

NEXT MEETING  
JULY 23

JULY - VOLUME 3, ISSUE 7

# ASSOCIATION OF REVOLUTIONARY TURNERS

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WWW.REVOLUTIONARY-TURNERS.COM

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## PRESIDENT'S COLUMN - KEN LINDGREN

ART's activity level has turned into second gear and third is not too far away. I hope all of our members will be able to participate, enjoy and profit from all of our upcoming activities.

Our summer outing was a great success. Great people, perfect weather, an abundance of epicurean delights, tall tales galore as people relaxed with their feet dangling in the cool water of the pool, a wood swap, and yes even a little bit of turning all highlighted the day. Dave Eaton won the floating turning competition with a multi-center duck. He won not for the turning but for the idea of shoving buckshot up the duck's #^\*() to make it float level. Derek Tepaske amazed everyone with photos of his new Stubby lathe and 300 lb logs he puts on it. Hopefully one will be finished by the next Show & Tell.

Upcoming events include the Luke Mann demo, Marshfield Fair, Prowse Farm Festival and Topsfield Fair. All of these take place in less than 2 months. They are all excellent ways to improve your turning skills and knowledge. Hours of turning and mentoring take place each day of each event. For those of us interested in the almighty \$, all of the fairs are excellent opportunities to

make enough money to pay for that new tool you want. Even if you don't want to sell, come out and enjoy the fair and help the club run its booth.

Nuff said? I think so, except for a few Turn-a-holics out there.

## SAFETY TIPS

- Always wear a face shield!!!
- Make sure your tailstock is LOCKED before turning on the lathe!!!
- When you have to chase your lathe around the room, you're turning speed is too high.

## MEMBERSHIP HAS ITS PRIVILAGES...

### CA Glue & Accelerator Available

Thin CA Glue	2oz	\$4.00
Medium CA Glue	2oz	\$4.00
Thick CA Glue	2oz	\$4.00
Accelerator w/pump	2oz	\$3.00
Anchorseal	1gal	\$7.00

2" & 3" Velcro backed sandpaper discs  
- 80 to 800 grit 10/pack \$2.00

## MEETING MINUTES - JUNE MEETING

Ken Lindgren called the April meeting to order at 7PM.

Craft Supplies has donated another \$15 gift certificate to the club, which was included in the Wood Swap.

Joanne Van Pelt brought in munchies this month. This sure is appreciated when you don't have time to hit the McD's drive-thru in the way down. Thanks, Joanne. Mike Souter will take next month.

Ken mentioned the autographed 3-volume Richard Raffan book set donated by Woodcraft, which was raffled later at this meeting. Tickets are \$10 each, and 12 tickets had been sold at that time.

Ken mentioned the upcoming article on critique guidelines in the AAW magazine.

The bulk of the July meeting will be devoted to the critique night. This will be a "roundtable" format, where everyone participates in the judging. There will be separate categories for beginner, intermediate, and advanced turners.

Ken extends an invitation to all members for the summer outing to be held at his home in Norwood July 17. He will also prepare directions. Ken will supply hotdogs and burgers, and asks members to sign up to bring salads, desserts, etc. The challenge is to make something that floats. Ken seemed willing to let members try his lathe, and he and Peter Teubel will supply some wood.

The "Turner of the Month" column is being discontinued because no-one volunteered to take it over. Thanks to Bobbi Tornheim for writing the column for well over a year now, I think.

Ken mentioned that the AAW is in need of a Kodak Carousel Slide Projector. If you have a projector that you'd be willing to donate, contact the AAW directly, or see Ken.

Donna Banfield mentioned that member Jack Grube, of Pinkerton Academy, has several thousand pounds of wenge wood for sale or trade. I contacted Jack, and he's not ready to sell at this time. The wood has a high moisture content, so he

sealed it and put it in storage for the summer. The wood is 10/4 to 12/4, some of it very wide, and there are also some bad checks. I would think nothing will happen on this until Labor Day, at the earliest.

Dave Eaton will coordinate the club's presence at the Marshfield Fair, 8/20 - 8/29.

Bobbi Tornheim mentioned that the demo this month will be larger spirals, with Devon Thibeault.

Bobbi also spoke about the Luke Mann demo scheduled for 8/14 from 11AM - 3PM. The space at Middlesex Community College in Bedford is paid for. We may open the event to other clubs, but that is still undecided at this time.

The following task assignments were agreed on:

Audio / Visual—Carl Singlais, Al Prim, we will have a microphone and two monitors

Set-Up—Dick Vose, Donna Banfield, Bill Wall, Al Prim we will prepare the site on Friday 8/13 (hope no-one's superstitious)

Clean-Up—Dave Hutchins will be in charge, but everyone is asked to help

Food—Barbara Clorite-Ventura, Dennis Daudelin

Registration—Derrick TaPaske, Norm Mancuso

A quick survey indicated that 15 of 34 present will attend. The facility can accommodate up to 50 people with no problem. Derrick had registration forms which members are asked to submit to him. Gary Bashian will add the form to the new Luke Mann Demo page on the website. Admission is \$15 each or \$20 for couples, checks payable to "ART".

Lunch (choice of sandwiches and chips) will be available at the site for \$5. Drinks extra.

The demo will be on square bowls, and possibly other topics, like surface treatments.

We will email members on the event, with the registration form included.

Joanne Van Pelt spoke about the Freedom Pen

**“ The bulk of the July meeting will be devoted to the critique night. “**

**MEETING MINUTES - MAY MEETING (CONT.)**

project, which has since been held 6/26 at all Rockler stores. The ART contingent at the Rockler in Danvers was led by Ralph Rumery and John Cioffi, who both devoted an entire day to the event. This is an important program and certainly worthy of member's participation. Woodcraft is planning a Turn-A-Thon for November, and possibly a second event before that. Thanks to all who took part.

