Great Falls Woodturners Newsletter

www.gfturners.org

Volume 6, Number 5 December 2014

Club Demonstrations

Sam Sampedro – Nov 15th

I started the demo by discussing the manner in which I observed how a couple of gentlemen on YouTube mounted their stock on the lathe to turn the three cornered bowl.

Since I felt that it could be done safer I had made a jam chuck for the head and tail stock which I felt was a safer way to turn the bowl.

Note: After the meeting, Chuck brought to my attention that by not securing the piece in the head stock with a jam chuck, it may be safer to just secure the piece to be turned with the spindle. You have to be the judge!

After mounting the stock I turned a tenon on the tail stock of the piece and mounted that tenon in the chuck. I then turned a tenon on the other side so I could remount it and turn the outside of the bowl being very careful when turning near the three points.

When the outside of the bowl was complete, I turned the inside of the bowl again being very careful near the three points.

I then finished the bottom of the bowl.

For more information/education regarding three corner bowl turning see the following sites:

Stephen Ogle

http://www.youtube.com/watch?v=TFQgC1_Tka4

Keven Krull

http://www.youtube.com/watch?v=l3F7jGlzQgw

Erik Anderson

http://www.youtube.com/watch?v=ue5Tuy_42k4

From the feedback that I received, it appeared that I was disgusted and mad during the demo. I can assure you that I was not. To those of you that were not pleased with the demo, I sincerely apologize. I can assure you that it will never happen again. Sam

Jay Eklund – Dec 2nd

Another excellent demo by **Jay Eklund** on the 2nd. This time he combined turning with sculpting and demonstrating creating a turned and sculpted finial that can be used for decorations or on a piece of furniture. You can easily envision a nice lamp in the following picture.

Then he demonstrated turning (and he used the term loosely) a twist. The twist can easily be incorporated in a turnings or in woodworking making furniture.

Of course he used the lathe to lay out the markings to be used in the twist and the finial. He pointed out the importance of making a right and left twist to ensure balance and have it pleasing to the eye.

After the layout, Jay used a straight turning tool with teeth (AKA a Back Saw) to make guideline cuts for the bine.

This ensures that when the next step was performed the cut would guide the Microplane Round Rasp (available at Hartville Tools, part numbers: **342637** and **342254**) which creates the bine (cove) in the twist.

He demonstrated the proper and safe method of sanding the bine.

The sample twist and the twist created during the demo are noted below.

Then Jay demonstrated marking of the finial that he turned prior to the meeting.

He showed us how to drill the holes half way through the finial so it can be sculpted using either hand or powered tools. A dremel can be used to remove material between the drilled holes to make the spacing.

Then he showed us the Riffler Rasp Set (also available at Hartville Tools, part numbers: **51927** and **51923**) to shape the bines. Followed by how to sand the bines.

Please see the finished finial below.

Finial is the one marked and drilled during the Demo (see inset picture in the picture to the left).

Finished Twist (Top) brought to Demo to show what would be created. The bottom twist that was marked, cut, and prtially sanded during the demo. He took about ten minutes to complete it after the demo.

Sites provided by Jay to view in making twists and spiral finials:

http://www.sawmillcreek.org/content.php?143-How-I-Make-Spiral-or-twisted-Finials

http://www.stuartmortimer.com/

Thanks **Jay** for an outstanding demo.

Club Meeting and Demo Schedule

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There is no 3rd Saturday of the Month Meeting in December since it's too close to Christmas

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***Tues Jan 6**	**Club Meeting and Demo – Tom Krajacich Lidded Box**
****Sat Jan 10, 17, 24, 31**	**Segmenting Classes**
***Tues Feb 3**	**Club Meeting and Demo – Reb Bishop**
****Sat Feb 21**	**Tool Making Session More Info to Follow**
***Tues Mar 3**	**Club Meeting and Demo – David Stratton**
****Sat Mar 21**	**Demo – Ken Quashnik**
***Tues Apr 7**	**Club Meeting and Demo – Jay Eklund**
****Sat Apr 18**	**Demo - Sam Sampedro**

* 6:30 – 9 PM ** 12:30 – 4:30 PM

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Perpetual Bowl

The 'Perpetual Bowl', turned by **Tom Krajacich** was won by **David Stratton** who will have the privilege of turning the bowl for the January 6th meeting.

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Thanks

A very special THANKS to:

All of you that come in early to help set up for the meeting and those of you that stay after the meeting to clean up and secure the equipment. It is deeply appreciated.

