

# Woodturner<sup>®</sup>

The Journal of the American Association of Woodturners  
Spring 2003 Vol. 18, No. 1 [www.woodturner.org](http://www.woodturner.org)

Dedicated to Providing Education, Information, and Organization to Those Interested in Woodturning



## Ronald Layport

"High Cirrus" represents just one of Ron Layport's turned vessels connecting Earth and its creatures. See page 32 for more examples of why Ron's turning career is soaring.



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Mary Lacer, AAW Administrator,  
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Spring 2003

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"High Cirrus," by Ron Layport exploits the juncture of walnut sapwood and heartwood. See more of Ron's work on page 32.

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## EDITORIAL / ADMINISTRATION

**Editor** Carl Voss  
700 South 19th Street  
West Des Moines, IA 50265  
515-225-8412  
FAX 515-225-7757  
[carlvoss@msn.com](mailto:carlvoss@msn.com)

**Art Director** Perry McFarlin

**Administrator** Mary Lacer  
Eunice Wynn, Assistant  
651/484-9094  
fax 651/484-1724  
[woodturner@qwest.net](mailto:woodturner@qwest.net)

**Contributing Editors** Alan Lacer  
Ken Keoughan

## EDITORIAL SUBMISSIONS

**What's going on** at your lathe?

**Anything interesting** in  
your chapter of AAW?

**Have you visited** any turners, shops,  
or museums of interest?

**Do you have a tip or technique you'd  
like to share?**

**Please send article ideas to:**  
[carlvoss@msn.com](mailto:carlvoss@msn.com)

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## A NOTE ABOUT SAFETY

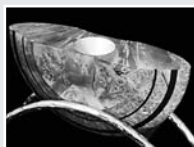
An accident at the lathe can happen  
with blinding suddenness; respiratory  
problems can build over years.  
Take appropriate precautions when you  
turn. Safety guidelines are published  
in the AAW Resource Directory.  
Following them will help ensure that  
you can continue to enjoy woodturning.

## SUBSCRIBERS

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## Gallery of woodturners

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The 17th Annual Symposium is less than three months away and I hope you are making plans to join us in Pasadena. The sponsoring clubs in California and the AAW staff and Board are beyond planning and deep into the details.

Once again, the symposium will have an international flair with demonstrators from Australia, Canada, Ireland, Israel, and Norway. We think it is going to be another great one: Check out the list of demonstrators and their subjects at the back of this issue. I look forward to seeing you in Pasadena on June 27, 28, and 29.

As many of you know, Dick Burrows, our editor, resigned at the end of the year. We are all going to miss Dick and his wife, Lorraine. They both worked tirelessly since 1998 to improve and expand the journal. They were successful and I want to thank them both for all their efforts and wish them the best in their new undertakings. See page 8 for Dick's tribute.

I also want to welcome Carl Voss, our new editor. The Board feels fortunate to get such a well-qualified person. Carl, art director Perry McFarlin, and his team will continue to improve our journal. In fact you may notice some changes with this, their first issue.


The woodturning fraternity has recently lost two of its influential members: Palmer Sharpless and Bob Stocksdale. They both made significant contributions to woodturning and will be missed. See page 6 for tributes to these giants in turning.

The Nominating Committee is searching for good candidates for the Board of Directors election this fall. You'll find board qualifications on page 5. If you are not familiar with what the Directors do, here is a brief summary of their responsibilities. They oversee the AAW's finances, publications, symposium, employees, and education



programs. The board splits up into committees for specific tasks such as local chapters, educational grants, publications, and symposium.

The AAW committees work on their projects and report back to the full board for review and approval. It does take time and there are no monetary rewards. However, it's vastly rewarding to see projects to successful completion. There are nine directors with three elected each year for three-year terms. If you are interested or know someone who is, please let the committee know. The candidates will be interviewed and selected by the Nominating Committee. Candidates will be profiled in the Fall issue and the AAW membership will vote by mail in September and October. The three winners will take office January 1, 2004.

  
Bobby Clemons  
banddclemons@bledsoe.net

#### "Put a Lid on It" exhibition

I am calling for entries in the upcoming show. This is everyone's chance to come up with something different. "Put a Lid on It" is the upcoming AAW international exhibition to take place June 27 through 29 during the 17th Annual AAW Symposium in Pasadena, CA.

Does it have to be a box? Well, not necessarily so! To put a lid on something is to cover, conceal, and maintain neat.

Objects, odds and ends that we either cherish or need in daily life can be covered.



It could be a sentimental note important only to the owner—a trinket, a keepsake, a toy, a top or a priceless jewel. What will that special container hold? The artist/craftsperson determines that. What does the lid tell about its contents? How does the outside draw importance to this hidden treasure? Does it invite or repel? Does the texture invite to hold and open? How does it open—loose-fitting lid, threaded or pressure-fit?

Which method best fits your message?

If a box's importance is what it contains, what role does the lid carry in its message?

Does it give stature or importance to the container?

Does it say who the owner is?

How do you open its hidden front?

Which is its top?

It could contain a ring or even the remains of a loved one.

Form, surface, and function cater to what the content is.

Linda Van Gehuchten  
Exhibition chair  
vange@tcis.net

# A pleasant time with Ron Kent

by Bob Heltman

The several hours I was delighted to spend last November with Ron Kent melted into what seemed like a brief moment. We had corresponded in prior months while I firmed up plans to be in Hawaii for the baptism of two grandchildren.



Ron was happy for the visit; he even picked me up from my son's Kailua home and drove me to his residence and workshop nearby. We stopped for lunch enroute and got to know each other better. This stockbroker-turned-artist-and-woodturner is of fine mind and gracious nature.

Recently Ron completed two cast glass pieces using the lost wax method. Fiberglass and colored resin-covered beach balls form one of many yard decorations. A 6-foot tall series of wavy seaweed objects are carved of layered plywood. Metal wands set in volcanic rock gently shimmer in the wind. More turnings from tall weed pots to vases of all sizes adorn his living room, including traded pieces by Rude Osolnik, David Ellsworth, and others.

You can learn a great deal from his web site ([www.ronkent.com](http://www.ronkent.com)) so I will not repeat what is there. However, Ron has been turning since 1972, has tried most of the Hawaiian woods. He was among the first to turn—and now specializes in—Norfolk Pine that grows in the area.

Ron's turnings often command \$5,000. One piece, a chalice, was presented to Pope John Paul II. Ron has pieces in the American Craft Council Museum and the Smithsonian, where he has demonstrated. Ron will soon have an international presence when a Venice gallery displays his work.

Ron's specialty is a thin-walled bowl repeatedly soaked in Watco® Danish Oil. The finish polymerizes within the thin wood, adding both a golden glow and enhanced translucency. Lighted from above in a dark background setting, these turnings become inspirational visions. (Ron's vessels were featured in the Spring 2002 issue.) With the often-repeated steps, any given bowl can take up to six months. Because of the involved finishing process, Ron keeps a number of turnings in process.

In the tropical climate, pine spalts quickly. To avoid deterioration, Norfolk Pine must be turned within three months. Although maple spalting "on the mainland" shows crow-quill thin

black lines, this pine displays a broad wash of slate blue coloring that may completely cover the wood.

Ron is self-taught and primarily turns with scrapers and some gouges—but never a skew. One scraper, however, is slanted back about 30° at the edge. The tool steel is set into a galvanized pipe about 1" diameter, filled with lead shot, rubber-capped, and about 30" long.

Ron's custom-built lathe handles pieces up to 32" in diameter. He relies on a log hoist near the live center end for positioning heavy green pieces.

His shop is a spacious outbuilding behind his home. The barn door is opened and a number of fans turned on to both cool and eliminate the problem of breathing dust.

He turns vessels so limbs come in around the base and off center. The pith—also off center—is removed, plugged with a piece of dark limb wood, then glued in place prior to finish-turning.

Ron's process is to rough turn green, then plow the piece into his

dishwasher soap solution for a few days. If there is any delay in other steps, he freezes the turning to halt the spalting.

The turned spigot is glued into a holder made of 2" dia. x 3" pipe welded to a large nut that later screws onto the live center. He turns the inside first, then the outside to the finished thinness (about 1/10").

A split may occur, or Ron will see where one or more would add character! He saws the split a bit wider, then drills holes spaced like boot eyelets on each side. Ron then laces up the split using braided copper wire of the type used as brush "pigtales" in electric motors. This precedes Watco dipping. The effect is interesting and eye-catching.

Next, Ron sinks the piece into a large vat of Watco Danish Oil. In time, Ron fishes out the piece, lets it drain, studies it, redips. He repeats the process as need to get the desired effect over six months.

As the picture *at left* shows, Ron turns shirtless while wearing swimming trunks or jeans, sandals, and protective facemask. One tip Ron's audiences like is his use of wide strips of masking tape to seal off pants pockets against flying chips.

Ron's idea of fellowship is to share anything he has learned with everyone who is interested. He pioneered the Watco finish techniques with thin bowls—now copied by other turners.

And, bless him—Ron humbly keeps a number of broken turnings on a top shelf. Ron believes that unless you push the limits your aren't trying hard enough.

## How about running for the Board of Directors

Each national symposium and all the activities surrounding it give you a good idea of what the AAW does to help educate, inform, and organize woodturners, so it's a good time to think if you might like to become more actively involved.

The AAW depends upon an active, working Board of Directors. Each year, three of the nine positions on the Board come up for election. Each position is for a three-year term. The deadline to announce your interest in running this year is May 15.

To qualify you:

- Must be a member in good standing for the past three years.
- Must be approved by the Nominating Committee, Dave Hout, chairman.

If you have questions about serving on the Board, you are invited to discuss them with a current or former Board

Member. If you are interested in serving on the Board, please send the following to the Administrator, postmarked no later than May 15.

- A statement of intent, including qualifications and reasons for applying. (Please review statements published in last Fall's AAW Journal for style and length.)
- Letters of recommendation from two individuals who can affirm your organizational and leadership abilities.
- A photograph of yourself.

The Nominating Committee will review this application material and schedule interviews in late May and early June.

Candidates will be announced in the Fall issue, ballots will be sent out before the end of September, and election results will be announced in the Winter issue.

—Dave Hout  
Nominating Committee Chair  
ddhout@msn.com



# Farewell to two old friends

Two giants in woodturning recently died. Palmer Sharpless, among the first AAW board of directors, died December 4, 2002. Bob Stocksdales died January 6, 2003. The following tributes attest to the prominence of Palmer and Bob.

## Palmer Sharpless

The term Gentle Giant best describes my memories of Palmer. I first met Palmer about 30 years ago when he taught me woodturning. He would stand behind me and easily reach around my 6-foot frame with both of his long arms to guide my hands on the lathe. I was his dentist for a long time, so we had a relationship outside of woodturning as well. Gentleness was his essence; to his students, friends, the earth, animals, craft, clients, and especially his children and lovely wife, Joanne. He accepted his fate humbly and his last words to me were to continue to teach and nurture turning students. He was truly a Gentle Man.

Matthew Sinberg  
Yardley, PA

## THREE HAIKUS FOR PALMER

"I'm a teacher first,"  
he said to the new student  
and melted her fears.

The egg was malformed.  
"You did a great job today!"  
It glowed in her hand.

Twinkling, humble eyes  
shared a love of wood and life  
under a dusty blue cap.

Jill Biros  
Yardley, PA

*"...a lot of our members have heard about Palmer Sharpless through his video, aptly titled 'The Johnny Appleseed of Woodturning'...I can truthfully attest to Palmer's life-long success in spreading the seeds of woodturning."*

—David Ellsworth

One of my fondest memories of Palmer is when I was a fledgling woodturner, trying to demonstrate at a local craft show. I had a lathe whose bearings had gotten very noisy over time, and I just didn't realize it. As a consequence, I had to yell to talk to people while I demonstrated. Palmer just stood there watching



Palmer turned the 110 mahogany replacement spindles in Independence Hall.



Palmer Sharpless

Phil Pratt photo

me, smiling the way he always did. When I finally shut off the lathe, he walked up grinning and said, "When are you going to change the bearings in that lathe?" Of course, it instantly sunk in that I desperately need new bearings. Not necessarily a great story but an interaction I had with Palmer that always stuck with me. Palmer always had a good word and a kind way of making a suggestion. He was my friend and I will miss him greatly.

Bob Rosand  
Bloomsburg, PA

I think a lot of our members have heard about Palmer Sharpless through his video, aptly titled "The Johnny Appleseed of Woodturning." And since I happen to be directly related to John Chapman, the original "Johnny Appleseed," I can truthfully attest to Palmer's life-long success in spreading the seeds of woodturning. Along with brothers Albert and Alan LeCoff, Palmer was instrumental in running the ten Philadelphia Woodturning Symposia between 1976 and 1981. And, of course, he was on the first AAW Board of Directors with Albert and myself.



Ed Saylan photo

Bob Stocksdales

*“...when students come to my woodturning school, Bob’s bowls are seen, discussed, and passed from hand to hand....His bowls will come out more frequently now, for the message of his work needs to be passed on.”*

—David Ellsworth

But what most of our members probably don’t know is that Palmer was responsible for starting up our local chapters, the first being the Bucks Woodturners in Newtown, PA. Palmer was one of the great humanitarians of our era, a true ambassador to our field, and one of the downright nicest human beings I ever did meet.

David Ellsworth  
Quakertown, PA

## Bob Stocksdales

Not influenced by the trend in rising prices and changing styles, Bob set standards in the quality and aesthetics of bowl turning. Like the antique Chinese rice bowls that Bob claims were inspired by his work, Bob’s bowls will be cherished by generations to come.

Albert LeCoff  
Philadelphia, PA



Pinon Pine Bowl (1996) 6½ x 2¼"  
by Bob Stocksdales  
David Peters photo

I found that the experience of visiting Bob Stocksdales was as exciting as the work. During the years I worked for del Mano Gallery, my wife and I would often drive up to get work from Bob. The visit would usually begin with sitting at their Sam Maloof dining table having tea with Bob and his wife, Kay Sekimachi, and listening to Bob’s stories of life in the Conscientious Objector’s camp, or early experiences in the craft field.

Afterwards, we’d go outside to the side entrance of his basement shop. Before going in however, Bob would usually show us pieces of wood that he had stacked up under the porch. To the untrained eye, they were just large, rough-hewn slabs, but Bob had a story about each—where it came from and what he expected to find once he cut into it. Once inside, Bob would show us roughed out pieces that were curing and the one on the lathe, before leading us into the catacomb-like space, where the finished bowls sat on shelves. Handing you each one, he told the story of the wood species, the particular tree that the piece came from or a tale of how it came into his hands.

Kevin Wallace  
Los Angeles, CA

Bob Stocksdales’s work inspired me even before I had ever seen any of his bowls. That was 1976, and it came in the form of a visual description from a friend. When I finally did see his work, that vision proved totally complete: elegance of form, economy of line, delicately thin walls, scaled to the human hand...thoughtfully made. I have five of Bob’s bowls in my collection that were made between the mid-70s and the late-80s. And today when students come to my woodturning school, Bob’s bowls are seen, discussed, and passed from hand to hand. It doesn’t take an experienced eye to enjoy the beauty of a wonderful object, and both my students and I have been enjoying and learning from these forms for many years. His bowls will come out more frequently now, for the message of his work needs to be passed on...and to remain a foundation for the next generation of turners. Bob Stocksdales was small in stature and a giant in our field."

David Ellsworth  
Quakertown, PA



# Dick Burrows

## How can we ever thank you?

Accolades continue to roll in for Dick Burrows, who stepped down as American Woodturner editor on Dec. 20. Under Dick's stewardship, this journal steadily improved in content and quality.

Here is just a sampling of praise from AAW board members for Dick. His wife, Lorraine, also played a key role by shepherding advertising pages, assembling the index, and other projects.



Dick Burrows

Phil Pratt photo

"When I look back at how this journal has grown over the years, I am simply amazed. Each editor has taken the journal, made it his own and greatly improved it. In my mind, under Dick's stewardship *American Woodturner* truly came into its own as a journal. I have been on the publications committee and have come to understand the true meaning of the hard-working New England work ethic. More important, Dick is a man I have come to know, respect, and call my friend."

—Bob Rosand

"It has been a real privilege to serve on the AAW publications committee for the past two years and work with Dick Burrows. Dick is an outstanding journalist and a gifted professional. He was a superb editor-in-chief of our journal and will be greatly missed by those who worked with him and the American Association of Woodturners. We wish you the very best Dick as you pursue new avenues in your career."

—Lee Carter

"The Journal alone is worth the cost of membership." I can't count how many times I've heard or seen that expression at chapter meetings or online forums. That's been the testimonial to Dick Burrows the last five years. Dick and Lorraine have played a huge part of what has made the AAW a great organization. I take great comfort knowing, whenever I need a good dose of those "ol' Yankee sayings" or the finest spaghetti dinner east of the Rockies, I have their phone number."

—Phil Brennon

## Have a real ball, all for a good cause

An important part of each AAW symposium is our "Return to the Community" program which benefits a worthy charity in the city that hosts our annual meeting.

Last year it was turned tops for Meeting Street, a Providence, RI, organization that works with children. The tops are not only fund-raisers, but the children

loved playing with them and Meeting Street officials said they would also be great teaching aids.

This year the topic is balls—any size, any purpose—from games to massage rollers, hanging curtains to wheels for funky vehicles, decorative objects, spheres, globes, anything. Let your imagination roll away with you. What local charity will benefit

from the efforts of AAW members hasn't been decided, but most likely it will be a group helping children.

If you decide the balls aren't your thing, make a top or three, a wooden toy, anything that would make a good item for a fund-raiser. For more information, contact the AAW Administrative Office in Shoreview, MN.

# Cap for AAW's #1 Member

David Ellsworth, AAW's first president and proud owner of membership card #1, now has a turned ball cap to show off his status.

At a Louisville Area Woodturners two-day demo a couple of years ago, Ellsworth asked each participant to bring two pieces for a mini "instant gallery" and critique on the second day. Ellsworth took a shining for a cap that participant Chris Ramsey turned for Rude Osolnik.

During a break, Ellsworth, Ramsey and the Louisville chapter president, Ken Reid, discussed the possibility of different carvings on hats. Ellsworth asked if Ramsey could carve the AAW logo on a ball cap and Reid added, "Put a #1 next to the logo since David Ellsworth was the first president and his AAW membership number is #1."

And so it came to pass. Ellsworth is proud to show all woodturners his AAW cap from wormy water maple. He even provided the photo *above*.

Ramsey has made hats for several high profile people—including President George Bush—but only one #1 President.

Chris Ramsey (artist@knot-head.com) of Somerset, KY, is a member of the Southern Highlands Craft Guild, the Kentucky Guild of Artists and Craftsmen the Kentucky Craft Marketing Program.



Members in the news: David Ellsworth

On October 31, 2002, Gary Smith, President of the Collectors of Wood Art (CWA) announced that his organization had selected David Ellsworth as recipient of the fifth annual Lifetime Achievement Award. CWA awards this honor to that person who has rendered distinguished service to the field of wood art during his or her career.

Ellsworth has had a career spanning more than 25 years as an artist, teacher, organizer, leader, and theoretician of the field. In 1986 he helped organize the American Association of Woodturners which now has nearly 10,000 members with more than 180 chapters around the country. Major museums displaying his wood art include the Renwick Gallery, Washington D.C.; Mint Museum of Craft + Design, Charlotte, NC; Racine Art Museum, Racine, WI; Museum of Art and Design, New York City; the Metropolitan Museum in New York; Minneapolis Institute of Art; Yale University Art Gallery, New Haven, CT, and many others. He has taught and influenced thousands of artists.

Arthur Mason, Chairman of the Awards Committee, citing Mr. Ellsworth as artist, teacher, leader and friend, presented the award at CWA's annual meeting. Previous recipients of the award included Bob Stocksdale (1998), Rudy Osolnik (1999), Michael Monroe (2000), and Ray Leier and Jan Peters (joint recipients - 2001).

