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# AS THE WOOD TURNS

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**April 2016 - Issue number 218**

Next Hands On- Saturday, April 16<sup>th</sup> and May 14<sup>th</sup> at Hank's Dust Bowl 9:00-12:00 noon both days.

*We invite beginning turners to a learning opportunity at the Hands On for one on one instruction. Spindle or bowl turning techniques will be covered. Please reserve your lathe with Pablo Gazmuri @ [pgazmuri@comcast.net](mailto:pgazmuri@comcast.net)*

**Maple Festival** on Sunday March 13th at the South Shore Natural Science Center off Jacobs lane in Norwell was well attended. Ken Whiting was assisted by Bob Monaghan, John Shooshan and John Voludakis with turning tops. Ken told me that they had 2-300 kids go thru.



Pictures by taken by Ken Whiting. 1-r John Voludakis & Bob Monaghan

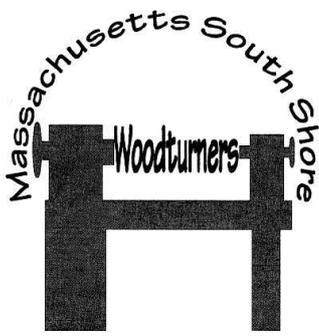


Bob Monaghan & John Shooshan at the Maple Festival

## **Minutes of the March 22, 2016 meeting**

Dues are now overdue. We will cease sending out the newsletter to those who have not renewed their membership beginning in April.

Steve began by announcing that we will hold an exhibit and demonstrate at the Dyer Memorial Library Sunday, May 1<sup>st</sup>. Outside, it will take place either on the lawn or in the parking lot. Address is 28 Center Ave., Abington. We will have a display of turned items inside for show or for sale. Wally will lead members in a talk at the event. We need people to do a demo. There will be a couple of lathes set up for this. The Dyer is holding a series of events over the summer and we will lead things off for them.

<p><b>MSSW Officers</b></p> <p><b>President-</b> Steve Wiseman (508)-285-9394 <a href="mailto:stevwsmn@aol.com">stevwsmn@aol.com</a></p> <p><b>Vice president</b> Eileen Walker (781)-545-1978 <a href="mailto:eileenturnswood@gmail.com">eileenturnswood@gmail.com</a></p> <p><b>Treasurer</b> John Duggan (508)-583-7930 <a href="mailto:john.duggan06@comcast.net">john.duggan06@comcast.net</a></p> <p><b>Secretary</b> Tim Rix (617)-259-5618 <a href="mailto:rix.tim@gmail.com">rix.tim@gmail.com</a></p> <p><b>Librarian</b> Lenny Mandeville (508)-586-7679 <a href="mailto:manleo@comcast.net">manleo@comcast.net</a></p> <p><b>Webmaster</b> Eileen Walker (781)-545-1978 <a href="mailto:eileenturnswood@gmail.com">eileenturnswood@gmail.com</a></p>		<p><b>Next Meeting</b></p> <p><b>Tuesday, April 26, 2016</b> - at Hank's dust bowl at 409 Washington St., Abington, MA at 7 pm</p> <p><b>Refreshments</b> – by Jeyna Toure'</p> <p><b>Demo</b> - Bob Allen showing us chucks and other holding devices to use for turning projects on the lathe.</p>
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Steve said that at the last two Hands-on, there was a need for a demo on tool sharpening. It was decided to hold this at a regular monthly meeting. Bob Allen suggested June for this.

Steve also put forth the thought that the club should make available a family membership say for \$60 instead of just a single for \$40. Mike Veno suggested a full membership with a reduction in price for each member. Those attending voted to make it a full membership with a 2<sup>nd</sup>, member at 50% of the price. So, \$40 for a full membership, and \$20 each for a family member (price subject to change in the future).

The Arnold Arboretum will make wood available for pick up Wednesday, April 20<sup>th</sup>. Steve said he needed some assistance getting it and Ron Reynolds and Bob Allen said they would help. We will again have a display there October 21<sup>st</sup>. through the 23<sup>rd</sup>. Members are asked to use some of this wood in turned items for display. We will again hold a jury process in advance to decide by club vote on which items are put forward for display. We will again also be participating with the Central New England Woodturners and the Association of Revolutionary Woodturners (ART).

Totally Turning is April 1<sup>st</sup>, 2<sup>nd</sup>. And 3<sup>rd</sup>. in Saratoga Springs, New York.

Mark St. Ledger will demonstrate for us April 9<sup>th</sup> and 10<sup>th</sup>. Saturday is \$35 and includes lunch. Sunday is \$80 for a Hands On session. For Sunday Mark will supply the wood and there will be a \$10 charge to participating members for this. Space is still available. 9:00 am to 3:30 pm both days. There will also be a raffle Saturday.