Woodcraft will sponsor a Pen Turnathon on November 11, and possibly also an earlier date.

Dave Eaton mentioned that Rockler fliers had been left behind at the Woodcraft store after the last meeting. Remember that we are guests at Woodcraft and shouldn't leave competitor's literature lying around.

Joanne mentioned that in the future the tops will be donated to the Boston Medical Center, where Devon's wife works.

Mike Green, Peter Teubel, and Dick Vose recently had a marathon top-turning session, where they made 90 tops, nearly doubling the club's previous output. Now that's the spirit!

Bobbi mentioned that maple or any of the fruitwoods are good for tops.

For the wood-chain, Ken had the "flying arches" bowl started by Norm Mancuso last month. Ken was scorching the inside of the bowl when apparently the heat melted the glue and the arches fell off. Ken then sanded the inside and applied black and gold paint, for a textured affect. There was a suggestion that the half-arch could be used as a boomerang.

Mike Souter had Peter Priestner's wavy-dotted-line bowl from last time. He had inlaid mahogany on the bottom.

Gary Bashian showed the giant top of Southern Yellow Pine started by Mike Green last month. Gary had shaped the handle and applied some patriotic colors at the neck.

Sign-up slips were passed out and drawn for the next person to take each piece.

Peter Priestner indicated that the club has about \$2400, after the recent sandpaper purchase. Peter also said the club has gross income of about \$400 per month. The glue and sandpaper sales shows a profit, and of course the Wood Swap is pure profit, less the first pick for the demonstrator.

Gary Bashian spoke about the club website, [www.revolutionary-turners.com](http://www.revolutionary-turners.com). Recently, he has been putting pictures of members and their work on the homepage. There is a new page for the Luke Mann demo, and he tries to keep the events page updated. Gary mentioned a symposium sponsored by the Adirondack Woodturners, in Albany, 10/30 - 10/31. Gary also spoke about the Names and Faces page, developed by Dave Eaton and currently on his website. Gary plans to update this page and add it to the ART site. Gary also talked about adding a page for the wood-chain, with pictures of each piece as it progresses, which seemed to be popular with members.

Dick Vose said that we have received the new videos, but they are not yet copied and available for rent. Barbara Clorite has the books and videos for a monthly rental fee of \$2.00. Dick said that we currently have 66 members.

Mike Green mentioned the Peter Toch sale items, including the laser pointers, thin-kerf parting tool, and the sharpening jigs for the Ellsworth-grind bowl-gouge (great, I have one myself).

**SHOW & TELL**

Dave Eaton had made 4 tops for the Tops for Kids Program

New member Doug Rand showed a wooden goblet.

Dietrich Kulze brought in a hollow form of box elder with cocobolo insert.

Ken had made a large butternut bowl with wood from Dave Eaton. Ken said the bowl went from 14 lbs. to 8 lbs. as it dried, the difference being almost water loss. That's almost 3 quarts of water! Ken used the Ellsworth gouge on this bowl. Butternut tears easily, but it wasn't a problem in this case. Finish is mineral oil with carnauba wax. Ken men-

**“ Woodcraft will sponsor a Pen Turnathon on November 11... “**

## MEETING MINUTES - MAY MEETING (CONT.)

tioned that he recently had a 14" bowl that did not sell at \$250, but a similar 12" bowl sold quickly at \$150.

Devon showed a maple bowl that had cracks willed with CA (cyanoacrylate or "super glue") that he called "Flawed Beauty". He also showed and passed around pens with a serpentine pattern he called "weavewood", with criss-cross lines made of veneer cut with a scrollsaw. Devon also had a small vase of a decking material called "Trex", made of recycled plastic and wood fibers. This material turns well, and produces a mottled look.

Mike Green showed a natural edge ash bowl, burnt on the inside, that he called "Phoenix". Mike had tried "layered torching", but found it didn't work very well. He had textured the outside with a wire brush.

Bobbi brought a bowl of Norfolk Island Pine that, uh, needs a bit of work. This has the characteristic 5-point star pattern that most turners try to center in the piece. In keeping with the order of the day that pieces be named, Bobbi calls this "Puzzle Bowl".

John Moore had a cherry hollow form, and a mystery piece identified as cherry. John also had an information sheet from the well-known Del Mano Gallery in Los Angeles.

Dennis Daudelin brought in a segmented bowl of curly maple, walnut, and bloodwood. Dennis had used wood bleach to clean the piece, and said it does not bleed across the glue line. He also said bloodwood does bleed during sanding. He suggests a sanding sealer, and uses compressed air to blow bloodwood dust out of the pores of the wood. Peter Priestner uses alcohol to clean the wood. Dietrich Kulze says a shop vac works for him.

Donna Banfield had a piece of spalted maple "firewood" that was warped, with natural edge, and had worm holes, that she called a "banana boat". Dave Eaton described it as a "big potato chip". Donna also had a white oak bowl, turned green, with a few cracks. She had turned two concentric

tenons to make it easier to gauge wall thickness. It was said that white oak has less water than red and shrinks more uniformly.

Ken suggested turners try to "cut the ghost image" at the maximum diameter of an uneven piece, and use lots of light.

Donna mentioned a huge plate of box elder, raised with wedges, that had blown apart at only 150 rpm. She mentioned the importance of using plastic tubes on fluorescent lighting fixtures to contain shattered glass in the event of a blow-up.