Ellsworth lives and works in Quakertown, PA. His wife is Wendy Ellsworth, a noted bead artist.

# Tips

## Got a Great Idea?

Share the turning ideas! If your tip wins our Best Tip Award, you also receive a free AAW ball cap. Send your tips with photos or illustrations along with your name, city, and state to:

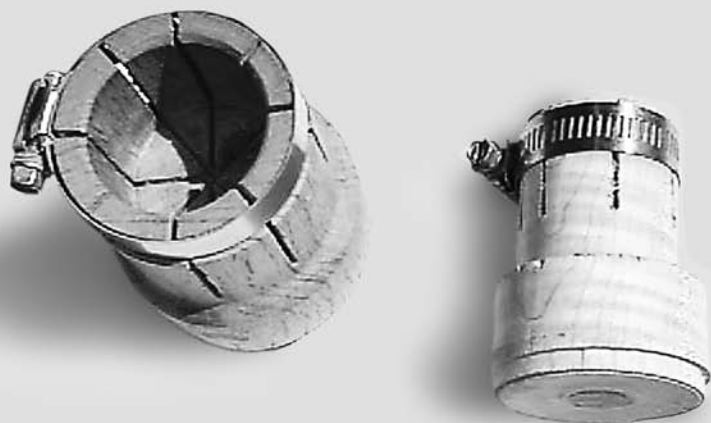
John Lucas  
PO Box 1292,  
Cookeville, TN 38503  
jlucas@tntech.edu

### Homemade collet chuck

Because I needed to turn several small items without scarring them with the chuck jaws, I make a collet chuck to fit each item. I make these out of hardwood scraps. I fit a scrap piece in my Vicmarc chuck and mark the #1 spot so I can re-chuck it in the same orientation in the future. I then turn a hollow about 1 3/4" deep to snugly fit the item I'm making.

I then turn the outside so that it is about 3/8" thick back at least 2". This leaves a 3/4" recess on the outside edge about 1/16" deep for the hose clamp. I then cut equal distant slots perpendicular to the hole using the bandsaw—eight slots at 22 1/2° work fine. Place a hose clamp around the outer edge to hold the item in the chuck and you are in business.

*Dale Beckman  
Klamath Falls, OR*



### Reduce dust around fluorescent lights

Retailers who sell fluorescent tubes often sell clear plastic tubes with separate end caps (the caps fit over the bulbs before they are put into the fixtures). These protectors reduce the danger from glass shrapnel. But there is an inconvenience: dust. That perennial woodshop nuisance also will settle on bare glass, but dusts prefers plastic with its higher static charges.

To solve this, add about 1/2 tablespoon of dish detergent per gallon of warm water. Tie a string or wire around the middle of a clean rag, then thoroughly soak it in the water. Thread the string or wire through the plastic tube, then pull the wet rag through the tube. Make sure the inside of the tube is clean and wet. Now wash the outside of the tube. Leave the inside and outside damp—do not rinse or dry. Stand the tube so that excess water drips off.

When the tubes are dry, place the end cap on one end of the plastic tube. I prepare in advance four small pieces of masking tape about 1/4 x 1". Two pieces for each end cap secure them to the plastic tube. Insert the fluorescent into the plastic tube, then secure the second cap the same way and install the units in your fixture.

I believe the detergent coating on the tube attracts moisture from the air, which in turn neutralizes static charges on the treated surfaces. In time dust will settle on the tubes, but a lot less than without this treatment.

*Kurt Baruch  
Banning, CA*



## Testing for wood allergies

Someone once told me that there are two types of people in the world: those who are allergic to cocobolo, and those who will be.

I happen to be extremely allergic to cocobolo and to some other woods. This allergic reaction occasionally sends me to my physician's office in search of prednesone, which relieves the allergic symptoms. If you are or think that you might be allergic to a specific wood, rather than chance an entire body rash, consider a simple test. Sprinkle a small amount of sawdust from the suspicious wood on an adhesive bandage and tape it to your chest for about 48 hours. If you don't start itching or have a red spot on your chest, you can be pretty sure that you are safe. If you are allergic, you should only have one little spot to deal with.

I mentioned this "test" to my dermatologist and he said that he would have recommended the same procedure. Using this method, I've discovered three or four woods that I never would have dreamed I was allergic to.

*Bob Rosand  
Bloomsburg, PA*

## Quick gauge for CD tops

When turning Dave Hardy's CD tops, I didn't have a CD handy to take a reading of the opening. I discovered that a 15mm wrench fits this size exactly. I purchased one at my hardware store's dollar bin. With a quick grind, I now have a sizing caliper. (Editor's note: The CD opening is .590" according to my calipers. I have three different 15mm wrenches with about .010" variance. For an exact match, grind or hammer them to close them to get an exact match.)

*Michael Zartun  
Island Park, NY*

## Accurate drilling without measuring

Until recently, I had trouble drilling consistent depth holes because the hot chips exiting often erased felt tip pen marks or dislodge masking tape. I found my solution using the geometry of the lead screw in the tailstock with the handwheel as a rotary index. For example, a popular pepper mill requires a  $\frac{3}{8}$ "-deep counterbored hole. My Powermatic lathe's tailstock has 10 threads per inch, so  $3\frac{3}{4}$  turns of the handwheel after the bit just starts to bite onto the wood gave me an accurate  $\frac{3}{8}$ "-deep hole.

The large Oneway lathe has 6 threads per inch, so  $2\frac{1}{4}$  turns equal  $\frac{3}{8}$ ". Older US-made lathes have 13 threads per inch, so  $4\frac{13}{16}$  turns would do the trick. (Interpret  $\frac{13}{16}$  of a turn as almost a full turn. Since a  $15^\circ$  error is .003" or the thickness of a sheet of paper, close is usually good enough on the fraction of a turn.)

I suggest you get out the calculator and make a wall chart for 13 threads per inch or metric threads. You'll find this method fast, accurate, and repeatable.

*Robert Vaughan  
Roanoke, VA*



## Vacuum pump on wheels

Many of us use vacuum pumps with their associated gauges and valves when we reverse-chuck our turnings. However, most of the time we don't need all that gear on or near our lathes. Pictured here is a convenient package of vacuum pump, gauge, valves, and starting switch. When needed, just wheel it into place so that you can adjust it easily, plug it in, and connect it to the rotary union. You're ready to go!

*William Flewelling  
Davis, CA*

# Turning at the Utah Symposium

by Richard Raffan

In the ever-expanding world of woodturning, symposiums and similar woodturning get-togethers are commonplace.

There are many events organized annually in Britain, Ireland, France, Scandinavia, New Zealand, Australia, and North America. The largest is the American Association of Woodturners (AAW) Annual Symposium, but the longest running is the Utah Woodturning Symposium held each year in Provo, UT.

Talk with woodturners who have attended major symposiums around the world and most will put the Utah Symposium on a short list of top events. The regular attendees speak of camaraderie, of the relaxed atmosphere, of seeing old friends, of making new ones. We do that elsewhere, yet Utah offers something special—something more.

So what is it that distinguishes the Utah Symposium from the other major woodturning events, given that each offers a wide



In the late 1970s, Dale Nish demonstrates bowl-turning techniques.

range of topics covering all aspects of this craft? Partly it is Utah's moderate size, but mostly I think it's Utah's rich tradition.

## Symposium's roots go back to 1970s

The Utah Woodturning Symposium emerged from the Wood Working West Symposium and a series of summer workshops Dale Nish initiated in the late 1970s with sponsorship from the Department of Industrial Education at Brigham Young University (BYU) in Provo.

These early conferences included a heavy dose of woodturning along with other woodworking activities including furniture design, wood bending, and wood carving. With the increasing interest in woodturning—both as a hobby and livelihood—the first dedicated woodturning symposium was held in Provo in 1979. The event drew 29 participants.

Twenty-three years of in-house management and a willing staff of student assistants have ironed out all the organizational wrinkles. For the first 22 years, Bob Brenner, the now-retired gofer, ironed out how to overcome every foible in each demonstration space so there are no surprises remaining. It's a compact venue with excellent facilities and a perfect campus setting with the Wasatch Mountains as a backdrop. There's rarely a problem with

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The fastest turners competing in Utah's Great Egg Cup Race finish in less than 20 seconds. "You can watch heaps of really good wood being totally ruined by the world's finest turners," says Bill Jones.

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Utah's Instant Gallery features 800-plus samples.

the lathes, chucks or anything else requested by demonstrators because the nearby Crafts Supplies is the chief provider. There's never a problem with wood, so having all logistical challenges ironed out makes the Utah Symposium the least stressful venue for demonstrators, who find virtually none of the hassles so often experienced at other events.

The organizers make every effort for demonstrators to function almost as they would

in their own workshops. Thus, participants see relaxed presenters in informative sessions.

## Top-notch staff from around the globe

The Utah Symposium has the reputation of assembling a top-notch line-up of presenters from around the globe. Most have a well-established national or international reputation—or the potential to get there soon. Demonstrators traditionally bring a strong technical background, artistic finesse, and teaching skills. Says Kip Christensen, who took over the reins from Dale Nish in 1998, "Our big draw has to be the quality of the presenters and the strength of the program. People don't travel through Provo on their way to anywhere, so we have to give them a good reason to come here. And many do year after year."

Last year's clutch of demonstrators was no exception, each with a remarkable ability to demonstrate the how-to skills and design sensitivity essential to efficient, enjoyable and productive hours at the lathe. Dale Nish and now Kip Christensen have introduced many newcomers to a wider audience creating a significant list of well known turners who first demonstrated at a Utah Symposium.

An excellent feature of the Utah symposium is the opening session in the BYU Varsity Theatre. After a brief welcome

*Continued*



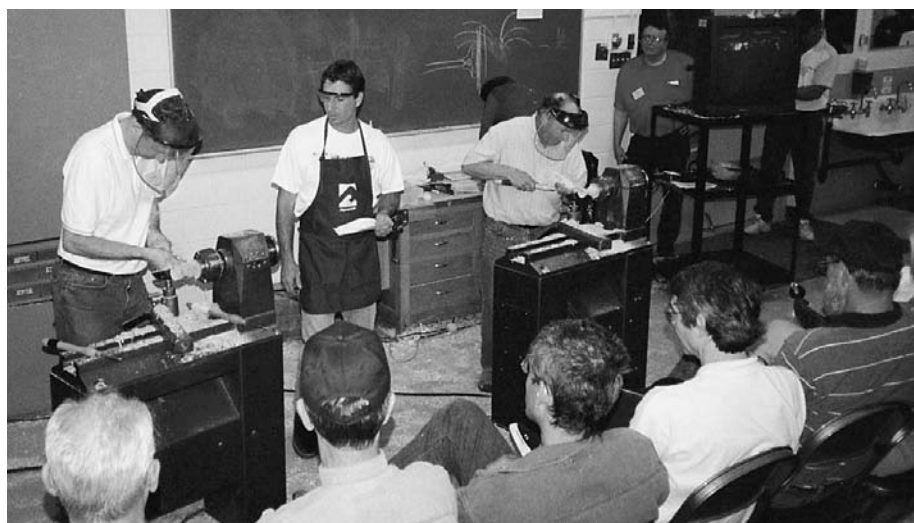
by campus administration, attendees watch the fast-moving slide introductions: Each presenter gets two minutes to show six slides of their work and describe what participants can expect to see.

The demonstrations are held in two adjacent buildings. Each area is equipped with video monitors and tiered seating. There are generally 10 demonstration areas and 10 sessions. With the addition of the evening presentations, participants choose from more than 100 demonstrations and slide talks.

## Instant Gallery draws a crowd

Each year the Utah Association of Woodturners, an AAW chapter, organizes and runs the impressive Instant Gallery. The 2002 Gallery drew more than 800 pieces. Since 1999, the Utah chapter has produced a CD recording the work in the gallery, shots of the demonstrators in action, and other highlights. According to the participants, the Utah Symposium is neither too large nor too small: Meet someone and you are likely to meet them again. The campus is compact, so attendees easily walk between sessions. The negatives—for a few—are that tobacco, alcohol, and caffeine are forbidden on the BYU campus. (However, each of these is available off-campus.) Contrary to widely held belief, all this stuff is readily available in Provo—it just isn't announced with flashing neon signs.

The evening program is the highlight of the Utah Symposium



Egg-exactly who is the fastest turner in the West? Mike Mahoney, center, referees a Utah evening highlight, the Great Egg Cup Race. The fastest egg cups are turned in less than 20 seconds.

for many. This portion of the program includes slide talks, special presentations, and a good portion of light-hearted fun. In the 80s, an open shop period allowed participants to turn while the demonstrators hung about to offer hands-on advice.

In those days, BYU had 15 to 20 lathes, and participants were given a chance to create something from a standard 3×3×8" blank. The finished pieces were sprayed black for judging and eventually just about everyone got a prize. The inventiveness resulting from this challenge was a constant surprise.

## Don't miss the Great Egg Cup Race

During the past few years, the Great Egg Cup Race has replaced this activity. For a couple of raucous hours on Thursday and Friday evening, in the words of the famous English turner Bill Jones, "you can watch heaps of really good wood being totally

ruined by the world's finest turners."

Egg-cup racing is a sort of bonding extravaganza for woodturners. There are prizes, and most years it seems that everyone who enters wins something. Indeed, there's a suspicion that if you didn't win your category the organizers might invent one just for you: best cup by a one-armed turner over the age of 95 wearing a pink mini-skirt.

The Great Egg Cup Race might have originated in England, but it's become institutionalized in Provo. Racing pitches two turners or pairs of turners against each other and the clock on identical lathes. Quality is not a primary consideration, but the atmosphere and camaraderie generated by loud barracking is worthwhile. Show-and-tell sessions also were a feature of the early symposiums, as were design critiques of pieces in the instant gallery. The original Utah approach selected a benchmark

from three similar pieces—preferably from one turner. Then the critique accessed other pieces in relation to the benchmark. Turners found these critiques invaluable. But this too became unwieldy as the symposium attracted more participants.

Recently the symposium included two special exhibitions. The 1999 event included the only public showing of the Dale and Norene Nish collection, which remains one of the finest woodturning collections anywhere. In 2001, the symposium featured a retrospective show of the late Ray Allen, who had recently died.

In recent years, organizers added a Swap Meet which has all the energy of an Eastern bazaar.

## Utah registration capped at 460

In recent years nearly 500 turners have signed up to attend the Utah Symposium. "With our current facilities, we can best handle about 460 participants. This past year we had to put restrictions on registration for the first time," says Kip Christensen.

See page 64 for the May 8-10 Utah Symposium registration information. The Utah Association of Woodturners sells CDs of the 1999-2002 symposiums for \$35 each. Contact Dick Stucki (dickstucki@attbi.com) for more information.

Richard Raffan (raffan@austrametro.com.au) is a semi-retired professional turner and writer who occasionally teaches in the US, Europe, and Australia. He lives in Australia.

### Members in the news: Jerry Kermode

Jerry Kermode, the newest woodturner in California's Sonoma County, has opened his school of woodturning at his Valley Ford studio. After living and working the last 21 years in Hawaii, Jerry became a resident of Bodega Harbour in July.

A woodworker for 30 years, Jerry has taught and inspired woodturners and the public for the last 15 years. In Hawaii, Jerry was known for his artistic ability, and for demonstrating and sharing with the public his love of turning. Every New Year's Eve, he lugged his lathe to downtown Honolulu, donned a tuxedo, and turned bowls and snap tops for five hours at First Night. He carried his small lathe into the schools and inspired children with possibilities. He visited high schools and showed shop students hands-on possibilities.

Jerry teaches a two-day beginning woodturning course one weekend each month. Students take home five turned projects and a sense of accomplishment inspired by their willingness to persevere and discover the beauty inside a chunk of wood. In addition to his own school, Jerry also teaches at Woodcraft in Santa Rosa.

The move to Sonoma County was prompted partly by the artistic excitement in the air. You can catch his work at Bodega Bay, at Local Color Gallery on Bay Flat Road, and at Highlight Gallery in Mendocino.

Jerry was a team member in Sculpture Jam in Sebastopol in October; his turned wood sculpture with a propeller on top, named "Spirit Ascending," is among the other "spirit poles" installed in Spooner Park in Sebastopol.

Jerry has won prestigious awards through many organizations and businesses including the Hawaii International Film Festival and Crazy Shirts. One of his bowls graces the home of King Taufa'ahau Topou of Tonga.

## Phil Brennion goes Hollywood

Early this year, AAW Board Member Phil Brennion traveled to Los Angeles for a one-on-one turning workshop with actor William Macy. Phil spent the day in Macy's shop for a *WOOD* magazine profile on Macy's woodturning scheduled for the October issue.

*American Woodturner* featured Macy in the Spring 2001 issue. His silver screen credits include in "Fargo," "Happy, Texas," "Jurassic Park 3," and more than 40 other movies.

# A tournament of turners

by Emory McLaughlin

If you're looking for a fun activity for your club, the Northeast Florida Woodturners can highly recommend hosting a croquet tournament. This wasn't just an ordinary backyard game: Members were required to turn their own mallet to jump in the game. Find out how the host organized the event.



Melissa McLaughlin, winner of best croquet mallet, with tournament organizer Emory McLaughlin.

## Croquet anyone?

For our outing, we set up three regulation-sized 50'x100' courses in a Jacksonville, FL, park. My father, James McLaughlin, turned all the posts and bent the wickets from 1/8"-diameter wire. All tournament play was with member-turned mallets following these guidelines: The mallet head could not exceed 9" or three pounds. Additionally, the overall length of the mallet could be no more than 36" (regulation length is 34" to 38").

Melissa McLaughlin, my sister-in-law, captured the Best Mallet Trophy. Melissa's mallet head was

turned from ash, the handle from oak. The head was painted green and black with gold stripes. Bruce Reymond created the most interesting mallet. The head was turned and carved to look like a pig; the snout served as Bruce's hitting surface. He used copper wire to make the tail. Paul Brown,

Bruce Reymond's blind pig, below. At right: Carlynn Robeson, Mary McLaughlin, and Melissa McLaughlin.



who arrived with two mallets, won the tournament play. Bob Hunt (president of Northeast Florida Woodturners) competed with the newest mallet. Bob worked until 1:30 a.m. the night before on a maple mallet head with walnut ends—nothing like a tight deadline!

For rules and regulations, contact the United States Croquet Association at 561-478-0760 or visit [www.croquetamerica.com](http://www.croquetamerica.com)

AAW member Emory McLaughlin ([emory@asthewoodturns.com](mailto:emory@asthewoodturns.com)) is a stay-at-home dad who participated in his first juried woodturning show in the last year. website:[www.asthewoodturns.com](http://www.asthewoodturns.com)



## Get creative with the mallet head

Select a piece of dense, straight-grained wood. I made mine 2" longer so I would have enough to remove after turning. I mounted the piece between centers. I began by turning the piece to a cylinder. I then sized it to 3" in diameter. For decoration, I cut V-grooves 1" from each end. Before removing the piece from the lathe,

I used the tool rest to mark a pencil line lengthwise on the cylinder. I then measured the length nearly and made a mark in the center. After parting the pieces off each end, I trued up the ends with a saw. To keep the mallet head from rolling when I drilled the handle hole, I cradled the piece in a form with a V-groove. Finally, I drilled a  $\frac{7}{8}$ " hole 2" deep, then threaded with a Beall master threader.

**Note:** We're told that in serious croquet play, the bottom surface of the mallet head would be flattened so the mallet hits the ball's sweet spot. Also, the mallet can stand unattended when retrieving a ball.

Tami Blaylock's mallet  
shown approximately full size.

## Now, take your turn with the handle

I made a couple of handles for each family members from 1" oak dowels purchased from a home-supply center. Each dowel was mounted on the lathe and sanded. I rounded over the end with either the skew chisel or a spindle gouge. After removing the handle from the lathe, I cut it to 36" length, then threaded the cut end with a Beall threader. The handles were then test-fit into the mallets. For finish, I applied Deft spray finish followed with a hand-rubbed wax.