April 23<sup>rd</sup>. the Cape Cod Woodturners will hold an all day session with six different rotations on turning. Registration is limited to 35 people and there are a few spots remaining. \$35 includes lunch--contact Toby Lorenzen at 51 Althea Drive, N. Falmouth 02556 or lorenzen@bridgew.edu

8:30-9:30	Ian Manley	Offset Turning
9:45-10:45	Jim Silva	Dye Demonstration
11:00 – 12:00	Nigel Howe	Segmented Turning
1:00 – 2:00	Art Jalbert	Lighthouse
2:15 – 3:15	Al Barbour	Hollowing with a Twist
3:30 – 4:30	Bob Reynolds	Winged Bowl

BTW, for anyone who's not been to Wayne's shop before, there is a Park and Rec area immediately after his driveway where ample parking is available. Wayne Shepard's shop , 1558 Race Lane, Marstons Mills , West Barnstable, Cape Cod -8:30 a.m.-4:30 p.m.

John Duggan reported \$2785 in the club treasury.

Nigel announced that congratulations are in order for Andy Osborne who sold two of his pieces at the Fuller Craft Museum before our exhibition reception began. Wayne Miller said he couldn't believe how many people were at the Fuller reception.

Wayne also reminded us that the Segmented Symposium is Halloween weekend in October. You can visit [www.segmentedwoodturners.org](http://www.segmentedwoodturners.org) for more information. Wayne is the president this year and will also be a demonstrator at the event. It is \$275 for three days to attend and it is at the Marriott Hotel in Quincy.

Librarian Lenny Mandeville announced that Wally had donated a number of books to the club library for members to check out.

Lenny also asked "How about a demo on jigs?" Please bring one or two jigs to the June 28<sup>th</sup> meeting.

Peter Soltz announced that the Home For Little Wanderers needs donated turned pieces to be auctioned off. Deadline to receive them is mid April. Could you contact him at [psoltz29@gmail.com](mailto:psoltz29@gmail.com) or call him at 508-965-2347 ?

Steve announced that our group has been accepted for the South Shore Arts Festival on Father's day weekend again this year. The cost of our booth has increased by \$100. But will be worth it.



A similarly finished top spins



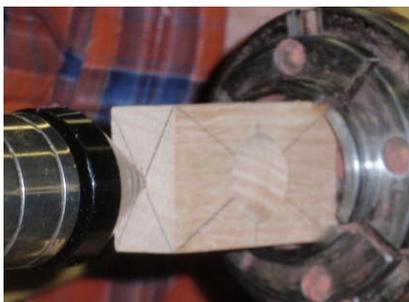
Drilling the handle to accept the guide



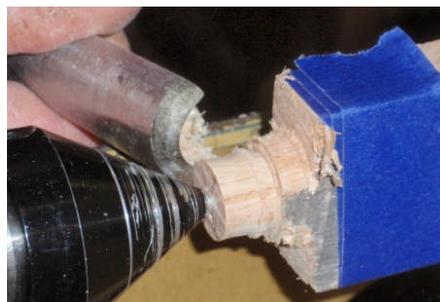
Mounting the copper ferrule prior to drilling it to fit on the handle



A piece of stock drilled to be turned as a guide



Turning the stock.



Creating the tenon



Final shaping of the guide



The guide cut on a bandsaw



Finished guide



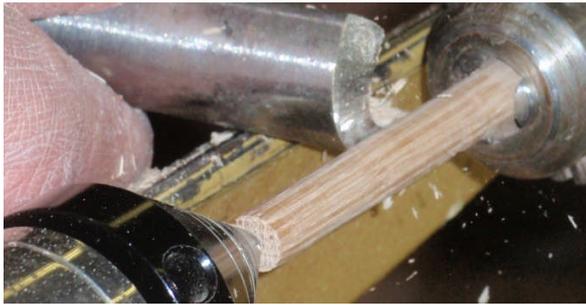
Finished handle and guide.



The body of the top.



The top mounted in the lathe with the centerline being marked



The dowel for the stem is turned



The finished top.

Reference article – A Turned Wooden Top – by Gothard Knutson – Woodwork – April 2004

On the web - [http://www.woodturningonline.com/Turning/Turning\\_projects.php?catid=65](http://www.woodturningonline.com/Turning/Turning_projects.php?catid=65) has several articles on turning different types of tops.

### Show and Tell



Charlie McCarthy holds a thin stem goblet turned from Poplar, and a Walnut goblet with captive rings



Wayne Millar shows us his home made vacuum chuck and a segmented Pistachio wood outer shell shaped container with an acrylic "pistachio nut" inside. He used Mahoney's Oil to finish it with.



Mike Veno holds his modified pinewood racer, adult class with turned tires. "It looked gorgeous going over the finish line but I never won". He also showed a magnifying glass and a letter opener of Tiger Maple which he dyed.



Some views of Mike's cellphone holders. The lighter one was a mockup and prelude to turning the second one



Jeyna Toure' holds a shallow Maple bowl with a partial natural edge that she finished with Jatoba oil and beeswax.



Lenny Langevin has several olive picks which he turned from various woods- Zebra, Holly, Wenge, and Purple heart. Nice detail.



Paul O'neil holds a bowl turned from Arboretum wood (ash), and also showed us a yew bowl



Andy Osborne holds a large urn turned from a pine tree he planted when he bought his house. It sat for a year in the basement before his wife Jamie painted it. The base is milk paint. Nice job.



Nigel Howe showed us a four way crotch bowl that he turned from Sugar Maple.



