stroke that only affected my vision. My doctor encouraged me to continue to do my hobbies. Since I turn small projects and use a chuck to grip the stock, I was very concerned that I might accidentally contact the chuck jaws with my tool. I painted the tips of the chuck jaws yellow and now when the lathe is running, a yellow line appears at the tip of the jaws and I can more easily avoid them.

(Although this tip is provided by a turner with who has lost much of his vision, anyone who turns small items and has accidentally nicked the chuck jaws will benefit from this idea.) Please note the tail stock was engaged for the spindle turning pictured.

~ James Danley  
Springfield, MO  
Woodturners of Southwest Missouri  
30 years of turning experience



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# SHOP TIP

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## Jig for Turning Napkin Rings



This is a jig to hold napkin rings for final turning and decoration. The jig is designed to hold a 1 1/2" ring, but size can be varied to fit other projects. First round the blank and cut a tenon to fit the chuck. Once on the chuck, turn the blank to barely allow the ring to slide on. Then drill a hole about 1/4" smaller in radius than the holder. After the hole is drilled, cut two slits along the hollow part of the cylinder on the bandsaw to the depth of the hole. The cylinder can be returned to the chuck and the napkin ring slid on. A cone tailstock was used to spread the cylinder to tighten. Light tension should be used to avoid cross-grain splitting of the ring. The ring may then be turned and decorated to suit.

~ Dave Halter, St. Joseph, MO

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# SAFETY FIRST

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## Start the Year Safety Tips

*By Harvey Rogers*

SAFETY FIRST—start the new year with Tips to Get you Safely into 2017. I would love for it to be truly memorable, and a benefit to everyone who reads it.

Unfortunately, it's hard to come up with woodturning safety advice that is good for everyone, because whether a bit of advice is good for a particular turner often depends on what and how that turner is turning. For example, really good safety tips for these bowl turners may be different than really good safety tips for this pen turner. But the turning season is approaching, and many of us will be spending a lot of time in our shops, turning projects. When we spend an unusual amount of time in our shops, hurrying to meet deadlines, it's easy to get overtired and careless. That's when it's particularly easy to make mistakes that hurt us. So this safety article focuses on things we should all keep in mind to stay safe during the turning season.

Certainly we should all think about safety whenever we turn: stay alert, stand out of the line of fire, make sure the wood is securely attached to the lathe, keep the lathe speed reasonable, wear eye, face and dust protection, keep the toolrest close to the blank, always follow the ABCs (anchor, bevel, cut), and do lots of that other stuff I've written about in past safety articles.

But, since I've already written about that stuff, and since I really want this safety article to be memorable, I've come up with three brand new turning safety tips that should be useful for almost every turner, regardless of whether they are turning great big bowls or itty bitty pens:

**TIP NUMBER ONE:** Remember that there is an important difference between tung oil and tongue oil. While it is often appropriate to rub tung oil into a spinning blank, it is hardly ever appropriate to press your tongue against a spinning blank.

**TIP NUMBER TWO:** Unless your pink bits have completely atrophied, cover your frontal nakedness when you turn. At least wear an apron, especially when turning logs with loose bark.

**TIP NUMBER THREE:** Bloodstains can be difficult to remove from wood, and nasty bloodstains can ruin an otherwise excellent turning. If you cut yourself turning, it's hard not to bleed on the wood, so try to avoid cutting yourself when you turn. Have a great new year, and stay safe!

~Harvey Rogers  
[HarveyRogers@gmail.com](mailto:HarveyRogers@gmail.com).  
Cascade Woodturners Safety Officer  
AAW Safety Committee



# ASK THE EXPERT

---

Help! I've got a question for the expert.

**Q:** What advice would you give to a new seated turner?

**A:** Advice for a New Seated Turner

There is not much difference at all between turning from a chair and standing depending on the disability of the person in the chair. I will get into that a little later. Everything that people who stand talk about as far as the basics are the same when sitting down other than "dancing with the lathe" as Ellsworth likes to say. People in chairs don't dance too well with the lathe or in general.. lol. We do a lot of unlocking the breaks and moving to get into a position to turn. I've noticed if I'm turning the outside of a bowl, I will set up my body and chair where I can start my cut sitting comfortably and at the end of my cut I'm almost laying on my knees trying to make the last cut all in one pass. It's different for every wheelchair user and his/her disability. I'm a spinal cord injury so I have lost some use of my lower abs but I have enough that as I'm doing my finishing cut on the outside of a bowl, I'm able to go slowly and concentrate on the cut and when I'm at the end of my pass, I am lying with my chest on my knees.