Gary Bashian showed a small bowl of spalted apple from Joanne Van Pelt. Gary has since made a second bowl from the other half of that log, plus a small candy dish of spalted maple, and given all to family members. That's the risk of having a turner in the family - your gifts are usually wooden, and round.

Mike Souter brought a poplar can with a metal top from Rockler. The foot is a doorstop from Home Depot. EMS also has feet for canes. Mike also had a cherry goblet, eaten by ants, that he called his uncle's ant goblet. Mike's uncle in Florida has a tree with a huge burl on it, but he refused to give out the address! Mike also had 4 tops for our Tops Program.

New member David Donneley had just taken a spindle class at the North Bennett Street School, and recommends the program. He had a bud vase of silver maple burl, and some candlesticks.

David Gillette was the winner of the raffle for the Richard Raffan autographed book set.

### DEMO

This month's demo topic was spirals with Devon Thibeault. First, Devon took a moment to introduce himself and spoke briefly about his background.

Devon indicated there are several parameters to consider when cutting spirals:

- overall length of the piece

**" Bobbi brought a bowl of Norfolk Island Pine that, uh, needs a bit of work." "**

## MEETING MINUTES - MAY MEETING (CONT.)

- diameter – start with a blank at least 1/8" wider than the desired finished piece. There will be loss because the wood is not square and the awl may hit a grain line and deflect to one side when trying to mark the center

- depth – tonight's piece will have a spiral depth of 3/16"

First, Devon uses a skew chisel, long point down, to define the shoulders. He also sometimes "planes" with the skew, to get the piece round and smooth.

Then he cuts a cove at the shoulder with a 3/8" spindle gouge, to make a relief area for the saw at the ends of the spiral cuts. Rotate the chisel as you cut down-grain.

To lay out the grid marks, Devon first makes the longitudinal lines, in this case 4, using the tool rest as a guide.

Ideal spacing is 1 1/4 - 1 3/4 ". If the piece is tapered, remember that the spacing is closer at the smaller end. Mark for the guide lines with a tape measure. Then he marks on the longitudinal lines and turns the piece around, under power, to make the rings. Lastly, he uses an index card wrapped around the curve of the piece to mark the diagonals.

Next comes the most monotonous part of the process, cutting the grooves on the diagonal lines, to start the spirals. Devon prefers a Japanese saw, though a Western saw can also be used. The important thing is that the saw have a backing strip to prevent flexing. He makes cuts 3/8" deep, marked on the saw with tape, and rotates the piece 5 to 10 degrees with each cut.

Devon passes around some samples of his work, including a 2-start spiral which looked like 2 ropes twisted together. He generally charges \$60 for a 3-start spiral, and \$80 for a 2-start, since it's actually more work.

Once the saw cuts are made, Devon cuts the spirals themselves with a bench chisel, double bevel carving chisel, or carving gouge (back bent chisel). He mentioned that the radius of the carving tool is

known as the sweep. He cuts on either side of the line in a 'V' shape. If you don't want to cut both lines in one direction, an alternative is to turn the piece around or step behind the lathe.

Devon had made an adjustable holding fixture that he clamps to the bench. See picture.

At the end, he makes a clean-up pass, rounding any rough edges. Devon tries to keep the bottom of the "V" crisp, restoring with a butter knife, if necessary. If you're going to file, he suggests a half-round file.

Sy Bobroff asked if Devon had ever "messed one up and patched it in". Devon said that he'd "never messed one up".

If the spirals are well cut, you can start sanding at 150. If the piece is to be painted, Devon suggests 100 only. If it's to be stained, stop at 220. Ralph Rumery suggested a profile sander to speed the process.

Thanks to Devon for an interesting and informative demo.

Bobbi mentioned that the monthly challenge, based on the evening's demo, is of course spirals.

There was a small wood swap this month, about \$6.

The meeting was adjourned at 10:00 PM.

\*\* Quote of the evening: "I haven't messed one up".

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## TOOL REVIEW - GLASER A11 5/8" BOWL GOUGE

### By Peter Teubel

Jerry Glaser, a metallurgist and woodturner, makes the most expensive turning tools available. His claim to fame is the fact that his tools stay sharp longer and the handles absorb vibration. Yea, yea, yea...we've all heard this "marketing hype" before from almost all other tool makers. Each one claiming to have the "best". However, the claims from the Glaser tools don't come from Jerry Glaser....they come from his customers.

As a production turner, time is money. While I can generally sharpen a tool in 10 seconds or less, the less time spent sharpening, the better. So I decided to try out a Glaser A11 5/8" bowl gouge and really see if it really merits the claims.

The gouge is made from A-11 Particle Steel which has a 10% vanadium content with a wear resistance 4-5 times greater than M2 high speed steel. The flute shape is different from any available from Sorby or Crown. It's a deep "V" shape instead of the usual "U" shape. It comes ground with a swept back grind...swept straight back, not curved back like the Ellsworth grind...but it's a simple matter of adjusting the Oneway VariGrind jig on the Wolverine system to duplicate the grind.

The handle is made from a 1-1/4" diameter, hollow aluminum extrusion that is filled with lead shot to dampen vibration. It's significantly smaller in diameter than my rather large custom cocobolo handles I favor for almost all my tools...yet it's significantly heavier.

The most wear a gouge will see is when roughing a blank that contains bark. The bark often holds sand and other foreign material OTHER than wood which will quickly dull any tool. I make a lot of natural edge bowls and my Crown PM tools are used for initial roughing. The edge last about 2 passes on the rough blank before it is noticeably dull. So what better test for the Glaser!