Pablo Gazmuri holds a white Dogwood vase which he covered with red acrylic paint after turning it. The inside is painted black. He also showed us a Yew end grain vessel turned thin and then dyed yellow, green and blue on the outside. The turned lid was colored black. Dyes used were alcohol base.



Ken Lindgren has an "aerated cellulose" bowl which "was once wood" He said he never turned it at a speed faster than 200 rpm.



Steve Wiseman holds a Box Elder box finished with decorative rings and showed us his large Cedar vase finished with sanding sealer and wax.



### Some items from the ongoing Fuller Craft Center Exhibition March 12 - June 12, 2016 -

Visions from the Lathe: Selections from the Massachusetts South Shore Woodturners



Jeff Keller's Alabaster bowl with Bloodwood trim



Nigel Howe's spalted Maple hollowform



Two segmented pieces from Wayne Miller



A black & white display with holes and an assemblage of spheres from Mike Veno



A wall hanging from Steve Blampied



Bowl with overhang from Nigel Howe



Wall display and a decorated platter from Andy



"Sextpot #1" and an Ebonized Urn from Derek Tepaske



Miniature turnings - spinning wheel, pilgrim chair, gate leg table and small bone box from Lenny Langevin



Cherry burl sphere from Wally Kemp



A loop on a stick from Mike Veno



Wine bottle from Ken Lindgren

## Mark St. Leger demo --April 9 & 10, 2016

*From the AAW handout at the Pittsburgh Symposium:*

### Mark St. Leger

Pearisburg, Virginia  
540-599-2346 cell  
markfstleger@gmail.com  
markstleger.com

Mark, who lives in southwestern Virginia with his wife Barbara, is a carpenter-cabinetmaker who, for the past 27 years, has been teaching his trade to rural Virginia high school students. Along with being an active demonstrator and workshop leader, he teaches privately in his Virginia studio.

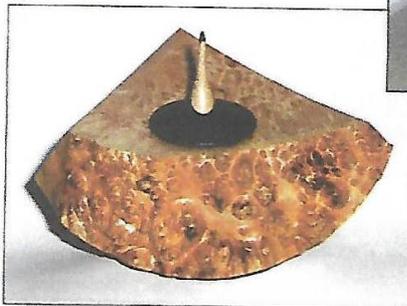
Mark's enjoyments are teaching others, creating one-of-a-kind pieces, designing tools, kayaking with his wife, and flying remote-controlled helicopters.

"Woodturning is an art that should be explored and felt with each piece of wood we have the good fortune to work with. Artistic inspiration, for me,

presents itself in many ways. When I allow myself to slow down, I become more aware of the natural beauty that surrounds us. I continue to be humbled and in awe over the wonders I encounter while kayaking. The movement of water amazes me as it slowly carves and gently sculpts the ever-changing riverbanks and shorelines. I incorporate



those images into my work. Keeping an open mind while developing a new piece begins a journey worth traveling."





Samples of mark's work. The Rock - a bye box is at bottom center and to the right.



Mark showing us that being safety conscious also means he still has all ten fingers



Blanks for demo and also tools Mark has for sale.

Mark began by telling us that he turns on a One Way lathe model 1018 at home (it's actually one of two One Way lathes he owns). He taught high school for 24 years.

He began by showing us **how to turn an egg**. He inserted a block of maple into the lathe. He uses a safe drive center with the center point. Steb centers work great too. Using a skew, he roughs the blank into a cylinder. The lathe runs at a fairly high speed. He then inserts a short number 2 taper cup into the headstock to hold that end of the egg between centers. Now he shapes the egg. He uses the center of the blade of the skew for cutting and told us that it should fall on the center axis of the egg. Start the handle low and lift and bring it around to the end to shape the egg. He says that he starts cutting with the point of the skew and quickly shifts to the center. "You need to ride the bevel otherwise you're just scraping."

He added, "If you master the shape of the egg and the shape of the sphere, you've mastered the basic shapes of woodturning". He sands the egg with 150 through 600 grit.



For a challenge he told us to get an egg carton and turn a dozen eggs that all look the same. After the egg is finished, you can decorate it by carving or pyrography. The left over piece of wood in the headstock can be saved as a jig for the next small item.

"My skewers have a small radius (curved) edge. The blade is flat as opposed to oval."

### Tippy Top

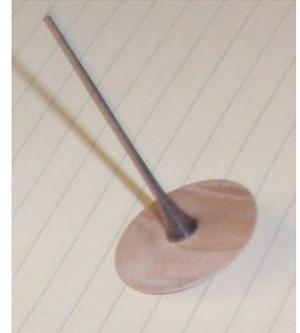
The Tippy Top spins, flips over and spins on it's head. I use a parting tool to turn the tenon. I taper it to fit into the headstock. I then bring up the tailstock. I turn the handle first then I shape it's top using a spindle gouge. I use a thin piece of Formica to turn burn lines into the side for decoration. I have a special 35 degree bevel St. Leger tool for the concave hollowing into the top by the stem. Next part off and sand the nub on the bottom.



