

■ Turned hand mirrors ■ Lathe Benches ■ Vacuum Chucks ■ Bench Grinders ■

# *American Woodturner*

The Journal of the American Association of Woodturners

Spring 1999

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**GERMAN RING TURNINGS**



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

# THE MILLENNIUM--THE COMING AGE OF WOODTURNING

AS WITH MUSIC, LITERATURE AND OTHER works of art, the recognition and appreciation of something as beautiful, worthwhile and valuable frequently develops over a long period of time and then builds with a growing momentum.

Turned wooden objects have been around in this world for a long time mostly as utilitarian pieces used in the home, in industry and in transportation but not as works of art in themselves. It could be argued that within the last 15 years there has been a growing sense of awareness that woodturned objects are themselves artistically beautiful, valuable and many are now collectible.

And what was the catalyst for this awareness?

The AAW started 13 years ago with a few hundred expert and advanced woodturners who shared all of their knowledge and enthusiasm with new turners. The result of this was at least two fold. First, the growth in the number of new woodturners in the AAW; and second, what normally happens when there is a sharing of information, the increase in the level of technical competence and the expansion of artistic expression in turned objects. And this improvement and expansion has been for all types of turnings --- the fun objects, like tops, ornaments, jewelry; the functional objects - bowls, pens, platters; and the fine art objects - one of a kind or a series of unique turnings.

In the past 15 years the gradual refinement of technique and the elevation of artistic expression in turned objects was first recognized by the woodturners themselves and most clearly seen in the Instant Gallery at the AAW Symposium each successive year, then by the manufacturers of their tools, and now more and more by the public for all kinds of turnings, and also by collectors, galleries and museums for finely turned objects.

Many things have helped increase

the momentum for the growing recognition of woodturnings as something of beauty and value. The AAW has sponsored National Symposiums, several exhibitions and supported regional conferences. The Wood Turning Center has sponsored exhibitions and the International Turning Exchange. In 1998 the Collectors of Wood Art was formed and at its September Forum in San Francisco it is estimated that over \$300,000 worth of turnings and wooden sculpture was sold by more than a half dozen galleries. And now national museums are interested in exhibiting, collecting and documenting turned objects.

Considering the increase in the participation and activities at the AAW National Symposiums and regional conferences, more exhibitions, more art and craft shows that have turned objects, an increasing number of galleries that sell wood and museums exhibiting woodturning and procuring permanent collections, can we say that next year, the year 2000, may be the year of wood and that the millennium may be the coming of age of woodturning?

Consider the following events that are planned for the year 2000:

- May 2000 The Mint Museum of - Craft and Design, Charlotte, NC: Jane & Arthur Mason collection, with catalog and conference.
- May 2000 Collectors of Wood Art Forum, Charlotte, NC.
- June 2000 Turning conference in France.
- June 2000 M.H. deYoung Memorial Museum, San Francisco, CA: George & Dorothy Saxe collection
- June-July 2000 AAW National Symposium, Charlotte, NC.
- July 2000 Detroit Institute of Art, Detroit, MI: Bob Bohlen collection, with catalog.
- July 2000 Emma Lake Conference, Saskatoon, Saskatchewan, Canada.

- July 2000 International Turning Exchange, Wood Turning Center, Philadelphia, PA.
- Sept 2000 Yale University in collaboration with WTC: Exhibition on History of Contemporary Woodturning.
- (Jan 2001) Los Angeles County Museum of Art, Los Angeles, CA: Works from collection of Dr Irving and Mari Lipton.

Add to the above events the regional AAW symposiums in Georgia, Tennessee, Texas, St Louis, Missouri, and California. Also consider the increasing number of established galleries selling woodturning, including Connell Gallery of Atlanta, GA; del Mano Gallery of Los Angeles, CA; Barry Friedman, Ltd. of New York; Heller Gallery of New York; Highlight Gallery, Mendocino, CA; Leo Kaplan Modern of New York; Materia/The Hand and The Spirit of Scottsdale, AZ; Mendelson Gallery of Washington Depot, CT; Northwest Gallery, Seattle, WA; Duane Reed Gallery of St Louis, MO; The Stones Gallery of San Francisco, CA; and Sansar Gallery of Bethesda, MD.

There is also an increasing number of wholesale furniture showrooms that carry woodturnings, presenting them as works of art.

Only by looking back over a period of years that include the year 2000 can one say that the Millennium was the coming of age of woodturning. But observing the planned events for the year 2000, it appears that woodturning is now coming of age, with the potential to grow and mature much further.

Woodturning events in 1999 are building momentum for the Millennium. One of the largest events adding to that momentum will be the AAW National Symposium in Tacoma in June. I hope to see you there.

—David Wahl, President  
American Association of Woodturners

# American Woodturner



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#### A Note about your 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.



**On the cover:** A German turner almost magically chops off cute little animals from a ring that was shaped entirely on the lathe in the village of Seiffen in the Erzgebirge region of Eastern Germany. The rings are turned on special lathes, like the one being used by Hans-Gunter Flath at right. The whole village depends on the traditional craft, which became especially important when mines in the area closed in the late 18th century. See article on Page 12. COVER PHOTO: Alan Lacer, Shoreview, MN.

Submissions to *American Woodturner* are encouraged. Please contact the editor with articles or proposals.

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**Subscribers:** If your issue arrives damaged through the mail, please contact the Administrator.

### Thanks from David Sengel

Shortly after the Emma Lake conference, in early August of 1998, I suffered spine fractures and a head trauma resulting from an automobile accident in Canada. My recovery has been miraculously good. Therapy had made it possible for me now to turn my head without having to turn my whole body and I'm driving again, which helps a lot, but that is not the subject of this letter.

As an AAW member since its official inception, I have always known it is a special organization conceived of and begun by many special individuals. What other group of artists/craftspeople are so dedicated to sharing their knowledge and furthering the education and advancement of their contemporaries? These feelings were reinforced and strengthened by the outpouring of concern and support I personally received after my accident.

As we continue inevitably to grow as an organization, I fervently hope we are able to live up to the visions of our founding body that have so influenced my existence in the world of woodworking and my growth as a human being. I cannot close without praising the healthcare system of Canada. The treatment was excellent and the support that continues even now has been so good I can hardly believe it.

--David Sengel, Boone, NC

### Vacuum Chuck Update

The article on vacuum chucks (vol.13,no.4) was rather interesting but the author should note that Hg (not "HG") is the symbol for the chemical element in mercury. Zero inches of mercury is of course a perfect vacuum and thirty inches is approximately one atmosphere.

P.S. And the local weather man might be pleased to show them his hygrometer, which he uses to measure atmospheric humidity.

J.S.Maurer, Draper, UT

### Caution on Freon

I wanted to respond to a Turners' Tip on page 8 of the Winter 1998 (Vol.13,no.4) issue of *American Woodturner*. The old freezer drying cabinet plan submitted by Randy Shelton of the Glendale Woodturners Guild is a good suggestion for recycling an old freezer. But don't ignore one very important aspect of removing a refrigeration unit from service. According to my professional heating/air conditioning friend, releasing freon into the atmosphere is now against the law. The Environmental Protection Agency takes this very seriously, with some very hefty fines for violations. You have to be a licensed contractor to recycle freon, and that would undoubtedly involve the use of some specialized equipment that most woodturners don't have around the shop. Because removing the freon would be necessary before dismantling the refrigeration unit, I would suggest that anyone considering building a drying cabinet would first enlist the services of a certified HVAC technician capable of safely recovering the freon out of the freezer.

--John Buehrer, Woodturners of St. Louis

### Y2K - Biggest Crisis Ever?

For at least the last year we have all been reading and hearing about the possible disaster that will beset us when the calendar rolls over to the year 2000. It seems that a lack of foresight, especially by computer companies in the '60s and '70s, will cause considerable confusion and damage in sweeping areas of our lives. It's known as the Y2K Crisis, and it could be a global emergency.

Computer columnist Jim Seymour says, "It will not (go away). It is real. I believe Y2K will be the single biggest business crisis many of us

will face in our lifetimes." ("The Hidden Side(s) of Y2K," PC Magazine, February 10, 1998)

What makes this all the more disturbing is that all the major woodturning publications and suppliers have been absolutely silent on this issue. Not one word have we heard about the implications for turners. Whether this is ignorance or conspiracy, the time is now. No longer can we afford even another minute of ignoring our collision course with this hurtling asteroid of reality. Hear me, friends, or weep not at the consequences. Your life and livelihood could be at stake.

#### Where to begin:

The immediate need is to take stock of those things which we can control, and then begin to check up on those outside institutions and suppliers that we rely upon. By starting now, we just might be able to avoid serious problems.

First, of course, is the lathe. How strong is the likelihood of a major power disruption? If the Y2K Crisis drastically affects the power company, will our lathe motors run --gulp-- backwards? If so, then we'll need to swap our positions to the other side of the lathe. Turning with the headstock on one's right might prove to be an enjoyable venture, but it will be dicey going at first. At least your tools will still function without need for radically regrinding them! This power reversal will be a stopper for folks with Canadian lathes as they will only run, well, OneWay. This will not affect Woodfast lathes, or other models made in Australia. Your project will, however, look upside down.

This Y2K power reversal issue will also affect other tools. Grinders and cooling fans won't be so bad if they run backwards, but bandsaws will be a true challenge! What about chainsaws? What about fluorescent lights? Will they actually suck light



out of my garage?

The worse alternative is having no electrical power at all. Is your spouse (or neighbor or child) up to cranking or peddling for extended periods? Will a modification be available for your lathe? I am urging our Club Librarian to order the new Raffan Fitness Workout tape, Steel Buns for Iron Lathes. There is some stunning research going on in Holland for wind-powered lathes, but our own Jim Keller seems to have broken the prototype that was on loan to the U.S.

Turning tools are another concern. Will we risk physical harm due to unknown Y2K defects? The experts warn about the dangers of putting in a new floppy disk – will it turn out to be a 600-grit ultra-fine or a hogging 60-grit? Will boring bars suddenly become interesting and/or humorous when you are at the correct wall thickness? The same goes for trying to achieve a dull finish on a piece: will it suddenly get smart and bright? Will your live center die and begin to stink? The experts also predict problems with system memory – will you remember where you put the chuck wrench or knockout bar?

Then there's wood. Week after week Microsoft has promised numerous "bug fixes." At first they tried to avoid responsibility, saying that these were not problems, they were actually "features"! Meanwhile, I've got a whole load of mimosa that will soon be sawdust from all the darn bugs.

And what about our banks? Will there be a massive Y2K foul-up? Will my wife find out how much I actually spend on turning? Will my bank card still work? This could be the unkindest cut of all.

#### **Act Now!**

In all, this Y2K Crisis threatens every one of us. Ignore it at your peril! Unless folks like us begin to

spread the word among woodturners, it could destroy everything we've worked for. January 1, 2000 could be a cold day indeed.

I beseech every one of you to write the AAW and forcefully demand that we get the best and latest information. Sign the petition at the next meeting that calls for Federal Lathe Intervention Programs for Lasting Projects (FLIPFLAP). Call your lathe manufacturer to see if your model is Y2K compliant. Call Microsoft (have your lathe model and serial number ready, along with the type of wood you are using and your credit card) about those bugs.

Norwegian turner Disis Hjord Wuuxd tells this frightening story to warn us all: "An American T-shirt maker in Miami printed shirts for the Spanish market which promoted the Pope's visit. Instead of 'I saw the Pope' (el Papa), the shirts read 'I saw the potato' (la papa)."

We need to get this one right.

--Murray Powell, Gulf Coast Woodturners, Houston, Texas

#### **You Know You're Hooked On Woodturning When...**

...Instead of the cookie and cracker crumbs you found in your bed, and the lint in your pocket, you now find wood chips.

...You wake up in the early morning with a great idea and feel resentful that you can't get to it until after work.

...Your time off is spent in the shop instead of in front of the TV, except when there is a woodturning show on PBS or a turning video on the VCR.

...Your work buddies kid you about the afternoon TV show "As the World Turns." They ask if it's about woodturning; you inform them that it's not.

...Your coffee break friends ask you about your "bowl"(ing) hobby. Even asking about your averages and league standings. You tell them

it's just another "boring" job and they wouldn't be interested.

...Any requests to your spouse for hints of possible gifts are answered in turning tools and accessories. You will accept "practical" gifts providing they are related to woodturning.

...You plan your vacations to include woodturning shows, workshops and seminars. You check the National Directory for other turners who live in the area you'll visit.

...Fishing and other bottom boring activities are put on hold except if you can find a way of using it in woodturning.

...Your magazine subscriptions have now switched to *American Woodturner*, *Wood* and *Fine Woodworking*, as long as it has articles about woodturning. You've dropped *Time*, *Life* and *Newsweek*, etc. because you can't take the time to help solve the world's problems so they have to fend for themselves.

...You can't look through a newspaper or magazine without looking for woodturning ideas in it.

...If a woodturning buddy has a home fire, your first concern after his safety is if he had any damage to his tools or woodturnings.

...Many "old" friends and distant relatives "suddenly" discover you are a woodturner and would like you to do a special turning for them. In your "spare" time, of course.

...You look forward to retiring. Not so you'll have more leisure time and not too much to do but you'll have more time in the shop to woodturn.

...You see another woodturner's work and you start critiquing it and look for a way you could improve it. You wonder why you didn't think of it first.

...You are among woodturners and you're as relaxed as a turkey on the 4th of July.

--Art Tokach, Woodturner and Woodcarver, Mandan, ND

## AAW Juried Exhibition Guidelines

THE EXHIBITIONS COMMITTEE OF THE AAW Board of Directors has approved the following Juried Exhibition Guidelines. The intent and purpose of these guidelines is to insure the integrity and quality of juried exhibitions.

- Jurying shall be done by two or more jurors.

- The jurors will not be told the identity or given other information about the applicants.

- The jurors may request additional information about the work from the monitor, such as dimensions and materials, if it is available.

- A monitor shall be responsible for projecting the slides and reading requested information from the application forms. The monitor shall insure that the identity of the applicants is not revealed to the jurors.

- An AAW board member will

serve as monitor. If no board member can serve as monitor, a board representative chosen by the Exhibitions Committee and approved by the board may serve as monitor.

- Once the accepted works have been received, the jurors, by majority vote, reserve the right to refuse inclusion in the exhibit any work for reasons of quality, damage, or work that does not match the original slides.

- Only the exhibition jurors have the right to exclude work from the exhibition.

- The Exhibitions Committee shall instruct the jurors on the specific criteria, standards, and definitions for jurying the exhibit. The criteria may include the number of pieces to be accepted. Unless instructed otherwise, the jury panel shall determine the selection system, such as by points or mutual agreement.

- The Exhibitions Committee shall select the jurors for each exhibition.

- Craftspersons collaborating on work must apply as one.

FOLLOWING IS A LIST of things that the Exhibitions Committee may need to determine for each specific exhibition:

1. Application fee.
2. Eligibility of applicants.
3. Responsibility for shipping charges.
4. Awards and prizes.
5. Number of pieces that may be submitted and number of slides of each piece.
6. Sales, sales commissions, and collection of sale money.
7. Catalogue of the exhibition.
8. Subsequent touring of the exhibit.

— Clay Foster, Exhibitions Committee, Chair.

## Educational Opportunity Grants Awarded

The AAW Educational Opportunity Grant Committee is pleased to announce 24 scholarships for 1999 are being granted, totalling \$20,000. This year's grants by categories are: 4 youth grants, 7 grants to chapters, and 13 to individuals.

CONGRATULATIONS TO THE RECIPIENTS!

Grants from the Daphne Osolnik Memorial Scholarship Fund: David Gillespie, Joshua McKee, and the Big Island Woodturners. Grants from the AAW general fund: Local Chapters — Central Illinois Woodturners, Central Oklahoma Woodturners, Comanche Trail Woodturners, Maine Woodturners, Rocky Mountain Woodturners and Woodturners of St. Louis.

Individuals — Larry Barry, Curtis Bingham, Don Burdick, Charles Delp, J. Thomas Dunne, Jim Glock, Cheryl Hermansen, Robert Martel, Richard Montague,

Tom Peacock, Doug Schneiter, Brian Simmons, Fabian Torres, Robert Wheeler and Joe Yates.

A special thanks to Rude Osolnik for his interest and involvement in the selection process.

—Charles Alvis, Educational Committee Chair

### Call for Board Candidates

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 for one of these positions 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. The Nominating Committee this year consists of the following: Larry Hasiak (chairman), Al Stirt (former board member) and a general

member to be named later.

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 September's AAW journal for style and length.)

- Two letters of recommendation from 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.

—Charles Alvis, Past Nomination Committee Chair.

## LOOKING TOWARDS TACOMA

MAKE YOUR PLANS FOR ATTENDING the AAW Symposium XIII, June 18, 19, and 20 in the spectacular Northwest. It's a chance for total immersion in woodturning for a few days, and a great opportunity to enjoy a prized part of the world.

First the conference itself. There will be over 100 demonstrations, panel discussions and the like. Featured demonstrators include Bob Flexner from Oklahoma (author of *Understanding Wood Finishing*); Don Weber of California, Ernie Newman of Australia, Michael Peterson of Washington, Bert Marsh of England, and Yoshinobu Kakizawa of Naruko, Japan, who was selected by his peers in Japan to be their representative to the Symposium. He will present six demonstrations. Although only 24 years old, he has already received several prestigious awards. His father is also a well known turner with 45 years in the craft. The roster of demonstrators also includes many other foreign, national, regional and local talents, who will share their knowledge and skill with you. The symposium trade show is the best single location anywhere to see and purchase the latest tools, lathes, supplies, and wood. The Instant Gallery will have more than 500 pieces to stimulate your interest or creative impulses.

If you like exhibitions, this conference offers the most to date.

**The East Meets West** show will be nearby in the **Tacoma Public Library**. Also located near the conference site will be an exhibition of **regional turners** and wood at the **Washington State Historical Museum**. The **American Art Company** – a private Gallery in Tacoma – will host a show of cutting-edge work from leading **contemporary turners**. For those in the region, a **special exhibition** of turned objects will be on display in the **capitol rotunda in Olympia** on May 18-23 (Information – Lou Chorba: 360-866-7607)

The location itself is another reason to come to the conference. The rain forests, Olympic and Cascade Mountains, the Pacific Ocean, Puget Sound, Mt. Rainier, local rivers and streams are gorgeous. And, both the salt and

fresh water fishing is great. Tacoma and Seattle are wonderful, as are Portland, OR to the south and Vancouver, Canada to the north. You can reach the conference easily by plane, train, ship, car or bike.

—Alan Lacer, *Shoreview, MN*

## EAST MEETS WEST EXHIBITION

As announced in the December issue of *American Woodturner*, AAW will host a joint Japanese and Western exhibition in conjunction with the Tacoma Symposium. We have included another application form at the front of this Journal. The first critical date is April 1, 1999 when slides are due at the AAW offices. The show will be located in the gallery area of the Tacoma Public Library near the conference site. The show will run from approximately June 16 until the end of July. From there the show will travel to Naruko, Japan as part of a national turning and lacquer ware conference. Currently the Japanese are searching for other venues for the show. One more critical point: due to the special shipping and handling concerns, we are restricting the size of work to not exceed 15 inches in any direction.