The grind on the edge combined with the handle were unfamiliar to me, so it took some getting used to. One pass...good cut. Two passes...good

cut. By now I'd be re-sharpening the Crown PM tool. I continued using the Glaser. Pass after pass, the edge held its sharpness. Other than doing some shear scraping with an Ellsworth ground tool (I'm more comfortable with that one), the Glaser bowl gouge held its edge for the ENTIRE bowl...inside and out. I was TOTALLY amazed!

Now, before you think I was pushing the gouge beyond its edge holding limit because I was trying to conserve its expensive tool steel from being turned into dust on the grinder, THINK AGAIN! Those who know me know I am a sharpening fanatic. In my opinion, turning tools are CONSUMABLE items just like sandpaper...regardless of cost. They are meant to cut wood and they can't do it when they are dull. I generally go thru a 5/8" bowl gouge in a little more than a year.

I'm still trying to get used to the handle, but I have found that it really does cut down on vibration that's usually transmitted to the hand. So much so that I find myself turning longer between breaks.

In conclusion, I can only say that these tools are **everything** they claim to be. I had to get used to its differences from the turning tools I'm used to, but the learning curve (or technique change) was well worth it.

"...the Glaser bowl gouge held its edge for the ENTIRE bowl...inside and out."



## MEDIA LIBRARY

### Current Video Inventory:

- \* *Turning Wood with Richard Raffan*
- \* *Turning Boxes with Richard Raffan*
- \* *Turning Projects with Richard Raffan*
- \* *Bowl Turning with Del Stubbs*
- \* *Skill Building Projects with Mark St. Leger*
- \* *Sharpening Fundamentals*
- \* *Turning Projects from Scrap with Bob Rosand*
- \* *Natural Lipped Bowls – Ken Bullock*
- \* *Wooden Bowls on a Budget – Ken Bullock*
- \* *Rude Osolnik – Dean of American Woodturners*
- \* *David Ellsworth Tape #1*
- \* *David Ellsworth Tape #3*
- \* *David Ellsworth Tape T*
- \* *Skew Chisel with Alan Lacer*
- \* *Turning a Salt & Pepper Mill by Holtham*
- \* *1996 AAW Symposium - Techniques*
- \* *1997 AAW Symposium - Techniques*
- \* *1998 AAW Symposium - Techniques Vol #2*
- \* *1998 AAW Symposium - Techniques Vol #1*

- \* *1999 AAW Symposium - Techniques Vol #1*
- \* *Vessels of Illusion by Trent Bosch*
- \* *From Tree to Table by Mike Mahoney*
- \* *Woodturning Wizardry by David Springett*
- \* *Woodturning - A Foundation Course*
- \* *Mike Darlow DVD set*  
-> Available on VHS tapes

### Current Book Inventory:

- \* *Woodturning - TIME/LIFE Book*
- \* *The Fine Art of Small-Scale Woodturning*
- \* *Fundamentals of Woodturning by Mike Darlow*
- \* *Woodturning Methods by Mike Darlow*

“If anyone would like to donate any ORIGINAL videos (no copies), please contact any of the club’s officers.”

## CLUB EVENTS

**August 14th, 11am to 4pm** - The club will be sponsoring a demonstration by Luke Mann at the Middlesex Community College.

**August 20 thru 29** - Marshfield Fair. Demonstrating and selling venue.

**October 1 thru 12** - Topsfield Fair. Demonstrating and selling venue

## LINKS OF INTEREST

**Kestrel Creek** - Lots of woodturning artist links  
<http://www.kestrelcreek.com>

**Madsen Shop & Supply** - Lots of chainsaw information  
<http://www.madsens1.com/mainmnu.htm>

**Woodturners Resource**  
<http://wr.awwa.org/>

## JULY MEETING AGENDA

Remember to bring in some wood for the wood swap to help support the club!

### **6:30pm–7:00pm**

Arrive early for some social time and please remember to park across the street at the Fleet ATM parking lot.

### **7:00pm–7:45pm**

- \* Club business
- \* Announcements
- \* Show & tell. Bring your pieces in for discussion

### **7:45pm to 8:00pm**

Break

### **8:00pm–9:00pm**

Critique—Bring in a piece that you would like critiqued

### **9:00pm-9:15pm**

Break

### **9:15pm - 10:00pm**

Wood Swap

## NOTES FROM THE 'NET

### Bandsaws

By Russ Fairfield

The following are some of my experiences and philosophies on using the bandsaw. Feel free to disagree.

These comments are directed toward the 14" bandsaw in general, but are specific to the 14" Delta saw and its clones (Jet, etc.) because these are the most used by woodturners in their shops and studios. Instructions for tune-up and adjustments of the saw are presented in another article.

#### Recommended Reading

There are several excellent sources of information on blade selection and operation. Any disagreement between them is in what is important and the details.

- Mark Duginski's book, "The Bandsaw Book" is usually available from Home Depot, Lowe's, and all of the mail-order stores. It has been around for years, and is considered "the" authority on the bandsaw. The basic information is good, but newer developments are not discussed and the illustrations are out-of-date.

- Lonnie Bird's book, also called "The Bandsaw Book" is a newer (1999) reference that uses the same recent vintage tools that most of us have in our shops.

Two Internet sites are also excellent sources. If you don't have a computer, find someone who does, and make copies because these are worth reading.

- Suffolk Machine, makers of Timber Wolf blades at: [www.timberwolf1.com](http://www.timberwolf1.com)

Click on the title of, "Vertical Woodcutting Band Saw Information", and "The Six Rules Of Sawing". While you are there, get their telephone number so you can order the best bandsaw blades available.

- Highland Hardware at: [www.highlandhardware.com](http://www.highlandhardware.com)

Go to the Online Magazine from their Home Page, then go to the title under the Shop Tips heading in

the index.