I have lost the feeling and movement just under my belly button on down, so I'm considered a lower injury compared to someone who may have broken his back at a higher vertebrae. Most of these higher breaks will cause loss of feeling and movement from nipples down. They would have more trouble using their core muscles to help their stability. Hopefully, I didn't lose you in that. It's difficult to explain spinal cord injury information or disability information with someone through email. Now someone who may be an amputee will have the same body control as any able-bodied turner because there is no spinal cord injury. When talking about people in a wheelchair, the disabilities range so much that it's hard to explain what to do. You would first need some information on the disability and the abilities of the person who is disabled when it comes to turning.

I used to turn my own handles until I got in touch with Stuart Batty and got his tools and handles. One thing I do differently from able-bodied turners is to use a 9" handle with a 5/8" bowl gouge with an Ellsworth grind when I do a sheer scraping cut.

The reason for the short handle is because the usual 16" and 20" handles will hit the tire or my chair and not allow me to do the cut. So, the short handle will allow me to pass the handle and tool in front of my body while doing the cut. Forget all about turning with the handle into your side because that doesn't work for us. If you watch Stuart Batty and Ashley Harwood, they turn using their arms. That's what people in chairs do when turning. It's a little harder but once you are able to turn using your arms, you have one up on people who turn with the handle held tightly to their sides because you are more able to do different cuts while sitting in the same spot and not having to move your chair as much. It would be a little difficult for an able-bodied person to teach turning to someone in a chair just because of those little differences that people who stand have been taught that we have to do sitting down. I think it's easier for a chair turner to teach an able-bodied turner. I do lessons for new turners and have to remember that when I explain something, I have to put myself in the mindset of a turner who is standing. These are the only things I can think of off the top of my head. Hope that little bit of information helps. If you have any other questions, feel free to ask me.

~ Adam Hood, Lakeland, FL  
wheelin247@gmail.com

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# ASK THE EXPERT

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Help! I've got a question for the expert.

**Q:** Can I make this shape on an ornamental lathe?



I am a novice in ornamental turning, so, any assistance I could find would be most appreciated. The photo is of a pair of salt and pepper shakers I came across, made from ceramic (obviously from a mold). I just love the design, and I am interested to know whether this fluting can be reproduced using my ornamental turning equipment (rose engine).

If the answer states that it can only be achieved using a dome chuck, then I'd be stuck to proceed, as I don't have such a chuck.

I look forward to any input from your ornamental turning section.

~ Davie Manor

## Definition:

"A rose engine lathe is a specialized kind of ornamental lathe. The headstock rocks back and forth, controlled by a rubber cam moving against a rosette or cam-like pattern mounted on the spindle, while the lathe spindle rotates. Rose engine work can make flower patterns, as well as convoluted, symmetrical, multi-lobbed organic patterns. The patterns it produces are similar to that of a Spirograph, in metal. No other ornamental lathe can produce these 'rose' patterns."

## A: Ornamental Turning Basics

The shapes that you show in your photo are very interesting and could indeed be decorated on an ornamental lathe. As with most ornamental work, there are several ways of approaching the work.

A spherical slide rest will get you something very close to what you want. Basically, it allows you to swing the cutter in a circular arc while cutting around the perimeter of your work. You can build your own if you are handy with tools.

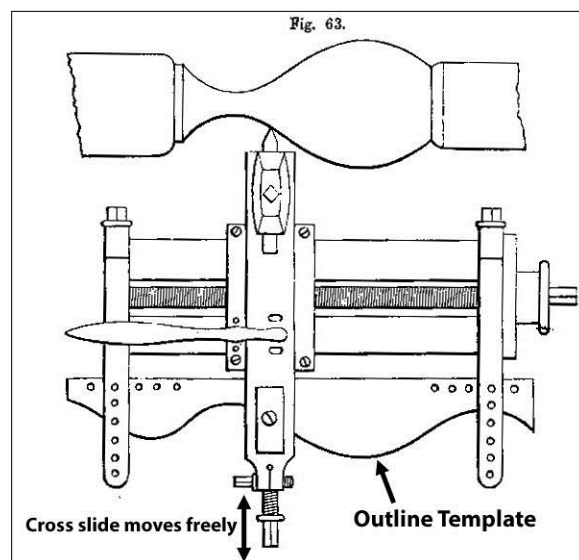


Jon Magill gave an excellent presentation on his home-made spherical slide rest (and how to use it) at the recent AAW Symposium OT Special Interest Night and at the recent OTI Symposium in Denver. You might contact Jon and see if he could send you more information.

Another approach (which might give you a more exact copy of the profile you desire) is to use a “curvilinear slide.” David Lindow makes such an attachment for ornamental lathes. (See <https://lindowmachineworks.com/item/curvilinear-slide/>).