THE JURORS will be Ray Ferguson of Melrose, Fl and Ruth and David Waterbury of Minneapolis, MN. Ferguson is a Professor Emeritus of Art Education from the University of Florida, a studio woodturner, and has been involved with the AAW from its inception. Ruth and David Waterbury are long-time collectors of woodturning and have one of the premier collections in the world. The jurying process will follow strict guidelines (see Page 4) to insure fairness and objectivity. We strongly encourage turners of all styles to submit work for jurying in this unique event. — Alan Lacer.

## CHAPTER COLLABORATIVE CHALLENGE UPDATE

The word "collaborate" means "to labor together", and the work has already begun in many chapters for the 1999 Chapter Collaborative Challenge. Make sure your chapter has its labor of love ready for display at the Tacoma Symposium.

Each chapter is invited to submit one collaborative work created by as many chapter members as possible – minimum of six.

The work can be any turned object, functional or decorative.

Minimum size: no smaller than a six-inch cube.

Maximum size: no larger than a three-foot cube.

Maximum weight: 40 pounds.

The work must be signed by the participants. The pieces will be displayed during the symposium in an area adjacent to the Instant Gallery. Symposium attendees will be invited to vote for: Best of Show; First Place; Second Place; and Third Place.

The results will be announced at the banquet, and the winners will be recognized. Consider donating your collaborative piece to the auction which benefits the AAW Education Fund. Donating is NOT a requirement, but last year the donated Chapter Collaborative Challenge pieces brought in over \$4000 to the fund.

Pieces can be shipped to the symposium site. Contact Butch and Pat Titus for details regarding shipping (210-649-2166). All work must be present and registered by Noon Friday, June 18, to be eligible for awards. For additional information, contact the AAW Administrator.

— Clay Foster, *Chairman – Chapters & Membership Committee*



## TURNING COMES OF AGE IN HEARTLAND

**"What's woodturning?"**

That may be an unusual question in some circles, but it was a shocker to hear it from the owner of an art supply store whose son is an artist. The question was asked at the opening reception of the "7th Biennial Works in Wood" exhibit at the Chesterton, IN, Art Gallery, attended by patrons and other art lovers not used to fine craft and art from the lathe. It was a wonderful question because it meant a new consciousness was developing.

"Works in Wood" has presented original art or fine craft that has wood as its primary element. This year, because of an avocation and bias towards woodturning by the curator, many turned works joined the furniture, carvings and wall hangings. There were 19 US and international turners among the 37 exhibitors. These included six from New Zealand and one each from England, Germany and Japan. Ten had shown in *Pathways* at Cleveland State University last summer. Two were showing at the international SOFA in nearby Chicago. So, the answer to "What is Woodturning?" could be seen clearly in the high technique and artistry in this exhibit.

Judy Ditmer, reception speaker, made a tutorial out of her critique of several pieces. Using one of her own pieces, she explained her conception and how she sought to juxtapose rough and refined. With a William Geise bowl she traced how the exterior shape flowed down through the foot, thereby giving a



New Zealander John Ecuier used copper patina and other embellishments to emphasize natural motifs in this vessel. Photo by Dan Bruhn.

wonderful aesthetic enhancement.

"Works in Wood" was enriched by the international turners. Melvyn Firmager's eucalyptus flowers were amazing in their delicacy, so fragile they were displayed with considerable apprehension. Satoshi Fujinuma's vines on the rim of a small bowl evoked delicacy as well. Bernd Schmidt's four tops with ports (cylindrical boxes) were almost like tiny sailing ships when displayed, and his finely executed natural capped boxes were perfectly in tune with the natural park lands of the Chesterton area.

Especially intriguing was the contingent from New Zealand because displaying six artists from the same country gave insight into their similar and contrasting themes and techniques, and a glimpse of their similarities and dissimilarities to turners in the United States. Embellishments that drew out natural motifs were evident in John Ecuier's bowl, above, which used

copper patina to elicit a unity with the ocean and John Mackinven's weaving green tendrils on the side of a bowl, giving an imagery of a seaweed forest. Bob and Ann Phillips effectively portrayed the ancient history of the Kauri tree by displaying three bowls, one of modern Kauri, one of 3000-year-old Kauri mined from a swamp and one of 39,000 year old swamp Kauri. Rolly Munro's pair of hollow forms were carved, incised and color treated to look identical, even though they were of different woods. Ian Fish, Ecuier and Mackinven also added texturing to their bowls' exteriors, contrasting with the satin smooth interiors. Fish's pieces were the thinnest, in harmony with highly praised pieces in the US.

From the US came many fine pieces. Binh Pho's "Poison Ivy" with its brash colors and his "Bamboo Forest" that was so light it seemed more like a paper cutting drew admiration. William Geise's almost alabaster bowl was a subject of amazement because even the inexperienced could see the multitude of steps it took to create this superbly crafted piece. Gary Sanders' burl bowl suspended on an arch of cocobolo was constantly being rubbed because it was sooo smooth. Woodturnings, quite explicably, invite touching and, in

### Research Material Request

The Wood Turning Center in Philadelphia, PA, is looking for research material for a traveling survey show of lathe-turning in the United States from the 1930's to the present. The purpose of this joint project between the Yale University Art Gallery and the WTC is to place turning in its historical, technical and social context in order to demonstrate that lathe turning always played a vital role in American crafts and manufacturing. For research purposes, the curatorial committee would like to use old tool and exhibit catalogues, wood turning manuals and publications dating from the 1900's to the present. Please contact the center (215-844-2188) if you have this type of material to lend or donate to the center library. — Albert LeCoff



most cases it is encouraged. It's nice we're a tactile media.

John Anderson's "Saturn Form" was a beautiful planetary allegory. Don Bash's "winged" mulberry bowl at first appeared to be turned from a crotch, but the parallel ring patterns on opposite sides of the bowl showed it was turned from a straight branch.

Lyle Jamison's torso, "On the Move," was being explained to a patron when Lyle stopped at the gallery one day. "No, I turned it on three different centers, not two" he had to correct. Whatever, two or three, most viewers were quite awed by his turned torso.

Dick Sing's spalted maple bowl was so well crafted he somehow captured Mercury in a dash across the bottom. Randall Reid seemed to have emptied out his box of oh-so-nice small pieces that every woodturner hates to toss and created a wonderful collage art deco bowl. Gary Johnson returned to "Works in Wood" and, once again, his precise, delicate, basket-style patterns were striking.

In the Heartland, woodturning has a following but fine



Judy Ditmer, reception speaker, discusses a bowl by turner William Geise to Chesterton Art patrons. Photo by Dan Bruhn

woodturning seldom makes it out of the large cities. So it was a wonderful surprise when Brent Ewen, a woodturning high school teacher from tiny Hamilton, Indiana (population 684) brought 15 of his students more than two hours, one-way by bus, just to see and appreciate work that they had only seen in pictures before. One of them said on walking in the door, "Wow,

a Melvyn Firmager!!!"

"What's woodturning?" We're glad you asked. Something new and stimulating had occurred in the Heartland. Where woodturning was almost unknown, it was now almost a "discovery." That makes planning for the "8th Biennial Works in Wood" in Y2000 all the more exciting.

—Larry Jensen, Beverly Shores, IN



The gigantic Lebanon cedar bowl turned by Stuart Mortimer of England and Stephen Blenk of WA last year at the Ontario, CA, Convention center, got a lot of attention, but did you ever wonder what happened to the waste core? The Glendale, CA Woodturners Guild, turned it into the pieces, above. Two even used copper wire for decoration, echoing the technique used in Ontario. One of the bowls, left, was turned as a scaled-down replica of the huge bowl from which it came.

— Bill Haskell, Placentia, CA

## WOOD AND FIBER IN GEORGIA

A GREEK REVIVAL BUILDING BUILT IN 1909 in Marietta, Georgia was recently the site of a beautiful exhibit entitled "Wood and Fiber". The fiber is incorporated in exquisite quilts made by the "East Cobb Quilters". These quilts were hung in the rooms of the one-time U.S. Post Office and enhanced the beautiful woodturnings sitting on shelves or in cases. The objects were from a selected group of turners of the South and represent both professional as well as the novice turner. The exhibit's title wall was a quilting square made of a rainbow of colors with two panels of wood and two of fiber. The wood of this "quilt" is made by Nick Cook, a past AAW board member. Nick was also the curator of the show. He is to be commended for a superb job.

Twenty five artists contributed everything from traditional pieces to the very exotic work which is representative of the direction in which this art of turning is directed. The simple but difficult lines that



Small boxes in front, left, by Gorst Duplessis and right by Cyndi O'Rourke. Back row, left to right, vessel by Matt Hatala, plate by Patty Welter, maple vessel by Larry Hasiak, black vessel by John Mascoll, canteen by Bill Cook and natural edge bowl by Rodger Jacobs.

are created by the traditional pieces, seem to stand up to the test that time presents. Today artists are

using artifacts of nature such as stone, feathers, fiber, vines, sticks, bone, teeth and other remnants of the earth. Surface decoration utilizes carvings, beadwork, macrame, wire, paint, and fire to develop the objects that the artist envisions. All of these were part of this show. This collaboration of the elements will always catch the eye of the viewer. Sometimes this chic work will hold the interest in the piece for the museum goers, especially the ornamental and segmented forms.

Gorst Duplessis's ornamental pieces never cease to amaze me with their detail, precision and beautiful wood selection. We all want to own his exciting work. Randy Ford and Don Russell loaned their segmented turnings with their subtle curves. Rude Osolnik and Ed Moulthrop exhibited their classically designed works that have intrigued and inspired us for years. We wish these giants of this art form long life and more turnings. Jack Rogers of Alabama created unions of feathers



What else in a Southern show on wood and fiber? A log cabin quilt by turner Nick Cook and quilter Peggy Hagen.

and wood which are lovely. The Mariner series of Tony Delio are so unusual and alive with bright colors that draw attention to his design. Willard Baxter of AAW auctioneer fame brought his well-designed pieces which are enhanced by his use of natural edges. John Dodge Meyer who now lives in coastal Savannah, intrigued us with his "Tornado Logic" with its splash of paint. Danielsville, GA's Matt Hatala constructed a large "Lidded Container" which contains birdseye maple, rosewood, bloodwood, and amboyina burl---the result is a masterpiece. World famous turner John Jordan's untitled but not unknown forms always have us enamored. The balance of the contributors are equally as talented. The other contributors are (in alphabetical order) Carol Brt, Bill Cook, Buzz Coren, Larry Hasiak, William Hug, Rodger Jacobs, Bob Kopec, Pat Matranga, Philip Moulthrop, Cyndi O'Rourke, Patty Welter, and David Yeatts.

Turnings of today on occasion challenge us to see the relationship to the lathe. The artist will at some point place the form on a lathe. Not necessarily does he or she start with the lathe. The lathe and turning tools gave turners our first pieces and continue to provide most of us



Exhibitors included two of the grand old masters of the turning world: Ed Moulthrop, large Black gum vessel, and Rude Osolnik, laminated Baltic birch vessel.

with joy and satisfaction. That first bowl that we made to put candy in to serve friends does supply us with accolades and is still the standard. The modern turner wants to explore the machines, materials and themes that the new millennium will direct us towards.

This Museum which was once a

post office and then a library, became the Marietta/Cobb Museum of Art in 1989. We here in the South have seen many turned object shows but this one gave many examples of what to expect in the future. We also learn that the original functional vessel is still in demand. Nick Cook, curator, has shown in his charred platter that perfect wood can be altered and contrasted with wonderfully grained wood.

John Mascoll has tried every technique and mastered all. His fluted bowl is an example of his versatility.

I look forward to seeing the development of these twenty five artists and their accomplishments in the future. The quality of work in this collection was exciting and a treat to everyone who saw it. I look forward to seeing more work from all these artists.

— Dr. Stanley M. Harris, D.D.S., Atlanta, GA.

## Thank You Volunteers.

We take great pleasure in recognizing the following people for outstanding contributions in 1998 to the AAW and the advancement of woodturning.

The honorees are:

Willard Baxter	Tom Kamila
Phil Brown	Ken Keoughan
Blake Hickerson	Mark Krick
Charlie Hoffman	Bruce Lance
Robyn & John Horn	Arthur and Jane Mason
Angelo Iafrate	

Our thank-you and a certificate of appreciation signed by all the members of the the Board of Directors is being sent to each.





Used surgical lighting can be a bright spot in your shop.

## Lighting the Way

I was in the surgical supply business where we had access to used surgical lighting. They are available through surgical supply dealers, hospitals, and medical repair shops. They can be positioned and focused on the subject where plain incandescent lights can not.

—Robert Gaynes, Harrisburg PA

*Editor's note:*

Many shops are lit by economical 4-ft. fluorescent fixtures. (As is my shop) Because these lights are continuously

turning on and off at a rate of 60 cycles a second, a harmonic can be set up between the lights and the rotating wood. This can produce headaches and fatigue. Incandescent lighting should be used to supplement fluorescent especially around the lathe. The filament in incandescent bulbs does not cool rapidly so 60 cycle AC produces an even lighting source.

## Staying Centered

A drill held in a tailstock chuck may flex and begin to drill off center. The cause can be simple and the fix simple as well. The deeper the hole the worse the effect. Assuming your tailstock is perfectly aligned with

your bed and headstock...(and you cannot assume this), using a metal workers center drill will start your hole correctly. A center drill is a stubby tool with a small starting point and a 60 degree angled wider section which works in 60 degree live or cone center points for turning between centers. These are available in many sizes to suit most woodturning needs. They are double ended and will last nearly forever in wood. These bits are available from Enco, MSC, and machine tool supply houses. The holes started with center drills can be enlarged with standard bits only, do not use brad points to enlarge holes.

—Charles Brownold, Davis CA

## Skip the brush cleaning

To avoid cleaning your sanding sealer brush, leave an applicator brush in a container.

Drill a 3/16 hole through the handle at its widest part. A small hole drilled through the sides of the container about half way down will support a coat hanger section or other stiff wire to hold the brush suspended in a diluted sealer mixture. Brushes left sitting on the bottom of cans will bend into unusable shape.

—Charles Brownold, Davis CA

## To Clog or Not to Clog

After using C/A adhesives, the tips often clog from dried glue. To prevent this, rap the bottom on a hard surface to drive the liquid back into the container. This will greatly reduce your tip cleaning/replacing activities.

—Robert Vaughan, Roanoke VA

## A New Broom Sweeps Clean...

A commercial / industrial floor squeegee is far more efficient than a shop broom to move large volumes of shavings. They have a lower profile to more easily reach under lathe and bench. Couple this with a big

plastic snow shovel for quick and quiet cleanups.

—Robert Vaughan, Roanoke VA

## Have a Ball!

Ball tipped hex wrenches with a screwdriver type handle are my favorite around the wood lathe. The brand name "Bondhus" was the first and they offer several varieties in english and metric sizes. They are available from MSC and other quality tool dealers. They don't exert so much torque that the fasteners are difficult to remove and they don't strip the hex opening easily. Ball tipped hex drivers chucked into air or cordless driver drills make changing chuck jaws fast and easy. The "ball" ends are not designed for heavy torque so don't use any "cheating" devices to tighten that screw ... a broken "ball" left in the socket will be your reward.

—Robert Vaughan, Roanoke VA

## All Dressed Up...and I Just spin Around. Several tips from the grinder

Spend the money for a good diamond wheel dresser, there are two basic types: single point, and wide stick type. The best is probably One Way, single point with pivot and adjusting screw assembly. It is easy to use and works well, though it is priced higher. The next best (and less expensive) is a \$35 diamond coated bar about 1" wide, or cheaper yet is a diamond coated steel tube dresser 3/8" square, works great, costs \$15.

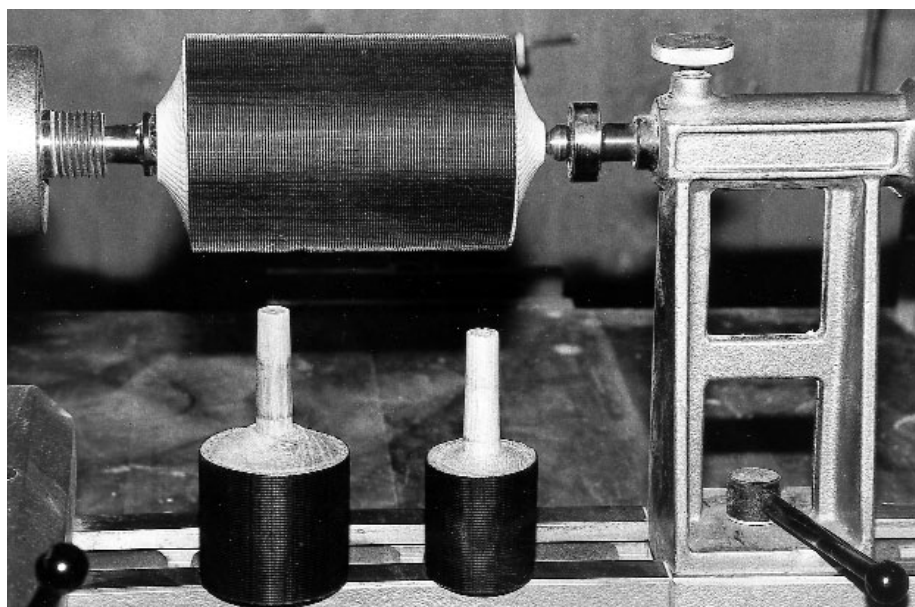
—Abe Harper, Berea, KY

## Mark the bevel

For sharpening by hand use a wide felt tip marker on the bevel and grind. It takes the guess work out of where you have been and will help you attain a sharper edge.

—Abe Harper, Berea, KY

## Hook-and-Loop Lathe Sander



"Hook and Loop" products allow woodturners to make sensible, inexpensive, and custom-sized drum sanders for the lathe. The drums can be cylinders that run between centers, or mandrel-type drums with a morse taper that fits into the headstock, shown above. After turning the drums to your specs, use spray adhesive to attach backing and then the "hook" material. For backing, I used thin closed-cell foam and also cork that is sold as flooring underlayment. I obtained two sheets of "hook material" -- approximately 9"x12" each -- from Woodworker's Supply (800-645-9292). It is called hook and loop conversion kit (item 901-872) and priced at \$11.95. Sandpaper to fit the drums can be made with conventional paper-backed sandpaper with "loop" fabric attached with spray adhesive. I found the "loop" material in an outdoor-gear sewing catalog from The Rain Shed Inc. in Corvallis, Oregon (541-753-8900). It is called hook-compatible fabric and is priced at \$14/yard (51" wide). Note that most sandpaper comes in 9"x11" sheets, so the maximum circumference of a drum cannot exceed 11" (about 3 1/2" diameter) if a splice in the sandpaper is

to be avoided. (Although I have found that spliced sandpaper attached to a single length of fabric does not present any sanding problems.) Ready made hook and loop sandpaper is also available, from Klingspor's.