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Thanks to **Larry and Mrs. Harman** and our favorite **Club Secretary Marian** for bringing in the refreshments for the December Meeting.

Thanks to **David Stratton** for videoing the Nov 15th and Dec 2nd Demos.

Thanks to **Chuck Kuether** for his time and effort to create and duplicate the DVDs of the demonstrations.

Information Tip – Terry Hill

At the Nov 5th Meeting, Terry mentioned the on-line Segment Calculator which makes it extremely to calculate the size of the pieces necessary to make your segmented bowl. It gives you the size of the pieces and the angle of cut.

http://www.woodturnersresource.com/extras/projects/segmentcalc/index.html

Shop Tip – Chuck Kuether

Finishing Article – Wiping Varnishes

There has been a number of discussions on using wiping varnishes and at the end of this newsletter is a great article that addresses this subject. It is a comprehensive look and testing of wiping varnishes.

Shop Tip – David Stratton

Would you like to turn a bowl without any catches?
I found a couple of videos that will allow you to do just that. Watch these…

https://www.youtube.com/watch?v=xBNAkRe9bxw

https://www.youtube.com/watch?v=kBydG7sWSRI

Editor's Comment: My thanks to the following individuals who helped with the content of this newsletter:

Chuck Kuether

2015 Segmenting Class

As you know, we have scheduled Jan 10th, 17th 21st and 28th for the 2015 Segmenting Class to be taught by Rich Charlson and Terry Hill.

The price of the class will be $25 to cover the cost of the facility, handouts, and any miscellaneous cost involved in putting on the class. There is still room for more attendees for the class. Please call Sam at 761-4145 or send an email of you want to attend.

Well, at the Dec 2nd meeting we were not able to give more definite information about the Segmenting Class. However, at the Jan 6th 2015 club meeting we will give you pertinent info on what to bring to the first class and what to expect from the class.

Demonstrators Wanted……

As you know, Chuck has been asking members to volunteer for Demonstrators. If you desire to conduct a demo, please get together with Chuck as soon as possible so we can finalize a demo schedule.

Join AAW

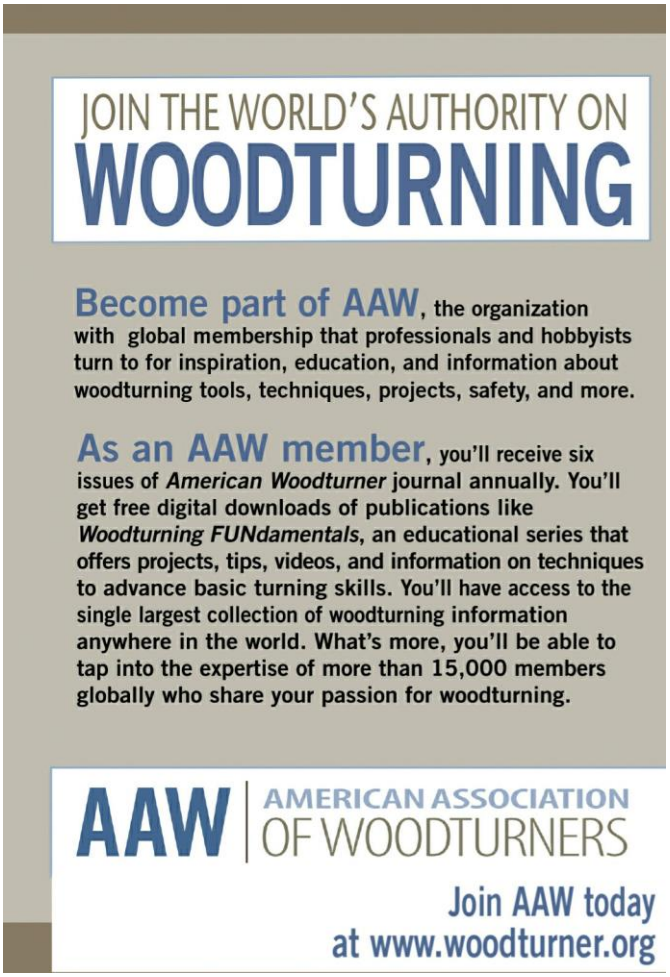
I have been a member of AAW for four years. In that time I have enjoyed access to a wealth of information available on the AAW site.