The concept is to provide a cross slide which holds your rotating cutter and is free to move (no lead screw as you would normally have on a slide). You cut a template that matches the outline of the piece you are cutting (in your case, the salt/pepper shaker outline). The movement of the cross slide is limited when a pin touches the template. As you slowly move the cutter along the shape you push the free-moving cross slide into the work. The depth of the cut is determined by the template at each point. By using an appropriate rosette on your rose engine (for example, a 12 bump rosette) you will cut the 12 bumps into your shape at a depth determined by the outline template. You will want to take very small steps along the outline of the shape to avoid small ridges that would need to be sanded by hand.

If you are handy with tools, it's relatively easy to make your own curvilinear slide rather than buying one. You can remove the lead screw from your lathe's cross slide (or remove the nut that follows the lead screw) which will allow it to move freely. Then all you have to do is provide a means to mount an outline template and provide a stop on the cross slide that can follow the template.



~Bill Ooms, Prescott, AZ



# ASK THE EXPERT

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Help! I've got a question for the expert.

## Q: **How can I protect my wood from bugs?**

All of my wood is in the log form and according to my wife I will have to live 300 years to use it all. The problem is that the insects like it a lot and many pieces are more powder than wood when trying to use it. How can I prevent and eliminate these wood eaters?

~ Mario Moran

## A: **Bugs in Wood**

This is a subject I have experienced many times and don't have the best solution. Bugs get to any wood that is sitting on the ground. They especially like the Cambium layer between the bark and good wood. However they will eat all the way through depending on the bug or beetle. The only solution I have found is to store the wood on a concrete floor or up on a set of shelves well away from the ground. For me this still hasn't proven 100 percent because I simply don't have a way to get it far enough from the ground.

I tried setting the wood on pallets on blocks with tarps over it to protect it from sun and wind. The tarp reduced the cracking a great deal but the bugs still got to it.

I now have a new shop and I'm trying to store my wood on shelves in a building with a concrete floor. That seems to be working but I've still found a few bugs in some blanks. It could be they were there before I got the wood harvested sealed and stored. None of the ones I put in the shop on the concrete floor have shown bugs.

Some bugs can be eliminated after the fact by putting the wood in a plastic bag with some moth balls. This of course won't eliminate the damage already done but will stop further damage. Nothing is worse than turning and finishing a bowl and then seeing that little puddle of dust under it the next day.

~ John Lucas, a retired photographer, has been working in wood for about 35 years and also dabbles in metalworking. He also enjoys modifying machines, making tools, and sharing his knowledge through written articles and videos. He has taught classes at John C. Campbell Folk School, Arrowmont, and The Appalachian Center for Crafts.

# ASK THE EXPERT

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Help! I've got a question for the expert.

**Q:** **How do I keep the cambium on black walnut white?**

I would like advice or tips on how to keep the cambium layer white on a piece of black walnut.

~ Keith Pilger

**A:** **Keeping Cambium White**

Keith, the advice I got from John Jordan years ago was to blow the water out of the cambium layer while you're turning. If you let the wood sit and the cambium layer gets stained, I don't think there is any way that I've heard of. Turn the bowl while it's green and then take an air hose and blow through the cambium layer from both sides until you don't see any more water coming out. That has worked for me although I sold those bowls and can't tell you how well they held up. I do have some that I inherited from my mentor Joe Looper that are still white after many years. I don't know how Joe kept the layer clean although he did learn most of what he knew from John Jordan as well.

~ John Lucas, a retired photographer, has been working in wood for about 35 years and also dabbles in metalworking. He also enjoys modifying machines, making tools, and sharing his knowledge through written articles and videos. He has taught classes at John C. Campbell Folk School, Arrowmont, and The Appalachian Center for Crafts.