—Gordon Harrison, Juneau, AK

## Grinder buying 101.

Look for a model with wheel guards that have a large rear exhaust. Better brands offer this safety feature as an option. Without this feature the grinder will throw abrasive particles out the front at you to breathe. (Many wheels contain free silicates, which have been identified as carcinogenic.) The wheels which come standard on grinders (You know the ones, they are grey and we replace them on sight.) are not as hazardous from a health standpoint as the white or pink wheels we covet. I also recommend grinders with a cast iron tool rest. Stamped sheet steel rests vibrate too much.

—Robert Vaughan, Roanoke VA

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# TURNINGS OF THE ERZGEBIRGE

*Toys and other delights from Germany*

ALAN LACER

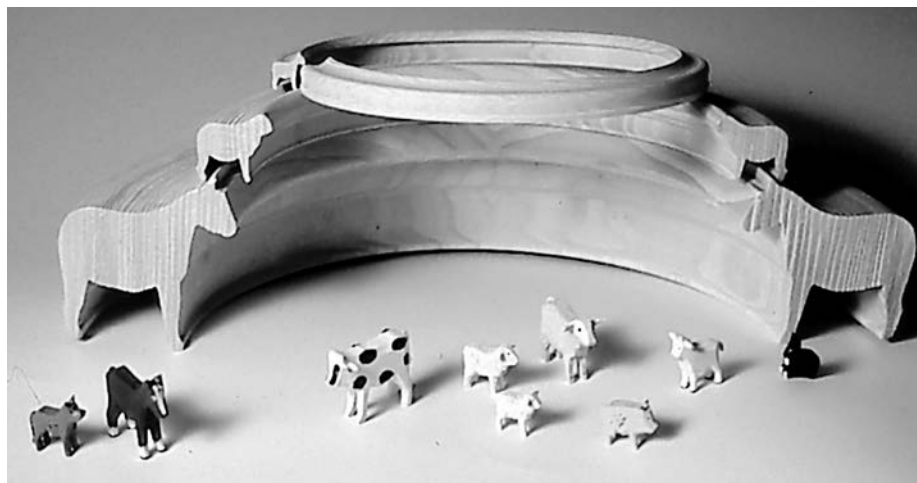
**I**N FAR EASTERN GERMANY, RIGHT ON the Czech border, lies the village of Seiffen. Located in the Erzgebirge (Ore Mountains), this region has a long tradition of finely crafted toys and other wood objects, with the lathe being the dominant tool. Somewhat isolated from other traditions, the tools, techniques, and turnings have taken on a unique manner that is hard to find elsewhere in the world.

First, a little history of this fascinating region which I visited last year. What had first drawn people to this area was the discovery of tin ores in the 14th century. By the late 18th century the mines had all but played out, leaving a population with few means of support. In addition, the mountainous land itself was only marginally suited for agricultural production. Even before the mining had begun to seriously decline, miners had supplemented their income with various types of woodworking. In fact, one person might well have been a miner, a farmer, and a woodturner. By the middle of the 19th century woodworking was in full bloom as the dominant industry. Most of the pro-

duction from this period was from cottage industries — entire families worked together out of their homes to produce items for a growing wholesale market. In some home settings the lathe occupied one part of the living room and the dinner table served as a painting and assembly station for other family members. Around 1850 there were about 150 small family operations in and around Seiffen and about 4 or 5 small factories (surprisingly, these are about the same numbers one finds today in the area). Three conditions came together to create this concentration of woodworking activities: prior carpentry skills from the mining trade, an abundance of timber and a strong need to generate income. As the lathe has always been a type of production tool—when compared to hand shaping—it is not sur-



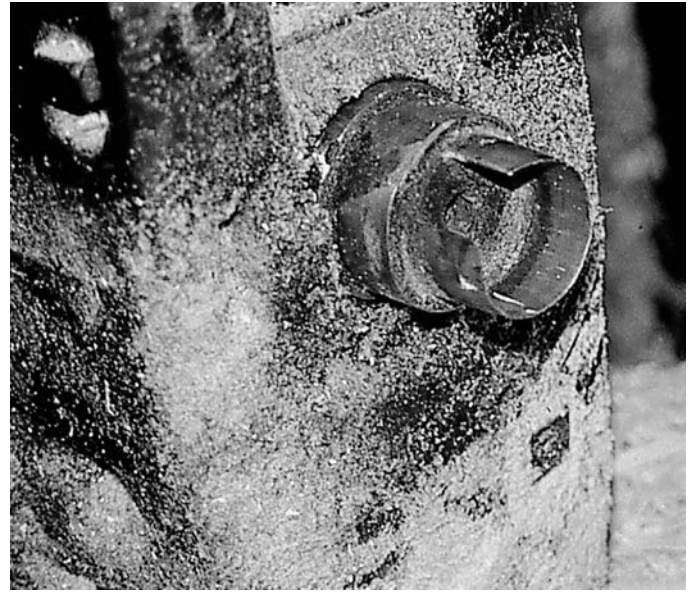
Turner Hans-Gunter Flath working at the lathe.



*The sections in the background show the hidden profiles shaped by the ring turner. The figures in front show a variety of finished examples of this process (the largest example is 1.5 inches high)*

prising to find the lathe playing a central role in the woodworking of the region. Early evidence indicates that miners and farmers were turning household goods for themselves and for local trading, but by the late 18th century such items as needle cases, tobacco containers, wooden fruit, and toys were being produced for outside markets. In the 19th century and right up to the present, toys and objects relating to Christmas and Easter dominate the woodworking of the region. In the Erzgebirge region the lathe seems to always find its way into the woodworking process—even when on first look it is not at all obvious. Such items as carved wooden animals, toy houses, flowers and trees, chandeliers, nutcrackers, and miniatures produced here virtually always utilize the lathe in their making. How does one turn the form of an antlered





*The headstock, above left, is on a ring maker's lathe located in a shop first built in 1760. This and other period buildings are part of the Outdoor Museum in Seiffen. This lathe is of particular interest as it can run on either water power or electricity. The flat block on the far left is used by the turner to control the amount of water flow powering the lathe. Above right, a close-up view of a lathe headstock supporting a ring chuck used to hold log sections. This is the sole support for the blocks of wood, as there is no tailstock on the ring turner's lathe. Right, the ring turner's tools are a bit different from ordinary lathe tools. Here, two examples of the spear point gouge (or German gouge) and a hook tool can be seen.*



stag or a running horse on the lathe?

Perhaps one of the most unique forms of woodworking that evolved here was the hoop or ring turning. What evolved as an ingenious production method of relatively complex forms offered a fresh look at the use of the wood lathe. By carefully detailing round hoops or rings on the lathe, one discovered that the vertical cross-section of the ring could yield almost any form. In the case of the Erzgebirge, the forms were related to toy manufacturing. Depending on the desired refinement of the finished article, the sections could be further carved, painted or other features added (like horns, tails, texture, etc.). I found examples of horses, dogs, cats, mice, donkeys, elephants, camels, birds of all sorts, people, cars,

houses, pigs, sheep, goats, tigers, oxen, stags, monkeys, and hippos—in different sizes and poses.

The hoop turner operates a bit differently than most other turners. Arising in this area around the 1770's (probably from a group of turners rather than one individual) by the first half of the 19th century it had evolved into a full-fledged specialty. Even the lathe itself is somewhat different for the hoop turner. Built from massive timbers and firmly attached to the ceiling and floor, it lends itself well to turning short lengths of logs. The lathe uses two tool rests, one a fixed wooden bar running parallel to the lathe axis, the other a movable wooden bar that is set at a diagonal, or even almost vertically at times, across the front of the workpiece.

### **Turning Without A Tailstock**

Noticeably absent on these lathes is a tailstock. One very positive feature of these lathes is the large flat space created below the headstock and along the bed—excellent as a place to lay your tools. The work is held by a ring or cup chuck, as shown above. The round section of log—usually about 8 to 16 inches in length—is pounded onto the ring chuck with a large mallet or hammer. The tools of the ring turner also are unique in several ways. Although you might spot a few of the regular turning tools such as a large roughing gouge, parting tool and skew chisel, generally you are struck by how different their tools look. To begin with, many of the tools are about double the length of standard turning tools. This is probably

necessitated by the mass of the wet log sections, the extra energy required to work end-grain, and possibly even the unorthodox diagonal tool rest—helpful in each case to have the extra leverage provided by a longer tool. Many of the gouges are what they termed spear point or German gouges—with the bevel on the inside of the flute (see photo on previous page). This tool seemed especially helpful in working detail on the inside of a ring. There is also a variety of hook tools, some curved and others more right-angled.

### A Unique Piercing Cutter

Perhaps the most unique tool I no-

ticed was the Pfannenstecher (a piercing cutter). This tool is used to pierce directly into end-grain and then move to the side with a peeling action—not an ordinary action or tool in most turning traditions. A ring turner might have as many as 25 to 30 different tools to make the wide variety of cuts necessary to produce the desired forms. One other note: you don't normally order these tools from a catalog; more often you have a local blacksmith or tool maker fabricate the tools to your specifications and needs.

The wood chosen for ring turning is of special importance. Straight-grained spruce with few knots is the first choice among these turners.

Freshly cut is the desired way to work the wood—otherwise the logs are kept in a mill pond or some other means to preserve the high water content. Even though the turners are working green wood and in a very soft timber, I found almost no evidence of checking and the wood was cut amazingly clean. Subtle detail was obtained from very sharp tools rather than by sanding. At odd times basswood, birch or alder may also be used for the ring turning. One ring turner sadly noted the

fact that acid rain and industrial pollution generated far away were taking their toll on the spruce trees in the surrounding forests—making it harder and harder to find good material and of a decent size.

The method of turning the rings requires two different mountings. Once the short length of log section has been trued up and smoothly cut on the outside edge with gouges and sometimes the skew chisel, the face of the log is cut cleanly with a shoulder cut from the skew chisel. Next the height and width of the form is determined and detailing of the underside of the figure is commenced.

### Finding The Form In the Ring

What strikes anyone watching this process as incredible is how does the turner “see” the form—an elephant for instance—in a spinning ring? In normal turning we watch the form evolve as we shape the piece—but here the form is truly hidden and only revealed when the work is cut apart. Surely the maker's eye is developed from repetition and experience, but one helpful tool seemed to be a series of flat templates that each turner kept in his pocket. As there was such a variety of turned forms and particular individual styles, it was understandable that most of the ring turners would be somewhat secretive in subjecting their templates to public scrutiny. The templates were quick in use, then quick back into a pocket. As it was so difficult to see forms developing, I found these templates to be almost essential in establishing the critical dimensions, especially where some form of consistency is warranted from ring to ring. Once the underside was completed the ring was parted loose with a skew chisel. With the use of a wooden jam chuck the ring was remounted to turn the opposite side of the figure—usually the top side. Once the ring was removed from the jam chuck, the real



*Full view of a ring turner's lathe in a small factory setting. On this particular day turner Sven Reichelt was reverse chucking rings partly completed the day before.*



magic began with a single cut from a knife through the ring to reveal the form hidden within (see photo Page 12). A single ring might yield as many as 60 sections ready for further refinement. These individual sections may be treated in several different ways: by carving away the sharp edges or refining features; adding additional features like horns, tails, ears and such; texturing with a mix of sawdust and paint; adding color either by hand-painting or dipping. Traditionally the price of the finished object or a specific market dictated such questions of refinement.

Today the practice of hoop turning is alive and well in the Seiffen area with about 10-12 practitioners, about half of these individuals hoop turning as full-time professionals. On average such turners produce about 20-25 completed rings a day, depending on scale and difficulty of form.

Although few turners approach the lathe in the manner of the Erzgebirge hoop turners, the possibilities are boundless for exploration. I am



*Turner Hans-Gunter Flath using the diagonal tool rest in an almost vertical position. There is a small notch in the tool rest that restrains the tool from sliding down the rest. In his left hand can be seen a profile gauge that is used to establish critical dimensions.*

only aware of the Canadian turner Stephen Hogbin who has experimented with a similar approach—and on a larger scale than the turners of the Erzgebirge. (Check out Stephen's

book *Woodturning: The Purpose of the Object* for his unique approaches to turning.)

I remember being impressed by the lists from books and instructors that identified all the items that could be turned on the lathe. If you incorporate the items on those lists with what is possible by cutting apart turned objects, it may be easier to create a list of what cannot be done with the lathe—if there is anything at all.

**THANKS:** A real help in preparing this article came from the writings of Rolf Steinert and Dr. Konrad Auerbach.

But special thanks to Dr. Auerbach—Director of the Toy Museum and Outdoor Museum in Seiffen—for his time and trouble in introducing me and my wife to many fine places and turners in Seiffen.

*Alan Lacer is a turner and writer living in Shoreview, MN. In the next issue of American Woodturner, Alan will continue the story of this unique region. Photos by the author.*



*Ring turner using the Pfannenstecher tool to both pierce into end-grain and then peel to the side.*



# SQUARE MIRRORS

*Square and circular reflections from the scrap pile*

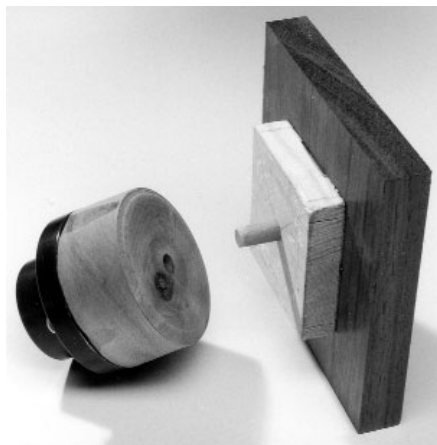
JOHN LUCAS

Several years ago when I joined the Tennessee Association of Woodturners, I met Charles Alvis, and became fascinated with the square platters he was making.

Since I had a scrap box full of small pieces, I began experimenting with turned forms that started out as squares. Eventually I decided the stock was perfect for hand mirrors. Turning these mirrors has been a great deal of fun and the size keeps the cost down, so I can afford to play with shape, color, texture, and design.

In this article I'll explain how to turn a basic square mirror. I generally attach the mirror blank to a waste block which can be fastened to a faceplate or held in a chuck. I prefer a 4-jaw Nova chuck to hold the waste block or to expand into the mirror opening, instead of using a faceplate. This speeds up the centering process but the gripping pressure should be checked often if you're using soft woods.

For simplicity, the process I use here will be based on two waste blocks, each bored with a center hole for accurate alignment. One waste block is screwed to a faceplate, the second, which is square, is glued to



Mounting system uses two waste blocks, bored with alignment holes.



A bevy of designs reflecting the author's fascination with wood and mirrors. All photos in this article by the author, except where noted.

the blank that will be turned to hold the glass mirror.

Begin by mounting the waste block on your faceplate. Round the block off and true up its face. Then drill a  $\frac{3}{8}$ -in. hole in the center. This will be used to align things later, so be as accurate as you can. I bore the hole in the faceplate block using a Jacobs chuck in the tailstock and bore the square block on my drill press.

The second waste block, the one attached to the mirror blank itself, should have a diagonal measurement slightly larger than the glass mirror insert, so that it can be used later as a sort of jam chuck to fit into the mirror opening. For a 4-in.-dia. mirror this will be approximately 3-in.-square.

Next, drill a  $\frac{3}{8}$ -in.-hole in the middle of this blank. If you are making a square mirror this is critical for even spacing of the edges.

Cut a  $5\frac{1}{2}$ -in.-square blank for your

mirror. I decided on this size blank by trial and error. The glass mirrors come in 1-in. increments from 2 in. up. A 4-in. mirror is a good size for a handled mirror. If you add space for a bead or cove to surround the glass and a blank area for some visual space, then you end up with 5-to- $5\frac{1}{2}$ -in.

In cutting the blank, play with the grain. I use a  $5\frac{1}{2}$ -in. piece of Plexiglas as a template, so I can see the grain pattern. I move the template around the board until I find an area that I think would be attractive for my mirror.

Choose the best side of the blank and draw diagonal lines from the corners. Now place your square glue block on the lines and line up the corners of the block with the diagonal lines. I draw a square around the block to make it faster to align it when gluing.

Glue the waste block onto the mirror blank using a paper joint or medium-viscosity cyanoacrylate glue. For paper joints I usually use lined notebook paper. Kraft paper or paper sacks work better, but I never seem to have any on hand. I use yellow woodworkers glue but it takes much longer to dry than it would without the paper. I allow at least four hours drying time for the paper joint.

If you use CA glue, make sure your glue block is a softer wood than your mirror blank. That way any torn wood will be on the waste block. I have also found that if I put accelerator on the block the joint will separate with less tearing of the wood. Hot glue and double stick tape may work but I haven't tried those yet.

Put a short  $\frac{3}{8}$ -in. dowel in the faceplate hole and glue the square block with the mirror blank attached to the face plate. The dowel will align these parts accurately.

Set the tool rest with the lathe off and rotate the piece so you won't knock off one of the corners. Now turn a  $4\frac{1}{16}$ -in. opening for the mirror. I use a parting tool to start with and go down 2 times the thickness of the mirror to allow for some shaping of the lip later. I use a bowl gouge to hollow out the opening, which should be very slightly concave. I use a homemade Go-No-Go gauge, shown below, to check for size, bottom flatness and depth.

Draw a circle to define the mirror lip. Now start turning from the outside toward the middle. I use a "sharp" spindle or bowl gouge. Take very light cuts with almost no pressure on the bevel. I try to think about



The author checks the depth of the recess turned to accept a 4-in. diameter mirror glass, using the shop-built gauge shown below. Photo: Gared Mach.

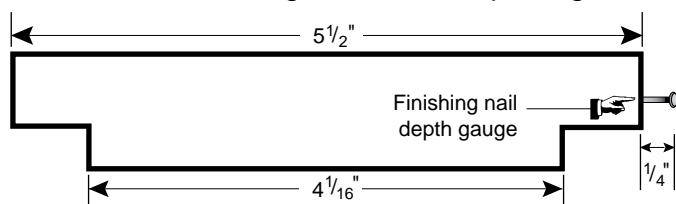
gliding the bevel rather than riding the bevel. Use a strong side light to show the cutting marks. Placing a black card behind the piece will help you see the shadow created by the corners. I sometimes put a piece of tape on the tool rest to define the corner if I'm having trouble finding the edge. Use a high speed to reduce the time the bevel can drop into the void between the corners. I strongly recommend trying this with scrap wood. You can get a lot of tearout on the edges until you learn to control the pressure on the bevel. I start the cut with the flute of the tool pointing at 1 o'clock and rotate the flute toward 3 o'clock while lifting the handle as I approach the bead that defines the mirror opening. I sometimes run the bevel back and forth across the work without taking a cut. It vibrates badly when you push too hard and glides smoothly when you get it right.