#### MY OPINIONS ON....

##### Buying A Bandsaw – Which One?

There are several decisions to be made when buying a new 14" bandsaw – Delta, Jet, Ridgid, or other; closed or open stand; with or without a riser block. The answers to these questions will depend on how it will be used and how much you want to spend.

The 14" saw is an assembly of compromises that were made to produce a saw that would fit the needs of the most woodworkers. This has generally been successful. However, finding a bandsaw that will make precision cuts in dry wood while having the capacity to saw large bowl blanks is asking too much. We can configure the saw towards one extreme or the other. Trying to do both with the same bandsaw will always sacrifice the precision cuts.

#### • General Quality

Delta stands alone with its lower guide assembly that places the blocks less than 3/4" below the table surface. For all practical purposes, Jet and Ridgid are identical to the Delta, except for the design of the lower guide blocks.

The Jet is available with the enclosed-stand while the Ridgid is available only with the open-stand.

The quality control of the Reliant, Grizzly, and the other clones of the Delta is out of control, and the buyer takes a chance that they will get the occasional good one.

#### • Guide Blocks

The only notable difference between Delta and the others is in the lower guide assembly. For a saw that is used for making polychromatic assemblies or similar work that requires smooth accurate saw lines, my preference is the 14" Delta. I am a believer in the old wisdom that says, "The closer the guides are to the work, the more accurate the cut and the better the finish."

However, for a saw that is used for cutting thick

**" These comments are directed toward the 14" bandsaw in general... "**

## NOTES FROM THE 'NET (CONT.)

bowl blanks from green wood, I prefer the Jet because its lower guide blocks are almost 2½" below the table, providing more clearance for the removal of sawdust and trash.

- Closed Stand or Open Stand?

The closed-stand on the Jet is more solid than the Delta because it has included an additional stiffener plate between the saw and the stand. The Delta saw will move as the top of the stand flexes, but this can be fixed with a piece of ¾" plywood.

As provided by the manufacturer, the open-stands are as rigid as the closed variety (the Delta open stand is the more rigid), and the open-stand is more stable because of its larger "footprint". This is helpful when wrestling large heavy blocks of wood to the saw table. When the open areas of the stand are enclosed with pieces of plywood, the result is superior to anything provided by the manufacturer.

The motor, belt, and sheaves are more accessible on the open stand. Maintenance on the saw drive and belt isn't something that we will do very often, but the design of the closed-base insures that it is something that we will never do.

- Riser Blocks

All of the 14" saws are sold with a 6" standard cutting depth that can be extended to 12" through the use of an accessory "riser block" that is inserted in the joint in the saw frame.

As woodturners, we are in love with our "riser blocks", BUT, there is a price for the additional capacity. The riser block adds another point of misalignment because there are now two (2) joints in the frame, and the additional height increases the flexibility of the frame and that amplifies any unbalance in the top wheel. If you are using the saw for precision sawing such as "polychromatic" assemblies (a fancy word for "segmented"), DO NOT use the riser block. The saw is capable of smoother and more accurate cuts without it.

- Horsepower

The woodturner who installs the riser block should

plan for a larger motor as part of their purchase of the bandsaw. All 14" bandsaws share the common problem of inadequate horsepower for sawing greater than 6" thickness. This is especially true when sawing green wood. You might want to consider a larger motor if you are sawing bowl blanks that are thicker than 6". Keep in mind that the cost can become as much, or more, than that of a larger saw with the capacity built in.

- My Recommendation

From the previous discussion, it should be obvious that I consider the extra cost for the enclosed-stand a waste of money. Buy the open stand and enclose it with plywood. Then add a shelf between the stringers and place at least two (2) sandbags on it. The added weight is definitely a benefit, particularly when the saw is mounted on a mobile base.

Some saws may not be available with the 1-horsepower motor in any configuration other than with the enclosed-stand. I would still opt for the open stand, and then use the money saved to buy a 1.5hp motor for it.

If you are going to use the saw for precision work, get the Delta, primarily because of the lower guide assembly, and do not install the riser block.

For sawing bowl blanks and green wood where capacity is more important than precision, get either the Jet or Ridgid with the riser-block, making the decision on lowest cost. Plan to replace the motor for an increase in horsepower.

If the saw will be used for both purposes, the Delta with the riser-block is the better saw, again because of the lower guide location. Precision sawing will suffer from the addition of the riser-block, but that is the sacrifice that must be made when using the same saw for both purposes. The larger motor may also be required.

### Buying Blades

Timber Wolf brand blades with 2 to 24 Teeth Per Inch (TPI) are available from Suffolk. You can pay more, but you can't get a better blade.

**" All 14" bandsaws share the common problem of inadequate horsepower for sawing greater than 6" thickness. "**

## NOTES FROM THE 'NET (CONT.)

Timber Wolf blades are superior for three (3) reasons.

First, they are consistently sharper out-of-the-box than any other brand. A new blade should feel “sparkling” sharp when you run your fingers across the teeth. I have received competitor’s blades that felt like running my finger across a comb – no bite.

Second, the tooth “set” on their band stock is more uniform than most other brands. That leads to a smoother sawn surface, and more efficient use of the motor horsepower.

Third, their welds are better than most of the others. The weld should be straight, strong, smooth, and ground to the same thickness or slightly thinner than the blade. Lennox makes comparable blades, but I have had problems with crooked and weak welds by their suppliers. I can tolerate having to work on a thick weld before using the blade, but I will not accept a poor quality or crooked weld.

You are fortunate if you have another source that can meet all three of these requirements.