To create the black lines running the length of my handle, I glued carbon fiber between four 1" squares of poplar. I used West system epoxy to laminate the handle, which was clamped overnight. It was interesting when turned because the shavings had little black lines in them.



# Reflections of a first-time demonstrator

by Larry Genender

"If you feel you have something to contribute, become a demonstrator. It is well worth the time and effort, and you'll probably be a better turner for the experience."



See an example of Larry's work on page 37

In January 2002, I was asked to demonstrate at Texas Turn or Two (TTT), our statewide symposium. The symposium is second only to the AAW National Symposium in number of attendees (416 this year) and this was the eleventh year it was held.

I had demonstrated only once at our local club, and was apprehensive about moving up to the "big time" with so little previous demonstrating experience.

However, I felt confident that with sufficient preparation I could do a good job. I spent much of my turning time in the six months preceding the symposium practicing my project, "Platters." I watched the demos at the AAW symposium in Providence with an eye towards demonstrating technique as well as content. I presented the demo to both the Dallas and Fort Worth clubs, of which I'm a member.

By the time TTT arrived, I felt ready. Several attendees reported that they enjoyed my two rotations. I came away feeling extremely happy that I had undertaken the project.

As a result, I have collected several thoughts that might help the next turner thinking of dipping his toes into the demonstrating waters.

## Larry's tips for a dynamite demo

**Safety first.** Many of the demonstrators I've watched do lip service to head, eye, and respiratory protection. They then don lightweight plastic glasses, apologizing that the protection is omitted for the sake of being well heard. I wear a full helmet and air filter in my shop. I omitted it in the club demos (where these photos were taken), but decided to use it at TTT, where I knew that I had a lapel microphone. The helmet and air filter worked just fine. Periodically I paused and flipped up the visor to talk, which I had to do anyway. I had many favorable comments afterward: Attendees genuinely appreciated seeing how I really worked. In fact, several people expressed interest in purchasing this safety equipment.

**Handouts and visual aids** are a must in a good demo. In addition to a three-page handout, I prepared a flip chart to show key turning principles during my TTT demo.

**Engage your audience** before you start by thanking the people for coming to your demo. Remember that at most symposiums, attendees have a choice of which demo to attend. Pause often and ask for questions: An engaged audience is a sign your message is getting through. Because an instructional demo should instruct—not entertain—I didn't tell funny stories.

Be prepared to work in an **unfamiliar environment.**

Organizers may provide a smaller lathe or less light than you have in your shop. Bring as much of your own equipment as you can reasonably carry. Remember, demos are usually held in meeting halls—not shops. After doing one club demo in dim light, I bought a clamp-on light in case

I needed it at TTT. (The facilities were great so the light wasn't necessary.) Additionally, try to use your own chuck with the demo lathe if at all possible.

Demonstrating presents **time constraints.** In my case, shaping the platter outside requires at least 30 minutes.

In my demo, I began turning the outside, but stopped as soon as the shape emerged. I then mounted another blank with the outside completely finished, and started turning the inside. Thus, I saved time and didn't risk losing the audience's attention.

If you have enough tools, **bring tool duplicates to eliminate sharpening**—it's faster to pick up a new gouge than to stop and resharpen. Also, don't sand anything—it's dusty, time consuming, and bores the audience.



If you get a catch or mess up somehow, this is the place to **show your human side.** Inject a little self-deprecating humor together with an explanation of what went wrong and how to avoid it. When I got a catch, I paused and explained which principle I had violated, thus turning a mishap into a teaching opportunity. Don't try and cover up a mistake. Most times you'll dig yourself into a deeper hole! If all else fails, make sure you bring a spare blank.

Most demos have provision for video. The person with **the camera can greatly enhance your presentation.** Work with him/her, ask him to come in close if there is a detail you want to stress. Make sure your videographer knows that he/she is not offending you by moving close to do his/her job. I asked a fellow club member who is an expert with the camera to video my demo. Because he really helped me, I presented him with a finished piece for his efforts.

**Don't rush** what you do turn in front of the audience. Practice how much you can accomplish in your allotted time. Then concentrate on doing it well because attendees shouldn't have to watch sloppy turning.

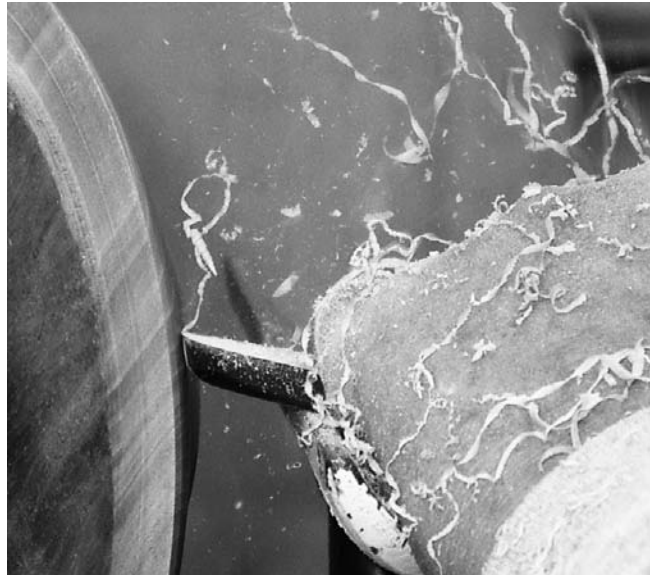
Larry Genender (lgenender@aol.com) is a retired general surgeon in Dallas, TX, who now turns almost full time. He is a member of the Woodturners of North Texas and of the Dallas Area Woodturners.



# Real woodturners DO use scrapers!

by Russ Fairfield

Scrapers have been around since the dawn of woodturning, but that doesn't mean their usefulness has faded over the centuries. Calling it a "scraper" suggests that the tool can only be used in the same manner as a cabinet scraper. But, there is more to it than that.



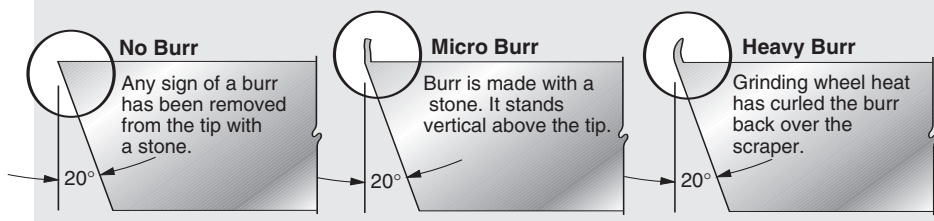
## Get the edge

There are three different edges you can put on the tool—a heavy burr, a micro-burr, and no burr at all. The heavy burr is the one that most of us think of when we sharpen a scraper, and it is similar in both shape and function to that on a cabinet scraper. The other two—micro burr and no burr—may be new concepts to some woodturners.

Which edge works best depends on whether you are making a roughing cut or a finishing cut,

inside or outside curve, shear scraping, how the tool is presented to the wood, or what species of wood you're turning.

The easiest way to introduce and compare these three edges is through a simple turning exercise on the following pages that I invite everyone to try. This won't require more than 30 minutes of your time and it will answer many questions about becoming familiar with a scraper as a turning tool.



## Scrapers and steel

Tool manufacturers emphasize wear resistance with each introduction of new steels. One development was the introduction of new high alloy, longer-wearing tool steels. It is now possible to buy a scraper made from anything from carbon steel all the way through ASP2060, Tantung, and carbide. Yet rarely is there discussion about how sharp an edge you can put on the tool.

Without going into a technical metallurgy discussion, the reality is that the wear resistance of the tool increases as you step up from carbon-steel, through the various grades of high speed steel (HSS) to the new ASP2060,

and beyond. However, your ability to form a sharp edge decreases with each hardness increase.

The sharpness of the cutting edge is particularly important to the scraper because of its wide cutting area. In addition, turners often grab a scraper to make very light finishing- and shearing-type cuts.

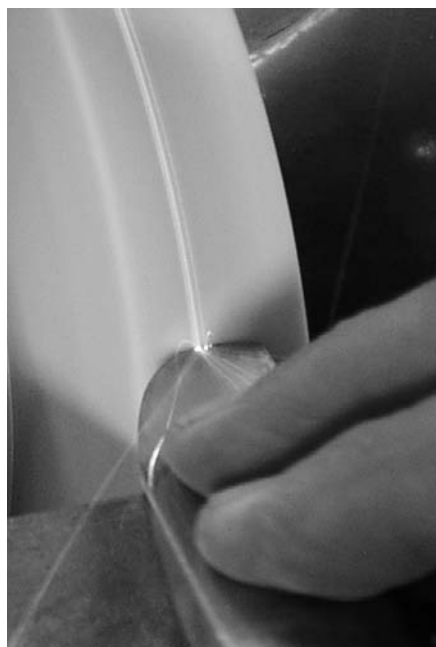
My personal opinion is that the best compromise between wear and sharpness is an M2 grade of HSS. Higher alloy steels cannot be sharpened as well, and carbon-steel doesn't have sufficient durability. On the plus side, you can grind a sharper edge on a carbon-steel scraper than any other steel. This sharp edge is particularly useful for making light finishing cuts, but it requires frequent sharpening. Unfortunately, carbon steel scrapers have all but disappeared.

Because high-alloy steels do not form a burr as well, many woodturners have resorted to forming a burr with a burnishing tool. The key word is "forming" because the burr is made by displacing the steel at the cutting edge. The burnisher depends on the steel being soft enough that it can be "crushed." Burnishers work well on a carbon-steel and okay on an M2 steel. However, you will be challenged to burnish anything with higher alloy steels.

## You'll need a grinding wheel

The grit of the wheel isn't important for grinding a scraper. Except for the coarse burr, the cutting edges are formed with a hand stone. The wheel must be coarse enough to remove enough metal and generate the heat necessary to raise the heavy burr.

I use an 80-grit wheel because it is the best compromise between removing a lot of metal, forming a good burr, and leaving a smooth cutting edge on a piece of M2 tool steel. A coarser wheel works better on the new alloys.



When grinding a heavy burr on M2 tool steel, Russ suggests you "bury that tool until a ball of fire shows."

## Let's take a heavy burr for a test ride

Dress the top surface of the tool with a fine stone until it is smooth and you've removed the entire burr. The grit isn't important. Use some light oil or kerosene to lubricate the stone.



Before sharpening the tool, dress the top surface with a fine stone until it is smooth and you've removed the entire burr.

I prefer either a fine-grit India slip stone or a 600-grit diamond file. A piece of 600-grit wet sandpaper stuck to the top of a piece of aluminum bar makes an inexpensive dressing stone. There should be no burr remaining from the initial grinding. It may take some work the first time you use the stone if the top of the scraper isn't flat.

Grind the bevel again at the same angle. Press the edge of the tool into the grinding wheel until you see the bright "ball of fire" where the steel touches the wheel. Then rotate the scraper with one slow smooth pass that maintains the constant spark at the tip of the tool along the entire edge. You

*Continued*

should now have an excellent heavy burr. The burr will have a slight curl back over the top surface of the tool. Its cutting edge will have the same texture as the grinding wheel. The heat in the "ball of fire" actually forms the burr. Since there is no "fire" with the higher alloys, it will be difficult to form a burr.

Make each of the four cuts shown on Page 23 to test the burr.



A side view shows forming a heavy burr on a carbon steel tool. Note that the tool rest is accurately adjusted for the bevel.



You'll see a shower of sparks over the edge when you grind a carbon steel tool.

## Next test: the micro burr

Dress the top of the scraper with the stone or diamond file to remove the burr from the previous test. Then hold the stone to the cutting edge at 90° to the top surface. Draw the stone lightly downward across the cutting edge, moving it around the curve of the edge as the stroke is made. Only one or two passes are usually required across the edge, and try to make no more than three or four strokes with the stone. You now have a scraper with a "micro-burr" that is the same grit as the stone.

Make the same four cuts *opposite* with the tool as you did with the heavy burr, and observe the wood surface.

## And finally, let's give no burr a try

Dress the top of the tool with the stone. This time, ride the stone on both the tip and heel of the bevel as you draw it across the tool edge. The scraper should have no burr at all because we have sharpened it as we would a wood chisel. If there is still a burr, remove it with the stone on the top of the tool, and again stone the bevel, only lighter this time.

Repeat the same four cuts *opposite* with the tool.



To form a micro burr, be sure to hold the slip stone 90° to the edge of the tool.



For no burr, hone the bevel with a slip stone, making contact on both the heel and tip.

## Preparation for turning

Mount a piece of dry cherry, walnut, maple on the lathe, holding it in either a chuck or a faceplate. Then rough-turn it to a shallow curve similar to the outside shape of a bowl.

Grab a familiar domed or radius scraper, then set the tool rest on the grinder and grind the bevel to a uniform 70° (including the angle between the bevel and the top of the tool). Don't be concerned with the size and shape of the scraper or accuracy of the angle—any thing close is satisfactory. Use an angle gauge (Woodcraft's Angle Checker, #11J25, lists for \$7.50) to accurately adjust the tool rest angle. I prefer the 1" and 1<sup>3</sup>/<sub>8</sub>" radius scrapers from the Richard Raffan "Signature Series" sold by Craft Supplies. I use it as a shearing tool, maintaining the large radius on the bottom corner and sliding it across the tool rest.



## The test cuts

For the **First Cut**, take the scraper to the wood with the lathe running about 500 rpm. Hold the scraper flat on the tool rest with the cutting edge aimed downhill in the conventional “trailing” cut (tool handle held high) that we have all been told is the correct way to do it with a scraper. The tool-rest height is not of concern as long as it is close to the center of the wood.

Observe the wood surface, the chip that is produced, and any torn grain produced.

### Second Cut

Relocate the tool rest so that the scraper is on the centerline of the work when it is held flat on the tool rest and horizontal. Make a similar cut with the scraper while holding it in the horizontal position.

### Third Cut

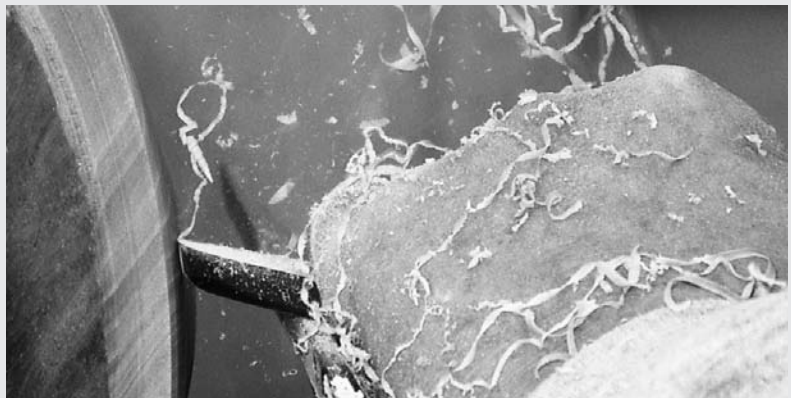
With the scraper still flat down on the tool rest, rotate the cutting edge upwards (tool handle downwards) until the heel of the bevel rides against the wood surface and the tip of the tool is above the wood surface. Rotate the tip of the tool back down until you are riding on the bevel. Keep rotating the handle downward until a chip is produced. At this time the chip will be unstable—it may catch—because you are cutting on the backside of the burr.

### Fourth Cut

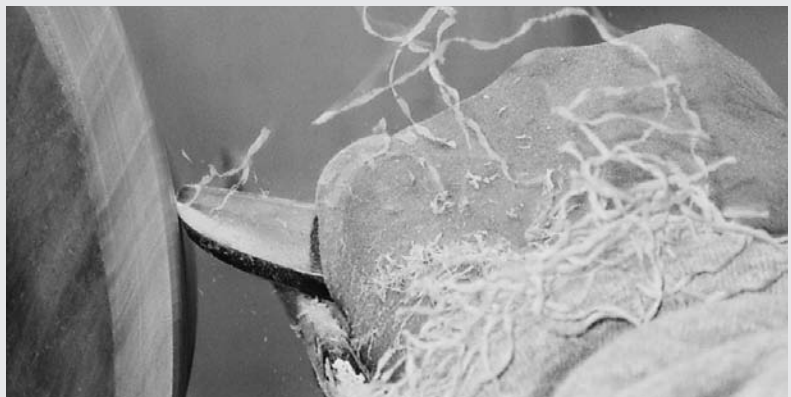
Rotate the scraper to 45° to the wood rotation, and make a “shear scraping” cut with the burr in the three positions described above.



Second Cut: Photo demonstrates wood removal with a heavy burr.



Third cut: Photo demonstrates wood removal with a micro burr.



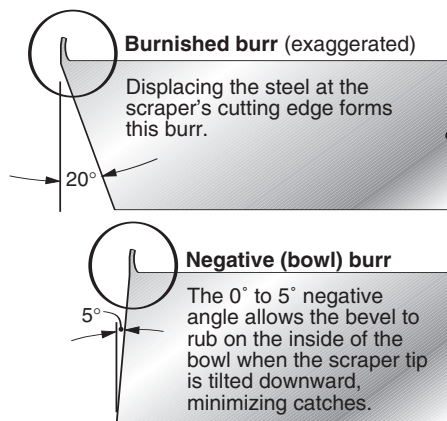
Fourth cut: Photo demonstrates no burr with a shearing or scraping action.

*Continued*

## Compare the results

You should notice that the heavy burr from the first grind is best for removing a lot of wood. This is the traditional scraper edge. This may create torn grain—perhaps more than there would be after using a gouge. The edge may not last long. I prefer the heavy-burr cutting when the tool is tilted downward into the typical “trailing position.” We have always been taught to use the scraper this way for safety, because a catch will throw the tip of the tool into open air rather than pulling it into the wood. The truth is that this is the only way that the burr can remove the wood because the cutting edge (the burr) curls back over the top surface away from the bevel. Thus, tilt is necessary to get the edge of the burr into the wood. This is the same reason that we have to tilt the cabinet scraper into the cut.

The micro-burr should have performed its best while making



a light finishing cut with the tool held horizontal at the center of the piece or held slightly in a trailing position below center. The micro-burr is at 90° to the top of the tool and either position presents its edge so that you can remove a thin ribbon of wood. This is a finishing tool, and its edge should stay sharp longer than the coarse burr. It is also the better edge for shear scraping.

The sharp edge without any burr in the third test is as far away as we can get from making any comparison between our tool

and a cabinet scraper. This tool will cut safely while riding the bevel, there will be minimal tear-out, and little danger of a catch in most wood. When riding on the bevel in a shear-scraping mode, you can remove most torn grain to produce an almost finished surface. This is not an aggressive tool, but it is capable of leaving a very fine finish on the wood.

Either the micro-burr or no-burr edge are excellent for turning hard tropical woods such as cocobolo.

It will take some practice to develop the techniques that are used with each of the three grinds. However, doing this will expand the scraper's usefulness because all three edges are available from a single tool with just a few strokes of a sharpening stone.

Russ Fairfield (grussery@aol.com), a retired engineer and full-time woodturner, lives in Post Falls, ID. He belongs to the Spokane Lathe Artists and also teaches woodturning.

## Working inside bowls and vessels

Use the same cutting edges for cleaning up the inside of bowls and vessels after the bowl gouge. The micro-burr and no-burr edges will be more “friendly” because they are less aggressive and are easier to control, safer from catches, and leave a better surface finish than the heavy burr familiar to many turners.

Practice with the micro-burr on the inside of a shallow bowl. I positioned the tool rest so that the tip of the tool is at, or

slightly above, the center line of the piece in the lathe while it is held horizontal and flat on the rest. I set this height using the center point at the bottom, always erring towards being above center. I then move the tool rest to the working position with the banjo. Extremely light cuts from this tool position are possible.

For a less-aggressive cut, try the no-burr edge. This edge works best when it is rolled up at 45° to make a shearing cut. The no-burr cutting action may

not be possible inside many vessels, but I find it works superbly for finishing the inside curve of shallow bowls, plates and platters.