Beside the six issues of the American Woodturner Magazine, I now receive issues electronically of Woodturning FUNdamentals, Safety for Woodturners, and Let's Go For a Spin. Very educational periodicals.

Go out to the www.woodturner.org and take a look at everything that would be available to you as a member.

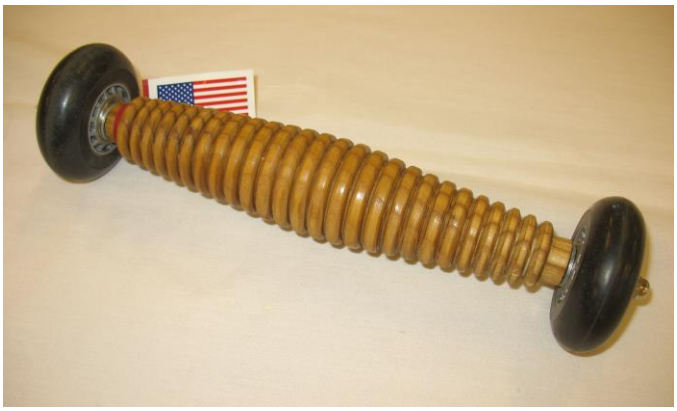
Please see the additional flyer at the end of the newsletter.

I highly recommend you join AAW. Sam



Instant Gallery Photos

(Great Photos by Paul Snyder)



Chuck Kuether (Massage Utensil)

Sam Sampedro

Sam Sampedro

Sam Sampedro

David Stratton

Del Johnson

Del Johnson

Paul Snyder

Dirk Johnson

Paul Snyder

Barry Rockwell

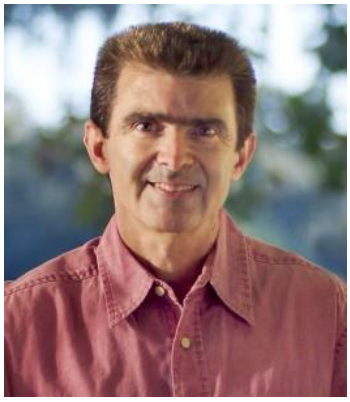
Barry Rockwell

Regional Symposiums

Great Falls Woodturners 2015 Symposium

Featuring





Rudy Lopez

When: September 26 & 27, 2015
9:00 AM to 4:00 PM

Place: Great Falls College, MSU
2100 16th Av S
Great Falls, MT 59405

More Info to Follow Soon

WOODTURNING DEMONSTRATION

AND WORKSHOP

The Chinook Woodturning Guild

is pleased to host

CINDY DROZDA

Master woodturner and artist

Saturday, Sunday and Monday, May 23-25, 2015

Cindy Drozda is among the most accomplished and innovative woodturning artists working today in North America. See her art and craftsmanship on her website: **www.cindydrozda.com**

There will be an all day demonstration.
Saturday 23 May, 2015, 9am-4pm Registration: $60 (Students $30) includes lunch (Non-members $70)

Location: CASA Building, 230 8th Street South Lethbridge, Alberta T1J2H2, Canada

Please register to attend by contacting:
Vern Miller 403-892-6729 (verntheturner@gmail.com) or Dan Michener 403-331-9177 (danmichener@shockware.com)

ALSO
Cindy will lead two full-day hands-on workshops on Sunday, 24 May, and Monday 25 May, 2015. (If enough woodturners register.) **Registration for the workshop is $175** (non-members $190) The workshop is limited, so please call Vern or Dan if you would like to attend. **Register before 31 January, 2015.**

Great Falls Woodturners
2014 Turning Club Meetings/Demos

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(This page is provided for printing)