### Blade Width

Unless there is a need for sawing a small radius, most woodturners have little need for anything other than a 1/2” wide blade. A narrower blade doesn’t have the stability for accurate sawing at an acceptable feed rate, or the strength to prevent it from bowing while making deep cuts. A 3/8” wide blade would be an acceptable compromise. Both widths are available with a variety of tooth profiles and from 3 to 24 teeth per inch (TPI).

### Number of Teeth

There are three (3) rules for selecting the teeth per inch (TPI) on the blade. Since these rules can be conflicting, the best choice is a compromise between them. It’s up to each of us to determine how much and where we are willing to compromise.

- Rule 1 – Number for Performance:

For best performance, there should be 8 teeth in the wood. Fewer than 6, and control and vibration can become problems. More than 10 and the gullet

area is too small to remove the sawdust. The proper loading should fill the gullet area of the tooth to 75%.

- Rule 2 – Number for Feed Rate:

Most people feed the saw too slowly. We should maintain a feed speed and pressure that will slightly overload the tooth gullets. Up to a point, this overload dampens vibration of the teeth and improves the finish. I once heard Sam Maloof say that the best feed rate is when the motor starts to stall. That’s overloaded!

I judge the load by the sound of the blade in the cut. When it whines, it is vibrating, and the finish is bad. The best cutting condition is when the blade is pushed to where the whine just stops. If that doesn’t stop it, the problem is usually too much tension in the blade.

- Rule 3 - Exceptions

There are probably more exceptions than there are applications of these rules, but they do work on most common hardwoods and softwoods. Very dense or resinous woods obey no rules.

- The Compromise

Obeying the rules could result in a feed speed that is too fast to accurately follow a layout line when we are doing precision sawing. But, if we slow down our feed rate, we don’t load the teeth enough to dampen the tooth vibration, and we get a poor surface. So, if it doesn’t burn the wood, a blade with more than the recommended teeth in the cut will solve the problem because the tooth gullet area is less, allowing us to use a slower feed rate while still filling the gullets with sawdust.

A better solution would be to reduce the blade speed to a level where we could follow the layout line with the recommended number of teeth. Unfortunately, a variable speed bandsaw is an option that is not commercially available.

There is no compromise available to us we are when sawing thick bowl blanks. We install a blade with 2

**“ Unless there is a need for sawing a small radius, most woodturners have little need for anything other than a 1/2” wide blade. “**

## NOTES FROM THE 'NET (CONT.)

or 3 TPI, the largest tooth and gullet area available, and don't worry about such things.

### Experience

Our use of the two blades that have become the accepted commercial standards for the 14" saw will verify the first rule. The best performance and smoothest surfaces with the 1/4 X 6 TPI blade is usually found in wood that is between 1½" to 2" thick. The ½ X 3 TPI blade makes its best cuts in wood that is about 4" in thickness. In either case, there are approximately 10-12 teeth in the cut. Cuts can be made in thicker or thinner wood, but the blade's performance is generally not as good.

### Blade Speed

The 14" Delta saw and all of its clones have a 3,200 surface feet per minute (SFPM) blade speed with a 1750 RPM motor and the stock 3" and 6" pulleys. This is too fast to get an accurate cut and a good finish on most 4/4 and thinner wood, and can cause burning in Cherry and Maple. A blade speed of 1,800 to 2,400 SFPM would be more suitable for these conditions. Changing the pulleys is not a practical solution for a saw that has many different uses. A 1½-hp variable speed DC drive motor is available at a cost of \$550. Or, we can make our own mechanical drive through a jackshaft and stepped pulleys. Unfortunately, the cost of new step-pulleys, the jackshaft, and bearings could be almost as much as the DC motor if we have to rely on commercial sources.

Either option would allow us to fit the blade speed to the sawing task, including the slower speeds required for sawing aluminum and brass. An open stand on the saw is best suited for drive modifications because of the limited space in the closed-stand for installation and adjustment.

### Resawing

A higher speed might be appropriate, but the 14" wheel diameter limits the maximum blade speed to 3200 SFPM. A higher speed would "throw" the blade away from the front of the top wheel. It would also require a proportional increase in motor horse-

power on a saw that is already lacking in power.

The ½" X 2 or 3 TPI blade performs quite well in most common hardwoods of 4-8" thickness, and the feed rate is usually limited by the motor horsepower. The blade will have difficulty clearing the sawdust from a thicker cut, and overheating can be a problem in dry wood. A common problem with sawing thick wood is that the blade gets hot and loses its tension above the top guides. An occasional light spray of water above the top guide will prevent this problem when it occurs.

A light spray of kerosene or Pam will keep the blade relatively free of resin buildup.

### Sawing Green Wood (up to 12" thick)

The ½" X 3 TPI blade, and the 3,200 SFM cutting speed works well for most green wood, and the blade is adequately lubricated by the water in the wood. The PC type blade from Sufflok is the best tooth profile that I have used. Suffolk also makes a 3/4" blade with a wider kerf that is useful in soft or "fuzzy" wood, but the wider kerf requires more horsepower than most of these saws have available.

Horsepower is a problem with any cut that is deeper than 5" or 6". Replacing the existing motor with a 2hp Baldor will improve the performance, regardless of the blade that is used, for sawing and green wood. The Baldor motor is more efficient than the stock motor on any of these saws, and the horsepower delivered to the blade will be greater than the numerical increase.

Again, increasing the blade speed would be even better, but that would require a saw with large diameter wheels and an even larger horsepower motor.

**" The ½" X 3 TPI blade, and the 3,200 SFM cutting speed works well for most green wood... "**

NOTES FROM THE 'NET (CONT.)