Increasing the tool angle to 90° allows you to ride the bevel in the bottom of a deep bowl. You may even find that a slightly larger angle of 95° may be better suited to your turning style. You can form all three types of burrs with this blunt tool, and that is something that cannot be done with a burnishing tool.



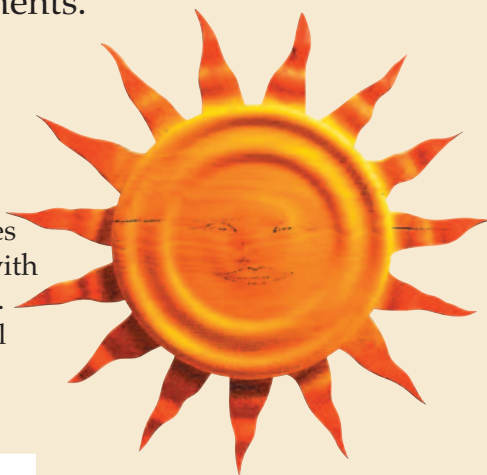
# Turn your garden into a gallery

Here's a trio of easy outdoor projects to turn now. Then when warmer months arrive, sit back and enjoy your accomplishments.

## Deck sun

A deck sun is an easy "platter" type project. The steps are:

1. Turn two disks about 12" in diameter with concentric ripples on one face of each. Turn one with a tenon and one with a mortise.
2. Divide one disk into 16 equal size wedges and cut apart on a bandsaw.



3. Glue 15 of the 16 wedges around the center disc using polyurethane adhesive.
4. Use yellow and red wood dyes to finish the piece. Optional: Carve or draw a sun face before dyeing.
5. Coat with exterior varnish.

## Inspiring garden spire

A garden spire takes a pretty large piece of wood, but it looks grand in a flower bed. Use branches or quarter-sawn logs up to 48" long. I use unfinished maple and let it weather.

Anything goes with the pattern, so use your imagination. You also can place a sundial on top, or invert colorful glass vessels on top of a spire to create appealing garden globes.



## Hummingbird feeder

A hummingbird feeder is easy to make and provides years of enjoyment. Buy the test-tube hummingbird feeder kits from a woodturner supply and turn the enclosure:

1. Use wood about 3"x3"x8".
2. Drill a 1" OD hole 6" deep into the wood to hold the test tube.
3. Turn a shape you like while leaving at least a 1/4" wall around the hole.
4. Glue the glass tube in with silicon adhesive to allow expansion.
5. Finish with exterior varnish.

Stephan Hatcher (summit@nwlinc.com) of Renton, WA, is a frequent contributor to American Woodturner. His article on combining stone and shell inlay appeared in the Winter 2002 journal.



# A road less traveled

by Ken Keoughan

Dick Coddling—like a lot of us—is a little perverse. You say “left” and he’s going to smile at you big and bright. In his head, he’s asking “Why? Why not ‘right?’” It’s not that Dick is mistrustful. On the contrary—he got a mind of his own and he’s going to use it. That’s just the way he is. And that’s probably why Dick is the turner and artist that he is.

The first time that Dick Coddling’s work came to the attention of many AAW members was when one of his vessels appeared on the “Nature Takes a Turn” exhibition catalog cover. This recognition came to Dick—finally—after 11 years of hard work.



Dick Coddling

## Finding direction

After 10 years in the Navy, Dick knocked around trying his hand at a lot of things. He labored as a carpenter, a nurseryman, a heavy construction contractor, and a salesman. The challenge Dick faced was that he had a diversity of talents and abilities, yet he hadn’t yet found the direction necessary to determine which of these abilities to pursue.

In 1990, Dick got his first taste of turning when he enrolled in a

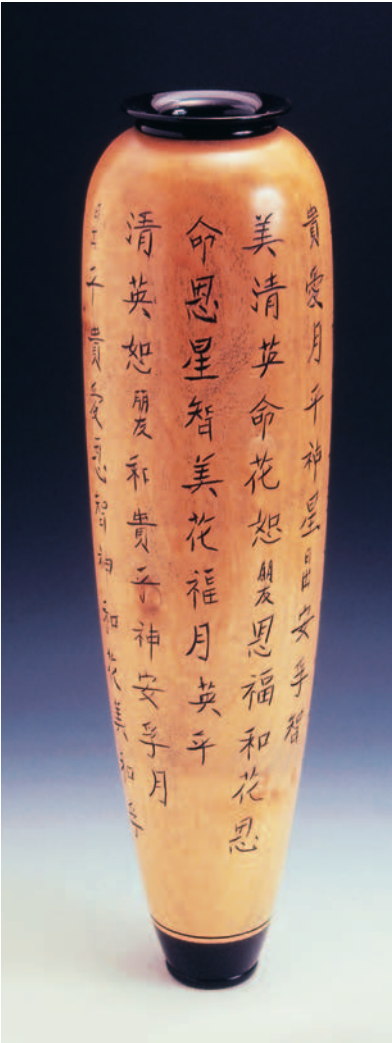
woodturning course at the John C. Campbell School in Brasstown, NC. When he arrived, he was riddled with feelings of inadequacy, if only because he found out that the class was for intermediate turners. Dick now jokes that the last thing he had turned was the corner to get off the road into the school—he’d never turned anything from wood before that. To Dick, intermediate turning seemed ambitious.

Rodger Jacobs, the instructor, assured Dick that his lack of experience was okay. He’d teach Dick and the rest of the class—all beginners—how to turn. And teach he did. “By the end of the week we had turned all kinds of bowls—over 100 bowls,” Dick



ONE

TWO



THREE



FOUR



photos by Dick Coddling

remembers. "And they were really good. We were excited. Rodger was incredible."

By the time I met Dick it was 1993 or 94. He was already an accomplished turner and a contributing advocate of woodturning. In addition to many local volunteer efforts, he had gained a regional reputation as an accomplished turner.

Among Dick's individual gifts was a remarkable aptitude. He

once watched Johannes Mickelson turn and block a big wood hat while videotaping the demo for his woodturning club. When he went home, Dick turned an incredible hat for himself.

Throughout his career, Dick's primary focus has been vessels. And with his vessels he has an unerring eye for balance, proportion, color, texture and size. He's willing to risk and to experiment.

*Continued*

ONE: Big-leaf maple burl vase, 16 x 10". This piece features a shot-peened effect on black aniline-dyed base with a delicate ebonized cherry neck.

TWO: Jacaranda and ebony vase, 24 x 6". "The Chinese characters were incised and ebonized with India ink."

THREE: Carved vase of spalted hackberry with ebonized cherry, 30 x 8". "The key here is catching the hackberry before the splating goes too far."

FOUR: Camphor vase with carved leaves and aniline dye, 18 x 7".



## Dick Codding *Continued from previous page*

Dick grudgingly tried the outdoor show circuit and then walked away discouraged.

### Craft shows wilt his turning passion

Dick already had a day job: He and his wife, Doris, owned a flourishing lawn-care business. At night, he struggled with making and marketing enough product to make it pay for weekend shows. Who needed the grief of setting up and tearing down the booth, non-stop smiling and making chin-chin for two or three days? Before long, Dick tired of weekend outdoor shows and turning.

He then developed an intense enthusiasm for photography. Once again Dick discovered natural aptitudes after enrolling in the Crealde School of Art in Winter Park. He studied there for three years while continuing to nurture the lawn-care business.

Rick Lang, his photo instructor and mentor, says that Dick "had an innate sense of composition, a feel for whatever he was photographing." By 1996, photography began to displace woodturning as Dick's passion. (Dick still photographs all of his wood pieces; you can view his work at [www.dccodding.com](http://www.dccodding.com).)

### Enthusiasm returns with 3-man show

Then in October 1999, Dick was invited to participate with Arthur Jones and Bob Kopec in a three-man show in his hometown of Mount Dora, FL. The show was an enormous success in terms of traffic, notoriety, and publicity. Although sales were scarce, Dick

had the opportunity to interact with an audience more inclined to appreciate art than the run-of-the-mill outdoor show audience. He came away from the exhibition renewed and energized once more for turning.

### On the road again

From there Dick plotted a new course. He studied *The Art Fair Source Book* (800-358-2045) to select potentially lucrative shows. The quality, caliber, and sales potential of the shows took precedence over geographic proximity. New cities popped up on his itinerary: Columbus, OH; Salem, OR; Seattle, Denver, Chicago, and Ann Arbor, MI. Dick and Doris bought a second home near his sister in southern Illinois to provide a more central travel hub for the upper end show circuit.

Unlike his earlier experience with outdoor shows, the camaraderie of the artists on the circuit provides Dick with a creative nourishment and stimulation requisite to being a full-time wood artist.

"Maybe it is a road less traveled," he muses. "Maybe it isn't. But it's my road. And, I go where I want to and I have a pretty good time doing it."

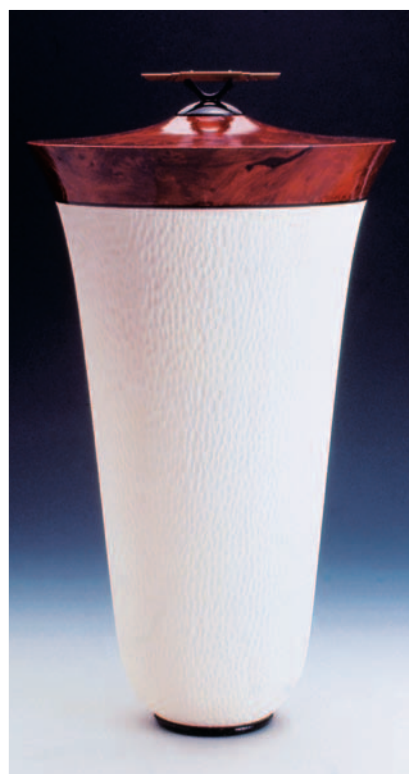
Has it paid off? "That depends on the rewards you are after," Dick says. "There are a lot of ways to make more money. But, I'm making new friends and seeing old friends all the time. I'm developing an acquaintanceship with a lot of our country and a few handfuls of its citizens."

"In some ways, I'm a kid again. But I'm a big kid and a happy kid...all in all."

FIVE



SIX





*"I'm making new  
friends and seeing old  
friends all the time.*

*In some ways,  
I'm a kid again.  
But I'm a big kid  
and a happy kid."*

FIVE: "Rachael," maple burl bowl form with aniline dye. 16 x 13".

SIX: Jacaranda with claro walnut, 14 x 8". Dick repeatedly bleached the jacaranda with a two-part wood bleach to achieve the affect. Texturing highlights the whiteness.

SEVEN: Set of three cherry "Piscatorial" vessels. The tallest, 20 x 7", was the catalog cover for AAW's "Nature Takes a Turn" exhibit catalog.

EIGHT: Jacaranda vase, 18x6". Dick bleached the jacaranda, then treated with gold leaf and black aniline dye to create the checkerboard pattern.

SEVEN



EIGHT



Ken Keoughan (kkeoughan@yahoo.com) is a contributing editor to this journal. He lives in Friendship, ME.

# The fruits of labor from Wine Country

Woodturning made a clean sweep of top awards last year at the "Artistry in Wood" show in Sonoma County, CA, when members of the Wine Country Woodturners took home the two best in show awards. Wine Country's AAW chapter, organized in 2000, boasts 35 members.

ONE



TWO



THREE



FOUR



## Ralph Ramirez

Since retiring as a California Highway Patrol motorcycle officer and then a data processing manager, Ralph now devotes about 30 hours a week to turning.

ONE: Italian cypress closed vessel with carved leaves, 10 x 8".

TWO: Natural-edge black oak cluster burl, 10 x 8".

THREE: Natural-edge black oak cluster vessel, 11½ x 9".

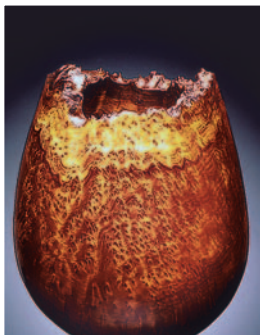
FOUR: Redwood stump burl open vessel, 12½ x 5".



FIVE



SIX



#### Julian Shaw

Occidental, CA, redwoods—recognized worldwide for exciting color contrast—are Julian Shaw's favorite turning wood. Julian, a full-time turner, is chapter vice president.

FIVE: Coastal redwood and ebony Byzantine-style urn, 58", winner of Best in Show Award (large piece).

SIX: Redwood vessel, 27" tall.

SEVEN: Three redwood bowls, largest is 15" diameter.

SEVEN



EIGHT



NINE



#### Bob Nelson

In addition to his turning skills, Bob, who builds and finishes Alembic Guitars, is well regarded among his peers for his hand-rubbed finishes.

EIGHT: Maple and ebony inlay stool, 23½" high, 13" dia.

NINE: Bay laurel burl, 8". Winner of Best in Show Award (small piece).

#### Put your chapter in the spotlight

American Woodturner will feature an AAW chapter in each issue. If your chapter is selected, we will send you three AAW backlist symposium videos to add to your chapter library. See the AAW web site for submission details.



# Ronald Layport

Pittsburgh woodturner Ron Layport is soaring to new heights. During a 40-year advertising career, he began building furniture in his spare time. Ten years ago, Ron enrolled in a David Ellsworth workshop to learn to turn table legs. The experience hooked Ron on vessels, and he's never looked back.

In 2002, he left his day job to devote full time to woodturning. del Mano Gallery now represents Ron.

ONE





TWO



THREE



ONE: Morning Bird, 22 x 12 x 2", cherry. "I tried to capture the swooping motion of the bird. I think this crotch-grain section of a cherry log captured the movement of the sky and water."

TWO: High Cirrus, 8½ x 14½", walnut. "To exploit the heart-wood and sapwood, the interplay of the clouds and bird creates motion and ties together the fragile wing tips at the rim."

THREE: Wolf Dancer, 19½ x 11¾ x 3", beech. "The wolf celebrates rejuvenation and reintroduction into the Yellowstone ecosystem. The forest resounds with his howling and dancing."

FOUR: So'Wi's Nest, 22½ x 18 x 4", cherry. "A 70-pound log was turned down to a 1-pound vessel. Texturing of the bowl suggests a rabbit's nest, lined with mother rabbit's fur."

FOUR



*Continued*

All photos by Chuck Fuhrer



Ronald Layport *Continued from previous page*

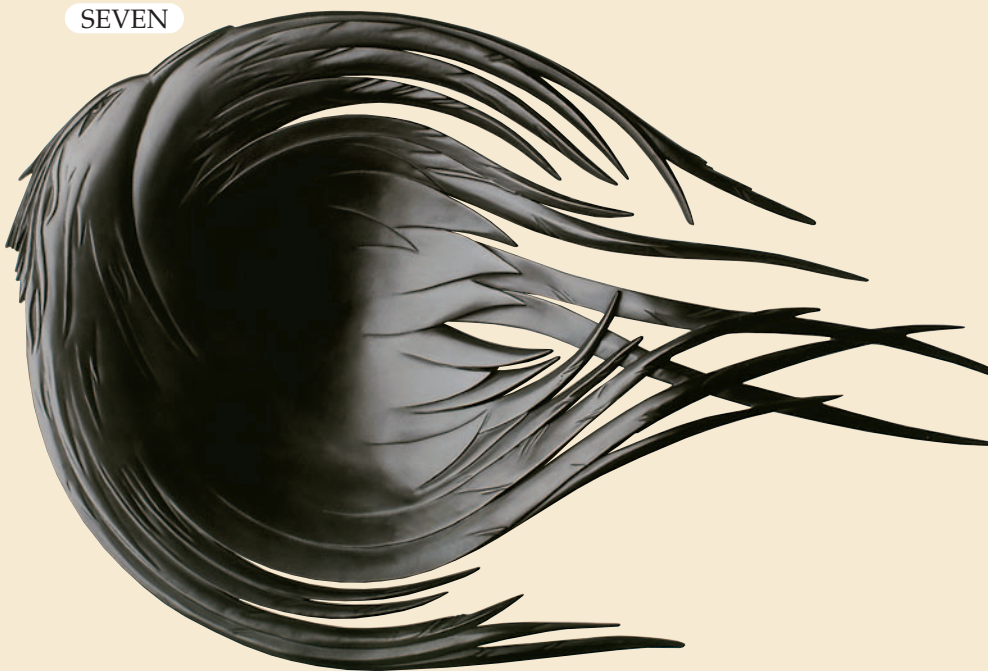
FIVE



SIX



SEVEN





## EIGHT



FIVE: Elk Father, 20 x 12 x 4", cherry. "This is turned from a single piece. The antler echoes the rolled bowl rim, which furthers the illusion of separate elements."

SIX: Mask of Raptor, 6 x 12", maple, ebony and steel. "This turned and carved sculpture emerges from a basic vessel form, as if connected with a long-forgotten culture."

SEVEN: Sun Dancer, 24 x 15½ x 3¼", cherry. "The painted and burnished surface allowed me to concentrate on form. The surface reminds me of Southwest blackware pottery."

EIGHT: Fish Feathers!, 24½ x 10½ x 1½", maple. "The fanciful journey of feathered flying fish, flapping their way across an evening sky, has dogged me since boyhood."

NINE: Flight from Hoodoos, 18 x 15 x 2", burl maple. "This reminds me of Bryce Canyon's breathtaking beauty. According to native lore, Bryce's endless spires—hoodoos—are 'Legend People' turned to stone by Coyote. Birds ride the canyon updrafts to escape the reach of the hoodoos."

Ron's e-mail: [RonLayport@adelphia.net](mailto:RonLayport@adelphia.net)

## NINE



# Member's Gallery

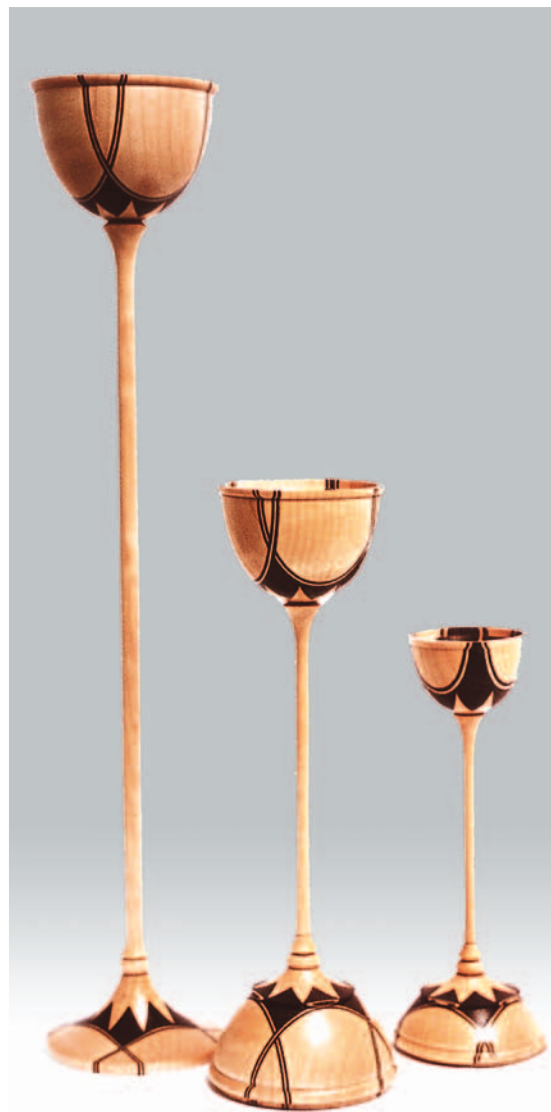
We're interested in what work is coming from your lathe! If you've recently completed a project worthy of sharing with others, see information posted at [www.woodturner.org](http://www.woodturner.org) for submission details.



Photo by Mike Stein

## Murray Stein

22 x 16", mahogany, maple, walnut, ironwood, turquoise, coral and silver. "I specialize in segmented turning," says Rockville, MD, member Murray Stein. "This pot also employs inlay, engraving and good old-fashioned whittling. I was inspired by a smaller piece of pottery made by Tony Da, a San Ildefonso Indian and descendant of Maria Martinez, originator of the shiny black Pueblo pottery." On two occasions, Murray has demonstrated segmented turning at the Smithsonian's Renwick Gallery.