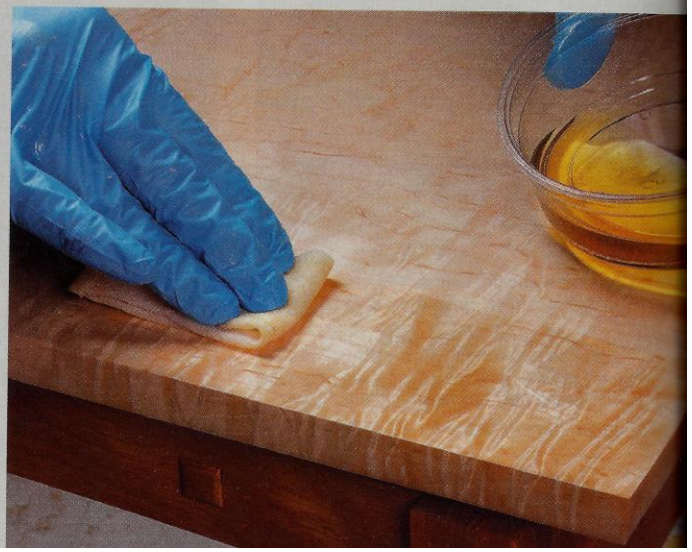
TOOL TEST

Wiping Varnishes

Which products work best for wiping *and* brushing

THE BEST CAN DO IT ALL

Some varnishes can be wiped on for easy application (left) or brushed on a tabletop for added protection (below left). As a bonus, if that brushed surface is uneven or has a lot of dust in it, you can sand lightly and then add a last wiped-on coat (below) for a flawless final surface.



The wrinkle test. *The common test for a finish's ability to cure as a film is to drop some into a shallow dish and wait.*

BY MARK SCHOFIELD

It's no surprise that so many woodworkers love wiped-on finishes: They are hard to mess up, and the oil soaks in and highlights the carefully chosen hardwood below, adding an elegantly low sheen. But a thin, wiped-on finish doesn't offer enough protection for a high-wear area such as a tabletop or chair seat. In those cases you reach for a brush to build a thicker finish.

That's why the ideal finish could be brushed and wiped on equally well. You could use that one finish in a variety of combinations, such as wiping it on a table base where there's less wear, and brushing it on the top for durability. And with only a single can on the shelf, you would save money and waste less.

There are finishes that promise to work for brushing and wiping. Officially classed as "wiping varnishes," they basically are oil-based varnishes that are thinned with solvent, and then, unfortunately, sold under a bewildering variety of names.

Fine Woodworking asked me to test these finishes to find out which ones work best for both brushing and wiping. Preparing for this test, I knew it wasn't going to be easy to identify all of the possible candidates. I contacted each relevant finish manufacturer and simply asked which of their products could be both wiped and brushed. Like the names and instructions on the cans, the manufacturers' answers were not very clear. A few were confident their finishes could be applied both ways; a few stated categorically that their wiping finish couldn't be brushed; and some fence-sitters said they didn't recommend brushing "but it would probably work." Based on their answers, I identified 16 finishes to test. Where there were different luster levels available, such as gloss, satin, etc., I went with the gloss version. The only exception was Zar Ultra Max poly, which was available only as semi-gloss, but looked like gloss anyway in practice.

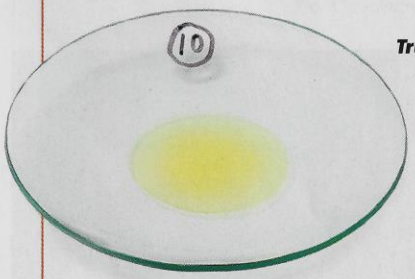
Once I had the finishes in hand, I first made sure that every one was a true wiping varnish, which is simply a thinned varnish, and not an oil-varnish blend or simply oil. After this initial test, one finish—Sam Maloof Poly/Oil Finish—fell out of the running.

How the testing was done

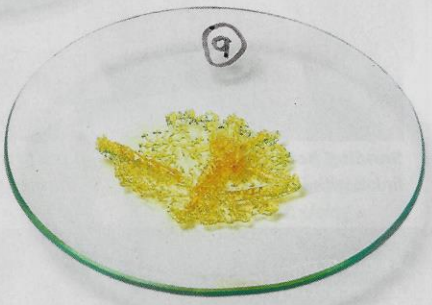
Although I wanted the same thing from each finish—easy application and great results on a variety of woods—I knew that each product has differences, such as the amount of solids in the finish and therefore how long it takes to build a film. So I treated each one as an individual, working to get the best from it. For the wiped-on samples I was looking simply for an even sheen.

IS IT A WIPING VARNISH?

Most finishes, if thin enough, can be wiped on. But for a finish to be brushed successfully, it must cure level and hard when applied as a thicker film. A simple test tells the tale.



True wiping varnish. *All but one of the finishes cured hard and level, proving they would work when brushed.*



Oil finish. *An oil finish or oil-varnish blend, when dry, will have a wrinkled or rubbery surface, which makes it unsuitable for brushing.*

For the brushed-on samples I wanted to build enough of a film to protect the top of a dining table, and create a dead-smooth surface. While inconsistencies in the wood, like pores and minor irregularities from planing or sanding, will show in the surface of a wiped-on finish, I wanted those all to be filled and smoothed out by the brushed-on film. The number of coats it took to achieve each of these results varied (see chart, pp. 40-41), which means that some of these finishes will take longer to apply than others, a factor I weighed as heavily as looks and durability.