Woodburner System from PC

Power Supply

By Pascal Oudet

1- First, I recommend to use an old power supply, who has a ON switch on the primary. if it doesn't, there's a signal called "remote on" or "ps\_on" on the connector. in ATX PSU (2\*10 connector), it's pin 14 (no std color. pins 13,15-17 are GND, black). when PSU is plugged, but not ON, 2 signals have a voltage >0. one is 5v standby, pin 9. the other is ps\_on. short this pin to ground to power on. if any, the PSU fan must be spinning (you can look at the pinout on ATX spec at:

[http://www.formfactors.org/developer%5Cspecs%5Catx2\\_1.pdf](http://www.formfactors.org/developer%5Cspecs%5Catx2_1.pdf)).

The same principle is valid for non standard PSUs, just find the 2 wires having non 0 voltages. (ps\_on is usually lower than 5V sb) 5V outputs have red wires, 3.3V are orange. 12V is yellow. you can connect your tip to 5V or 3.3V. if it doesn't get too hot, that's it. otherwise, you need to find a mechanism to adjust the power.

2- It can be difficult to locate inside the PSU the appropriate components to modify to adjust the voltage (playing on the regulation feedback loop). It can be dangerous too, as there is a high voltage too (up to 400V dc). So don't do this. moreover, the adjustable voltage will probably be limited to 2.5V, which could be too high in some cases.

So I connected to the 5v output a PWM controller, based on a TLC555 (fixed frequency, variable duty cycle). the web

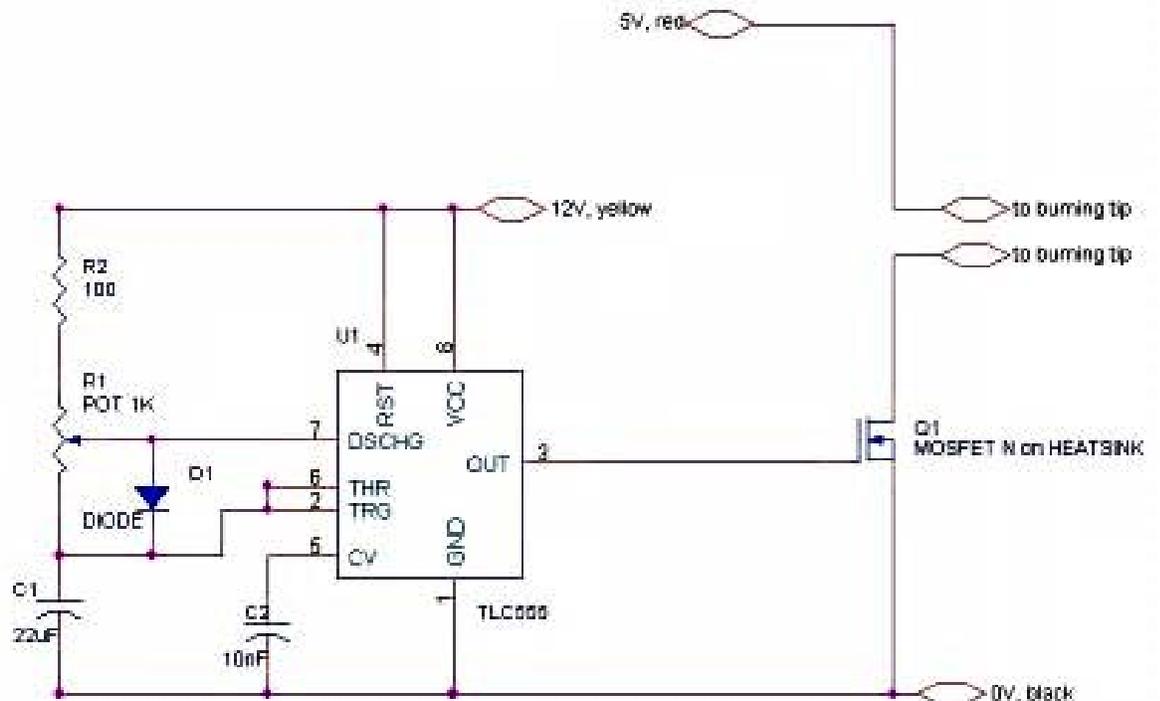
is full of this kind of circuit. I attach one schematic as an example. I recommend to make it work at a pretty low frequency (~100Hz), to minimize commutation losses. you can play with this by adjusting the 22uF cap. This circuit is powered by the 12V supply (yellow), and the output is connected to the gate of a N-mos with a Rds-on as low as possible.

Source is tied to ground, and drain to one pin of the burning tip. the other tip pin is tied to +5V (or +3V, choose the one which has the higher current rating). Mount the MOS (preferably TO220 package or bigger) on a good heatsink, as it will get hot. PSU usually don't like to have this kind of switching load, the regulation gets crazy. so you need to add a permanent load on the 5V line, say 100 ohms. You can even power a fan to blow away the fumes with the 12V line.

This circuit has probably not all the bells and whistles of a commercial one, but you can start wood burning for less than 5\$.

One more trick: if you want to make your own tips, buy some Nichrome wire. this is a resistive wire used in heating devices.

“ ...use an old power supply, who has a ON switch on the primary... “



## MONTHLY SHOP TIPS

### Jet 18/20 Bandsaw

By Peter Teubel

If you own a Jet 18", or 20" bandsaw, you are painfully aware of how difficult the lower guide bearings are to adjust fore and aft. You have to practically remove the entire table assembly unless you have small hands (or are a contortionist). I don't know who was the freakin' Einstein who designed that system, but they should be put on some serious medication.

Solution? Simply drill two 3/8" holes right thru the top of the cast iron table above the adjusting screws. You can now use a long hex wrench to

access the screws from ABOVE the table. Don't worry about getting the holes EXACTLY above the screws. Using a ball-end hex wrench, you can even get at them from an angle just as easily.