### Very Thin Stemmed Spinning Top

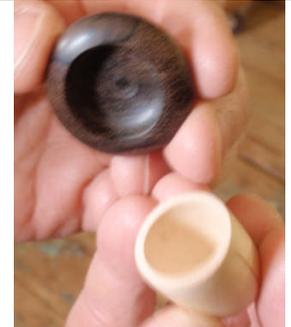
Mark uses 2 1/4" by 1 1/2" stock. You need a tight grained wood such as Blackwood, Boxwood or hard Maple. Turn the disc first. With the disc mounted on the lathe, make light sheer cuts of a concave nature by riding the bevel through the whole disc. Use a mandrel turned from maple to hold the disc jig. Burnish the top of the disc with wood shavings.

For the stem use a 9/16" square piece of Blackwood, taper it and insert it into the headstock. Use a roughing gouge to round it into a cylinder. Next work it down to 1/16th in diameter. Use your fingers as a steady rest going a half inch at a time toward the Headstock. As you move down the line, you can't go back or you will lose the piece.



### Acorn Box

For this you need to consider proportion, sizing and a tight fitting lid blank. I am using maple and Zicote (a Mexican hardwood). My blank has a piece of each glued together end grain to end grain. The glue mixture is 50% yellow glue and 50% water to penetrate the pores. Mount the blank in the chuck, dark side out. Rough it into a cylinder and work on the lid or cap first. Use a spindle gouge with a bead cut, shaping the outside. Then hollow the lid. Eyeball the depth. After hollowing finish shaping the outside, sand then part off. Measure the tenon size of the cap with a caliper. With the remaining maple, turn a tenon as a jam chuck for the lid. Then with a spindle gouge finalize the top of the lid. Fit the body, get rid of the waste on the outside first. Then determine where the bottom of the box will be and begin hollowing out. Use a half inch drill bit. Mark the bit with a pencil leaving enough room to finish hollowing to avoid a "napkin ring". Next turn a tapered entrance to fit onto a jam chuck to finish the bottom outside and part off. Measure the diameter of the box inside to turn a tenon on the leftover wood mounted on the chuck, fit the bottom on and finish it



### Dime top

Fit a dime into the chuck. Drill a 3/16" hole in it. Now take a hunk of maple, turn a taper and place it in the headstock by using a roughing gouge. Ride the bevel like a skew and thin down the stem. Blend the cove in for the thickness of the dime and part it off.



### Lunchbreak

### Sphere with a skew

Take a piece of maple 3 5/8" thick and turn it down between centers to 3 1/2". Turn each end tenon down to about an inch in diameter. Anchor - Bevel - Cut. Set calipers to 3 1/2". Then measure half the length of the block then half again. Should be 1 3/4" each side. Take material equally off each side leaving the lines. Take a small ring and place it randomly on the surface. You should not be able to see light underneath it. Next by using cup chucks mount and rotate 90 degrees and turn off the tenon nubs. At this time also get rid of a shadow or ghost image of the sphere. Use light cuts. For the number 3 axis add a center line and if you are close, all you have to do is sheer cut the third axis.



This was the subject of Sunday's hands on session - the top is turned loosely and provides a clicking sound as the box rocks back and forth.

## Rock-a-Bye Box

Turned on the Bias – 3-1/2" diameter x 1-1/2" tall

### MATERIALS & TOOLS

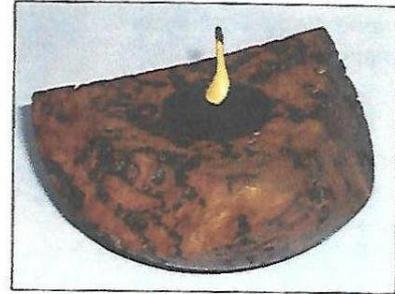
- Box – 2-3/8" cube, any hardwood works well
- Lid – 1/2" x 1-1/4", dense wood such as Cocobolo, zircote, etc.
- Finial – 5/8" x 5/8" x 2-1/2", hardwood same as wood used for box
- Collet Chuck – 1/2" x 2-1/2" square, hardwood such as maple
- Jam Chuck – 1/2" x 2-1/2" square, hardwood such as maple
- Eccentric Chuck – 1-1/2" x 2-1/2" square, hardwood such as maple
- 1/2" Roughing Gouge
- 1/2" Spindle Gouge, fingernail grind
- Small hollowing tools, 5/8" opening to hollow through
- Thin-Kerf Parting Tool
- Vernier Calipers

### PROCESS

1. Take the point out of your live center and mount two corners of the cube directly between spindle and live center. This will line up everything.
2. The top of the box will be facing the live center. Start making light concave cuts, staying about 3/8" back from the 3 corners of the block (spindle gouge).
3. Switch to the bottom of the box and start shaping the spherical bottom shape. You will be turning off the existing 3 points to match up with top of the box to create the 3 true points (spindle gouge).
4. At this time you need to create a tenon for mounting in a chuck for hollowing. Part off and

mount in a chuck for hollowing.