I tried each product on two common furniture woods. I used curly maple to see how each finish popped the figure and how its color impacted a pale wood. I also tested each finish on cherry because of its neutral color and popularity. I sanded each board

Tough tests

Schofield wiped and brushed each product on two types of woods: plain cherry and figured maple. Then he evaluated the appearance and toughness of each finish.

First coat. *Schofield divided each cherry sample board down the middle, wiping finish onto one half (the other half was for brushing), letting it soak in, and then wiping it off.*

Better build. *Schofield let each brushed-on coat cure for 24 hours before sanding with P320-grit paper and applying another one. He stopped when the surface was a smooth film with no irregularities.*

Sanding between coats. *He sanded the first coat of each wiped-on finish with P400-grit paper. All of the finishes sanded easily enough.*

As many coats as necessary. *He applied as many coats as it took to get an even sheen.*

to P220-grit using a random-orbit sander, continuing up to P400-grit for the wipe-on boards. Thinner finishes require a smoother surface for best results.

Wipe-on application varied—Some wiping varnishes get sticky quicker than others. So I wiped on the first coat liberally, allowed it to soak in for the length of time recommended by the manufacturer, and then wiped off the surplus. If no time was specified on the can, I checked each finish after 10 and 15 minutes, wiping it off if it was starting to get sticky, and leaving it for 20 minutes if not.

A coat of oil-based finish needs at least 12 hours to dry before sanding. To be safe, I waited 24 hours before sanding the first coat with P400-grit paper and a cork-faced block. Then I vacuumed off the dust and wiped on more coats, waiting 24 hours each time.

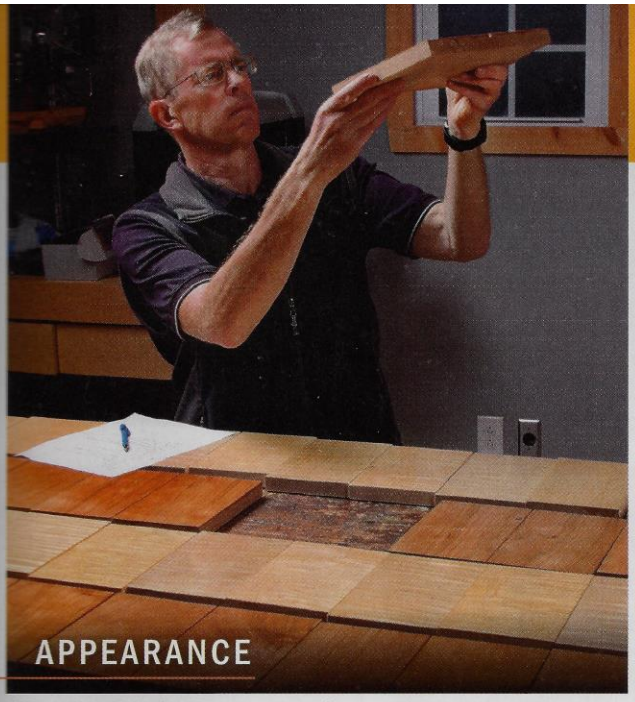
Additional tests for brushed finishes—I chose a natural China-bristle brush for the brushing test, except for the two oil/water hybrids, where I used a foam brush. I allowed the first coat to dry 24 hours before sanding. A brushed surface is a little bumpier than a wiped one, so I sanded with P320-grit. I repeated these steps, sanding each coat, until I was happy with the look.

After letting the finishes cure for a week, I evaluated them for clarity, depth, and how well they enhanced the wood's figure and natural shimmer. I then rubbed them out with steel wool and wax to better represent a typical final surface, and tested them for durability and protection. All of the finishes rubbed out fairly easily.

To determine wear-resistance, I used a set of 12 pencils with leads graduated from a soft 6b to a hard 4h to try to scratch the surface. All the finishes were at least moderately scratch-resistant, but a few offered a higher level of hardness. To see if the brushed-on finishes offered enough protection for a tabletop, I left some red wine under a glass for 24 hours on each maple board. The good news is that all 15 finishes were undamaged.