## Eli Avisera

Israeli turner Eli Avisera will present "Segmented Inlay," "Candle Sticks," and "Turning a Dreidel" as three of his demonstrations at the AAW National Symposium in June. The photo above represents some of his recent work.





## Mike Mahoney

**Top photo:** ambrosia maple hollow form series.

**Bottom photo:** buckeye burl nested set ranging from 4×3" to 16×12". Mike Mahoney ([www.bowlmakerinc.com](http://www.bowlmakerinc.com)) of Orem, UT, specializes in turning and teaching his nesting bowl technique. Each piece is turned from the interior of the previous.



## Al Mirman

8×10", from satinwood, redheart, greenheart, holly, ziricote, and dyed veneers. Al's segmented bowl, inspired from a Frank Lloyd Wright window, was commissioned as a gift for someone living near the Wright Home and Studio in Oak Park, IL. The bowl contains 632 pieces. Al lives in Placitas, NM.



## Larry Genender

17" platter, figured maple. Larry Genender, a retired Dallas surgeon, is featured on page 18 of this issue, "Reflections of a first-time demonstrator."



# Gary Zeff

Boulder, Colorado  
[www.openstudios.org](http://www.openstudios.org)

After more than 20 years as a woodturner, Gary Zeff of Boulder, CO, recently shifted to narrative or statement sculptural pieces combining steel and wood. Coupling these disparate mediums has introduced Gary to more profound themes.

Gary believes the two juxtaposed materials open new avenues for statements of tension, conflict, controversy, discord, and comparison. He sees the play of finely finished wood and rusting or reflecting metal heightening the dissonance between the natural and the man-made.

All Gary's current works are suspended in some manner.

ONE



## TWO



**ONE:** "Pierced Sanctuary," 7 x 22", masur birch, leather, horse hair. "This turned piece held high represents what we think is our safe haven. The six horizontal pieces supporting that sanctuary pierce the interior space, rendering it also unsafe."

**TWO:** "Untitled," 11 x 4", maple burl, epoxy inlay, silver leaf, and plated steel. "This piece sat for five years before I got an inspiration from an *American Craft* article. I cut the turned piece in half to support it in this manner."

**THREE:** "Sanctus," 27 x 10 1/2 x 17", bleached maple and steel. "The turned piece on an alter represents something we hold dear. The fence around the alter represents something is broken."

**FOUR:** "Destiny," 11 x 11", maple, purple heart, ebony and steel. "This piece was part of the 25th Annual Contemporary Crafts show in Mesa, AZ."

**FIVE:** "Catrine," 19 x 8", maple, walnut, and steel. "I made this for a divorced friend. The bark inclusion related to the 'split' and the metal represent angels support her on their shoulders."

## THREE



## FOUR



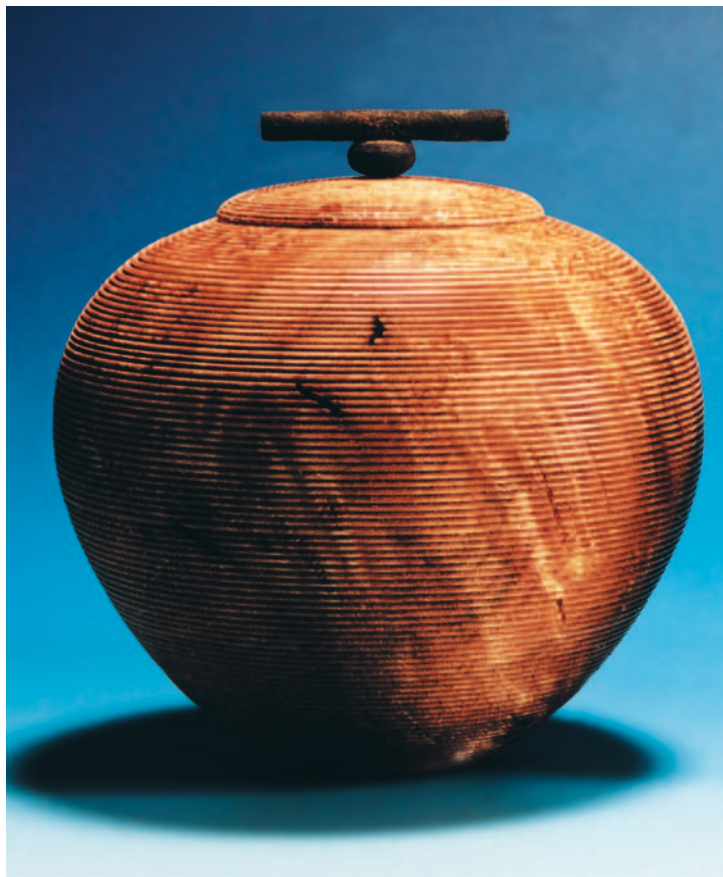
## FIVE



# It's hard to top lidded boxes

by Bob Rosand

Ever since I started lathe work in the mid-70s, I have enjoyed turning lidded boxes. I based my first boxes on Dale Nish's creative and artistic woodturning and Richard Raffan's video on the same subject. My boxes were obvious design ripoffs, and I relied on sanding to make up for deficiencies in my tool techniques.



Photos by Bob Rosand

As I became a better turner, I wanted to accomplish two things: Sand less and turn more interesting boxes. This was accomplished—I hope—by what I call my no-sand boxes. Okay, I do sand a little, but only with a few touches of 320- or 400-grit paper. The texturing techniques I'll discuss on these pages generally let me skip most of those time-consuming, dusty sanding chores. Do I have your interest? Read on!

The boxes that I make today are burl, usually maple. I keep the shape simple. The boxes average about 3" in diameter, but I have turned boxes as large as 7 or 8" in diameter and as small as 3/4" in diameter.

All of my boxes have loose-fitting lids. They are not a sloppy fit by any means, but I don't worry about getting the tight friction- or piston-fit prized by many turners. The tight friction-fit was bad business, I found early on when I sold my friction-fit boxes at local craft shows. Too many people lifted the boxes by the lid only to have the body of the box fall on the floor, creating a damaged and unsellable item.

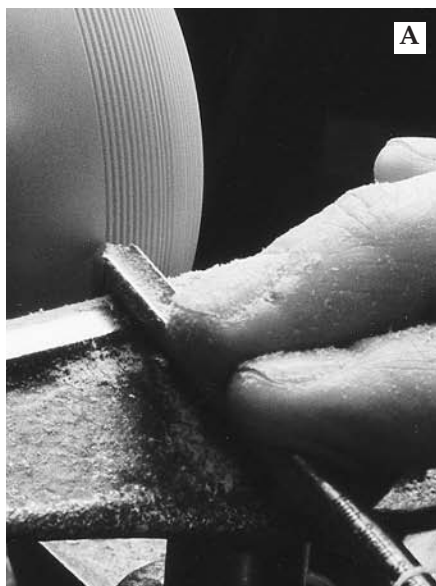


## One spindle gouge, two grinds, two looks

The first box that I describe here is what I call a cove box and is simply textured with a series of large or small coves depending upon your skills and taste. You can texture with nothing more than a small spindle gouge. To avoid tool marks on the finished product, the gouge must be properly sharpened with a keen and smooth edge.

The second box design is embellished with fine lines, which creates an entirely different visual and tactile effect. However, the turning techniques are basically the same for both boxes.

I cut the fine V grooves into the surface in exactly the same manner (Photo A). Believe it or not, I accomplish both looks with



A spindle gouge sharpened to an extremely sharp point is ideal to cut the V grooves in surface of this turned box.

a modified  $\frac{1}{4}$ " or  $\frac{3}{16}$ " spindle gouge sharpened to a sharp point. The gouge doesn't have much of a flute. But it cuts well, even though I can't really tell you why.

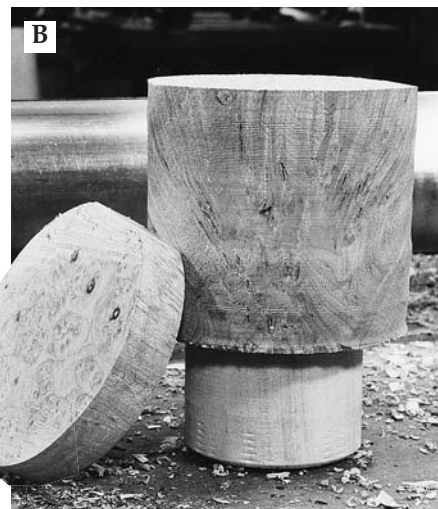
To use the tool, you simply push it into the wood to make your cut. When turning with it, your technique is somewhere between scraping and cutting. Additionally, you really can't rub the bevel. Make sure that you do not overlap the lines when cutting; this almost always results in torn grain. Finally, in order to see what you are doing, consider wearing a pair of optivisors. Trust me—they really help when detailing this no-sand box.

## The body of cove box

I start my boxes by selecting a piece of burl about 3" square and 3 or 4" long (Photo B). The height is not critical. I usually fit the shape of the box to the piece of burl available. The turning stock is glued to a waste block, which fits into my chuck. (I turn with a Talon chuck from Oneway.) Bring up the tail center and true the block using a spindle gouge.

I also true up the top of the block (the one where the tail center engages and will become the lid) and make a series of pencil lines on the top section. The pencil lines will allow me to center the top when I glue it to a waste block.

At this point, I either use a parting tool to cut off a  $\frac{3}{8}$ " thick piece or I remove the  $\frac{3}{8}$ " piece



A 3 or 4" long piece of burl makes excellent material for this project. The photo above shows the lid material already separated.

with a bandsaw. If you use the bandsaw, be very careful: A round piece cut in a bandsaw tends to roll. An alternative might be to remove the  $\frac{3}{8}$ " piece prior to rounding the blank or building a jig to keep the piece from rolling on the bandsaw table. Then put aside the lid section.

Using a spindle gouge or a small bowl gouge (my choice), rough-shape the box. My boxes are relatively flat on top so that I don't have to undercut the lid to much to get a proper fit. The widest diameter of the box also is also fairly high, about two-thirds above the base. From the widest diameter, the boxes taper down to a relatively small base. That, to me is just a matter of design preference. When rough-turning the boxes, make sure that you leave enough material at the base of the box so that you can hollow

*Continued*

it and not have it chatter on the lathe. Remove enough material so that you can envision what the final product will be (Photo C).

With a pencil, mark what will be the opening of the box. Then drill out close to the bottom of the box with the largest Forstner bit that will fit within those lines (Photo D). Avoid going too deep; you can always remove more material later, but you can't put it back. Clean up the entrance of the box with a small spindle gouge, or the long

point of a small skew. It's necessary to do this because the drill will occasionally wander and the finished edge will either be too rough or not perfectly round.

Instead of hollowing the box at this point, I refine the exterior and hollow later. First, make a pencil line in about  $1/8$ " from the opening of the box. Later, you will fit the lid to this line. Set your compass to  $1/8$ ",  $3/16$ ", or whatever size you desire, then mark a series of pencil lines down the exterior of the box

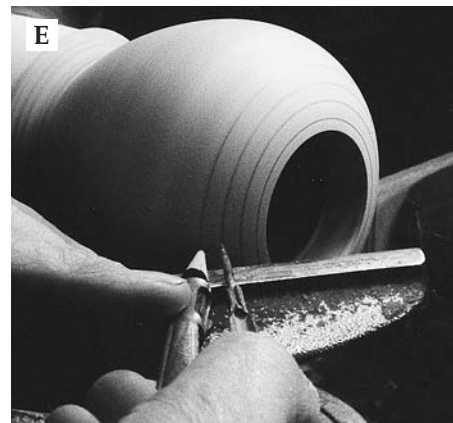
(Photo E). With your spindle gouge, cut a series of coves between the pencil lines (Photo F). These are not your finish cut! I always cut the coves twice. The first cut is a rough cut, and the second is a finish cut. Your first rough cut will probably have some torn end grain. In order to clean that up, take a 50/50 mixture of sanding sealer and turpentine, then brush it on the box and take a very light finish cut with the spindle gouge. You might also



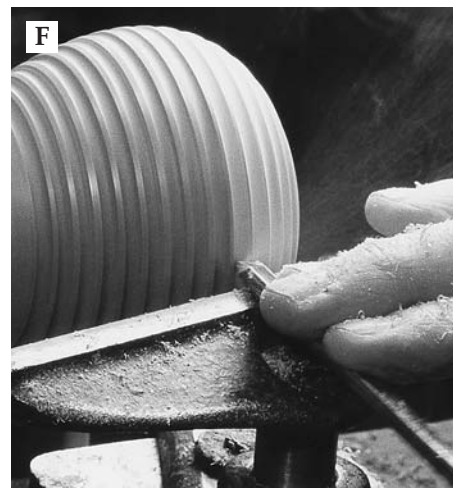
As you rough-turn the body, leave enough material to hollow the interior and texture the surface.



A Forstner bit is ideal for drilling the box interior. Note the tape which marks the depth limit.



Mark out the box lines with a compass.



Follow the evenly spaced lines marked on the body to cut the coves with a spindle gouge.

consider honing the spindle gouge prior to taking that final cut. Though I rarely hone for general work, the honed gouge produces a superior finish and require almost no sanding.

At this point, about two-thirds of the exterior is finished and hopefully you have left enough material at the base to allow hollowing without a lot of chatter (Photo G). I rely on two tools to hollow my boxes: A straight-shafted round-nosed scraper about

$\frac{3}{8}$ " square and a homemade bent angle tool with about a  $\frac{5}{16}$ " shaft. For the most part, I first grab the round-nosed scraper to clean out material so that I can get the bent angle tool in and refine the exterior. I use the two tools in combination until I get close to the bottom of the box and near to where I finished my cuts on the outside of the box. At this point, you need to return to the exterior of the box and refine that some more. Cut a few more coves, then

return to the interior and refine the bottom of the box interior.

When you are satisfied with the quality and thickness of the interior, you're ready to finish the bottom. Part the piece from the lathe (Photo H). Friction-fit or reverse chuck so you can finish the bottom (Photo I).

When I friction-fit boxes, I usually glue on a pine waste block because it is soft enough that it does not mar the finished piece. When I part the box from the waste block, I also leave a short tenon on the bottom of the box. Why? When I bring up the tail center to support the piece for my finished cuts, the mark left by the tail center point is not so deep that it will leave a mark in the finished piece. Remove the tail center and carefully finish the very bottom of the box.

If you are a little uncertain about the tightness of your friction fit, you might consider adhering with a dab of hot glue prior to friction-fitting. The hot glue increases the hold on the waste block and peels off easily after removing the base from your lathe.

## Now, turn the lid

First, glue the lid material that you put aside earlier to a waste block. To center the piece on the waste block, reference the lines you drew on the lid material prior to parting it from the main block. True up what will become the lid (Photo J), then mark the diameter of the box opening with a set of vernier calipers. I rely on a small spindle gouge and the long point of a small skew for this. The underside of the

*Continued*



With a round-nosed scraper, hollow the box interior.



A thin parting tool is ideal to part the box from the waste block.



With the body friction-fit into a waste block, turn coves in the box bottom with a spindle gouge.



lid must be cut so that you have no gaps when you fit the lid to the body of the box. Part the lid from the waste block, reverse it, and friction-fit the lid in a waste block.

Now, continue refining the top. With your compass, mark the same lines on the lid that were on the body of the box. Then cut the cove lines (Photo K). Don't forget that the box lid should be thick enough to accommodate the coves that you are cutting.

When you've finished cutting the coves, drill a small hole in the top of the lid to accept a knob or handle. Next, remove the lid from the friction fit.

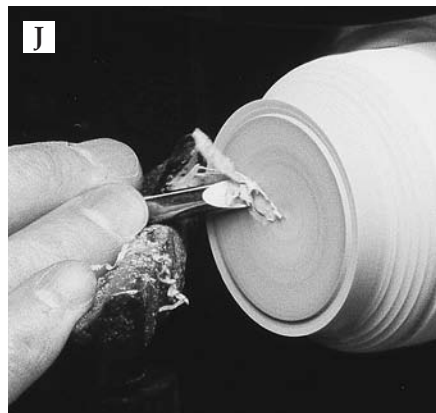
If you have a snug fit, the lid may be difficult to remove; prying it off may break or damage the rim. I discovered that the easiest method to accomplish this job is to cut away the lid-holding material with a small parting tool. In a few moments, the material securing the lid loses its holding power and the lid comes away easily.

## A stylish knob tops off your box

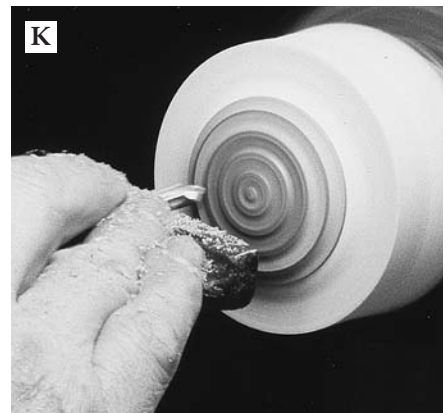
My earliest boxes had a small simple knob, often turned from ebony. Unfortunately, the knobs were difficult to grasp. One day while leafing through a pottery book, I discovered some pleasing knobs/handles.

My boxes now feature a handle that's nothing more than the addition of a "stick" on the top of the knob. I think the stick from nature adds a great deal to the appeal of my boxes.

For this look, turn a small tenon for gluing a stick to the knob



With the lid glued to a waste block, refine the lid interior with a long point of a skew.



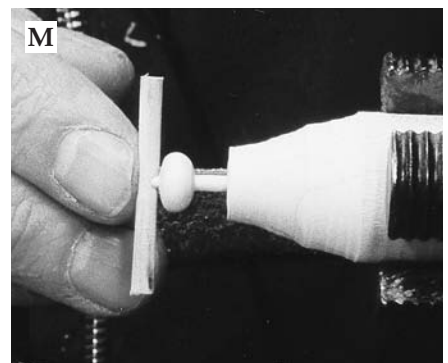
After friction-fitting the lid into a waste block, turn the lid cove lines with a spindle gouge.



You're nearly done: Turn the knob with a tenon for an "aha!" finishing touch. With the tenon, you'll mount a stick to the knob in the next step (Photo M).

(Photo L). After gluing these two pieces (Photo M), adhere the assembly to the lid. Several turners have asked why I don't streamline the process and turn a handle from a dowel. I think found sticks—imperfect and organic—look better.

There are other finish options for the box handles. In the boxes featured in this article, I used a product called Instant Rust. It's a brush-on solution (available from Dick Blick at 800-828-4548) which "rusts" instantly. I've also experimented with Copper Topper and bronze patinas.



Glue a found stick on the tenon of the knob. To part the knob from the lathe, use a long-pointed skew or parting tool.

Bob Rosand (rrosand@ptdprolog.net) lives, works, and teaches woodturning in Bloomsburg, PA. He is serving his sixth and final year on the AAW board.