5. Bore a 5/8" hole and hollow the box.
6. Prepare a jam chuck and mount the box for completing the spherical bottom. It is safer to use the tailstock for most of the shaping and remove to complete the last little remainder of wood from the bottom.
7. Use the jam chuck as a glue block for the lid. Turn the inside of the lid with a loosely fitting tenon. Start shaping the top of lid (slight dome shape), then part off and mount into a collet chuck. Finish the top of lid and drill a 1/8" hole for the finial.
8. Turn a 1/2" tenon on one end of the finial blank and mount into the eccentric chuck. Set the chuck to its 1/8" off-center setting and turn a cove cut to a point (1/2" roughing gouge).
9. Reset the blank to center on the chuck and turn a half bead down to a 1/8" diameter. Turn a 1/8" tenon and part off.
10. Glue finial to the lid.
11. Hand sand the completed box, being careful not to lose the 3 intersecting points.
12. At this point, you should be able to gently rock the box and hear the gentle tick-tock sound from the loose fitting lid until it comes to final resting spot.
13. Apply the finish of your choice and enjoy.



### Hands on 9 am -12 noon, March 18, 2016



Wally shows Jeyna Toure a turning technique.



New members, Bill & Deb Krussel observe Pablo



Fred Ward turns on the lathe.



Bill Krussel roughs out a piece



Bob Allen shows Steve Gilman a sharpening technique as Peter Soltz looks on



Ron Reynolds (pictured on the right) watches Deb Krussel turn on the Powermatic

## Upcoming Events

**March 12 - June 12, 2016 - Fuller Craft Center** *Visions from the Lathe: Selections from the Massachusetts South Shore Woodturners* ...From the Fuller website: **March 12, 2016 - June 12, 2016**

"In 1996, the Massachusetts South Shore chapter of the American Association of Woodturners was founded with a group of approximately ten individuals. Today, over 60 woodturners are part of a group that promotes an appreciation of wood through education, demonstrations, and occasions for public display. *Visions from the Lathe* will mark the 20th anniversary of the chapter. This exhibition brings together an exciting variety of approaches to form, color, grain, and texture".

**April 23<sup>rd</sup>** – Cape Cod Woodturners demo day in West Barnstable, MA

**Earth day - Sunday, May 1st.** from 11-4:00 at the South Shore Natural Science Center in Norwell, off Jacobs Lane. We have a booth and will turn tops and sell items.

**Dyer Memorial Library** at 28 Center Ave., Abington - Exhibit and Sale is Sunday May 1<sup>st</sup>. More details to follow.

**Second Parish Unitarian Universalist of Hingham** is having its 60<sup>th</sup> Art Festival beginning Wednesday, May 4 from 7-9 pm. The festival continues through Friday May 13<sup>th</sup>. An application blank is available at our website along with further information about other happenings at the festival.

**South Shore Arts Festival in Cohasset** - Father's Day weekend. Friday, June 17th from 1:00 to 7:00 pm, Saturday, June 18th from 10:00 am until 7:00 pm and Sunday, June 19th from noon until 5:00 pm.

**October 15- Farm Day in Marshfield** - at the Daniel Webster Wildlife Sanctuary at the end of Winslow Cemetery Road. Set up 7:30-9:30 am (rain date is October 22nd.)

**October 21<sup>st</sup> - 23<sup>rd</sup>** - Arnold Arboretum -. We will again be participating with the Central New England Woodturners and the Association of Revolutionary Woodturners (ART).

**5<sup>th</sup> AAW National Segmented Symposium** - October 27-30, 2016 at the Boston Marriott Quincy. Check out [http://www.segmentedwoodturners.org/symposium/2016\\_oct\\_symposium.pdf](http://www.segmentedwoodturners.org/symposium/2016_oct_symposium.pdf) (9 page brochure) for more information about demonstrators, rotations, lodging, etc.

**Items For sale at the Club store :** – contact Ron Reynolds at [reynoldsron@comcast.net](mailto:reynoldsron@comcast.net)

**CA GLUE; THIN, MEDIUM and THICK All are the SAME PRICE**

2 Ounce \$4.00, 2 Ounce rubberized \$5.00, 8 Ounce \$12.00, 16 Ounce \$21.00

2 Ounce Accelerator Spray Bottle \$3.00, 8 Ounce Accelerator Refill \$5.00, 2 Ounce Debonder \$3.00  
 \$.50, Long nozzles –package \$.75, 2 Ounce empty bottles \$.75, 2 Ounce replacement caps

**Epoxy 4 Ounce \$5.00 ANCHORSEAL - 2 Liter \$15.00, 1 Liter \$8.00, ½ Liter \$4.00 HATS - \$15.00**

**SANDING DISCS; 80 THROUGH 320 GRIT - 2" \$2.50, 3" \$3.50**

1" Disc Holder \$7.50, 2" Disc Holder \$8.50, 3" Disc Holder \$10.00 2" Blue Disc Holder \$12.00,

3" Blue Disc Holder \$14.00 ½" Soft Pad Extension \$2.50, Hand Held Disc Holder \$11.00

Bottle Stoppers \$3.00, Bottle Stopper Chuck \$5.00

Tee Shirts \$16.00 \$2.00 More for 2X and larger Polo Shirts \$27.00 \$2.00 More for 2X and larger

**Lathes and accessories**

Les Tyrala at 617-479-2140 has some tools for sale:



Sorby ¾" HSS  
Roughing gouge \$60



Sorby ¾" HSS  
Skew \$40



Sorby ¼" HSS Spindle  
gouge \$55



Nova Chuck \$60

Bob Scott ([vintagehomesbuilding@verizon.net](mailto:vintagehomesbuilding@verizon.net)) "home made" lathe built from Rockwell lathe parts.