There was also some variation in the amount of color that the finishes imparted on the maple, whether brushed or wiped. The

Photos, except where noted: Asa Christiana



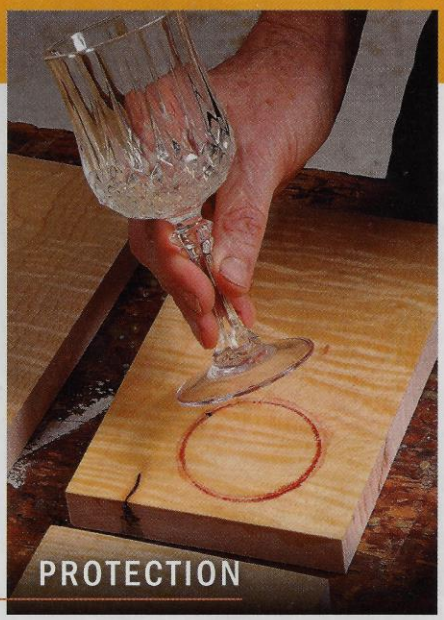
APPEARANCE

All angles. *Schofield looked at the finishes at a low angle to detect problems with surface quality, and also looked at them head on to evaluate color, depth, clarity, and how well they enhanced figure.*

Thick and thin. *The best finishes were beautiful both brushed on thick and wiped on thin.*

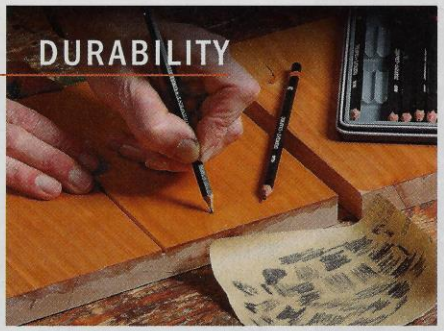
Color varies. *Schofield used the maple samples to evaluate color. The darkest finish was Waterlox (left), while Formby's Tung Oil Finish (right) added the least color.*

Trouble with oil/water hybrids. *The Zar Ultra Max finish (shown) was plagued by fish-eyes when brushed. The Wood Turners Finish left cherry looking gray.*



PROTECTION

The wine-glass test. *To test the impermeability of the brushed finishes, Schofield dipped the base of a glass in red wine and left it on a sample board for 24 hours. In every case, the dried wine simply wiped off (below), leaving no trace.*



DURABILITY

The scratch test. *Using a set of pencils with 12 levels of hardness, Schofield attempted to scratch each finish.*

Toughness varied. *Most of the finishes were scratched by the hardest pencils, but a few were unblemished.*

Wiping varnishes, head to head

To come out on top, a finish had to wipe and brush well, beautify the wood, and produce the desired level of sheen and protection in the fewest possible coats.

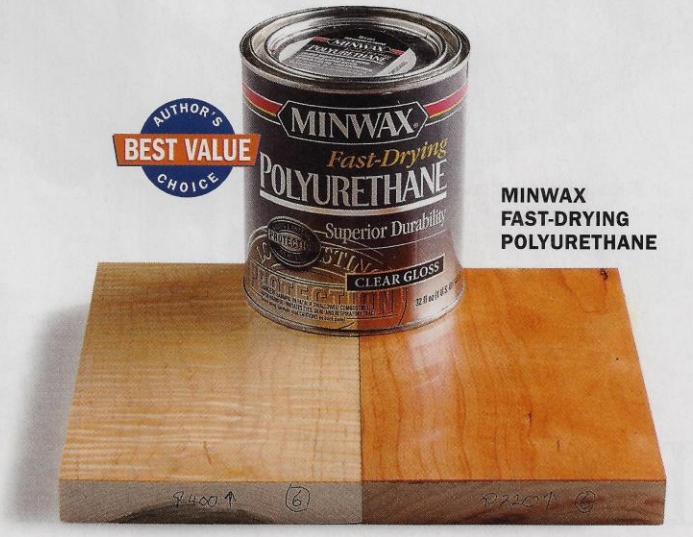
PRODUCT	STREET PRICE/QT.	COATS NEEDED		SURFACE QUALITY		SHIMMER/ DEPTH*	FIGURE**	SCRATCH TEST
		WIPING	BRUSHING	WIPING	BRUSHING			
Formby's Tung Oil Finish	$14	3 to 4	4	Excellent	Very good	Excellent	Excellent	Good
BEST OVERALL Arm-R-Seal	$17	3	3	Excellent	Excellent	Excellent	Excellent	Very good
General Finishes Seal-A-Cell	$20	3 to 4	4	Very good	Very good	Excellent	Very good	Good
General Finishes Wood Turners Finish	$28	3	4	Fair	Very good	Fair	Very good	Good
Minwax Antique Oil Finish	$20	3 to 4	5	Good	Good	Very good	Excellent	Good
BEST VALUE Minwax Fast-Drying Polyurethane	$10	3 to 4	3	Excellent	Excellent	Excellent	Excellent	Very good
Minwax Tung Oil Finish	$26	3 to 4	4	Excellent	Very good	Excellent	Excellent	Good
Minwax Wipe-On Poly	$21	3 to 4	5	Very good	Very good	Excellent	Excellent	Good
Phoenix Finish-All	$22	4	5	Fair	Very good	Fair	Very good	Good
Sutherland Welles Murdoch's Hard Sealer	$41	5	4	Fair	Good	Fair	Good	Good
Sutherland Welles Wiping Varnish	$46	2	3	Good	Excellent	Excellent	Excellent	Excellent
Watco Wipe-On Poly	$20	3	4	Very good	Very good	Excellent	Excellent	Good
Waterlox Original Sealer/Finish	$30	4	5	Good	Very good	Excellent	Excellent	Good
Zar Tung Oil Wipe-On Finish	$17	3	3	Excellent	Very good	Excellent	Excellent	Excellent
Zar Ultra Max Wipe-On Poly	$36***	4	5	Poor	Poor	Fair	Very good	Excellent