Beads and coves and raised areas are the decorations I use the most on the front of the mirror. The trick is not to overdo it. Look at the wood care-

fully and try to add a bead or cove to accentuate the pattern or defects that are already there. I have tried both raised beads and recessed beads. They both work well but they must have a sharply defined bottom. A crisp line makes the bead look taller and adds a nice shadow line. Coves have a more classical look and stand out better if there is a fillet on each side. You might call this detail a rabbit or a stair step. A trick I learned to make a fillet really crisp is to add all of the details except the fillets and sand to 180 grit. Then use a sharp parting tool to add the fillets. Now sand lightly with 220 grit. This way you don't round over any of the crisp edges. Sometimes the finish will tend to fill in the corners of fillets and the bottom of beads, making the edges look softer. I have found that a toothpick applied gently to the piece while the work is spinning will clean out these corners. This works really well with the HUT abrasive sticks.

Texturing can be fun. I've used a wire wheel to brush the wood. Cherry works real well for this technique. Try making a series of random circles with a Dremel engraver. I use a broken  $\frac{1}{8}$ -in drill bit that I rounded over, instead of the engraver point. This works better with dark woods, but adds an interesting texture to any of them.

Go-No-Go Gauge for Mirror Opening



Drawing by John Wengren.



The face of the mirror is shaped with a sharp gouge.

Sometimes I turn a groove in the face of the blank and then add a contrasting layer of wood. I glue an 8 sided segmented circle to a faceplate and then turn it until it just fits the groove. I taper the walls of the groove and then taper the ring to match. This way you can adjust the size until it just drops into the groove. I glue this onto the mirror blank and then turn away the scrap waste block that the ring was glued to. An easier method is to fill the groove with "In-lace." This plastic resin mixes like epoxy and dries to form a tough layer similar to Corian. It comes in several

unique crushed stone colors that are quite striking. You can order these from Craft Supplies USA (800-551-8876) or directly from Inlace Products. 502-885-0776.

Carving and painting on the front have endless variations. I am currently trying to learn chip carving which I think will look very nice on these mirrors.

Sand and finish this side. I power sand using a 2-in disc with the lathe running but this is very tricky and can damage your sanding pad. I recommend power sanding with the lathe off and use your spindle lock or index

lock to hold the mirror while sanding. This is slower but much safer.

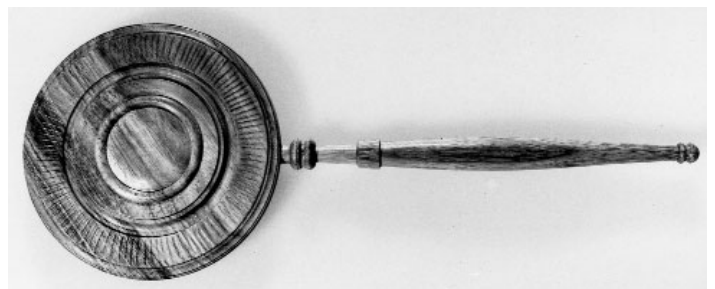
I use a blend of  $\frac{1}{3}$  shellac,  $\frac{1}{3}$  alcohol, and  $\frac{1}{3}$  boiled linseed oil as a finish. I mix this together in an old mustard squeeze bottle with the "Mr. Yuck" symbol attached. I apply the finish with the lathe off and then buff it with the same rag while the work is spinning. To buff the corners make a very firm ball by putting some steel wool or cotton inside and then coat the outside with a thin layer of your finish. If the ball is firm enough and you keep the pressure really light you can buff the inside of a concave surface. Try this on a convex surface first.

Use a chisel to separate the mirror from the waste block and then true up the face of the waste block. It should just fit the mirror opening. If it doesn't, turn it down slightly until it does. Glue the mirror with CA glue or a paper joint to the waste block with the long grain running perpendicular to the flat side of the block. This is to insure that you can separate it from the glue block without breaking the mirror.

Turn the mirror to your favorite design. Let the wood tell you what to do. Sand and finish this side the same as before. Then separate it by putting a chisel between the mirror and the block.

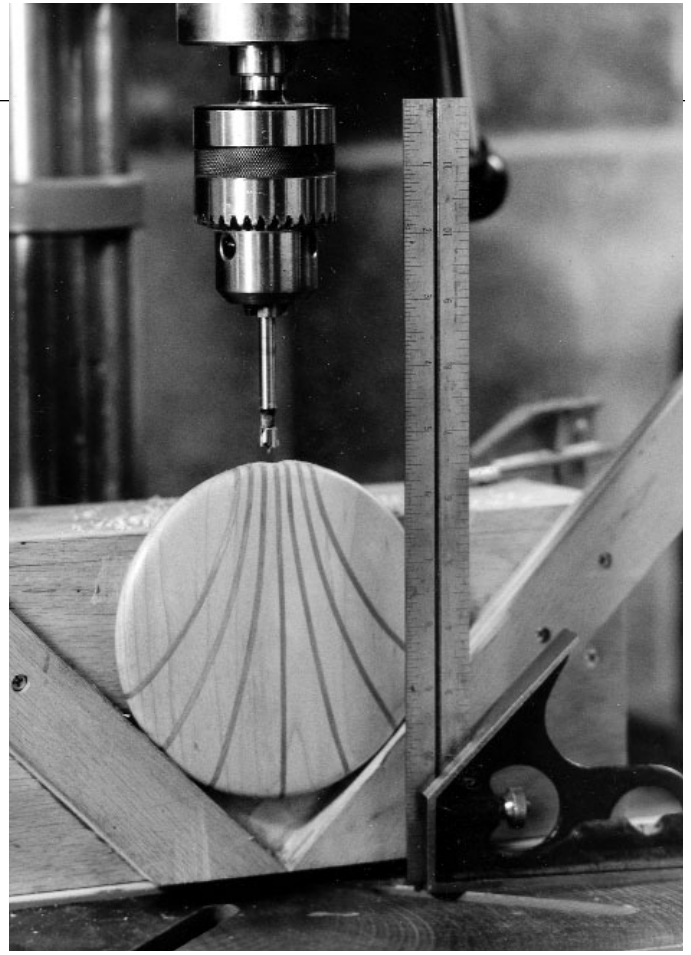
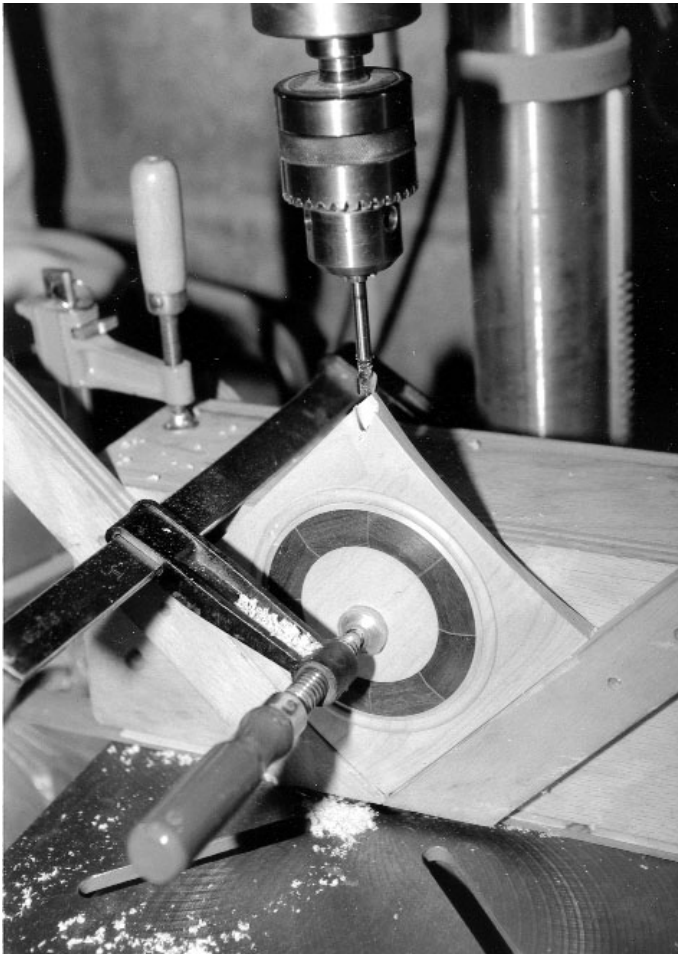
### Getting a handle

For the handle start with a piece  $\frac{3}{4}$ -in. square and 10-in.-long. Place marks 1 in. from each end to define



Two Lucas mirrors: Zebra wood, left; Tarara wood, above.





*The author's drill press fixture for boring the mirrors. It is two boards fastened together at 90 degrees to each other and mounted on a block to form a V-cradle. The system works with both square and round blanks.*

the tenon and the end of the handle. Place marks defining the details for the handle. I like a ball or a couple of beads to break up the line between the handle and the head.

Handles are easy to turn but trying to match the details in the handle with some detail in the body gets interesting. I think handles should be graceful without being bulky or too delicate. The length that works for me is about 8 in. from the 1st bead to the tail. I have found that areas thinner than  $\frac{3}{8}$ -in. appear visually weak to my customers, so I try not to go below that. If I taper the handle from the middle out, I try to make the tail portion the same or thinner than the head area. On my barn wood mirrors I turn the tail end of the handle off center, so that a portion of the grey wood is left showing.

I use a parting tool to define the edges of the ball. Leave the tenon  $\frac{7}{16}$

in. at this point. Turn the handle to the desired shape. I rough out the shape with a gouge and make the final passes with a skew to clean it up and perfect the shape.

A spindle this thin will flex and vibrate as you turn it. I cup the fingers of my left hand over the spindle and apply gentle pressure to the opposite side to dampen this vibration. Use a glove or slow the lathe down to keep from burning your fingers. Now turn the tenon down to  $\frac{3}{8}$ -in.

My gauge is a  $\frac{3}{8}$ -in. open end wrench that exactly fits my  $\frac{3}{8}$ -in. Forstner style bit. Buy a cheap wrench and peen the edges with a ball peen hammer. This will reduce the size of the opening. Then file it to exactly fit your drill bit.

I sand and finish the handle while on the lathe. Carefully shape the tail end of the handle with a skew until there is only a small point left. I trim

the small point with a sharp knife after removing the handle from the lathe.

If your mirror ended up more than  $\frac{3}{8}$ -in. thick, simply drill a  $\frac{3}{8}$ -in. hole in the edge and glue it in place.

If its thinner and curved, as my square mirrors are, I drill through the point at a slight angle with a Forstner style bit and carve off the protruding tenon when the glue is dry.

I glue the mirror in place using a flexible adhesive such as silicon caulking. You can buy mirrors from Craft supplies USA or Woodcraft Supply(800-225-1153).

I hope you have as much fun making mirrors as I have. Any scrap piece of wood in my shop may end up in one of these mirrors.

*John Lucas is a photographer at Tennessee Technological University in Cookeville, TN.*

# ELEVATED VESSELS

*An extra dimension below the turned form*

DAVE BARRIGER

**W**E ALL WORK IN THREE DIMENSIONS, whatever we turn on a lathe. A painter, by contrast must try to create an illusion of depth, or the third dimension. By nature, when turning on a lathe, the depth and width tend to be somewhat blended because of the round aspect of our work. This still allows us a great deal of freedom of form, as is so evident in the turned objects we have seen produced in recent years.

The last couple of years I have been working with the elevation of the vessel as a design idea. I consider this as adding an extra dimension. All of the possibilities are still available in the form of the vessel, just as before. What I consider an extra dimension is what I can do below the "vessel".

I have tenaciously held to the challenge of creating every piece from a single piece of wood. I glue up nothing. This of course, is not a rule that anyone else must follow, but with the elevated vessel I feel it adds not only an added challenge, but a sense of awe to the finished piece.

So what am I talking about here?

I turn a conventional vessel in the



upper  $\frac{1}{3}$  to  $\frac{1}{2}$  of the usable block of wood. I then develop a "pedestal" and base from the remaining part. The "pedestal", for lack of a better term, is the extra dimension which "elevates" the vessel. The design of the pedestals constantly evolves as I continue to work with each piece. It just requires a little imagination and the dimensional possibilities are endless.

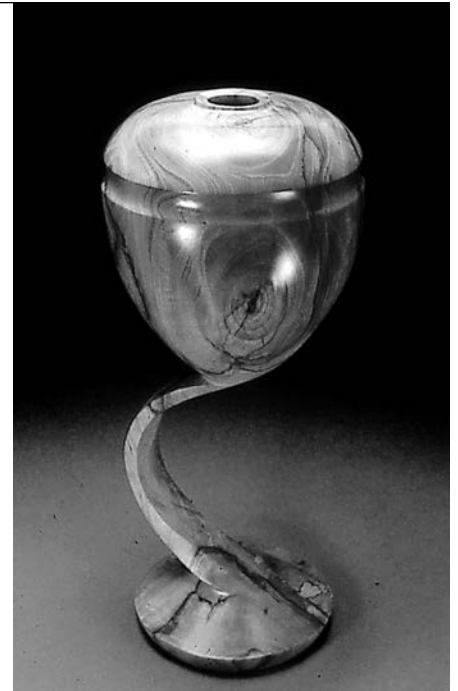
These pieces require quite a bit of "off the lathe" work and can not be done in half an hour (at least I can't do one that fast).

The process begins by determining a design (this should not be a new procedure to you). I prefer to develop the design of the upper vessel portion first. This might be a simple open bowl form, a hollow form or even a natural edge — it does need to be end grain. The pedestal should be designed to compliment the vessel; not too heavy or overpowering, yet not too fragile looking. Of course, the wood must be strong enough to support the piece. The last part to con-

template is a base. The entire height and the size of the vessel portion will dictate the diameter of a base that will be both functional and aesthetic.

The wood should be chosen carefully, and must be compatible with the design. The strength of the wood is especially important. Sometimes I might design a piece to utilize a particularly nice piece of wood. I consider color, grain pattern and texture, as I would in selecting stock for any turning. More importantly though, the wood needs both linear strength and also cross grain strength. It's a real problem in the carved areas if the wood tends to separate between growth rings. If I am using a single arc or spiral design where the elements are fairly delicate, as shown on the next page, I am most selective in picking the wood for its strength. A double arc, above left, or a ring, below left, might be created of a weaker species. I will sometimes accomplish a stronger single arc design by incorporating construction characteristics, such as shown below. Design variations have let me use a wide variety of wood types.





Double spirals, above left and middle, and single spirals create a fourth dimension beneath the vessel.

I normally attach the wood to a faceplate with  $1\frac{1}{4}$ -in.-long screws, after truing the end between centers. The vessel portion can be done with conventional methods and should need little discussion here. I find a steady rest to be a necessity when doing taller pieces and especially when incorporating a hollow form vessel.

I feel it's essential that the bottom of the vessel fluidly blends into the pedestal. It is very important that I have determined the transition form to properly hollow the vessel but I must keep extra bulk for strength. The bottom portion of the vessel, the transition and the pedestal portion are done after the rest of the vessel portion has been completed including sanding and often a finish applied.

The "pedestal" is the part which separates the elevated vessel from other turnings, and separates the vessel from the base or foot. The dimensions of this part can vary considerably, but must balance aesthetically with the rest of the piece. It truly depends on the eye of the beholder.

To form this part I begin by turn-

ing and partially sanding my outer shape. I don't consider final sanding appropriate here since only a relatively small portion will remain in the final design. The base is turned and sanded at this time and a demarcation line is now cut half way through with the parting tool, at the point where I'll be cutting the object off later.

At this time I will draw the pattern of the pedestal design on the surface of the wood. That completes the easiest part of the piece; the rest must be done off the lathe or maybe by using the lathe as a carving vise. If the design is to be a single arc or ring the two important tools I use are the band saw and pneumatic drum sander.

Using a good  $1\frac{1}{4}$ -in. band saw blade, I will cut away the waste to create the arc. Since I am putting a round piece into a saw blade, I consider this to be the most dangerous step. Don't attempt this freehand; you need some sort of cradle to steady the turning. I cut a hole in a thick piece of plywood to nest the piece on to prevent rolling.

If I want to create a ring, I cut the two sides flat, then use hole saws and a Percival carving disc (Woodcraft

800-225-1153) to remove the center. These areas are then smoothed and balanced with a pneumatic drum sander.

My method of cutting the spirals is even more crude. I cut these with an electric chainsaw, and clean up with a Percival carver. Most of the leveling and smoothing is then done with home-made drum sanders. The final proportions and leveling of surfaces is all achieved by eye.

Since the base was shaped and sanded before I carved the center portion, I can cut off the waste now. I cradle the turning in a grooved piece of 2 X 4 and cut it off on the band saw.

These carved vessels do not lend themselves to reverse turning the base, so I sand the bottom to a level rim with a depressed or concave center to sit properly on a table.

Creating elevated vessels is just one more example that there is still room for imagination and creativity in the world of woodturning.

*Dave Barriger is a retired teacher and turner in Apopka, FL. He is also a member of the AAW Board of Directors.*



# FINE TUNING A GRINDER

*Efficiency is in the details*

BOB VAUGHAN

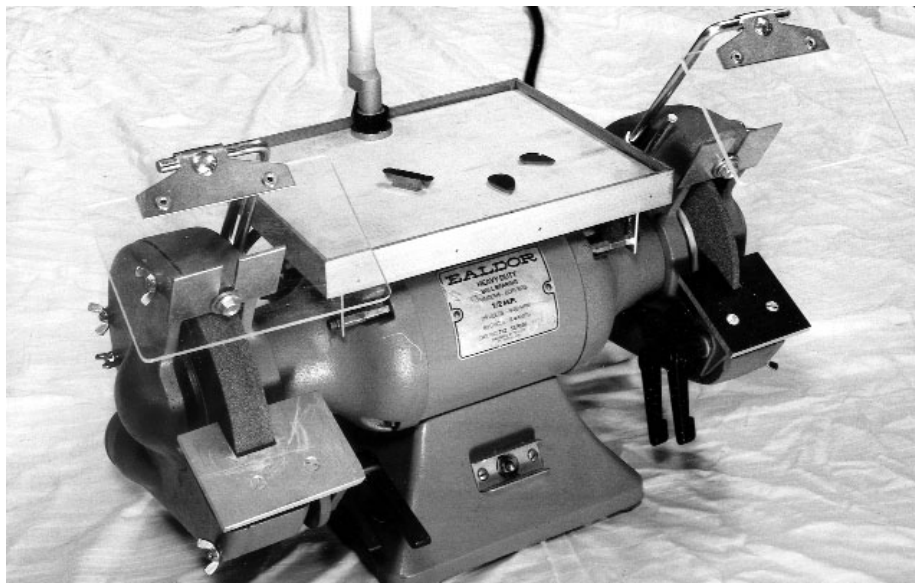
I BOUGHT A SECOND-OR-THIRD-HAND Baldor 7in., 3600 RPM bench grinder not long ago. It had more cast iron than my new Baldor grinders, and after a little motor work, it ran quite smoothly. I knew that it would make a great low-risk platform for some modifications that I have had in mind for making a good grinder better. I felt that with a little time and effort, and minimal investment of cash, I could make this grinder safer, easier, and faster to use.