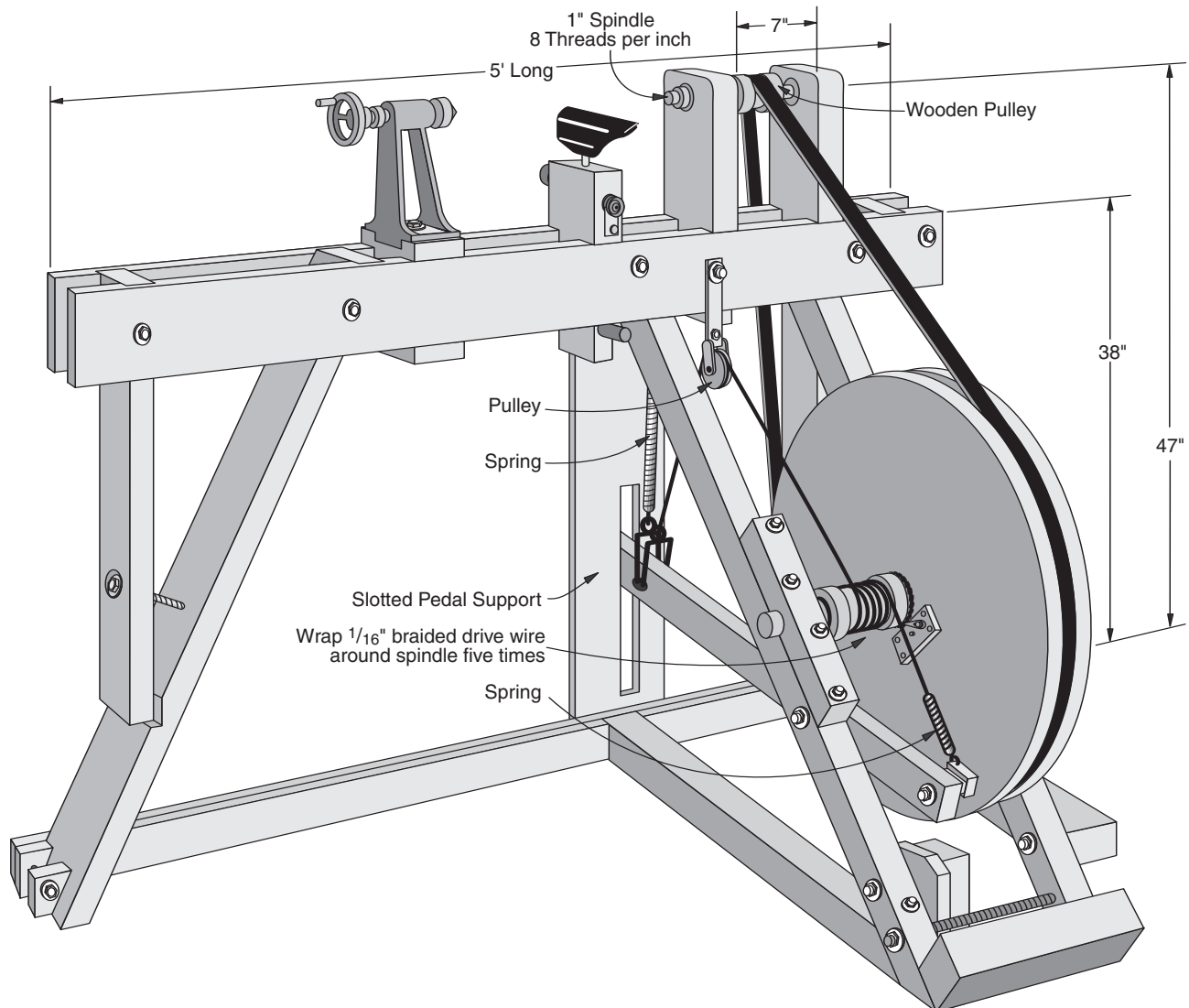
# Return of the treadle

by Robert Brueckmann

Want to draw a crowd? Woodturning demonstrated at a treadle lathe practically guarantees a curious audience at wood shows and malls. Here's how an Indiana chapter built its own treadle lathe and then watched new membership applications grow six times over.

When members of the Central Indiana Chapter of the AAW decided to make a treadle lathe for classes and demonstrations, we checked with the AAW, and a long list of Internet sites for plans for making one of these now-rare wooden lathes. We also visited The Conner Prairie Museum in Noblesville, IN, where our club member Bob Drew is employed. The museum's large treadle lathe transfers human power to the weighted flywheel through a Pitman arm.

*Continued*



We decided that a museum lathe, at eight feet long and 48" tall, was much too large for the club to construct and would be too cumbersome to transport to woodworking shows.

We eventually decided to come up with our own version. George Dame, Ed McCarthy, and I took the lead in getting the job done. When we found that our Pitman arm was not sturdy enough, we changed to a one-way clutch designed and built by Ralph Stahl and later modified by Nelson Crooks of Indianapolis.

## A foundation of mortise-and-tenon joinery

The sturdiness of our lathe relies on mortise-and-tenon joints held together by  $\frac{1}{2}$ " threaded bolts and nuts.

The basic lathe dimensions are 60" long, 47" high at the center spindle with an 8" radius or swing over the bed. Although some of the wood is standard Southern pine 2×6's, we incorp-

orated local ash and hickory for most of the construction.

I turned the ash flywheel on my homemade bowl lathe, which has a  $1\frac{1}{2}$  HP motor and 15" maximum radius to bed. The flywheel, which is made of two laminated 2" layers glued and screwed together, measures  $28\frac{5}{8}$ " in diameter and is almost 4" thick.

Turning a 40-pound, 29" diameter flywheel requires caution. The lathe absolutely needs an adjustable slow speed. Even when I was nearly finished turning, 200 rpm almost felt too fast.

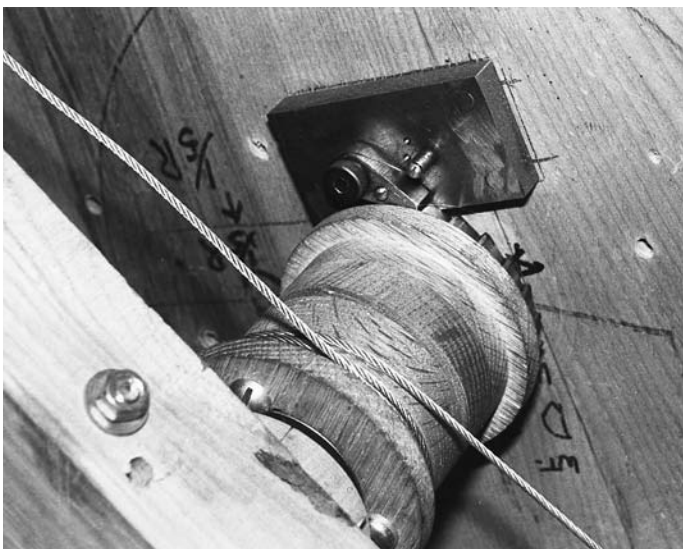
We built the headstock spindle and the flywheel/clutch spindle from standard 1"-diameter round steel stock 14" long. To make convenient acceptance of our members' Powermatic and Delta faceplates, we welded a 1×8 tpi thread to the headstock spindle. We incorporated 1" ID and 2" OD ball bearing into the headstock spindle, the flywheel, and the wood clutch spindle.

Members drilled holes for the 1" spindle and for mounting the ball bearings flush with the flywheel surface. We found that Forstner drill bits worked best for this task.

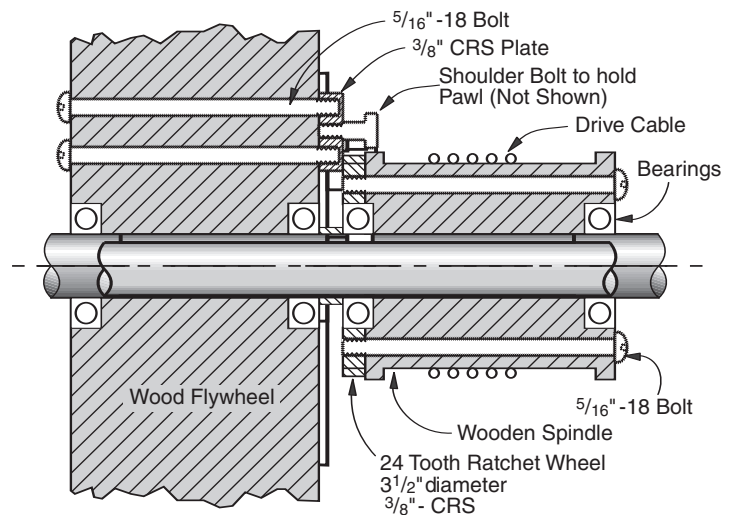
## Mounting the flywheel

The flywheel and its 14" spindle were mounted on 10"-long blocks with 1" holes drilled so that a small part of the spindle would touch the 45° wooden uprights. We held the flywheel in place with C-clamps until we verified the alignment. The  $4\frac{3}{8}$ " long bolts were placed in the drill holes in both of the blocks.

A standard 1"-wide rubberized cloth belt transfers the flywheel power to the headstock's wooden pulley. Set screws hold the spindle to the head stock. To transfer foot power to the clutch, we wrapped five revolutions of a 10' long strand of  $\frac{1}{8}$ "-diameter wire cable around the wooden clutch spindle. From there, the cable travels over a pulley attached to a bolt passing



A close-up detail shows  $\frac{1}{8}$ " diameter wire cable wrapped around the flywheel.



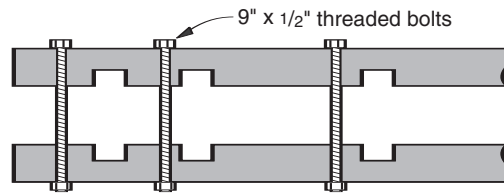
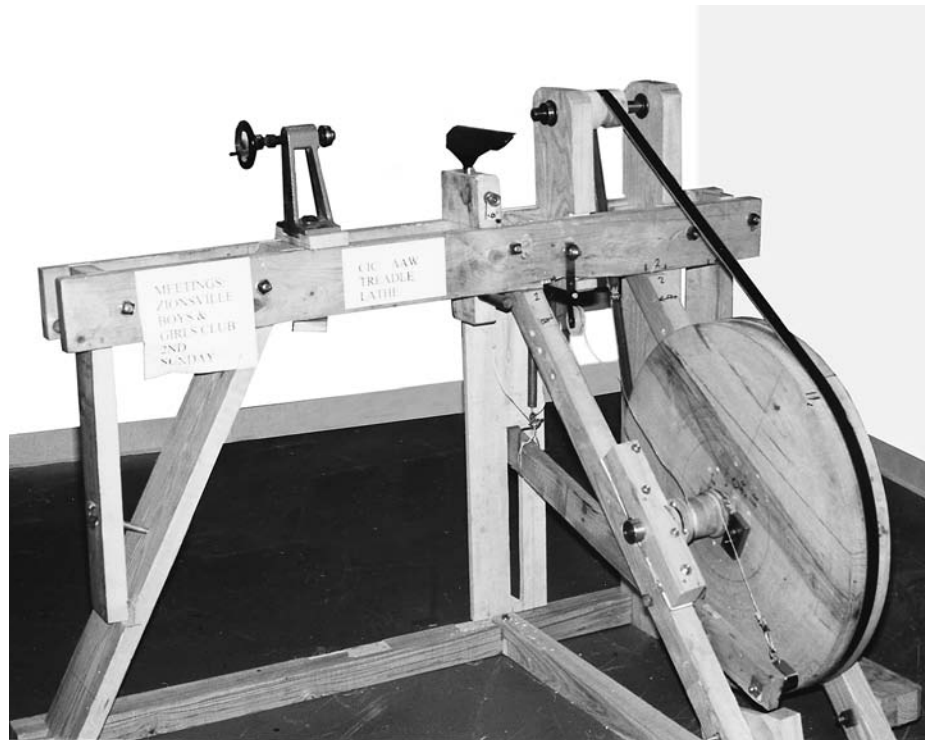


through the lathe bed. A spring on the far end of the wooden lever keeps the wire taut. Another spring returns the pedal so the operator or assistant can take continuous strokes.

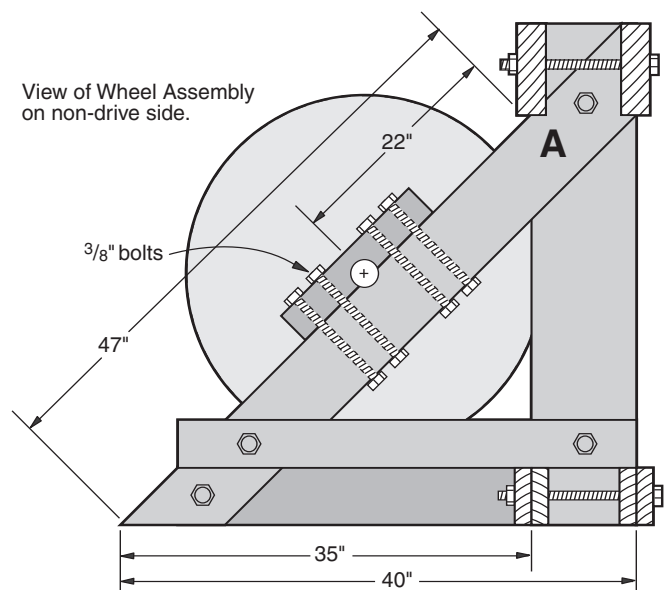
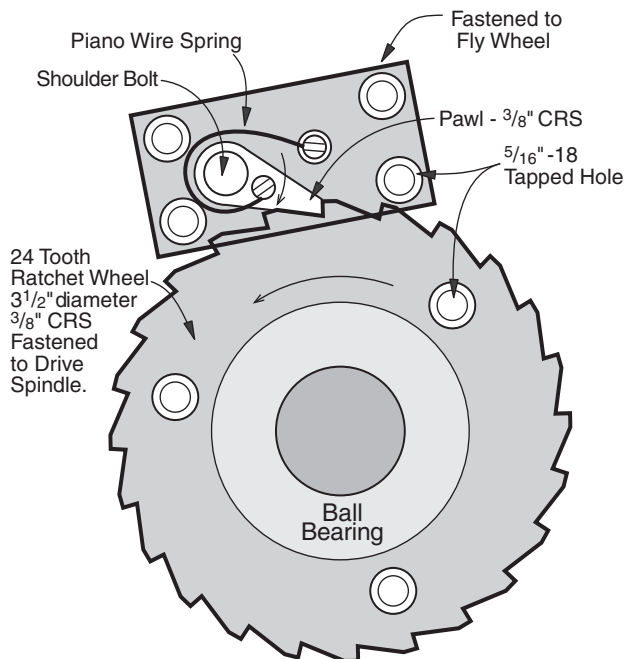
After a few sessions, the pivot point on the flywheel became loose and wobbly. To shore up this critical area, we added a slotted board, which smoothed out the pedal travel.

Our design gives a turner sufficient speed and torque to turn small bowls with sharp tools. Despite the old-fashioned design, our club quickly learned the treadle lathe's value. At the Indianapolis Woodworking Show, where our club had a booth, we discovered that the treadle lathe draws a curious crowd. This year, we received six times more membership applications than in the previous years.

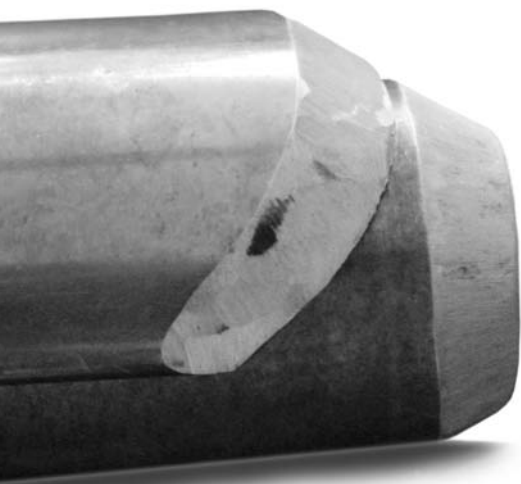
The bottom line: Our foot-powered marketing works great!



Robert Brueckmann (RBrueckmann@indy.rr.com) is in charge of special projects for the Sciencetech Club at the Indianapolis Children's Museum. Drawings by the author, Nelson Crooks and James Caulfield.



*Continued*



The gouge on the left has numerous facets and convex areas. The honable tool on the right has a slight hollow-ground surface and single facet. See page 50 for more details.

# Turning tools and honing

by Alan Lacer

"Yes I honed my tool, and no apologies for it. It is faster than grinding, it gives a fineness no ground tool can offer. On occasion one can even tell by the finished product whether a person honed or not."

—Del Stubbs



Power-honing equipment above: In the background are MDF wheels, firm felt wheel, and cardboard wheel. Foreground: three types of buffing compounds and a rubber wheel with abrasive particles. Hand-honing equipment at right: flat diamond-coated steel, medium India slip stone (several radii available), tapered diamond rod or cone, and optional round silicone carbide rod for ring tools.



Photos by Alan Lacer

Rude Osolnik did it, so did Bob Stocksdale and Del Stubbs. Jerry Glaser recommends it, George Hatfield teaches it, and Japanese turners do it religiously. Peter Child and Frank Pain advocate it in their books. However, I think it is safe to say that those who hone their tools are in the minority of woodturners.

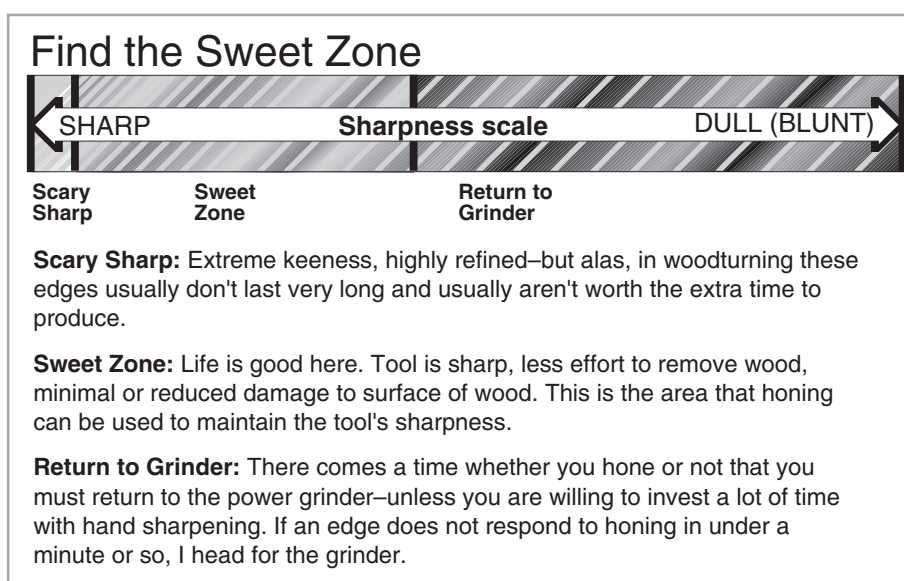
So why do so few turners take their tools to the last phase—that of honing? There are several reasons. Many hand-honing stones (Arkansas, Washita, Japanese water stones) simply don't cut the tougher tool steels well. Also some turners feel it is just easier to return to the grinder; others believe the refinement wastes time.

## Honing terminology

Let's begin with some basic sharpening terms. **Profiling** or **shaping** the tool involves the form you or the manufacturer imposes upon the steel which includes bevel angles. Most people define **sharpening** as the attempt to put a sharp edge onto that shape. **Honing** (or whetting) refers to the refinement and/or maintenance of a sharpened edge.

## Why hone?

First, hone to achieve a keener edge when necessary. This step isn't required for every tool nor in every situation. For example, it is usually not necessary for a scraping tool where heavy stock removal is the order of the day. I find no reason to refine the edge



just off the grinder on a cutting tool (skew, gouge, hook / ring tool, parting) when rough-cutting is the next step.

However, for clean cutting of end-grain, softer woods or just difficult wood—especially that last pass which will determine the degree of sanding—I refine the edge through honing. Honing for 30 to 45 seconds easily eliminates one or two grits in the sanding process. A skew chisel, for example, screams for a keen edge for improved control and clean-cutting.

Secondly, I hone to keep a sharpened edge sharp. This allows me to keep turning without running back to a grinder to achieve a keen edge. Just like the old-time barber honing or stropping their razor, the process was to refine and keep the edge sharp—not to take a dull tool and

make it sharp. This is why many of us hone while turning—to keep the keenness within a range of sharpness. I call it the “sweet zone” that allows me to keep working efficiently, cutting cleanly when necessary, with more control or to reduce sanding time (see chart *above*). Cutting wood moves the edge to the right on the scale—with even the best of steels. With a honable edge, sharpness is pushed to the left on the same scale.