* Tested on cherry

** Tested on curly maple

Photos, this page and opposite: John Tetreault

GENERAL FINISHES ARM-R-SEAL



MINWAX FAST-DRYING POLYURETHANE

COMMENTS
Takes one more coat than the winners, but results are beautiful. Adds the least color to light woods.
Gives beautiful results with only three coats, wiped or brushed. More scratch-resistant than most.
Very thin finish builds slowly but has good depth and shimmer. Not able to build as thick a film as others.
Oil/water hybrid. Finish dries fast and sands easily, but doesn't penetrate or add shimmer. Also, gray-looking on maple.
Thin finish builds very slowly, especially when brushed. Pops figure well.
Designed for brushing, but also wipes easily. Builds quickly with beautiful results and above-average toughness.
Top-notch results but builds slower than some and offers moderate scratch-resistance.
Thin finish requires more coats to build when brushing, but yields good results. Second-least color change on maple.
More of a sealer than a finish. Required many coats and results were dull.
More of a sealer than a finish. Never really built whether wiped or brushed on.
Thick, fast-building, beautiful, and tough. Best brushed finish in test, but hard to wipe on evenly.
Good build and great looks but more dust nibs than others, perhaps due to longer drying time.
Darkest finish was slow to build. Even five brushed coats left a somewhat irregular finish.
Good build but very thick. Brushed-on coats were a little uneven. Tied for highest scratch-resistance.
Hybrid oil-water mix. Too sticky for wiping evenly, and brushed-on coats became a mass of fish-eyes (dimples).

***Not available in quart size; $18/pint

darkest finish was the Waterlox, followed closely by the Sutherland Welles Wiping Varnish and the Zar Tung Oil Wipe-On Finish. The finish that turned the maple least yellow was Formby's Tung Oil Finish, followed closely by Minwax Wipe-On Poly.

The bottom line

While this test revealed a few specialists—thin finishes that wipe beautifully but don't build much, and thick finishes that brush on clear and tough—I was looking for finishes that do it all. A number of these products fill the bill, but two edged out the rest when all factors were considered. General Finishes Arm-R-Seal is my pick for the Best Overall finish. It applies quickly and easily by brush or rag, builds quickly with fewer coats than most, looks great thick or thin, and rubs out easily with steel wool.

On sale for as low as $10 a quart, Minwax Fast-Drying Polyurethane is a steal. Meant for brushing, its low viscosity also makes it excellent for wiping. You might have to wipe on an extra coat compared to the Arm-R-Seal, but the results are almost identical, the price is lower, and the finish is more widely available. □

Mark Schofield was FWW's resident finishing expert for 13 years.

Tool Rests for Parting Tools

Years ago, I made a stubby-post tool rest out of a bit of 1" (25 mm) wide rectangular-stock steel. This small-diameter tool rest was useful for supporting a parting tool right next to the faceplate. Unlike standard-size tool rests, this post can be positioned to allow tool support at 90° to the cut.