I ended up making seven modifications:

- 1. Tool tray on top of grinder.
- 2. Electrical outlet under tool tray.
- 3. Larger tool rests and tool rest posts.
- 4. Custom overlay plates for tool rests.
- 5. Quick adjust handles, instead of bolts, on the tool rest post and rest.
- 6. Larger eye shields.
- 7. Wing nuts to hold on outside wheel guards, instead of bolts.



An allen wrench tightens the shelf mounting bracket. Allen head works well in tight space.



The author's soup-ed up grinder, ready to use with new tool rests, tray and other accoutrements. Photo by author.

## The Tool Tray

I wanted a convenient, out-of-the-way place to put tools, cutters, dressers, and other items that normally litter the grinding area. I also wanted a platform that would accommodate an electrical outlet and a gooseneck light. So my first objective was to mount an 8-in. x 11-in. x  $\frac{3}{4}$  in. thick plywood tool tray on top of the machine. Plywood was fine since I wouldn't put a water pot up there and risk spillage down over the motor and switch. A  $\frac{1}{8}$  in.-thick x 1 in.-wide edge was added to keep stuff from vibrating off.

First, I removed the wheel, flanges and both wheel guards so that only the grinder's motor itself was left. Next, I did some measuring. I found that I had to replace the two top motor bolts with two lengths of 10-24 threaded rod and rod coupling nuts. Because of the curve of the motor's end bells, I had to use two rod coupling nuts to get enough extension to mount the steel angle brackets. The

threaded rod was cut so that there was just enough rod for the second nut to hold securely yet leave enough internal thread for the angle bracket's mounting screw.

I mounted the angle brackets to the threaded couplings, positioned the tray, and marked the bottom of the tray to indicate the angle bracket's wood screw holes. Then I removed the angle brackets from the threaded rod coupling nuts and screwed them to the bottom of the



Cast iron tool rest holder is much heavier than the stamped steel ones originally on the author's grinder.

plywood tray. Next, I mounted the tray to the grinder. I positioned the tray toward the rear of the grinder so it wouldn't create a shadow or interfere with grinding activities.

I wired and mounted a grounded electrical outlet under the back overhang of the tray. I wired the grinder's switch directly to this outlet. Now I have a place to plug in my overhead gooseneck light and other things as needed.

### Tool Rest Modifications

I quickly realized that the stamped steel tool rests that came with this lower-priced grinder were not rigid enough for my needs. I ordered the cast iron ones that are standard on the deluxe 7-in. versions.

Instead of installing the standard  $\frac{1}{4}$  bolts and nuts to hold my tool rest and post, I ordered quick adjusting handles with a  $\frac{5}{16}$  inch thread. I thought that the original  $\frac{1}{4}$ -in. thread was a little flimsy for these handles. Now I don't have to go on a wrench hunt every time I need to adjust the angle of the tool rest.

For this thread size upgrade, the tool rest posts had to be filed out to accept the  $\frac{5}{16}$ -in. thread. Next, the tool rest post and the inner grinding wheel guard had to be drilled and tapped for the larger  $\frac{5}{16}$ -18 thread.

The small surface of the standard cast iron tool rest wouldn't allow me the safety and convenience I wanted for my various and specific grinding chores. I decided to mount an overlay plate on top of the tool rest and custom fit each overlay plate to my various grinding wheels. If I have to grind something with a short bearing surface, I can simply remove the plate.

I first mounted the tool rest and a grinding wheel to determine how the inside of the grinding wheel relates to the tool rest. I then marked the top of the tool rest and drilled and tapped the surface of the tool rest



The author holds the old motor bolt in front of the mounting bracket, which already has all-thread and one coupling nut installed. The second coupler, shown at left, is needed to install the angle bracket.

with two 10-32 holes about  $1\frac{1}{2}$  in. apart. I put in a good countersink to compensate for a potential protruding trunk of flat head screws.

I then cut out some 3x3 and 3x4 plates from some scrap  $\frac{1}{4}$ -inch thick aluminum. They were aligned on the tool rest against the wheel and marked for the mounting holes. I then drilled a clearance hole and

countersunk so a flat head screw would go below the surface of the tool rest plate.

Tool rest plates were made for  $\frac{1}{4}$ -in. wheels, 1-in. wheels, and a cut-off wheel. I quickly found that aluminum wasn't the best material, so I'm in the process of getting them made out of  $\frac{1}{4}$ -in. steel plate. Aluminum will do for a while, though.

I used my regular wood-cutting bandsaw with an old blade to cut the aluminum. Feeding very slowly (1 in. per 15 seconds), it did an acceptable job, but it did throw aluminum chips everywhere.

Now I can safely profile grind around the sides of cutter bits or use a cut-off wheel with ease and safety.

### Other Modifications

The standard GA-10 eye shields that came with this model grinder were ok, but I opted for ordering the larger GA-11 type (standard on Baldor's Deluxe 7 in. models.) They have a thicker steel rod and wider eye protection area. Again, I had to re-tap a  $\frac{1}{4}$ -20 hole for a  $\frac{5}{16}$ -18 thread in the inside wheel guard for the more secure mounting. Now I can clamp on a magnifying glass and

#### Local Sources of Supply

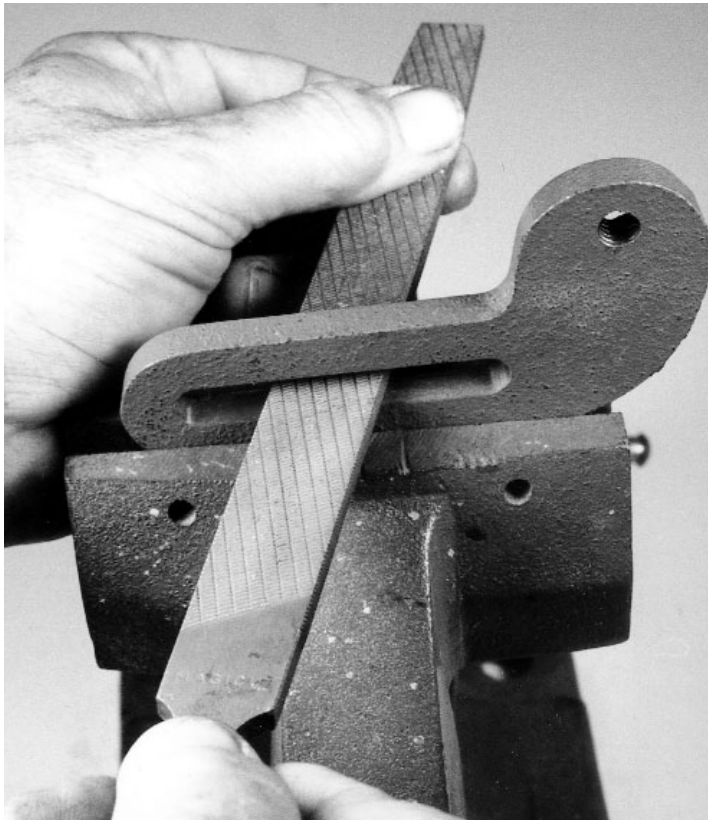
Local industrial suppliers,  
traditional hardware stores  
or fastener suppliers

#### Mail Order Sources of Supply

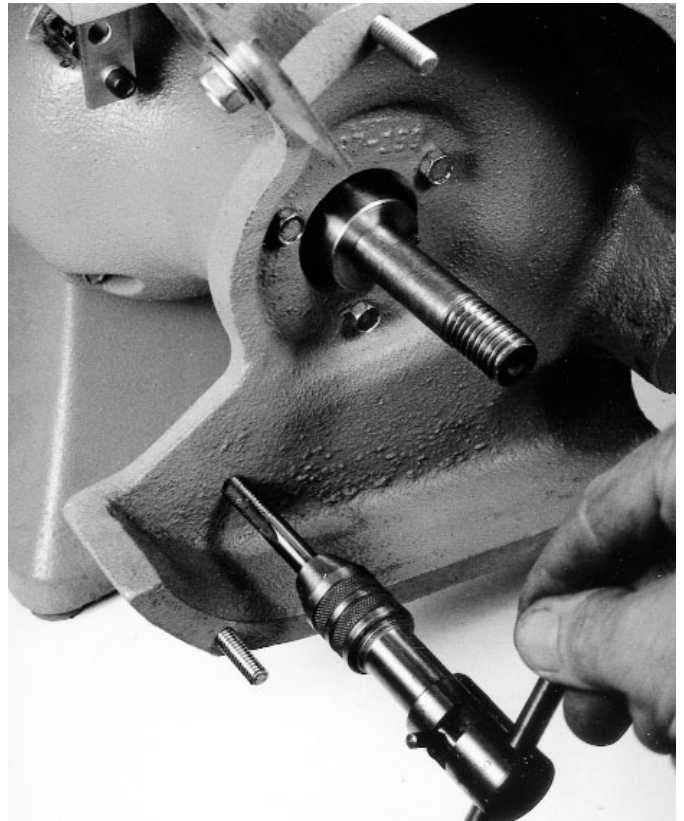
Reid Tool Supply Co  
P.O. Box 179  
Muskegon, MI 49443  
800-253-0421

J&L Industrial  
P.O. Box 7604  
Charlotte, NC 28723  
800-521-9520

MSC Industrial Supply Co Inc  
P.O. Box 9101  
Plainview, NY 11803-9001  
800-645-7270 .



A file is used to open up the adjusting slot in the tool rest support. Also shown at right is the newly enlarged and threaded hole for the tool rest.



A hand tap is used to thread the inside wheel guard for quick adjust handles. The stud shown is for mounting the outside wheel guard

not worry about movement caused by vibration.

Because I change grinding wheels a lot, I decided to get around the wrench-and-bolt ceremony with the outside wheel guards. I got some 1/4-20 threaded rod and some wing nuts. The rod was cut into short pieces so that enough protruded to accept a wing nut. Now, the only wrench I need is one for the grinding wheel. True, there are some slip-on arbor nuts available, but I haven't gotten into that yet. I suspect they won't hold as securely as standard arbor nuts.

### Tips

First activity: Read this article to the end and then get the hardware. The grinder will have to be partially disassembled, so plan ahead to avoid

unnecessary activity.

Determine your top tray dimensions before disassembly, taking into consideration overhang and interference with shadow, wheel guards, and tool sharpening processing.

And, as with any machine modification, be careful. Don't try any of this with the machine plugged in; if you are unsure how to do something, seek competent help.

Don't be intimidated by the rudimentary metal work mentioned herein. If you're unfamiliar with drilling, tapping and filing metal, know that it's merely a matter of learning a few simple rules. Directions are available anywhere from traditional hardware stores to your local library. There might be a recreational metalworker or machinist in your own neighborhood that could

help.

Why doesn't the factory offer these options? My guess is that they wouldn't stay competitive.

Also, things, like the locking handles and wing nuts holding on the outside wheel guards wouldn't be at all appropriate for industrial situations where people of diverse skill levels are using the same grinder. For woodturners, the user and the owner will be the same, so the degree of care will be higher.

Now that I've had a while to enjoy the benefits of these modifications, the long term pay back in speed, convenience, and safety was well worth the effort.

*Bob Vaughan is an amateur turner who makes his living rebuilding wood-working machinery in Roanoke, VA*



# From SOFA to Lathe

*Top Gallery Show Offers Many Fields Of Inspiration*

**BINH PHO**

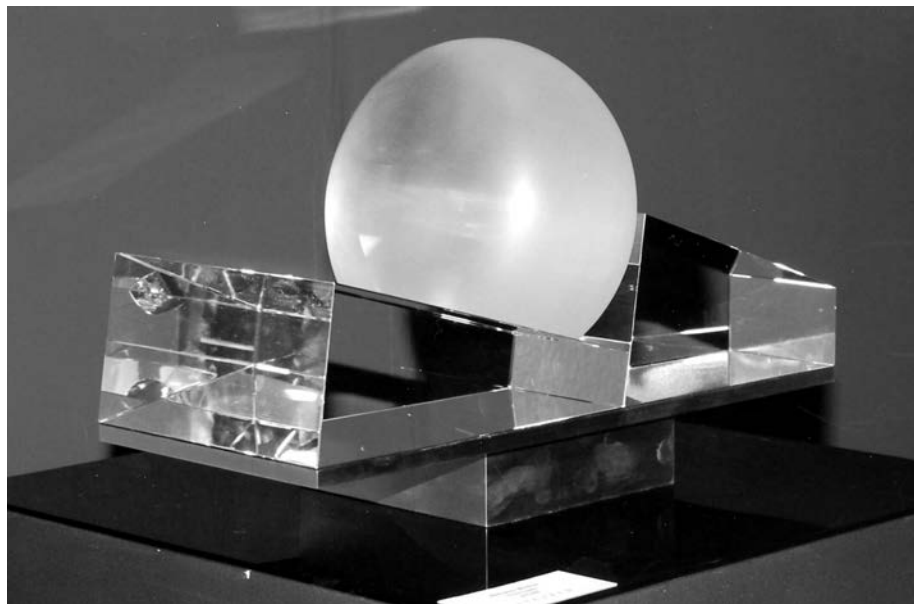
AS A TURNER, I RECENTLY found it enlightening to browse through a large gallery show without, believe it or not, being solely focused on the woodturning being displayed. At first, this seemed a little strange, since turning has been such a large part of my life in recent years.

But the more I thought about it, the more it seemed a perfectly logical part of my development as a turner.

Within the last several years, woodturning has undergone a major transformation, which blurs the distinctions between it and works composed in other media, such as glass, metal, clay and porcelain.

The thirst for new inspiration is contagious among all artists, and I bet I was not alone in my fascination with ideas developed in other media presented at SOFA (Sculpture Objects, Functional Art) Exhibition at Chicago's Navy Pier last Fall.

The annual exhibit included the very best of the top galleries presenting the works of their internationally acclaimed artists.



Nary a trace of wood in wood, but the angles, planes, sphere and other forms are familiar to any artist or craftsperson. And the design possibilities for turners abound. This glass piece called "Natural Bridge" was created by David Dowler. All photos in this article by Binh Pho.

The exposition at SOFA proved an excellent opportunity to explore possibilities -- to push the envelope in terms of forms, color, shape, textures, finishes, humor and all sorts of other

ideas. All those touches that enter turners minds every time they go to the lathe.

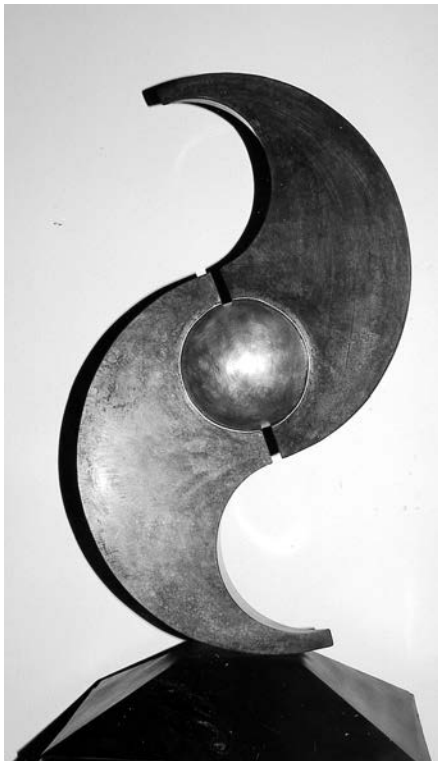
In fact if I found someone with the the turner's equivalent of writer's



Stuart Barustein's glass work employed forms familiar to turners, which were embellished with color and texture.



Paul Schwieder's glass pieces reminded the author of the work of California turner Bill Hunter.



"Nucleus," above left, a sculptured bronze piece by Mark Stasz could be wood, but regardless of material it offers material for thought. Turners will feel right at home in Guy Michaels' booth, above right; he turns alabaster.

block and can't seem to get anything done, I'd recommend spending a little time in a visual feast like this.

Familiar names like Dale Chihuly, Dan Dailey, and Wendell Castle were represented. Also, a large number of our top turners were represented

through del Mano gallery almost from A to Z, from Ray Allen to Hans Weissflog. Here also were works from the Hand & Spirit Gallery by both Phil and Ed Moulthrop and Bert Marsh, from Gael Montgomerie at the Compendium gallery, and Dan

Kvitka and Guy Michaels (who turns alabaster) at the William Zimmer gallery.

At the Mariposa gallery, Steve Madsen's pieces were displayed. In one piece, he has created a life-sized valet, coat rack and mannequin, interestingly put together with color dyed and turned maple parts.

Several works by Riley Hawk gallery's glass artists were truly eye catching. Of particular interest to me was the way in which Paul Schwieder's glass vessels work reminded me of the work of woodturner William Hunter, out of California. His vessels of blown glass incorporate a lot of negative space, and are further carved and etched with acid.

Lino Tagliapietra, a master in crystal, was also represented by Riley Hawk. His tall, richly colored and sinuous forms reminded me of woodturner Michael Hosaluk. His



The del Mano Gallery featured many turnings, as well as objects created in other media.

explorations of form, lots of color, surface texture, and what appeared to be cut and paste techniques were stimulating.

### **Crystal, stunning and delicate**

Tagliapietra also had a crystal piece displayed, entitled "Eve," a transparently delicate vessel that appeared to have a leaf form and stem materializing from the crystal. I also spoke with another master in crystal, David Dowler. His two pieces, "Ozone" and "Natural Bridge" were displayed by Steuben Glass gallery. The crystal pieces are absolutely stunning, and, of particular interest to me. It occurred to me that a similar look can also be achieved in wood.

Stuart Barustein's work, shown on Page 25, and displayed by Urban Glass, also caught my eye. It appears that he shaped three different layers of glass into a bowl, and then drilled dimples in the inside so the different colors would show through.

The metal pieces I saw resembled woodturning the most. The color and form of Carol Warner's piece entitled "Bridge I," shown below and displayed by SNAG Metal Work gallery is very similar to woodturning. I also saw other pieces that displayed a lot

### **The 10 Adopted Rules of Thumb - Wendell Castle:**

1. If you are in love with an idea you are no judge of its beauty or value.
2. It is difficult to see the whole picture when you are inside the frame.
3. After learning the tricks of the trade, don't think you know the trade.
4. We hear and apprehend what we already know
5. The dog that stays on the porch will find no bones.
6. Never state a problem in the same terms it was brought to you.
7. If it is offbeat or surprising, it's probably useful.
8. If you do not expect the unexpected, you will not find it.
9. Don't get too serious.
10. If you hit the bulls eye every time, the target is too near.

These rules by renowned furniture maker and designer Wendell Castle were among the materials distributed at SOFA. The author passes them along "just for fun." And, for inspiration.

of very intricate surface work including turned copper, beads and paint.

Mark Stasz' piece entitled "Nucleus," shown on the previous page, is actually sculpted bronze, but it resembles woodturning, and suggested

a lot of design possibilities.

It seemed that no matter where I looked I found objects that were stimulating in themselves, but also crossed over into the kind I'd like to do in my woodshop: pieces in porcelain offered a lot of designs that reminded me of Frank Sudol's work.