Asking \$450 or best offer.



The lathe has a 4" steel frame bed, an 11" swing, and there is 6'3" between centers. It is powered by a 3 phase 1 1/2 hp. motor with a jack shaft.



Back of Headstock  
showing motor and  
jack shaft



Tailstock

Contact Bill Dodge at  
[bill.dodge718@gmail.com](mailto:bill.dodge718@gmail.com)

Nova 1624-44 with bed extension Purchased new in May 2013. Runs fine. Has not seen heavy use. Upgraded to another lathe. 1 1/2 HP, 8 speed 214 - 3600 rpm, 44" between centers.

Price is \$1,100.00 or best reasonable offer.



Contact Tom Holland  
[781 934 6194](tel:7819346194) Duxbury, MA

The lathe is a Powermatic 90, gap bed lathe with variable speed. It has new [10/13] bearings in the headstock and motor. At that time it was completely disassembled, cleaned stripped to bare metal, primed and painted. The lathe is complete and runs nicely.

I am looking for \$1175 OBO.



# A Turned Wooden Top

## A variation on an old-fashioned toy

TEXT BY GOTHARD KNUTSON

PHOTOS BY DAVID HUEBNER



A few years ago I looked through some books describing old-fashioned toys; this gave me some ideas for projects that I could make for my young grandchildren, and every time we would visit I gave the kids a version of another “old toy” that I had made. Because these toys didn’t have bells and whistles and batteries, they were politely tolerated but soon put aside in favor of more exciting (shiny, bright, noisy) plastic toys. Over time, however, I noticed that the toys I made stayed around, unbroken, long after the others had disappeared.

The top illustrated in this article was

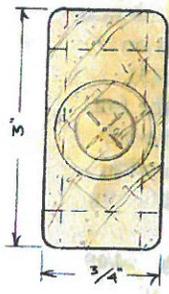
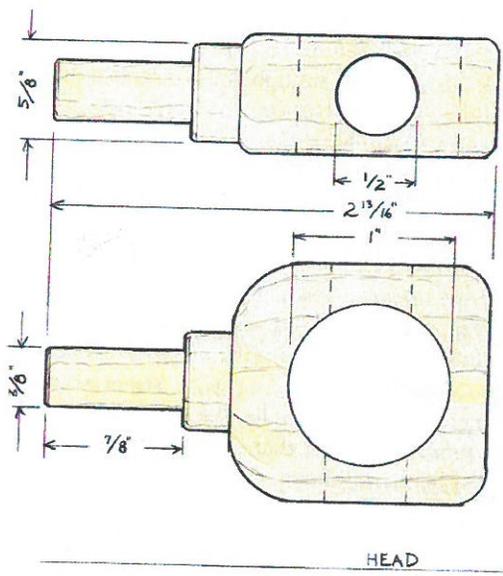
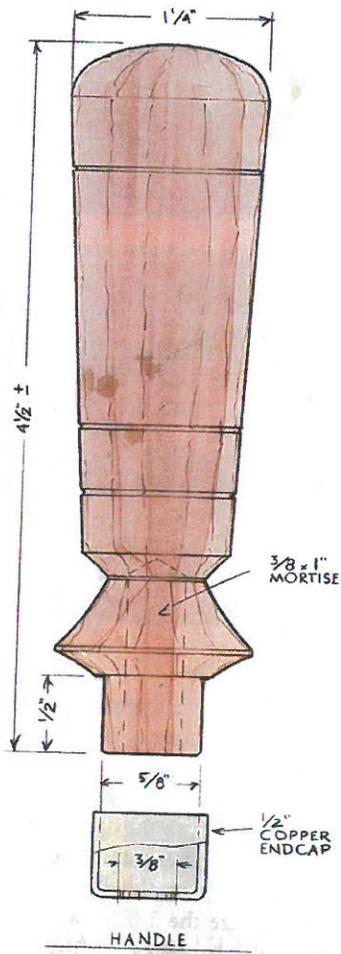
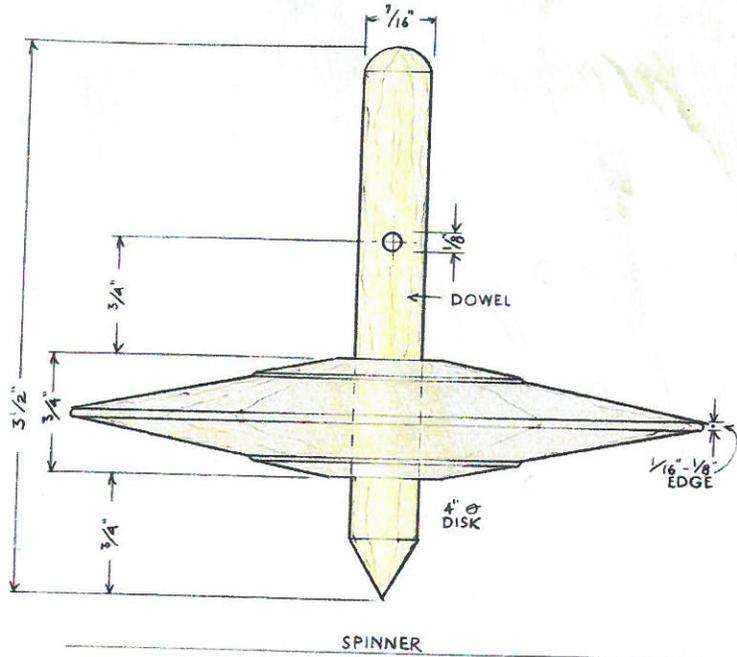
originally just a stick with a couple of holes in it to hold the spinner; I didn’t think too much of it at the time. After redesigning it, I had so much fun making the top and playing with it that I decided to make more and give them to friends. I even sell them at craft fairs, where they have been well-accepted.