I have since replaced the rectangular tool post with a 1½" (38 mm) diameter, round rod. I use this tool post on my primary lathe, and have ground the back half of the top back at 45°. I use this tool rest frequently.

The small toolrest is also invaluable for close support of a small gouge when undercutting the bottom of a bowl. The gouge can be moved up and over to achieve a high shearing cut for blending the bottom diameter of the bowl into its side curve.

I have made the same tool post out of 1"(25 mm) rod for my Powermatic lathe. Cut a length of 1" (25 mm) cold-rolled steel stock at 45°, about 8" (20 cm) from one end to create two posts. Make a second cut square across halfway up that 45° slope. Round all edges and smooth with a sander.

If you have a welder you can cut a 1½" to 2" (38 mm to 51 mm) section of 5⁄8" to 1" (16 mm to 25 mm) diameter rod and weld it to the top of a 1" (25

mm) shaft to give a bit more support for the gouge. Any wider would defeat the purpose of the narrow tool rest. Sufficiently round all the top edges of the metal to allow the post to slip in close to a bowl without the danger of marring the wood.

If you give this simple tool rest a try, I think you will find yourself reaching for it regularly.

~ Fred Williamson, Crozet, VA

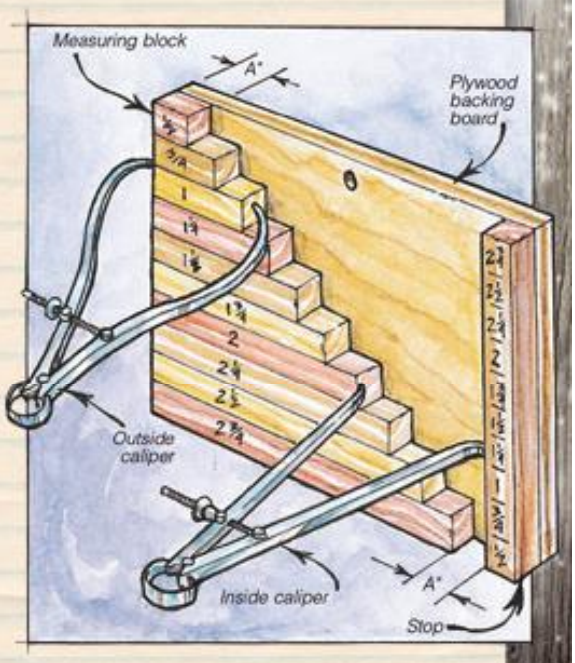
TIPS & TRICKS

From Santa's Workshop

Dual Caliper Board

With this "Caliper Board" close to your lathe, you'll be able to quickly and accurately set distances on both inside and outside calipers. The one shown measures 1/4 inch increments, starting at 1/2" and continuing through 2-3/4", but the board can be customized to your needs. To avoid cross-grain movement problems, be sure to use plywood for the backboard.

Once all the measuring blocks are added, the stop, also made from 3/8 inch by 3/8 inch stock, is glued to the right-hand side, as shown. By making the "A" dimensions the same (in this case 1/2 inch) you can use the board to take measurements with the inside calipers. - *Woodworker's Journal Editors*

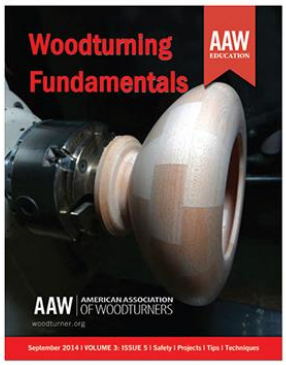


Membership

Turn to the AAW for inspiration, education, and information about woodturning tools, techniques, projects, safety, and more.

More than $120 of educational resources included with each $55 general membership.

American Woodturner
journal, six issues annually, each packed with woodturning-related articles, projects, photos, tips, techniques, and news. Plus, a comprehensive library of all past issues dating back to 1986, with a searchable, online index. Newsstand price:
$53.70



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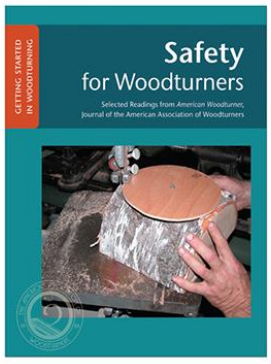

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