Several porcelain pieces reminded me of the power of line and the feeling of motion that can be created with diagonals, waves and other simple, well-thought out elements.

I left the show with a zillion ideas for my future woodturning projects and I felt like I just had a seven course dinner for my mind.

It was a good thing I had to write this article, because I was sorting out ideas on my way home. Hopefully this article give you some food for thought for your next turning.

*Binh Pho is a turner and teacher in Maple Park, IL.*



Carol Warner's piece "Bridge I" showed how closely metal pieces can resemble wood and stimulate designs in wood.



# VACUUM CHUCKS

*An efficient tool without sucking up big bucks*

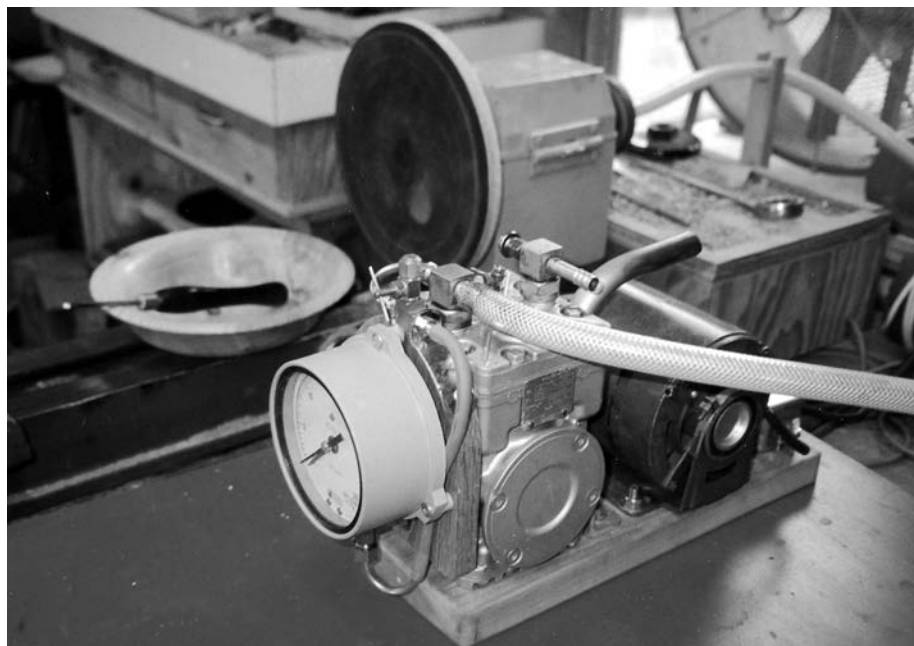
ERNIE SHOWALTER

I think a vacuum chuck can be one of the handiest and most versatile tools in a turner's shop. One reason that more people don't have one, though, is the initial cost of the system. I came up with the setup based on used auto parts described here as an economical way around that problem.

The information can be modified to meet your needs, equipment and available materials. As with other systems I have seen, you do need a lathe which has a hole bored all the way through the headstock, with no holes between the ends.

## Vacuum pump

Most air conditioners use a vacuum compressor pump to handle the refrigerant. Some of these pumps are either too small or too large for a shop unit, but I've found that the pump manufactured by York which many auto service centers install in automobiles meets all the requirements for a turner's shop system. It is a vertical



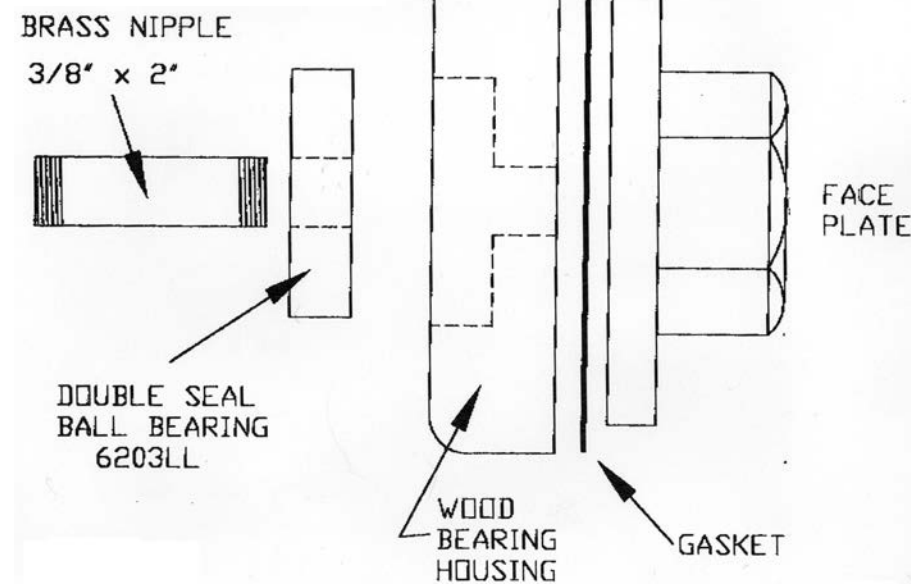
Showalter's vacuum system is based on a pump from an auto salvage yard.

two-piston pump with a crankcase to hold oil for lubrication. It's available at most auto wrecking yards for a reasonable cost; in my area the going price is about \$35.

When you get to the wrecking yard, ask the attendant to let you look at the York pumps he has. The pumps are basically the same except for the connections at the top of the pump and a mounting bracket that may be attached to the base of the crankcase. Choose a pump that has a convenient connection for a hose, as in the system shown above, that will provide the source of vacuum.

The pump will have the original electric clutch still installed on the pump housing. The electric coil can be removed or it can be left on the unit: it doesn't matter since it will not be used. The clutch has a hub that is attached to the pump by a tapered shaft. This hub also contains a bearing which supports the pulley that was connected by V-belt in the auto to drive the pump. This pulley needs to be spot welded to the hub. This can be done without removing the clutch and pulley assembly. Welds about 1/2-in.-long at three different points on the pulley will be adequate.

Figure 1: Vacuum Chuck Rotating Seal



(Caution: If you use an arc welder, connect the welder ground to the pulley to prevent current through the shaft and bearing when welding. Always proceed with caution and care when welding or doing other machine work. Don't risk an accident. If you are not familiar with this process, seek help from a professional or other knowledgeable person.)

There is a plug on each side of the crankcase, where you install oil and check the fluid level. Use regular compressor oil; the oil level in the crankcase should be about 1 in. To measure the oil level, remove a plug and insert a curved piece of wire into the side of the pump. This may seem crude, but it is the only way to determine the oil level.

Mount the pump so the pistons will be vertical. The pump will be drilled and tapped with four  $\frac{3}{8}$ -in. bolts in the bottom, so it can be mounted on a board. Insert  $\frac{3}{4}$ -in. blocks as needed between the unit and the mounting board, so that the drive pulley will clear the mounting board. A  $\frac{1}{4}$ -HP, 1725-RPM motor will be sufficient to drive the pump. I recommend a 4-in.-diameter motor pulley. This combination will result in a pump displacement of about 5 CFM's. Select a pulley which has the same groove as the pulley on the pump, then obtain a belt with the same belt pitch to fit the pump pulley and motor sheave. Once the pump



Rotating valve and hollow headstock spindle connect to pump to vacuum plate.

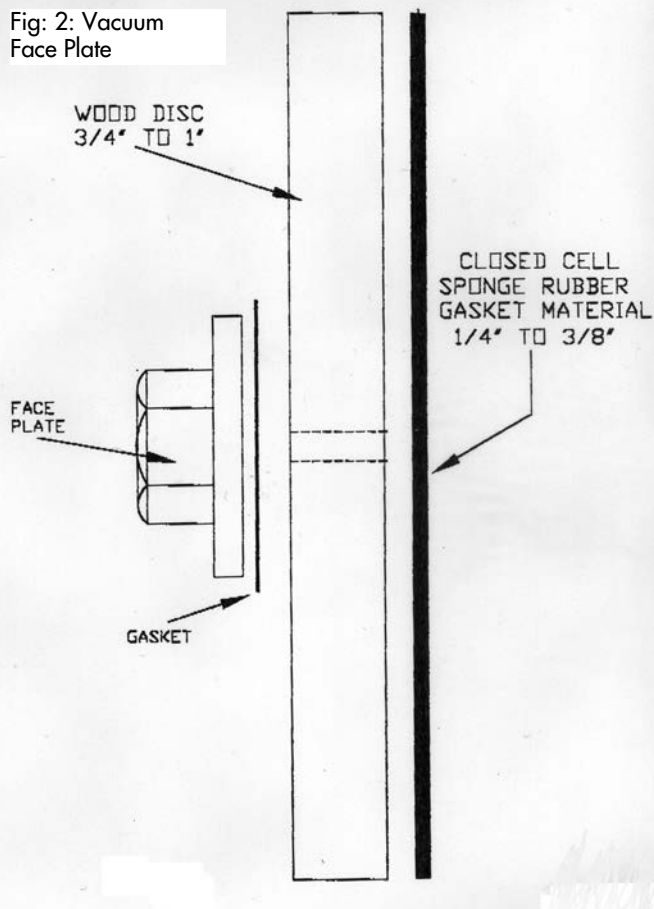
and motor are mounted and coupled with a belt, the vacuum source is completed. The pump is an independent part of the system. It will be connected to a rotating seal on the lathe with a flexible hose. The length of the hose depends on pump location. The pump is normally located on a bench near the lathe where the vacuum gauge can be easily read and vacuum pressure adjusted.

### Vacuum gauge

The vacuum gauge is a very vital part of the vacuum chuck system. It is used to find leaks, indicate if the pump is working satisfactorily and to determine the amount of vacuum applied to the piece on the faceplate. Too much vacuum on a large bowl or platter may crush it. A new gauge can be expensive, if purchased new; look for a used one. A used, auto fuel pump or manifold vacuum gauge works well.

Figure 1 shows the rotating seal assembly. The  $\frac{3}{8}$ -in. brass nipple has an interference or friction fit to the (Internal Diameter) ID of the 6203LL double-sealed bearing. Press the nipple into the bearing with a vice, using a socket to back up the inner race of the bearing. Other sizes of nipples and bearings can be used. The  $\frac{3}{8}$ -in. was selected to allow a  $\frac{1}{2}$  ID hose to be connected to the nipple and the vacuum connection on the pump.

Fig. 2: Vacuum Face Plate



Attach and turn a  $\frac{3}{4}$ -in.-thick wood faceplate. A gasket must be installed between the faceplate and the wood plate using a gasket sealer, which is available in tubes from any auto parts dealer. Turn a relief in the wood plate for a snug fit to the bearing OD. Bore a  $\frac{1}{4}$ -in. hole completely through the wood plate. Insert the bearing in this relief and glue in place with cyanoacrylate glue. Note if the nipple extends beyond the surface of the bearing inserted into the wood, steps must be taken to allow for this extension.

There are some lathes that do not have a threaded spindle on the outboard side of the headstock. In this case a threaded face plate would be replaced with a hardwood, tapered shaft. One end would be glued to the wood plate holding the bearing. The

other end would be an interference tapered fit inside the bore of the headstock spindle. This hardwood extension must have a hole about  $\frac{1}{4}$ -in. in diameter bored in the center, so air can be sucked through it.

### Vacuum chuck face plate

Figure 2 shows the vacuum chuck face plate. The material can be any flat wood material: hardwood, particle board or plywood. The diameter should be slightly larger than any item expected to be turned. The vacuum plate will not seal well if it is smaller than the object being turned. I recommend it be  $\frac{3}{4}$ -to-1-in.-thick, to minimize flexing and provide enough material for truing the face. Attach the flat piece to the face plate, as indicated in the drawing. Turn round and true up the face. The soft material glued to the face of the plate is a closed cell soft gasket material. This may not be rubber, but has rubber appearance. Sponge rubber may not be satisfactory because it's too soft and porous. The material must be air tight. The closed cell gasket in the same type material used for a diver's wet suit. Bore a hole through the closed seal material and the wood plate.

### Vacuum line

The vacuum line may have several options. Figure 3 outlines some of the important features here. Exactly how this is best done may be determined by the connections available on the pump. Normally the pump has a tee fitting. One side was the connection that provided vacuum to the air conditioner when it was in an auto. This may provide a hose connection to the brass nipple at the rotating seal. The other side of the tee has maintenance connections to install gauges and install refrigerant into the auto system. This connection may have what looks like a tire inner tube valve core under

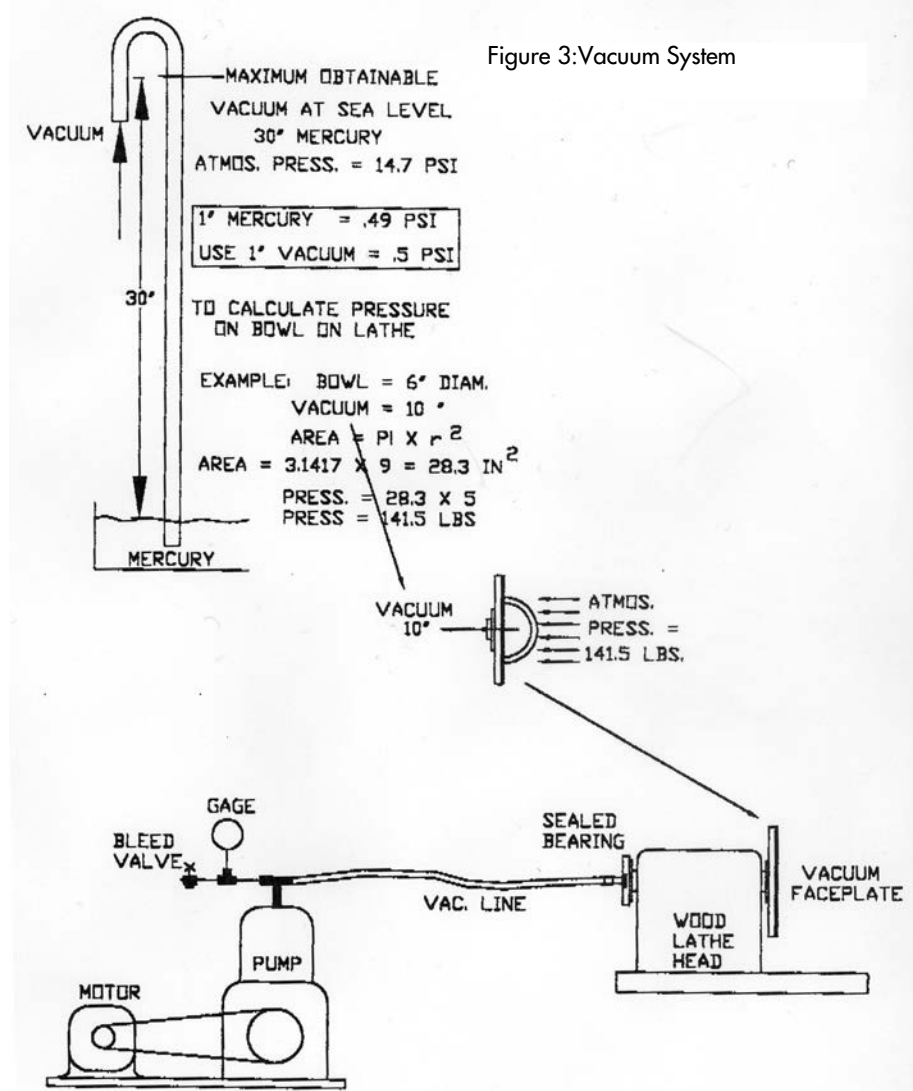


Figure 3: Vacuum System

a threaded cap. Remove the cap and valve core and make the connection for the vacuum gauge and the vacuum relief valve. The vacuum bleed valve will be used to control the amount of vacuum applied to the item to be turned on the lathe. This can be a small needle valve.

### Checking the system

At first, run the vacuum pump with the gauge installed, the bleed valve closed and the vacuum line plugged. The vacuum reading on the gauge will indicate the vacuum capability of the pump. Expect 25 inches

or more. This is more than enough to turn bowls as small as 3-in. in diameter. Smaller bowls have less surface area than larger bowls and require more vacuum to allow them to be turned without coming loose. This is an important reading; it not only indicates the pump capability but will be used to check the system for leaks. Follow the steps listed below to check out the system. (There are a few vacuum gauges that read in psi. Full scale reading on this type of gauge would be 15 psi.)

1. Connect the vacuum hose to the pump only and block the end that



will attach to the brass nipple. With the pump running, the vacuum should be the same as the pump capability. If not, find and correct the vacuum leak by tightening the clamp or otherwise sealing the system.

2. Connect the hose to a rotating bearing brass nipple, but do not install on the lathe. Monitor the vacuum, if there is a leak, find and correct, as described above. Install the rotating sealed bearing assembly on the lathe with the hose connected. Block the hole at the right end of the spindle. Run the pump and check the vacuum. If there is a leak, locate and correct.

3 Attach the vacuum chuck faceplate to the lathe spindle and check for leaks, as described before. If there is a leak, find and correct.

It may be necessary to make gaskets to fit the threaded face plate screw to the spindle stop shoulder, if the faceplate does not screw up to the stop shoulder, or has a loose or worn fit. Vacuum lost due to a leak will reduce the full capability of the vacuum

chuck. A completely leak free system may not be possible; leaks as much as 2 to 3 inches of vacuum are expected and acceptable.

### Vacuum applied to project.

The amount of surface square inches and vacuum in inches will determine the amount of pressure applied to the item on the lathe. Small items can handle full pump capability, but large platters or bowls must be turned at reduced vacuum. Experience and judgement will be used to determine how much vacuum can be used safely. There are some woods that are not free of capillaries, and may allow enough air to flow to prevent use of the vacuum chuck until the wood is sealed. It would be normal practice to finish and seal the inside of the bowl before it's attached to the vacuum chuck on the lathe.