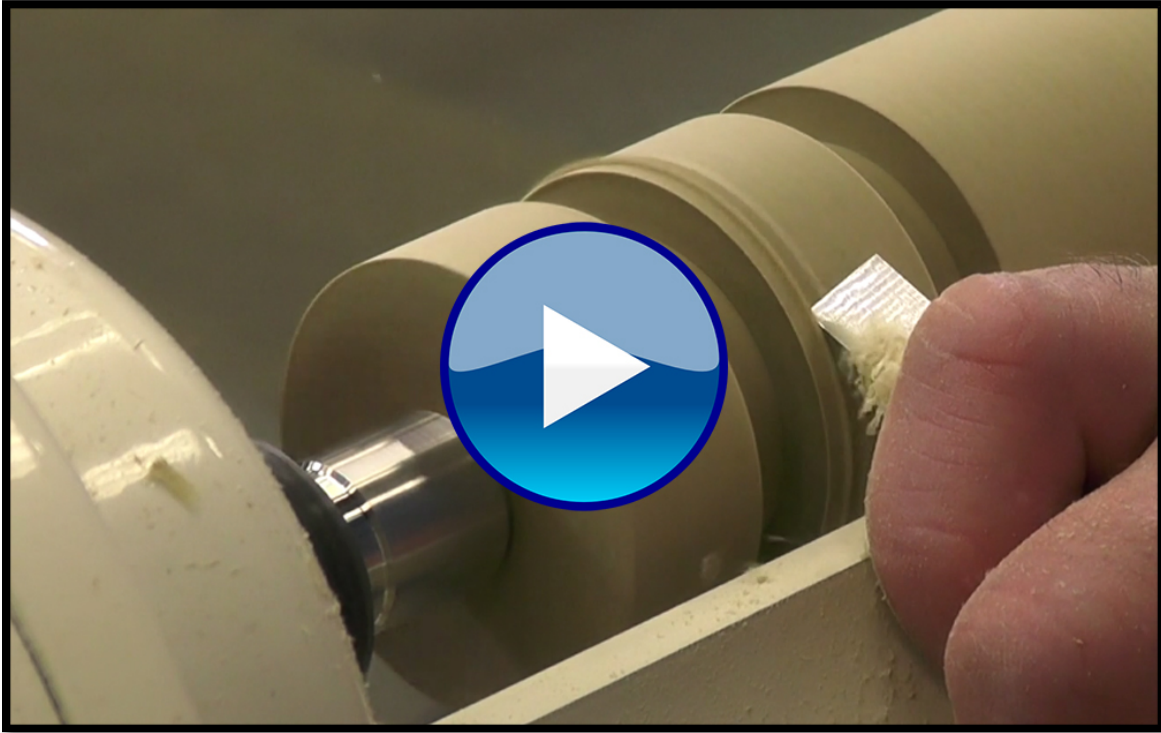




# VIDEO TIP

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## How to Roll a Bead Using a Skew



**VIDEO: Rolling a bead using a skew by Richard Findley (TRT 1:59).**

If you have trouble accessing the video, copy the following link and paste it into your browser: <https://vimeo.com/178845980>

### **A Note About Safety**

An accident at the lathe can happen with blinding suddenness. Respiratory and other problems can build over years. Take the appropriate precautions when you turn. Among the most important of these is the use of face shields, safety glasses, and dust masks. It is important to observe all manufacturers' safety guidelines. Following manufacturer's safety guidelines and information will help you continue to enjoy woodturning years into the future.

# MEMBER GALLERY

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## AAW Forum: "Turning of the Week"



[Snow People](#)  
[Nicholas Licata](#)



[Square Ornaments](#)  
[John Lucas](#)



[Very Cherry](#)  
[James Seyfried](#)



[Ocean Creature](#)  
[Elisha Rubinoff](#)

## Engage with the AAW Forum Community!

The AAW Forum is a volunteer member-moderated community ideal for sharing work and ideas, obtaining feedback, and connecting with other woodturning enthusiasts.

We encourage you to register for the AAW Forum, ask questions, seek advice, and submit photos of your work. Your work could be the next "Turning of the Week!"

[Click here to visit the AAW Forum.](#)


## Submissions

Want to share your work in *Woodturning FUNDamentals*? Please send your high-resolution images along with title, size, and materials used to [linda@woodturner.org](mailto:linda@woodturner.org).

Want to “pay it forward?” *Woodturning FUNDamentals* welcomes other content including tips, projects, and informational articles. Please send your content ideas to [linda@woodturner.org](mailto:linda@woodturner.org). The deadline for submissions for the January issue of *Woodturning FUNDamentals* is February 13, 2017.

Please note: All content submitted may be subject to edit.


### [Expand your resources!](#)



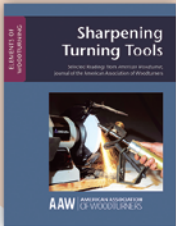
## Where to turn for Woodturning

- ✓ **AAW** is the organization with global membership that professionals and hobbyists turn to for inspiration, education and information about woodturning tools, techniques, projects, safety and more.
- ✓ **We're your source for expert, shop-tested materials.** As publisher of the *American Woodturner* journal, we offer practical and reliable educational resources for woodturners written by woodturners. Our books are available individually in soft cover or digital download, and as soft cover sets.
- ✓ **Join the AAW member community** and get six issues of *American Woodturner* annually, free digital downloads of special publications, and access to the largest collection of woodturning information anywhere in the world. What's more, you'll be able to tap into the expertise of more than 15,000 members globally who share your passion for woodturning.








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