## OTHER EVENTS

Thursday July 29, 6:00pm - 9:00pm

**Peter Teubel** will be teaching "The Art of Pen Turning" at the Woodcraft store in Woburn on . In addition to making a European designer pen in class, all students will take home 2 addition pen kits (complete with wood blanks), a set of pen bushings, and a complete set of pen turning tools. Cost is \$80.

Sunday, August 1, 10am - 4pm

**Peter Teubel** will be teaching "Vacuum Chucks in Turning" at his workshop in Milford, MA. Students will learn how to make their own vacuum chucking system for a fraction of the cost of commercial units. Peter will be demonstrating how to machine/assemble the rotary bearing unit to work with any lathe that has a hollow spindle (each student will take home one completed unit). Students will then turn and assemble three different vacuum drum chucks. These custom made drum chucks can even be used WITHOUT a

vacuum system as a superior friction drive chuck. Cost is \$130.

Sunday, August 8, 10am - 4pm

**Jeff Lavine** will be teaching "Turning A Small Box & Lid". Jeff will demonstrate forms of boxes, their mounting, hollowing, lid fitting and surface preparation. Stop hoarding those small pieces of exotic wood and instead make a wonderful show piece. Cost is \$110.

Thursday August 12, 6:00pm - 9:00pm

**Peter Teubel** will be teaching "The Art of Pen Turning" at the Woodcraft store in Woburn on . In addition to making a European designer pen in class, all students will take home 2 addition pen kits (complete with wood blanks), a set of pen bushings, and a complete set of pen turning tools. Cost is \$80.

" Send your tips to Peter Teubel for publication in our Monthly Shop Tips section! "

## VENDOR NEWS

### Milwaukee Angle Drill

Terry Daniel  
 (www.thebowlmaker.com)  
 has reconditioned Milwaukee  
 angle drills available for \$89  
 + \$10 shipping. These carry a  
 full 1 year warrantee from  
 Milwaukee.



## A.R.T. MENTORING PROGRAM

Our Mentoring program is designed to help the novice as well as the intermediate turners in the club. Take advantage of the Mentors listed below. They've all agreed to spend a few hours with anyone to help the beginner get started or the intermediate to advance their skills. All it takes is a phone call to make an appointment.

Peter Teubel - Milford, MA  
 (508) 662-4932  
 pteubel@comcast.net

Mike Green - Lowell, MA  
 978-459-8308  
 mgreenburl@juno.com

Frank Movitz - Marblehead, MA  
 781-631-4411  
 gwpb@attbi.com

Derrick TePaske - Belmont, MA  
 617-489-0169  
 go.den@verizon.net

Steve Reznek - Concord, MA  
 978-287-4821  
 reznek@aol.com

Jack Grube - Londonderry, NH  
 603-432-4060  
 jackgrube@aol.com

Dietrich Kulze - Billerica, MA  
 978-663-5241  
 dk3@reuse.com



**“All it takes is a  
 phone call to  
 make an  
 appointment.”**

**CLASSIFIEDS**

**Look! No Batteries Required...Ever Again!** Batteryless, 110 VAC Powered Laser Pointer for those deep hollowing jobs. Plugs into any standard 110 VAC outlet. Use with deep hollowing systems such as the Jamieson, Kelton, Oneway, Pro-Forme, Dave Reeks, homemade, etc. varieties.

Price: \$25.00 each.

**Get perfectly side ground edges on all your bowl gouges.** Improved, easy to use gouge sharpening jigs. No matter what the sizes of your gouges, there is a sharpening jig to give you that perfectly ground edge. For use with the Wolverine or similar grinding aid. Three sizes to properly fit all gouges:

Size:	Prices:
Small (up to 3/8" dia.)	\$12.00 each
Medium (3/8" - 5/8" dia.)	\$12.00 each
Large (5/8"-7/8" dia.)	\$12.00 each
Set of all three:	\$30.00 (Save \$6.00)

**Ultra-Thin Kerf Parting Tool.** Blade is only 0.050" thin to give those wood saving and grain matching cuts. Overall length approximately 9-1/2" with comfortable handle for good control. Made from hardened High Speed Steel for a lasting edge and stiffness.

Price: \$20.00 each.



110 VAC Laser Pointer



Bowl Gouge Sharpening Jigs



Ultra-Thin Parting Tool

Please add \$5.00 Shipping and Handling to your order (no matter the number of items ordered being shipped to the same address at the same time).

To order, please make checks payable to Peter Toch and mail to:

Peter Toch  
6565 Fairway View Trail  
Roanoke, VA 24018

For questions or further information, please contact Peter Toch at (540) 774-4152 or ptoch@adelphia.net

\* NOTE: These items are also available thru Mike Green at our monthly meetings.

“ Classified ads are free for members . Just send your ad to Peter Teubel. ”



# Association of Revolutionary Turners

“ G E T I N V O L V E D ”



“There’s gold in them thar logs!”

## 2004 MEMBERSHIP DUES

Dues for 2004 is now due.  
Please have cash or check  
ready at the meeting.

## JULY 24 MEETING

**Formal Critique:** Bring a finished piece to  
get critiqued

## ~ LEGAL STUFF ~

The Association of Revolutionary Turners (A.R.T.) was founded in 2001 to support the needs of woodturners in eastern Massachusetts. Its purpose is to provide education, information, and organization to those interested in woodturning. We meet on the 4th Thursday of every month at the Woodcraft Store in Woburn, MA. Memberships are on a calendar basis from January 1st through December 31st. Annual dues is \$20 per person.

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