So, we should ask this question: Can you get an edge “too sharp?” Maybe the question should be, “too refined” an edge? No, we won't fuss and push to the same level as the carver or cabinet maker with a paring chisel, but we do need a sharp edge to work both efficiently, safely, and not to have a mess of things when we turn off the lathe.

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# How to hone skews, gouges, parting tools, and ring/hook tools

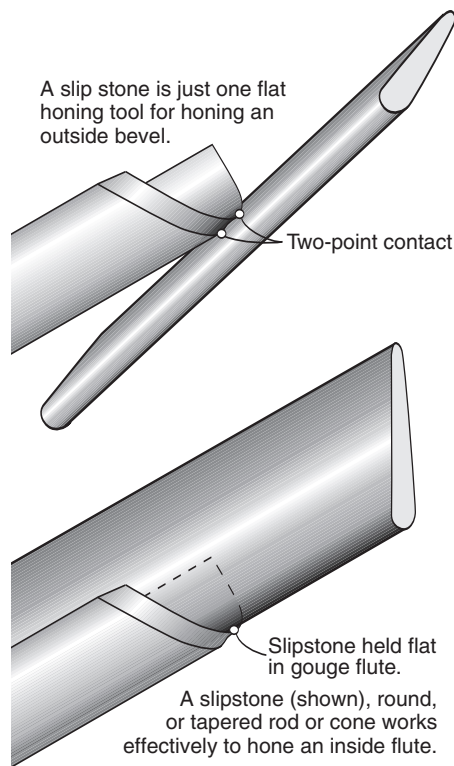
Shaping the tool and grinding properly are fundamental and are more critical than honing. You can't hone a poorly ground tool and it's a complete waste of time to hone unless you've performed these other steps well.

Assuming you have acquired a serviceable shape for the task, grind the tool to a level where honing will both be possible and beneficial to the turning process. Here's what works for me: Aim for slight hollow-ground bevels and minimal facets—especially facets above the concave face of the hollow-ground bevel.

## Why hollow-ground bevels work best

Why a hollow-ground, why not a flat or convex bevel? The only reason I see for the hollow-ground bevel is that it provides me with a built-in honing guide. As long as I have a two point contact surface, I can better feel the honing process (see illustrations at right). However, there must be a balance between too much and too little hollow grinding. I prefer the concave profile a 6" to 8" diameter wheel produces. A smaller-diameter wheel produces such a deep hollow that it may weaken the edge; a larger diameter produces almost no hollow and is more difficult to hone.

Producing a ground surface with minimal facets is essential. If there are multi-facets that arise above the line from the heel of the bevel to the cutting edge, then



For me honing is like a cold swim--quickly in and quickly out. The honing process should be under 45 seconds in most situations—even with a large tool like a roughing gouge. If it takes longer, then either I have a poor honing technique or the edge is past the point of being honable. Then it's back to the grinder.

you'll be honing only the high points points and not refining or improving your edge. Just as in grinding the edge, I train myself not to hone the edge—focus on the bevel. If you focus on the edge, invariably you'll grind a short bevel just behind the cutting edge. Or when honing, you'll "dub" or rollover the edge.

When we talk of honing there are usually two ways to understand it: hand-honing and power-honing. When hand-honing, you make use of a stone, rubberized abrasive or piece of leather. Among turners, some type of stone is most common.

## Tips to select the proper stone

First, select a suitable stone. I've had the best luck honing contemporary tool steels with the man-made India slipstone in a medium grit and, of course, with diamond (fine and super fine). Technically the India stone is an oilstone, but I tend to use them dry and regularly clean the build-up of metal particles with WD-40. The India slip is fine for removing burrs from the inside of gouges and the flat side functions to hone the outside bevel of gouges. However, in a short time the flat side becomes concave and does not work so well for skews and parting tools. (It is still okay for gouges, but not for the flat tools. ) For flat tools (and an occasional outside bevel of gouges and ring/hook type

tools) I prefer a diamond-coated stone (usually diamond applied to a mild steel plate). For gouge flutes, the diamond-tapered rod or cone works quite well. Be careful with diamond coated systems, as not all are of the same quality. Cheaper stones often incorporate fewer diamond particles or a type of industrial diamond that breaks down quickly. My caution: You get what you pay for.

## Develop your honing technique

I have seen many variations of honing techniques:

1. fixing the honing stone to a flat surface and working the tool back and forth along the stone.
2. bracing the tool against the tail-stock lock and moving the stone along the edge (tool is stationary).
3. placing the butt end of the handle firmly upright on a bench or the lathe stand and again



When honing, support the turning tool handle solidly against the body when honing. The grip above keeps the tool stationary.

moving the stone along the tool.

I prefer to stand solidly with the tool against my body, then, move the stone along the tool (see photo *above*).

As for the actual honing process, I always begin at the heel of the ground bevel. Next, I start the action of honing with a back and forth motion from the heel towards the edge. When I feel the bevel adequately I lower this honing action towards the cutting edge until I feel that second point of contact. Always maintain this two-point contact, i.e. the hone bridges the slight concave region between the heel of the bevel and the area just below the cutting edge. Remember, you are honing the bevel and not the edge. If the tool is a gouge or hook / ring type of tool, I finish by honing the inside flute. The nicety of this last operation, at least with gouges, is that I have another built in honing guide: hold the slipstone or rounded rod flat in the flute—again, not touching the edge itself, but focusing on the two planes that trap the area we call the edge.

## HONING STRATEGIES

**Gouges:** Hone the outside bevel. Then hone the inside flute with a slipstone, round rod, or cone.

**Skews:** Hone four faces on these tools: the two ground bevels (begin here), the top edge that will refine the long-point, and the bottom edge that will refine the short point (see photo *at right*).

**Parting tools:** Use a flat hone to work both ground sides. On thin



Skews have four surfaces to hone: two ground bevels and two side edges that define the short and long points (shown above).

kerf-parting tools, hone the flat sides to refine the corners.

**Ring/hook tools:** These come two

ways: ground bevel inside and ground bevel outside. On both styles, work the outside surface with a flat hone. If the ground bevel is outside, work the inside of a hook tool with a narrow slipstone. Choose a round honing rod for ring tools. If the inside is ground—a tapered or round stone in a drill are favorites—hand-hone the surface with the same stone for grinding.

*Continued*

# Power-Honing skews and gouges

There is another approach that can be used in combination with hand-honing or a substitute for it: power-honing. This is most often done with a motorized wheel or even a wheel mounted on a lathe arbor. Wheel materials include felt, stitched cotton, leather, cardboard, rubberized abrasive, plywood, and MDF. For turning tools, I tend to stay away from the softer surfaces (felt, leather, cloth and cardboard). With our heavy-weight tools and too much pressure, I run the risk of rolling over my edge. My first choice is also a frugal one: medium density fiberboard (MDF) charged with a buffing compound that cuts high-speed steel.

## Make your own MDF wheel

You can glue up the MDF wheel from discarded cutoff scraps from a nearby cabinet shop. I make the wheel diameter approximately the size of the grinding wheels in my shop so that the hollow ground area is simpler to feel. Since I grind on an 8" wheel grinder, my MDF flat wheels are 7" to 7½" in diameter and 1½" wide (two ¾" pieces glued together). I mount the wheel on an arbor and turn the wheel to a round flat disc.

Here are some suggestions to mount your disc: arbor-mounted directly onto a ¼ or ⅓ hp 1725 motor, pillow block and shaft, or

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Power-honing is a quick process. If a little is good, more must be great is the wrong approach.

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Watch for a "mud trail," shown above, when power-honing at an MDF wheel charged with honing compound.

left on an arbor that mounts on the lathe. It's best you avoid mounting the wheel on the lathe you'll be working on, as it is not practical to remove work from the lathe to hone.

Whatever system you choose, set up to hone with the **wheel turning away from you**. Remember, honing is quick operation.

I find that high speed is not necessary—I prefer a 600 to 1,000 rpm.

Choose a buffing compound rated for stainless steel. I've had great luck with the Dico brand and Zam, a green honing compound. Whatever you use, watch for the honing compound to turn black as you hone; this indicates that you are removing some metal and not simply polishing the tool surface.

## Honing techniques at the wheel

The actual technique is straightforward and similar to hand honing. With the wheel moving away from you, charge it with honing compound, place the heel of the bevel towards the top of the wheel—cutting edge up.

Gently lower the bevel onto the wheel until you have that same two point or full contact of the bevel on the wheel. Again, do not focus on the edge, as you will round it over in a nano second. When I see the blackened mud trail just coming under the edge, I stop (see photo *at left*).

Personally, the only tool I routinely power-hone is the skew chisel—its long edge benefits from this treatment. Occasionally I power-hone the outside bevel of gouges when I have a particularly difficult piece of wood.

In that case I either use the slipstone to hone the inside flute, or I have MDF wheels with turned beads that fit the inside flute of my gouges.



# Other uses for honing equipment

Several areas of tool refinement also respond well to honing tools.

## Honing scrapers

With turning scrapers, you can hone to flatten or refine the top of the scraper, remove milling marks, and remove either a worn burr or grinder burr.

Why flatten the top? The topside of the scraper--the unground side--becomes one of the planes forming the edge. If it is uneven, pitted, or textured with milling marks from the manufacturing process, you will produce an uneven burr. This makes a huge difference for fine work.

If the top edge is severely afflicted with pits and milling marks, you may need to resort to a belt sander/grinder with a flat platen to clean up the surface. If the tool is in reasonably good condition, hone that surface with a flat hone (diamond is my first choice). Most of this is basic tool refinement.

But in actual use, I also rely on a flat stone (face of the India slip or flat diamond stone) to do two operations. First, remove the old burr before pulling up a new one or for removing the heavy burr that is almost always produced by the grinder. I remove the heavy burr if my objective is to use the scraper as a finishing tool and not for heavy stock removal. Just a few passes with the stone held flat on the top of the scraper removes the old burr. Next, I use either a

cabinet maker's burnisher or the flat face of an India slip stone to raise a burr--often a light burr for finish work. This is critical to producing different burrs for different situations.

Personally I use the scraper much in the same way the cabinet-maker does with their scraper: with a burr 90 percent of the time, and most often as a finishing tool.

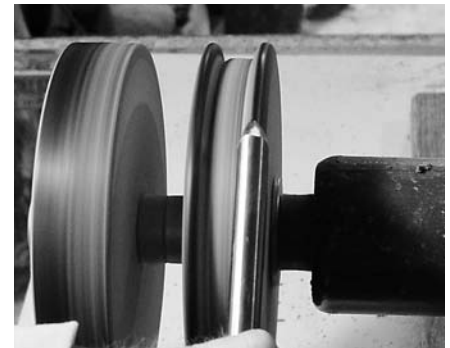
## Power-hone gouges

I've found another use for power-honing: to remove the milling marks from the inside of a gouge's flute. Today, just about all bowl and detail gouges are ground from round bars of high-speed steel. This positive development comes with one drawback: Virtually all of these tools show milling-process signs that forms one of the faces which produce a sharp edge. By removing or reducing these milling marks, you improve the tool's edge.

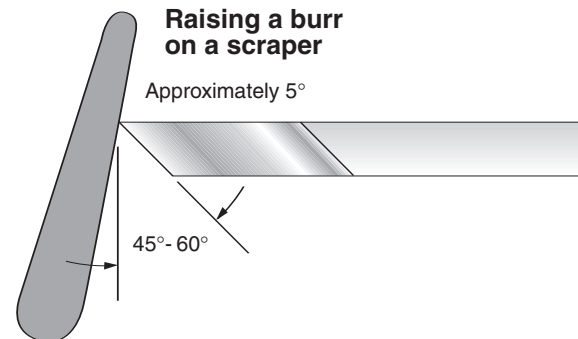
With an MDF wheel, you can remove or greatly reduce those milling marks (see top photo). I normally turn the beads from 3/4" MDF, making several different widths for the beads (see photo *above right*). Concentrate on the last 1" of the tool. Repeat the process when you have worn down the tool to the area you polished. Some specialty high-speed tools require more time and effort and even an aggressive buffing compound (gray or emery) to begin the process.



Milling marks in the flute of a gouge, above, and pits or milling marks on scrapers impact edge quality.



Removing the milling marks inside a gouge is a simple process with MDF wheels.



## Final thoughts

Any technique that reduces grinding and sanding and improves the detail of my work has my vote. Whether it's chippy grain, ornery end grain, or the desire for clean, crisp work, I'm a true believer in the benefits honing brings to turning.

Alan Lacer ([www.woodturninglearn.net](http://www.woodturninglearn.net)) is an American Woodturner contributing editor. Alan also is a turner, turning instructor, writer and past president of AAW. He lives near River Falls, WI.

# Build your own Square-Aim™ Laser

By Bruce Hoover

If you're ready to turn with a laser hollowing guide, try your hand at building an inexpensive version that's a snap to use.

For about \$55 and a spare Saturday, you can add laser-point accuracy to your next vessel project. Bruce Hoover's easy-to-use Square-Aim™ Laser offers nearly effortless adjustments.

For those who already turn with a laser guide, perhaps you will find some advantages here. "I encourage turners to use, share, and improve upon this design," Bruce says.

In addition to your lathe, you'll need a tablesaw, drill press and bandsaw.

## Materials List

- 3/4"x48" square aluminum tube (Home Depot, SKU#469629) . . . . . \$6.00
- Hardware items . . . . . under \$3.00
  - 1/2" PVC T-fitting and end-cap
  - 3/8x2 1/2" carriage bolt
  - 3/8" flat washer
  - 4-#8x3/4" flat head wood screws
  - 2-#8x3/4" pan head screws
  - 1/2" magnetic strip
- Laser pointer Model #ER 35 (The Laser Guy, 877-275-3220) . . . . . \$11.25
- From MSC Industrial Supply, 800-645-7270):
  - Adjustment lever part #82394081 . . . . . \$5.44
  - 5/8"x12" round Acetal rod part #63383848 . . . . . \$1.82  
(plastic material similar to nylon)
  - Straight-grained hardwood, approx... 2x3 1/2x4 3/4" . . . . . under \$2.00
- Boat rail fittings from local marine supply:
  - 7/8" stainless steel flange . . . . . \$12.00
  - 7/8x10" stainless steel rail tubing . . . . . \$3.00

An assembled and welded post and flange are available for \$20 plus shipping from Diversified Repairs (dnrobert@cox.net).

A 1/2" pipe flange and short section of pipe are less-expensive alternatives to stainless boat fittings. This substitution would require alterations; see the Adjustment Head Side View Drawing.

For information about turning with laser hollowing guides, see Lyle Jamieson's article in the Spring 2002 article issue. For comments about laser gauges, log onto [www.woodturner.org](http://www.woodturner.org) and navigate to the Discussion List at the bottom of the home page.

## Comparison to other laser hollowing guides

Lasers guides have made hollowing a much easier task. I've used a shop-built laser since its inception, and have studied versions other turners have built. In my view, most models have some troublesome disadvantages with them that range from inconvenient to problematic:

- Round shafts rotate when the set screws are loosened. This forces the user to reset "perpendicular" with every adjustment. (A non-perpendicular beam causes inaccurate thickness settings.)
- VIBRATION! Multiple moveable joints that can loosen during use contribute to the problem.
- Allen screws require a wrench to loosen for adjustment. They also mar the shaft, making subsequent settings more difficult.

- Making adjustments often seems to require more than two hands.
- It is often difficult to see the laser setting when making adjustments.
- The laser setting tends to move when set screws are tightened.
- Turning the laser on and off can be awkward with rubber O rings and clothes pins.

## What makes the Square-Aim™ different

The inventor in me is always looking for a faster and easier way to do things. The design shown on these pages is the result of my efforts to improve the design. It provides ease of use while eliminating the disadvantages:

- The square shaft and adjustment head maintain perpendicular adjustment at all times.

- There is only one moveable pivot point. This reduces vibration and the chance of loosening during use.
- You make all adjustments with a single hand-lever. No tools required! It easily adjusts for multiple tools of various lengths.
- The magnetic setup gauge and single lever adjustment head allow for quick, easy and accurate adjustments.
- When tightened, the adjustment head generates little or no movement in the laser position.
- The laser is turned on and off with a simple collar.
- The eccentric adjustment feature lets you compensate for misalignment in the laser assembly. (Most purchased lasers don't project in line with the housing.)

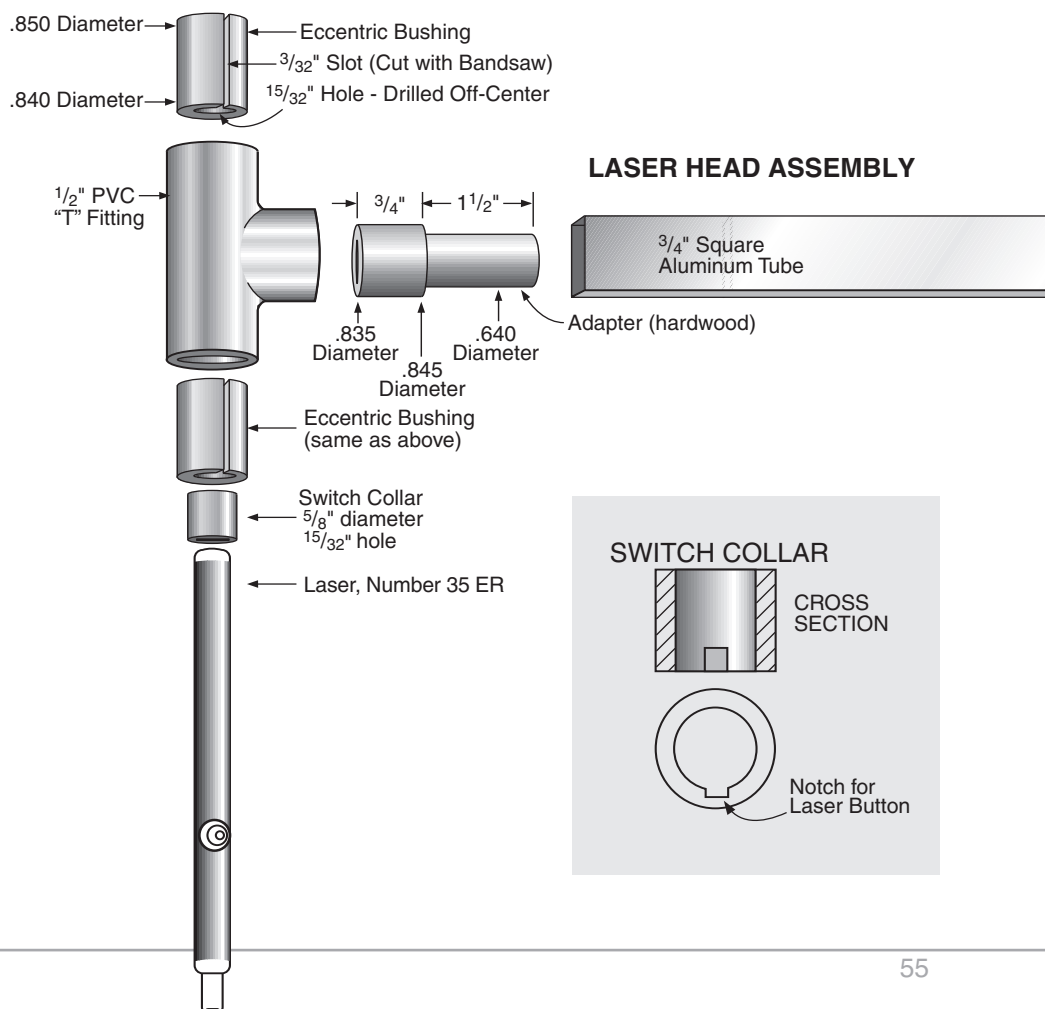
## Start with the switch

To make the switch collar, mount a short piece of the Acetal rod, bore a  $15/32$ " hole and part off to  $1/2$ " length. Use a small cylindrical cutter in a Dremel or other rotary tool to make a notch for the laser button as shown in the drawing *at right*. This is critical for smooth operation. Without this notch, you could damage the laser. The only preparation required for the laser is to remove the pocket clip by simply pulling it off.