### TURNING THE HANDLE OF THE TOP

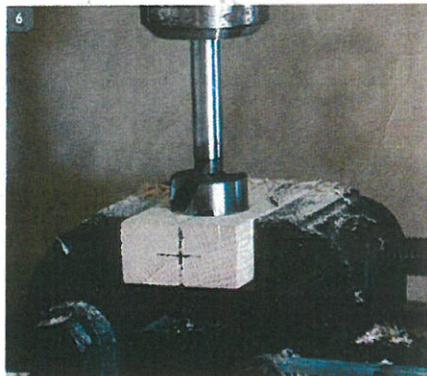
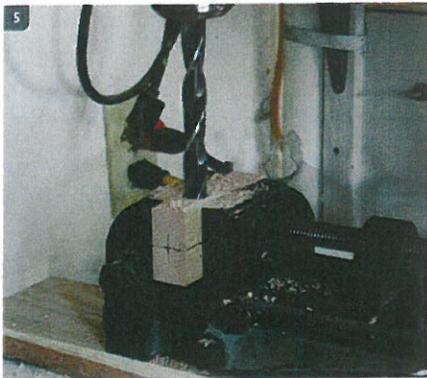
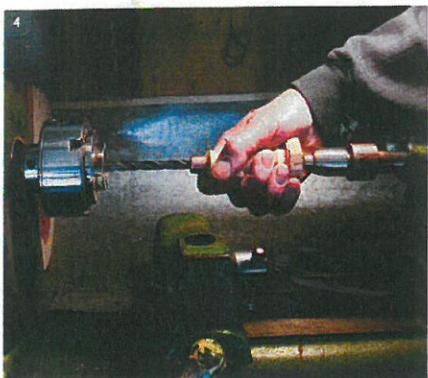
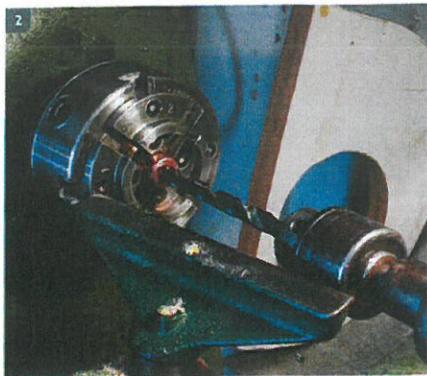
The handle of the top is turned from a 1-1/2" x 1-1/2" x 6" piece of wood held between centers. The illustrations suggest a few designs, but better yet, create your own profile for this part.

I turn the 5/8" dowel that is pressed into the copper endcap on the tailstock side of the lathe, as it is easier to work with small diameters on this end. I use a 5/8" open-end wrench to measure the diameter of the dowel (1). The wrench should slide snugly but not tightly over the length of the dowel. This is an important measurement, as the dowel must fit tight when pressed into the copper endcap.

At this time, with the handle still chucked between centers, I sand the handle with 120- to 220-grit sandpaper. I stain and varnish the entire top after it is completely assembled.



# Wooden Top



I make many parts for the top at a time. This reduces the set-up time. With a 3/8" twist bit chucked in the tailstock, I drill 24 caps at one setting (2). I have a four-jaw chuck for the lathe, so the operation goes rather fast. Don't be upset if the drill bit leaves a rough edge on the drilled hole, as this will help size the 3/8" dowel which will be pressed into the cap in the handle, and the hole also guides the drill bit when the handle is drilled in the next step: I press the copper endcap on the handle using a woodworker's vise (3).

I fasten a 3/8" twist drill in the four-jaw chuck in the headstock, and re-adjust the handle so the drilled copper endcap is facing the twist drill. With the lathe running at a slow speed, I hold the handle with the headstock waste end pressed and centered on the tailstock and turn the tailstock spindle so the top handle is drilled about 1-1/2" deep (4). Now the waste material may be cut off and the end sanded smooth using the same grit paper as used on the rest of the handle.

#### SHAPING THE HEAD OF THE TOP

The head of the top is laid out on a piece of wood 3/4" x 1-1/2" x 3". After lay-

ing out the design and carefully marking all centers, I drill the 1/2" holes deep enough to penetrate the location for the 1" hole, then use a Forstner bit to drill out the 1" hole, drilling far enough for the point to show and then turning the piece over to finish the drilling (5,6).

At this point I cut off the excessive waste using the bandsaw (7) and chuck the piece in the lathe.