Figure 3 on the previous page has an example to calculate the amount of atmospheric pressure applied to a bowl based on the size of the bowl and amount of vacuum. The graph in Figure 4 below shows the relation be-

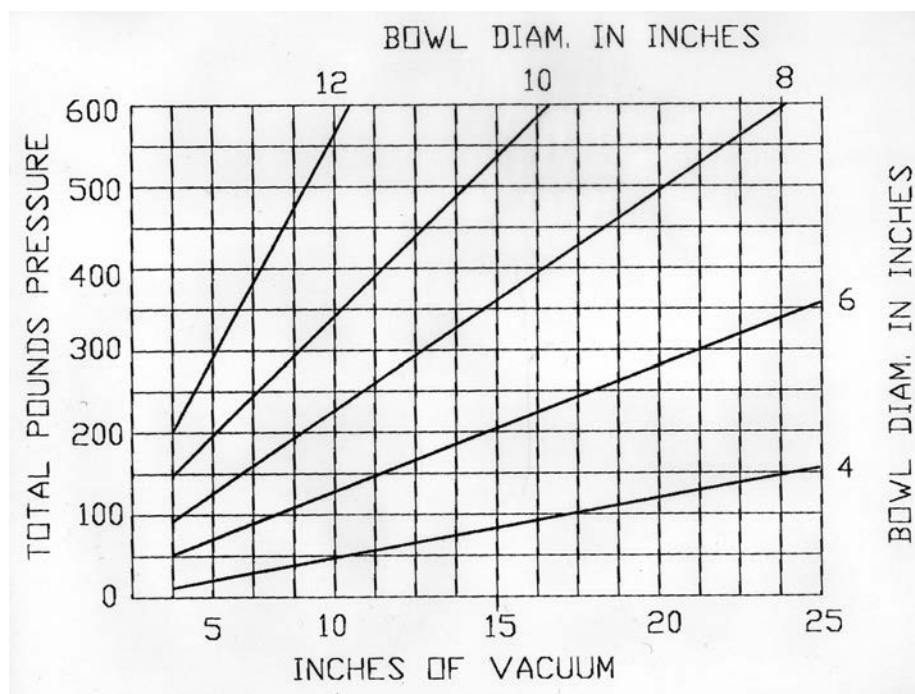
tween bowl diameter, inches of vacuum and total pressure. Note the lines labeled 4, 6, 8, 10, 12. These numbers represent the diameter of bowls to be attached to the lathe vacuum chuck faceplate. Use this graph to approximate the amount of vacuum to be used. Note this pressure is total and not the amount of pressure at any one point. For example, the 6-in. bowl has a total pressure of 200 lbs. with 15 inches of vacuum. The pressure per square inch is only 12.5.

Round bowls will withstand much more vacuum than a flat platter.

When a bowl is to have the bottom turned, place it against the soft surface of the vacuum faceplate. Use slight force from the tail stock with a short wood shaft in the Morse taper to hold it in place. Center the bowl without any vacuum on the bowl. Locate the tool rest near the bowl, perpendicular to the lathe bed, as the lathe is turned by the hand wheel. You may have the center marked for centering, however, use your tool rest to judge bowl run out and decide if the bowl is centered. Before starting the pump completely, open the vacuum control valve. Close the valve after the pump is running only enough to get the desired vacuum to hold the bowl in place. Run the lathe at a lower rpm using small tools to get the desired shape on the bottom of the lathe. Sand and apply finish.

The question is often asked, can my shop vacuum be used for a vacuum for a vacuum chuck. The most vacuum available from most shop vacs is between 1 and 2 inches. This is insufficient to hold items tightly against the vacuum plate while you're turning. Keep in mind the vacuum chuck has to do more than hold items on the lathe; it must be firm enough to allow tools to remove material, without dislodging the pieces.

*Ernie Showalter is a turner in Midland, TX.*



# WOOD TULIPS

## *Flowers Bloom In Turner's Workshop*

STEVE REED

**W**HILE IN THE NETHERLANDS last Spring, my wife and I were enthralled by the fields of crocus and tulips throughout the countryside. Although we have enjoyed visiting the daffodil and tulip fields in the northwestern United States, there is something special about tulips in Holland.

Inspired, and always looking for another challenge for my lathe, I set about creating a simple design for tulip bouquets. Our son Joel, also a turner, helped refine the design.

Our method of creating a tulip involves a lathe and several other common shop tools — a bandsaw and a drill press — which provide an efficient way to hollow the flower and shape the petals.

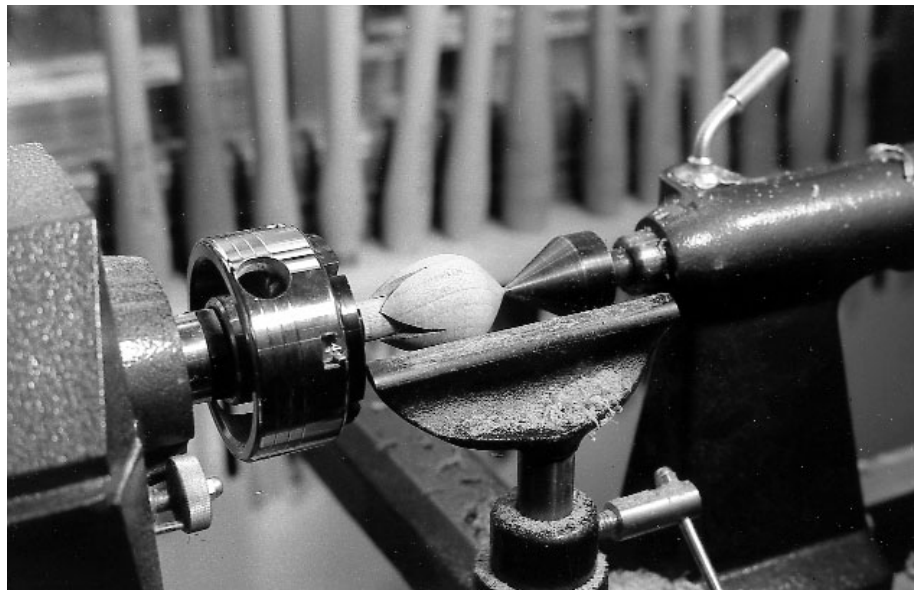
The hole bored on the drill press also provides a good method for mounting the piece on the lathe. using a spigot chuck, as shown above right. You can turn the spigot, basically a dowel-like rod that fits into the hole bored in the blank, or mount a dowel in whatever chuck you have, as I did here.

Since the spigot chuck holds the piece securely and provides plenty of room to work, we use it while turning, sanding and also boring out the base for a dowel that serves as a stem.

### **Woods for petals**

Selecting woods with a variety of grains and colors provides contrast to the bouquets, like the one shown on the next page. Light woods such as maple and poplar go especially well with dark woods such as cocobolo and walnut. Reddish and yellowish woods like mahogany and osage orange can be used to simulate natural colors.

Hard, brittle woods (ebony, as an example) are difficult to use because they tend to tear out while turning



A tulip begins to emerge from the lathe. The shaped piece is held between a spigot chuck in the headstock and a conical tailstock center.

unsupported grain.

### **Preparing a blank**

Begin by preparing a block for each tulip. Cut a block 2-in.-square and 2<sup>1</sup>/<sub>2</sub>-in.-long. Square the ends and make sure the sides are parallel. Accuracy is important here. Mark the center point in each end, then draw a centerline lengthwise on two adjacent sides of the blank. These marks are your guides for boring out the body of the flower and shaping the petals. If both the centerlines and the center points are not precisely aligned, the tulip will be lopsided.

Drill a <sup>3</sup>/<sub>4</sub>-in.- hole in one end to a depth of about 1<sup>1</sup>/<sub>2</sub>-in. The small blanks can be hard to hold while boring, so I grip each piece in a wooden-jaw carpenter's clamp. The clamp holds the piece flat on the table, so the hole is properly aligned, and is easy to hold securely.

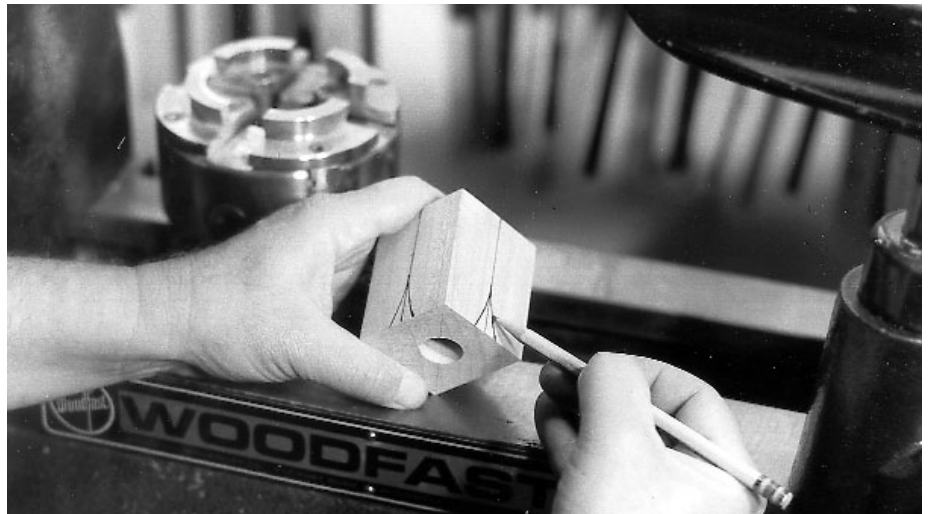
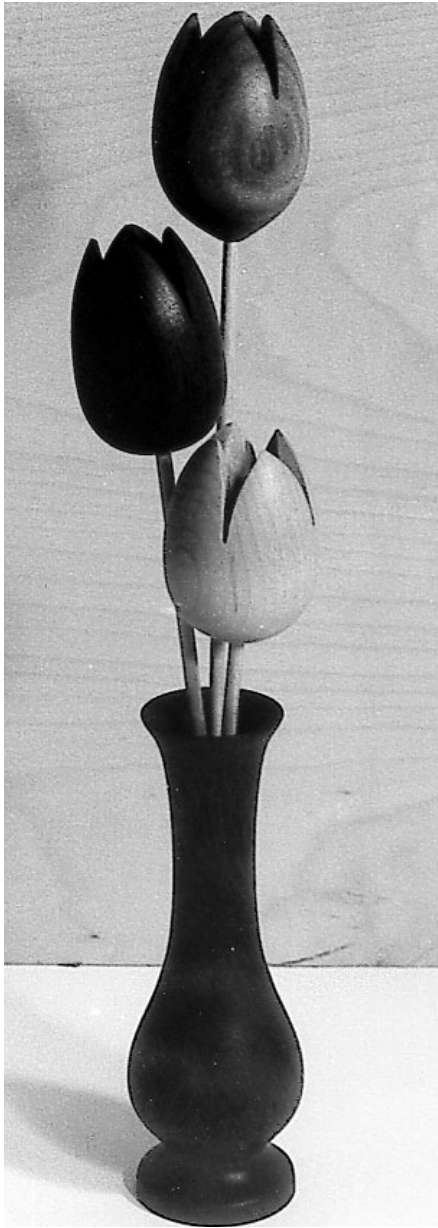
On the end you have drilled, place a mark <sup>1</sup>/<sub>4</sub>-in. on either side of the two centerlines, and a second mark on

each centerline 1 inch from the drilled end. Hand draw smooth, curving lines from the <sup>1</sup>/<sub>4</sub>-inch marks to the 1-inch centerline mark, as shown in the photo on the next page. A template can be prepared to make this process easier. Using a bandsaw, cut along the curved lines on both adjacent sides. Make sure the saw cuts meet at the centerline.

Mount a <sup>3</sup>/<sub>4</sub>-in. dowel in a chuck or turn a <sup>3</sup>/<sub>4</sub>-inch spigot that fits tightly into the hole drilled in the blank. Mount the blank on the spigot. If the hole in the blank is too large to fit snugly on the spigot, wrap the spigot with masking tape. Bring the tailstock with a revolving cone center to the base of the blank to stabilize while turning.

### **Shaping the tulip**

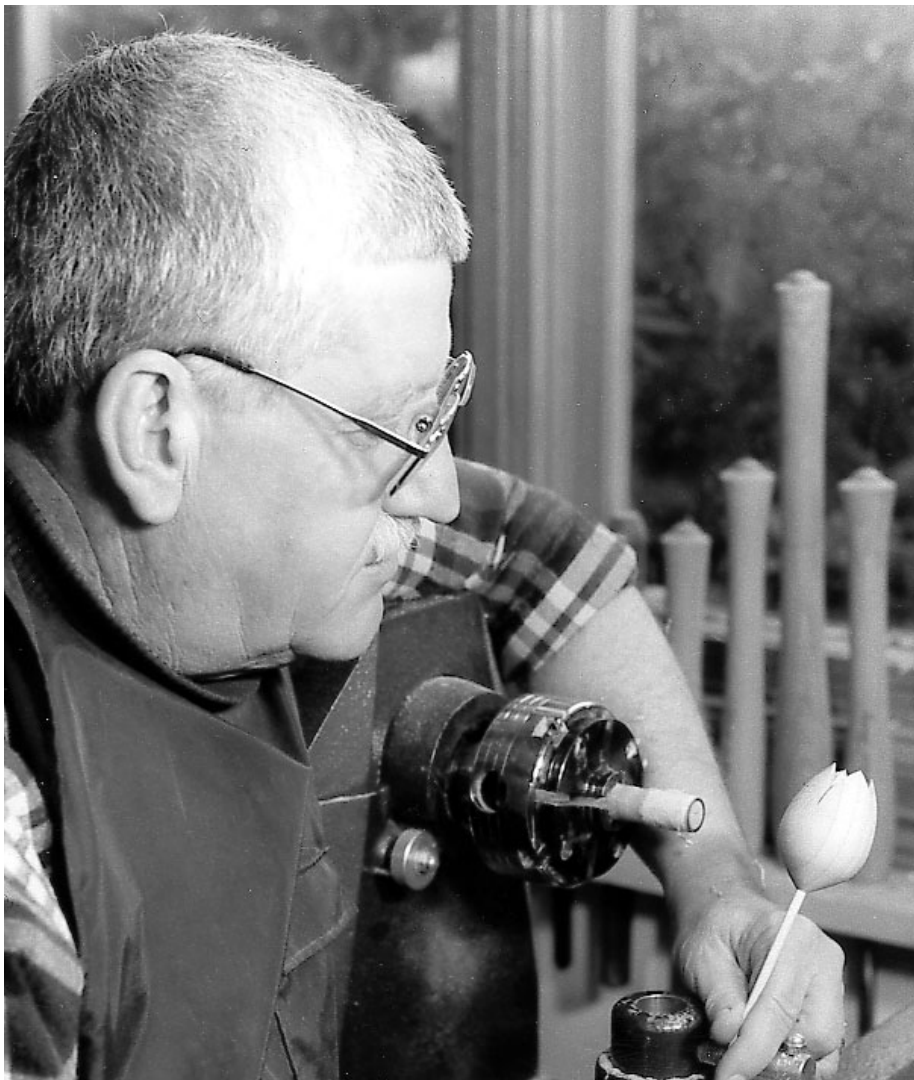
Turn to the desired shape with the largest diameter roughly <sup>1</sup>/<sub>3</sub> of the distance from the base to the tips of the petals (the drilled end). You might find it useful to look at photos of



Begin the tulip by marking the center points on the ends of the blank, then draw a centerline on two adjacent sides. Bore a  $\frac{3}{4}$ -in. dia. hole  $1\frac{1}{2}$ -in., using a carpenter's clamp to hold the wood, as shown, above right. Next place a mark  $\frac{1}{4}$ -inch on either side of the centerlines and another mark 1 inch from the end on the centerlines. Draw smooth curved lines between the marks, then cut the petals on a band-saw, right, before turning to shape.







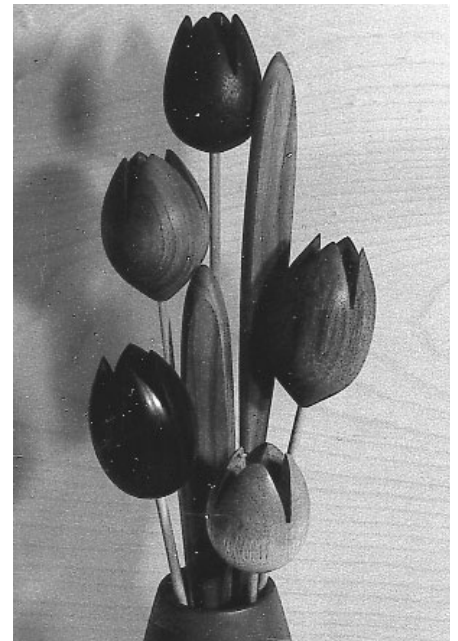
Drill an  $11/64$ -inch hole in the base of the turned tulip, using a Jacobs chuck in the tailstock, above top, so you can insert a  $3/16$ -in. dowel for the stem. Below, the author checks the start of another bouquet.

tulips in the library, and better still, actual flowers themselves. It's a simple shape but the gentle curves of the natural flower are very pleasing.

Sand prior to removing the cone center and drill an  $11/64$ -inch hole in the base about  $1/2$ -in. deep, as shown at left. Insert a  $3/16$ -inch dowel for the stem.

The dimensions can be varied somewhat to create different sizes and shapes. Arrangements using three or five tulips provide symmetry to the bouquet.

Although not necessary for the final effect, leaves can be added, as shown below. To make a leaf, turn a thin spindle with a tapered end. Carefully bandsaw the spindle along the



long axis and sand both sides of each half flat on a belt sander.

Vase shapes are only limited by the imagination. I prefer turning the vase from the same wood as one of the darker tulips in the bouquet. These tulips are easy to turn, make desirable gifts for many occasions, and let you enjoy tulips all year long.

*Steve Reed is a turner in Woodinville, WA*

# SHARPENING JIGS

*Another look at getting an edge on your tools*

AAW MEMBERS

**I**t doesn't take too long for most turners to realize that turning can be real drudgery without sharp tools. Sharpening freehand is a good skill to master, but if you're not so inclined, you can take advantage of the wide variety of jigs on the market. Last issue some AAW members wrote about the Sorby, OneWay and Mighty Mite. This issue we consider what readers have to say about the Glaser, Ellsworth and Tormek systems. We'll discuss more jigs and other sharpening strategies in upcoming issues. If you have a favorite jig or a trick you'd like to share, please let us know—Dick Burrows, editor

## Glaser Jig

Having taken enough turning courses to be able to grind the fingernail gouge freehand, I was always haunted by the fact that no matter how hard I try I could never grind a gouge without "facets." Since I felt this was a short coming in my technique I began to use a jig. This experience came in handy, when, working for Full Circle Turning supplies I was assigned to grind the tools before they were sent to customers. Since the company was using the Glaser Jig I taught my self how to use it. Use it we did. We ground hundreds of gouges: short, medium and long grinds with swept edges, radical grinds with various swept edges, all without one, single facet. So it was natural for me to use the same jig in my shop.

The Glaser Jig is an articulated arm with a pivot point in the floor. The jig is beautifully made to Glaser's exacting specifications using hard Maple. The tool is held in a Vee block guide 3" from the edge on the wood block.

The jig is somewhat fussy to set up (I found this work to be time consuming) as there are a number of measurements to be made and calculations needed to locate the pivot



Glaser Jig

point on just the right spot on the floor. Fortunately, the directions provided are clear and simple. Following these instructions carefully will insure a correct set up the first try.

The purpose of the jig is to provide a simple and repeatable method to grind fingernail shapes on to spindle and bowl gouges. The articulated arm is to provide different bevel angles at the nose of the gouge as compared to the side of the tool. It also has two suggested settings: one for spindle gouges (26 degrees) and the other setting (37 degrees) for bowl gouges.

After set up, using the jig could not be simpler. Just clamp the tool

into the articulated head as directed, choose the angle setting for spindle or bowl gouge and sharpen it. As the instructions explain, the easiest method is to grind the profile of the finished fingernail shape (before clamping it in the jig) then use the jig to sharpen to that edge.