## Assemble the laser head and shaft

You should check the dimensions shown on the adapter against the actual measurements of your square tube and PVC T-fitting in case there are small

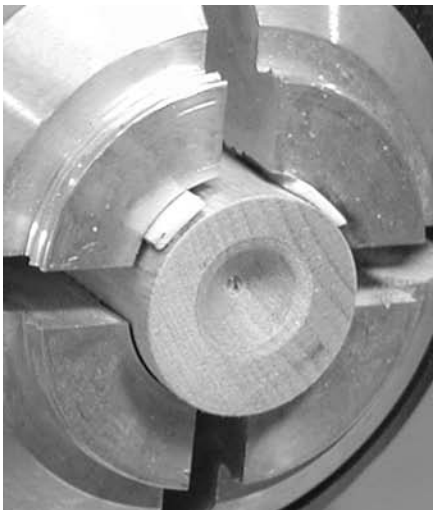
*Continued*





variations in manufacturing. The measurements shown for the adapter on *page 55* are slightly oversized (.005") for a press fit into the PVC fitting and the square aluminum tube with no play.

Turn the two bushings that hold the laser to fit inside the PVC fitting. I tapered them slightly, leaving them oversized at one end (by .010") for a snug fit when pressed into the PVC. Drill the  $\frac{15}{32}$ " holes off center to serve as an eccentric adjustment to align the laser later. I did this using Oneway collet jaws and pads and two plastic shims about  $\frac{1}{16}$ " thick to offset the hole, as shown *below*.



View of the bushing mounted using  $\frac{1}{16}$ " shims to drill an off-center hole. This creates an eccentric bushing.

Next, cut slots into the bushings on a bandsaw (approximately  $\frac{3}{32}$ " wide), to allow room for the bushing to compress and hold the laser securely.

Use 5-minute epoxy to glue together the "T" fitting, the adapter and the square tube. This is a critical step: Do this on a flat surface to ensure the fitting

is perpendicular to the tube. For added security, install a #8 $\times\frac{3}{4}$ " pan head screw through the tube into the adapter. (You'll assemble the laser later.) Then sandpaper the corners of the aluminum tube. This aids smooth movement in the adjustment head.

## The adjustment head

Referring to the Adjustment Head Drawing *below*, begin by cutting a  $\frac{5}{16}$ " thick piece off the top of the hardwood block. Keep this section; you will use it during assembly as a "cap" for the aluminum rail slot. Next cut a groove to accept the tube. For accuracy, I found it easier to make multiple passes on the tablesaw with a single blade rather than use a dado blade. Adjust the width so the tube has minimal clearance to move freely but not be loose. Set the "cap"

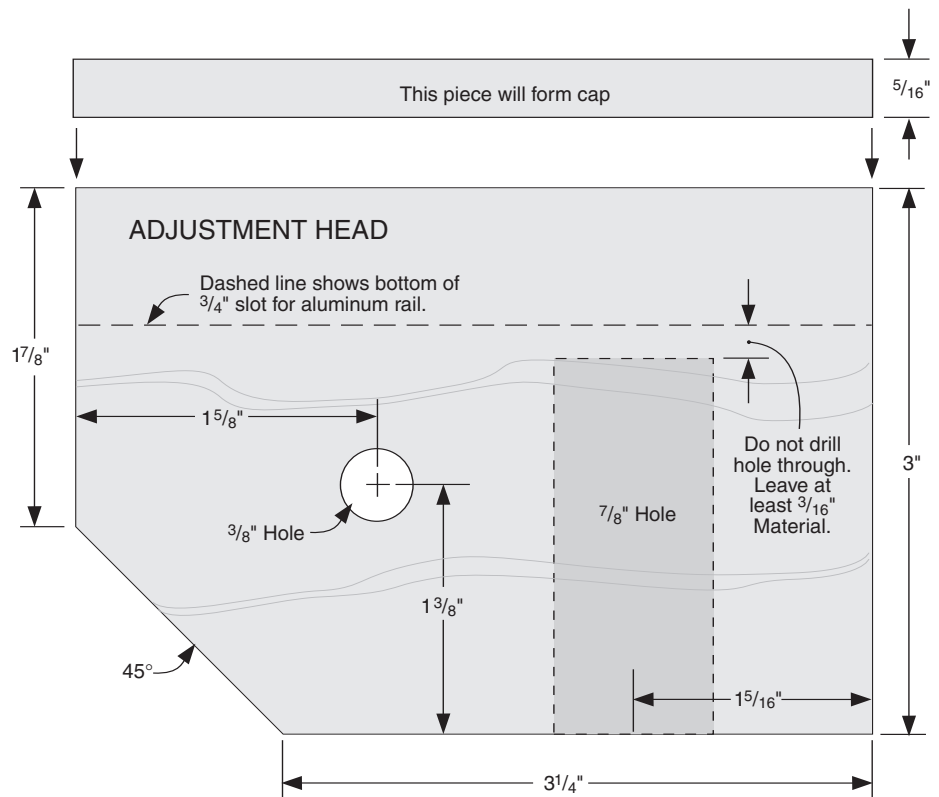
onto the block and hold firmly in place. Insert the square aluminum tube, making sure the slot depth gives sufficient clearance to allow for free movement, but not be loose.

Next, drill four holes through the cap and into the block for the screws as shown in the the Top View. Be sure to locate them as shown. They cannot be on the forward end of the block or it will inhibit the clamping action. **Do not glue** this joint.

Fit your drill press with a speed-bore or Forstner bit to bore the  $\frac{7}{8}$ " hole. It's important to leave at least  $\frac{3}{16}$ " of material at the bottom of the hole for seating the post assembly. Next drill the  $\frac{3}{8}$ " hole for the carriage bolt and the tightening lever.

Mark the slot centerline as shown *at right*, and cut the bandsaw kerf as shown in the photo *at right*. Close the kerf with

Photos by David Dereng and Bruce Hoover



a C-clamp, then saw again to enlarge the kerf width.

Make the 45° cut on the block and then install the top plate. Rout the edges if desired. Next, install the carriage bolt, washer, and lever.



Photo above shows the underside of the adjustment head with the post hole and kerf made with a bandsaw.

## Post assembly and flange plate

Assemble the stainless steel tubing to the flange, making sure it remains perpendicular to the flange when tightening the set-screws. To simplify the task, hold the flange in a chuck with a tail center cone supporting the tube.

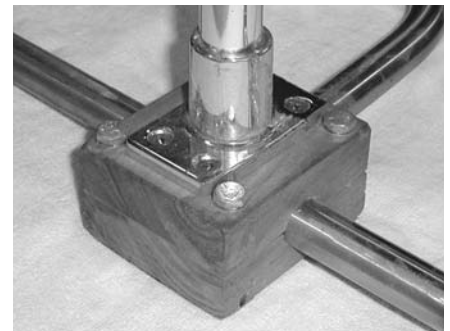
Take this assembly to a welding shop and have it welded (about a \$10 charge), creating a joint that will never move or loosen. Be aware that the heat from welding can “pull” the metal. Re-check: Is it still perpendicular? If it is off slightly, you can either bend it gently by tapping with a hammer or use a thin shim when screwing it to the mounting plate. Your boring bar will determine how to make the mounting plate. My small bar is made from square stock, so I drilled and tapped holes, then secured it

directly with machine screws as shown in Option 1 *below*.

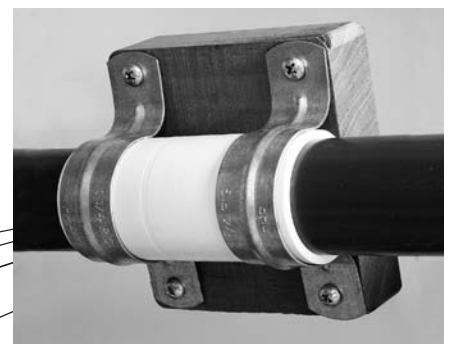
Another option for a round bar is to drill two holes in a block, cut it in half, and clamp it around the bar as shown in Option 2. For my large round Sudol bar, I chose to mount it farther forward. A maple plate, a pair of conduit clamps, and a piece of PVC pipe works well. Adding double-faced carpet tape to the surfaces before tightening prevents any movement (Option 3 *below*).



OPTION 1: Square-tube boring bar.

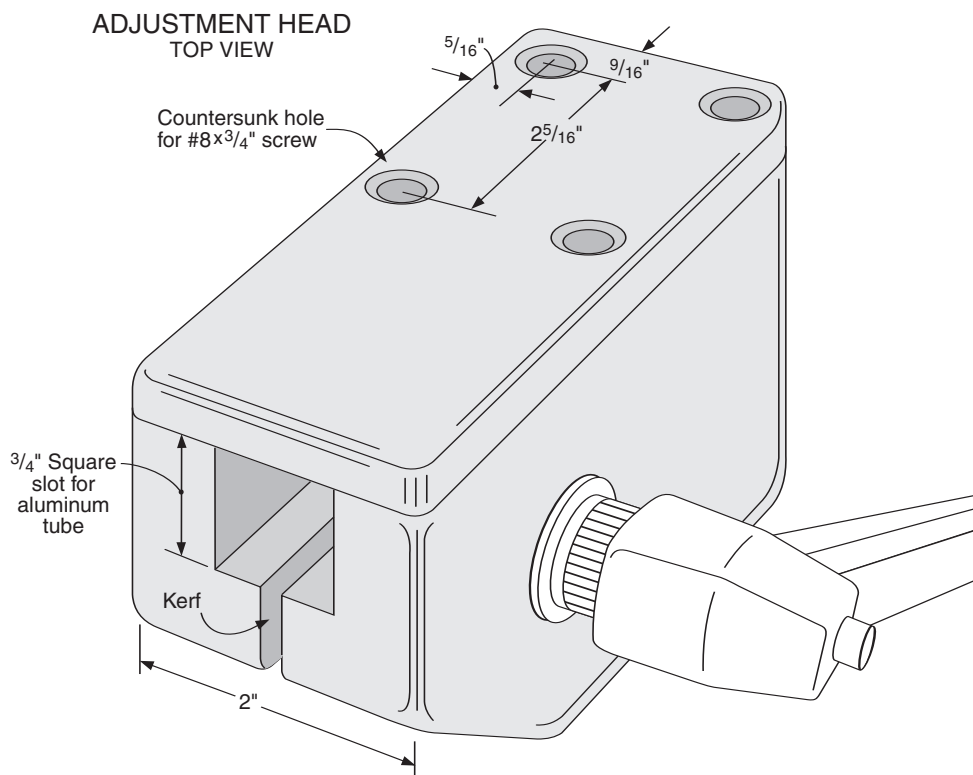


OPTION 2: Drilled, cut, and clamped mounting block for round bar.



OPTION 3: 1 1/2" round-tube boring bar.

*Continued*



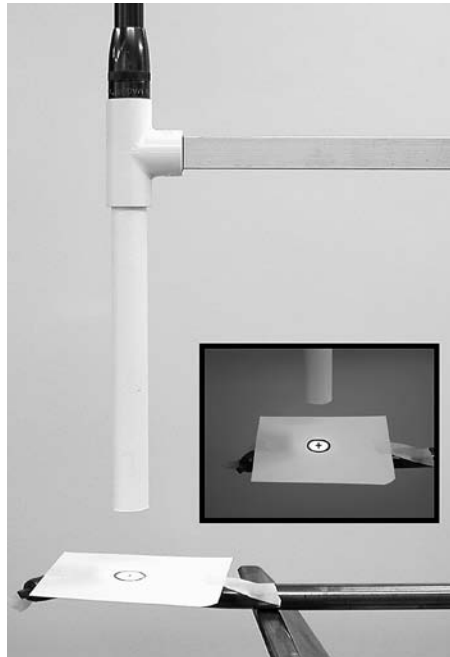
## Final assembly and adjustment

Place your boring bar on the lathe and level it for this procedure. First secure the mounting plate and post to the bar. Then test-fit the adjustment head. If it is too snug, you can carefully enlarge the opening in the block with a small drum sander. Or, sand the top of the post. The fit should allow free movement but no more.

Next, insert the square tube. With the lever loosened, the tube should slide freely and the post will turn easily. Tightening the lever should secure both firmly. If this is not the case, make minor changes in the hole and/or slot in the head until both function properly.

The next step is to align the laser in the head as shown in photo *at right*. Insert a cutting tool in the bar and tape a 4" square piece of construction paper near the end. Cut a piece of  $\frac{1}{2}$ " PVC pipe 7 to 8" long and insert it firmly into the lower end of the T-fitting. Place a small flashlight set on narrow beam on top of the fitting. This will create a spot about the size of a nickel on the paper. Trace the outline with a marker and place a "+" in the center. This is the target you'll adjust the laser to.

To assemble the laser (see page 55), slide on the switch collar and one of the eccentric bushings. Be sure to put the smaller end into the T-fitting. Insert the laser and then the top bushing with just enough pressure to hold the laser in place. To center the beam on the "+," rotate both bushings and/or the laser itself. With a few minutes of effort



Use a flashlight and PVC section to mark the "target" for laser alignment.



For alignment, be sure to position the laser low to allow for room to raise and rotate the switch collar to turn off the laser.

you'll establish good alignment as shown in the photo *above*.

Next, press the bushings in firmly by hand and remove the tube from the adjustment head. On your workbench, set the bushings tightly by using two  $\frac{5}{8}$ " sockets (one deep, one shallow) to reach around the laser housing to the bushing surface. Then tap them gently with a hammer. Be sure that you have left room to raise and rotate the switch collar above the button. A few drops of thick CA glue between the bushings and T-fitting will provide peace of mind.

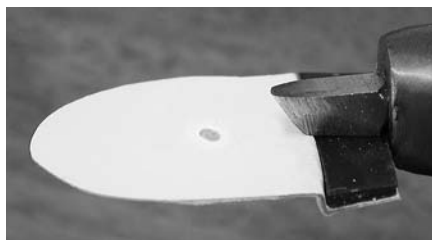


Photo close-up shows "hands-free" magnetic setup gauge in use.

## Setup gauge

This low-tech device will make laser adjustments a much easier task. Fashion it from white construction paper and a small piece of magnetic strip as show in the photo. Add reference lines if desired. The laser's featherweight design allows you to easily attach to any size cutter.

## Ready, set, ...

Attach the setup gauge to your cutting tip and turn on the laser. Adjustment is a breeze! I operate the lever with my right hand and move the laser head with my left. You'll always have a perpendicular beam and you won't need an extra hand to hold the setup gauge.

Bruce Hoover (woodturner@esva.net) is a professional woodturner living in Bloxom, VA.. He has previously contributed articles for the journal and was a demonstrator at the 2002 AAW Symposium, where he first demonstrated his Square-Aim Laser.



# NOW entering Bruce Cohen's Deconstruction Zone

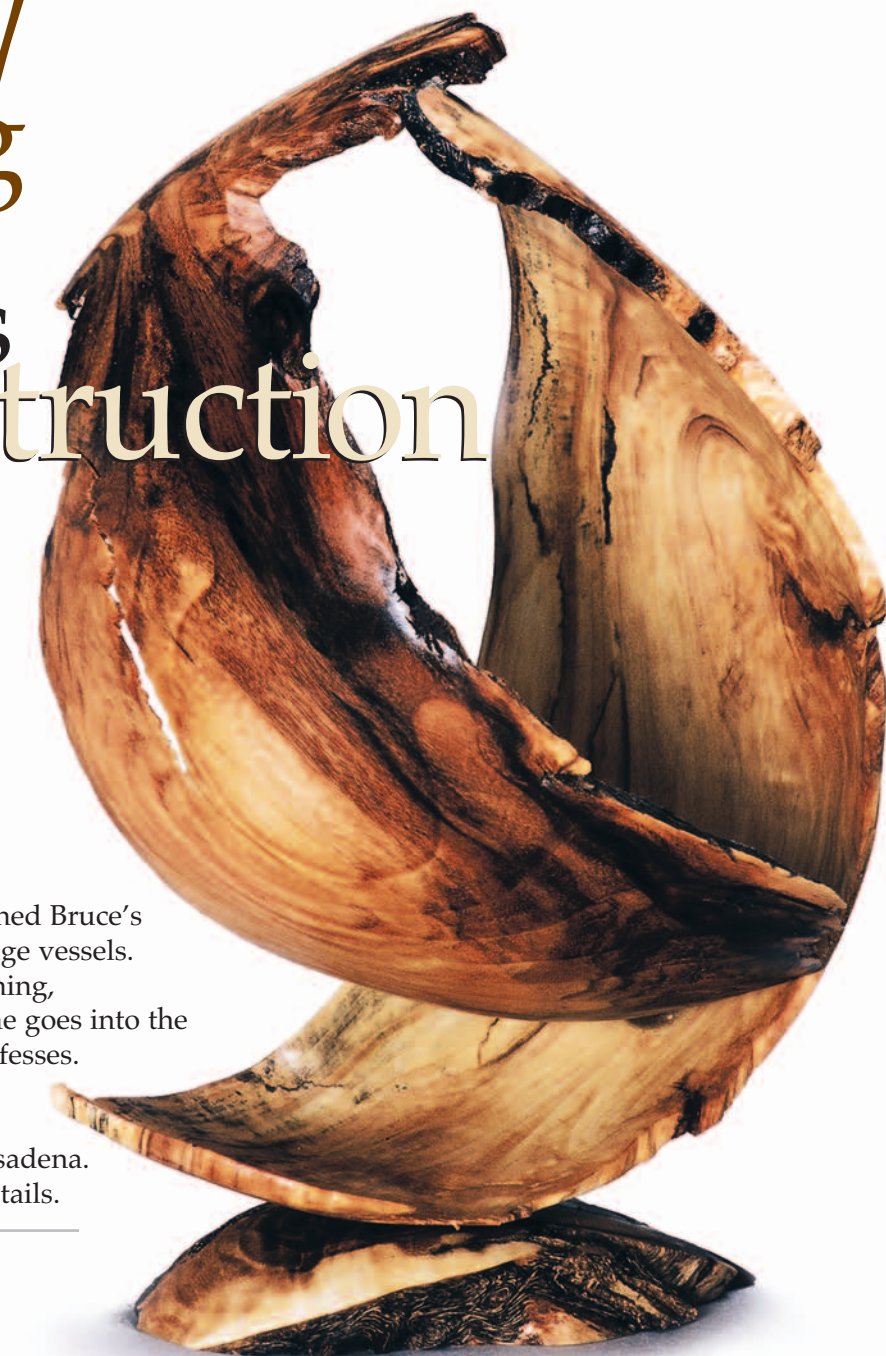
An "Oops!" at the lathe may evolve into sculpture, as Bruce Cohen discovered with a handful of delicate natural-edge turnings.

The pieces of an exploded bowl—later assembled into a sculpture—have opened Bruce's eyes to new beauty within natural-edge vessels. He occasionally "deconstructs" a turning, following a weak point. "A lot of time goes into the three-dimensional layout," Bruce confesses.

Bruce will demonstrate "Natural Edge Bowls" and two other topics at the AAW National Symposium in Pasadena. See the inside back cover for more details.

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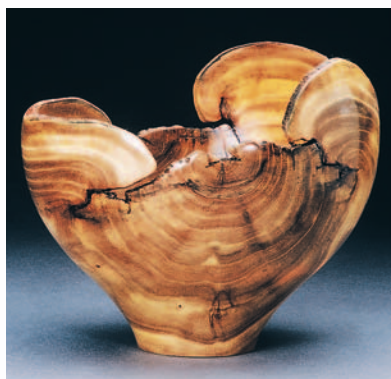
Bruce Cohen ([www.brucecohen.com](http://www.brucecohen.com)) is a Boulder, CO, woodturner.



Deconstructed  
Vessel #2, 8", elm



Deconstructed Vessel #4,  
6", walnut



Open Vessel #902,  
7 x 6", ash



Open Vessel #2102,  
6 x 6", maple