I now take light cuts with a 1/2" gouge and skew to shape the head (8). The 3/8" x 7/8" dowel is turned and shaped with a skew; the diameter is measured with a 3/8" open-end wrench.

As with the endcap on the handle, the dowel will be somewhat larger than 3/8" and may have to be turned down a bit. It should fit tight in the hole in the handle. Remove the head and put a drop of glue on the dowel and re-insert it in the hole. This will complete the handle. A finish may be applied now, or you can wait until the spinner is finished.

#### TURNING THE SPINNER

I make the spinner by using a compass to lay out a 4" circle on a 3/4" piece of oak—I like oak for the contrast it has to

1. I use a 5/8" open-end wrench as a caliper to gauge the diameter of the dowel that will be pressed into the copper endcap.

2. Holding the copper endcap in a 4-jaw chuck, I drill a hole with a 3/8" twist bit at slow speed.

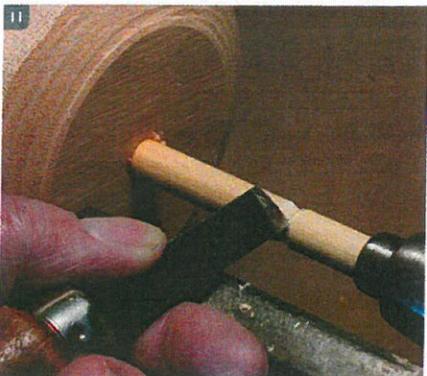
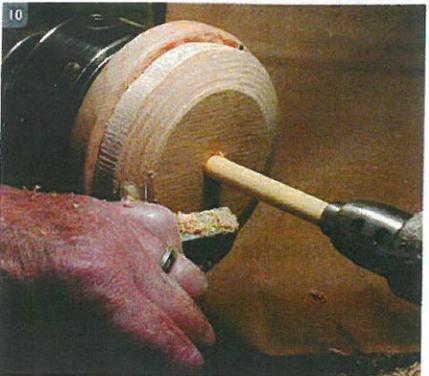
3. The copper endcap is then pressed onto the turned handle using my bench vise.

4. With the 3/8" twist bit in the 4-jaw chuck and the handle centered and pressed between the bit and the tailstock spindle, I run the lathe at *slow* speed and carefully feed the handle into the bit by means of the hand wheel to a depth of 1-1/2".

5. I drill 1/2" holes in the top head, deep enough to penetrate the area where the 1" hole will be.

6. I drill a 1" hole through the top head using a Forstner bit.

walnut and other wood I use for the handles. After cutting the disk on the bandsaw, I drill a 7/16" hole in the center. Most dowels that I have been able to get are slightly less than 7/16", so I have had



7. I roughly shape the head by removing waste on the bandsaw before mounting it in the lathe.

8. I take light cuts with a 1/2" gouge and a skew to further shape the head. Note the 3/8" dowel that has been turned to fit through the endcap.

9. To hold the spinner, I made a concave faceplate with a center hole to receive the 3/8" dowel.

10. With the spinner securely pressed against the faceplate, I take light cuts with a gouge.

11. I round the long portion of the spinner dowel with the skew. An 1/8" hole to receive the string will be drilled in the dowel 3/4" up from the spinner.

12. The assembled top with the 7/16" dowel in the 1/2" holes and the string wound—ready for play.

spinner after the dowel is glued in, I made a special faceplate with a 7/16" hole in the center to receive the protruding dowel (9). The faceplate has a slightly concave recess turned to receive the spinner after one side has been turned. Double-faced carpet tape or sandpaper are placed along the outer edge of the faceplate for a friction hold while the spinner is pressed against the faceplate. I have removed the center pin in the tailstock, which helps to prevent the dowel from splitting. Light cuts with a gouge and skew will shape one side of the spinner and shape the point (10). Reverse the spinner and, using the same tools, shape the spinner and round the dowel (11). It's amazing, but using this process balances the spinner so no further adjustments are needed.

At this time you can drill the 1/8" hole for the string, about 3/4" up from the body of the spinner. The handle for the string is just a 5/16" x 2" dowel with a 1/8" hole drilled in the center to receive the 18" long shoelace.

#### FINISHING

Sometimes I use a paste filler and stain

the handle a dark oak and leave the spinner a natural color. When I use walnut for the handle, I just fill the wood and varnish. I apply two coats of a gloss varnish on all the pieces (12). Since there are no bells and whistles on this toy, maybe the shiny finish will attract the attention of kids.

#### PLAYING WITH THE TOP

Now that the fun of turning the top is over, the fun of playing with it begins.

To load the top, place the round end of the spinner dowel into the 1/2" drilled holes, insert the shoelace or string in the 1/8" hole in the spinner dowel and wind it up. The top will work equally well wound up by a right or left-handed person. With some practice the top will go for 60-90 seconds when the string is pulled and the handle lifted up as the string disengages the spinner. Spin the top on the bottom of an inverted dinner plate. Pull the spinning top along on a table top with the string. The challenges are endless!

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to grind a spade bit undersize so the dowels will fit tight.

I glue and drive the dowel into the hole so it will project about 1-1/4" through the center hole. Since I turn the