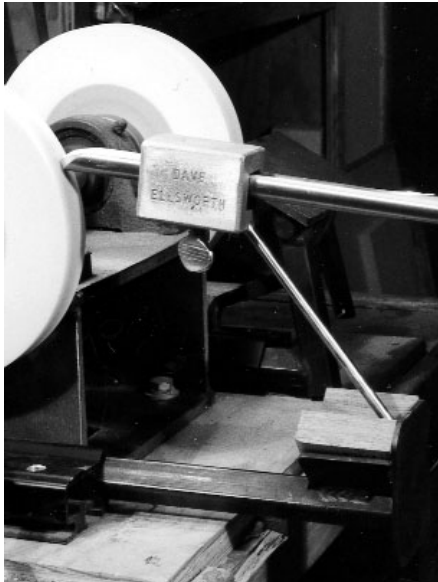
Using 8-in. diameter white wheels (80 grit and 120 grit) running at 3600 rpm, it is, at first, somewhat unsettling to present the tool without a standard tool rest. However, with a smooth running grinder (one that has trued and balanced wheels) there is little bouncing on the stone. The fingernail shape comes freely off the wheel with simple hand motions. No compound movement to ride the stone are necessary to achieve the fingernail shape.

I use the jig to sharpen all my spindle gouges and all my bowl gouges including the big 3/4" gouge. The jig is capable of sharpening any style of cutting edge from the most benign flat grind to the most radical swept back "Irish" grind. The jig does them all and is easily re-"settable" so that a new edge removes as little steel as possible. The best thing is that I no longer feel any guilt about having a faceted tool but also in the knowledge that I cannot blame a poor grind on a tool for bad turning!

— Angelo Iafrate. New Canaan, CT

## Ellsworth Jig

The Ellsworth jig does what it is designed to do and that is, put David's grind on the 5/8-in. Superflute gouge, also known as the Ellsworth Signature Gouge. I learned ABOUT the tool when I attended David's class; I learned to USE the tool standing at my lathe. In class, David taught us how to grind the tool by hand — no jig. The jig wasn't "invented" at



Ellsworth Jig

that time. I learned to sharpen the gouge pretty well in my shop, though the grind never was exactly as he taught us and I always had lots of facets on my bevel. Then, David came up with a wooden jig. It made a genuine improvement in the facets removal. I did not take the time to precisely setup the jig stand so I never quite achieved a replication of his grind, but it was close and acceptable, at least to me. Then, recently he sent me a new cast-aluminum version. It came with detailed instructions on how to set everything up, so I did. Bingo! I can now sharpen the thing the same way every time in less than 10 seconds. That's a good thing.

However, it is not intended nor can it be used for any other tool. It is a single purpose jig, for the  $\frac{5}{8}$ -in. super-flute Ellsworth style.

The jig doesn't make me a better turner. It doesn't improve my designs. It just allows me to grind the tool the same way every time. Any person who wants to be able to do the same thing would benefit from having this jig. This would have to be primarily David's past students, who spent a couple of hours of a Friday morning in David's shop agonizing over the

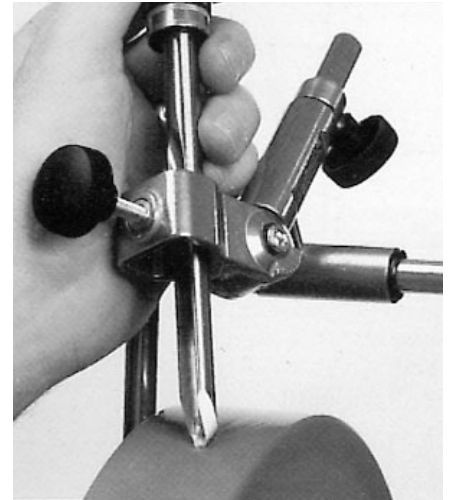
correct way to sharpen that tool. (Incidentally, I got to attend one of his beginner's classes thanks to a grant from AAW! When did you last apply?)

If you can't afford David's class, but want to learn his gouge techniques, his new sharpening video is a must. It is not a glitzy, "MTV style tape, but you're gonna learn far more than you expect. It is an Ellsworth style presentation (read: nothing fancy.) It is a down and dirty instructional. The shots are clear and steady. He has the turner in mind. You wanna see when somebody shows you how to do something. The camera angles let you see... up close and personal! The video quality is excellent.

After demonstrating each type of cut using his signature gouge—roughing cuts, hogging cuts, smoothing cuts, shear cutting and back cutting—he shows sharpening techniques and that's where the new sharpening jig I just discussed comes in. I can't disagree with what Clay Foster said in the last issue of the Journal about knowing how to sharpen your tools without jigs. He's correct, of course. But, on the other side, when I am in the throws of turning and the rhythm is flowing, I don't want it interrupted by an inept experience at the grinder. And, I like the fact that I can get the same tip and edge every time. That way, the tool action becomes predictable. (At least I can't fault the tool when I mess up!)

This tape does not address issues of design, but he shows the techniques we can use for fixing that questionable curve. He shows how to avoid the annoying little nub in the bottom of our bowls. There is essential information about how to get a clean cut on a natural edge bowl. I think that's pretty neat. Especially when all the cuts utilize only one tool!

— Dick Tuttle, Schwenksville, PA



Tormek Universal Gouge Jig

## The Tormek Sharpening System

The Tormek water-cooled sharpening system is made in Sweden and is one of the most versatile sharpening systems on the market.

The Tormek can be customized for cabinet makers, woodturners, and wood carvers by selecting from the company's wide variety of jigs and guides for the particular blades or tools that you need to grind.

If you have to sharpen a lot of different cutting edges in your shop, everything from carving gouges to scissors, the Tormek variety of guides and attachments might be just the thing for you. All of these accessories are designed specifically to go on the company's grinders. These grinders can run both water-cooled grinding wheels, which are available in different grits, and a leather honing wheel.

For the woodturner, gouges (both bowl and spindle) are easily sharpened and maintained with the SVD 180 jig shown above, which can be easily adjusted to a particular grind that meets the desires of the individual turner. The SVS 50 multi-grinding jig makes sharpening the skew chisel easy and has proven to be very useful in my shop.

The Tormek sharpening system



can prolong the usefulness of gouges by sharpening without grinding away so much metal. I find that the skew is easier to sharpen on the Tormek than on a conventional grinder. The addition of the profiled honing wheel is helpful for polishing the flute of gouges and the ground surface of all tools. (The profiled honing wheel is actually a rotating profiled leather strop.)

Although I do not use the Tormek exclusively, I have been using it more and more and find it a useful addition to my shop.

*Willard Baxter Gainesville GA*

## FeedBack On Sharpening

### Getting Reproducible Grinds with Commercial Sharpening Jigs.

Prior to owning a sharpening jig, I struggled to get acceptable edges on my tools, especially the gouges, and fell into the bad habit of delaying sharpening at the expense of good quality turning.

Happily my Wolverine jig has given me a new outlook on woodturning. My tools now have uniform, facet-free grinds, and I spend more quality time at the lathe and less time fussing and cussing at the grinding wheel.

I believe that grinding jigs can provide smooth, reproducible grinds in the hands of the less experienced and less talented woodturner. With a bit of practice and careful adherence to the manufacturer's instructions, it is not too difficult to get satisfactory grinds. These jigs, however, will not do your thinking for you. As Bob Rosand notes in his commentary on the Wolverine system (see *American Woodturner*, vol.13, no.4, p.24), "You still need to know what you want your tool to look like and what you want it to do after you have finished grinding." There are an infinite number of settings (and resulting grinds)

available from a gouge grinding jig, such as the Vari-Grind attachment of the Wolverine jig. So, unless you've got the Sorby Fingernail Profile gouge, it takes a little study and practice with the attachment to get in the ball park and ultimately to get the desired grind on your tool. Once you have established your grind, subsequent re-sharpenings are duck soup!!

For those of you who own or contemplate buying the Wolverine System, I'd like to pass on a few tips on getting reproducible grinds with the jig. To begin with, prior to sharpening, I coat the bevel of my tool with a waterproof, felt-tip red marking pen and periodically inspect it during grinding. When all of the red has disappeared, I know that I've worked over the entire bevel from one side to the other and from heel to tip. I, of course, also watch for sparks over the top of the tool, to avoid burning the tip.

A second tip is to keep written records of the jig settings for each individual tool. Being a retired engineer, I keep prodigious records of my turning activities; so, the first time I sharpen each tool to the desired grind, I log the following data in my notebook:

1. The horizontal distance (in mms.) that the V-arm juts out from the end of the clamping fixture. I measure from the front end (the end nearest you) of the clamping fixture to the front end of the V notch tool handle support. This is all you have to record for roughing gouges, parting tools and skew chisels.

2. In addition to the V-arm measurement above, when using the Vari-Grind attachment (for spindle and bowl gouges), I measure the distance from the end of the tool tip to the front end (the side closest to the tool tip) of the U-shaped clamp; and,

3. I measure the setting of the angle arm adjacent to the wing nut on the Vari-Grind jig. To help you with this

there are seven unnumbered graduated lines inscribed on the attachment by the manufacturer. I gave them numbers: 0.0, 0.5, 1.0, etc., up to 3.0. For a regular fingernail grind, with the fixture set in the "up" position, the reading is 0.0 or just beyond 0.0 (the arm on my Vari-Grind goes just a little beyond the zero line.) In the extreme "down" position (for a side grind), the reading is 3.0 or just beyond 3.0 (the arm of my Vari-Grind goes just a little beyond the last graduation.) A mid-arm location would be 1.5. (Currently, I've been using this position for my gouges to get a medium fingernail grind.) Something a little further down would be 1.9, etc.

With the above information in hand, whenever you need to re-sharpen a tool, you just flip open your notebook and set the V-arm distance and the Vari-Grind tool position and grind angle number and, VOILA, you get a grind identical to the previous one. Before you start the grinder, it is always a good idea to eye-ball the tool from the side to be sure the bevel is on the wheel. If not, make a minor adjustment, usually on the V-arm setting. As your tools shorten with many repeated sharpenings, and your grinding wheel shrinks in diameter, your settings will change a bit, so update your notebook as time goes on. I find the above practice to be much better than marking the tool shanks, the V-arm shaft and the Vari-Grind attachment with a marking pen because you get as many pen marks as you have tools and the marks wear off and you soon get confused. Instead, record your settings in your notebook. Try it. It works!!

—Frank Koubek, Cincinnati, OH

*This article was prepared with the help of the AAW members indicated. If you'd like to add to the discussion here, please contact us. Write Dick Burrows, editor, 929 Maynard Ave, Knoxville, TN 37917.*

# A TALE OF TWO LATHES

*Rock solid for home, a little lighter on the fly*

BOB ROSAND

WHEN I GO OUT TO DEMONstrate, I like to bring my own lathe along. I feel more comfortable with it and think that I give a better demonstration. The stand for my "demo" lathe is out of necessity much lighter than the stand in my home shop. The demo stand has to be carried in and out of shops, up and down stairs and sometimes broken down to be transported. By contrast, the permanent lathe stand is not meant to be moved. The wood base is relatively heavy, it is bolted to the floor and it has 200-to-300 pounds of sand anchoring it

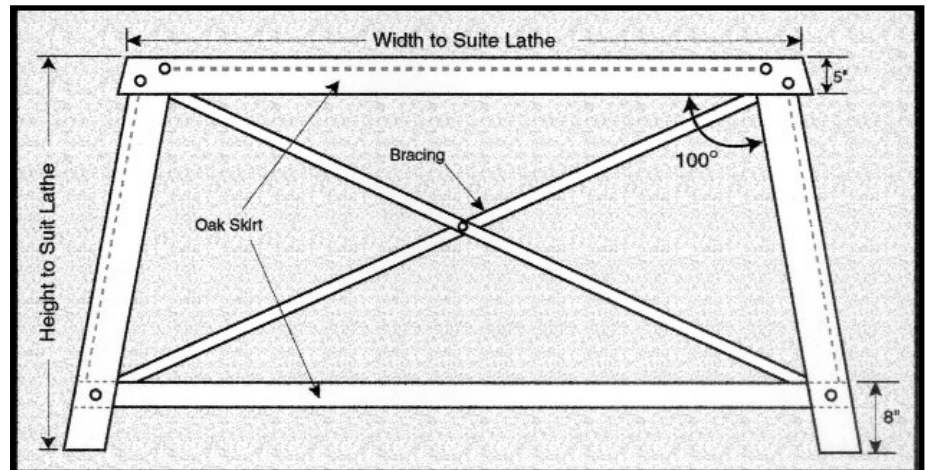
Often at demos someone tells me, "That's a nice bench, I ought to make one just like it." I reply, "No, no, no! You need something much heavier and with more mass. I park this thing in a corner when I'm working at home."

## THE PORTABLE BENCH

My traveling bench needs to be relatively lightweight, but also stable enough that it does not vibrate and "walk around the floor when I am working". Even though I can break it down and transport it in pieces, I mostly just remove the lathe from it, tip it over and roll it around on a hand truck.

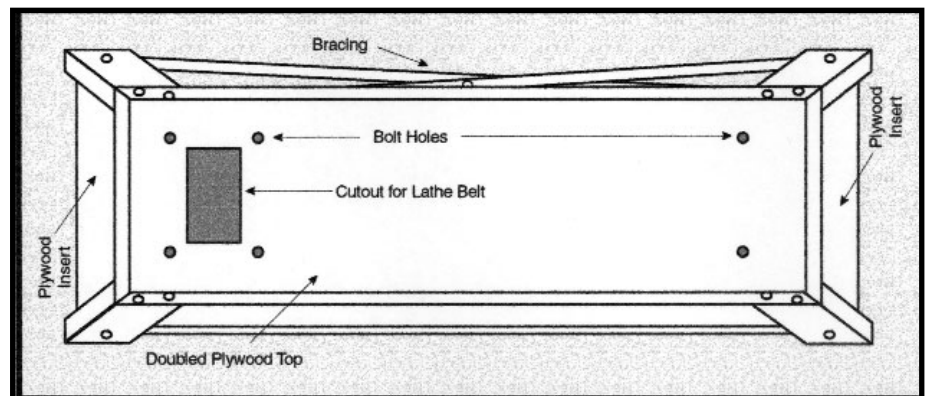
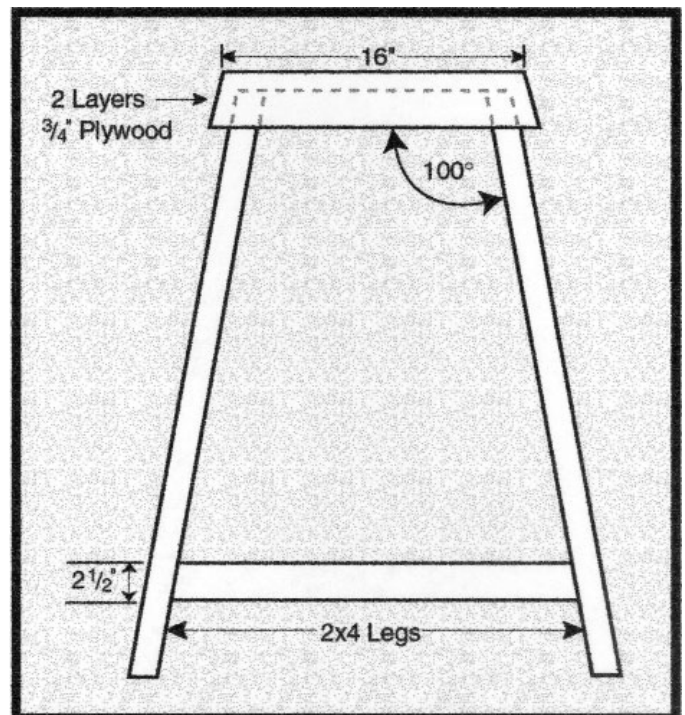
I make the top of the bench out of two layers of plywood glued together. This piece must be cut to the appropriate length and width to fit the lathe you use. I then cut about a 10 degree taper on the top and glue and screw a skirt of hardwood around it. The skirt must be wide enough for legs to be bolted to the top.

The legs are usually 2 X4's cut at whatever angle I used on the bench top. Again, the length of the legs will depend on your lathe. I like the lathe spindle at elbow height. The legs are



## Traveling Bench

Three drawings give construction details for the front, above; side, right; and top, below, of Rosand's portable bench. Bench is light enough to be carried from site to site, and can also be disassembled when needed. It can also be weighted down with sand bags for extra stability on-site.



fastened to the bed of the lathe using two carriage bolts at the top of each leg. The bottom shelf is made from the remainder of the plywood and is a single layer thick. It is also tapered and skirted. The skirt must be wide enough to allow bolting to the legs of the lathe.

When I made my first bench, I thought that I was done at this point. I soon discovered that I needed more stability. I ended up fastening plywood panels on either end of the lathe as well as cross pieces at the back of the lathe. I add a couple bags of sand on the bottom shelf to add weight to the whole thing.

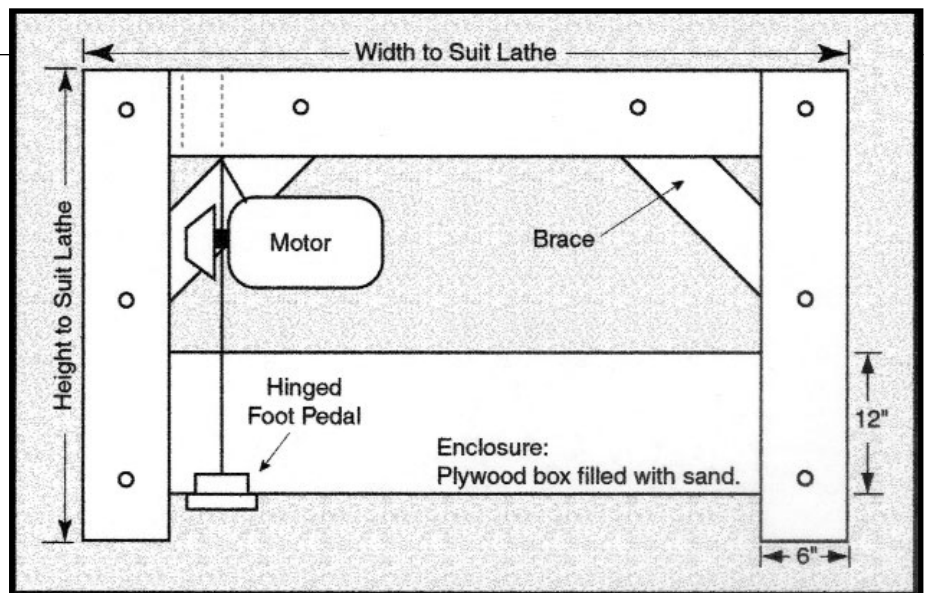
### THE PERMANENT BENCH

If you're planning a good solid bench, I recommend the Del Stubbs article in the March 1995 *American Woodturner*. A version was also in *Fine Woodworking* (Issue 25:80-81).

The bench I've used for 20 years is based on this article. If you don't have a copy, send a stamped, self-addressed envelope to the AAW office and Mary Lacer will see that you get it. When you read it, note the clutch system, an ingenious shop-built clutch which give good speed control.

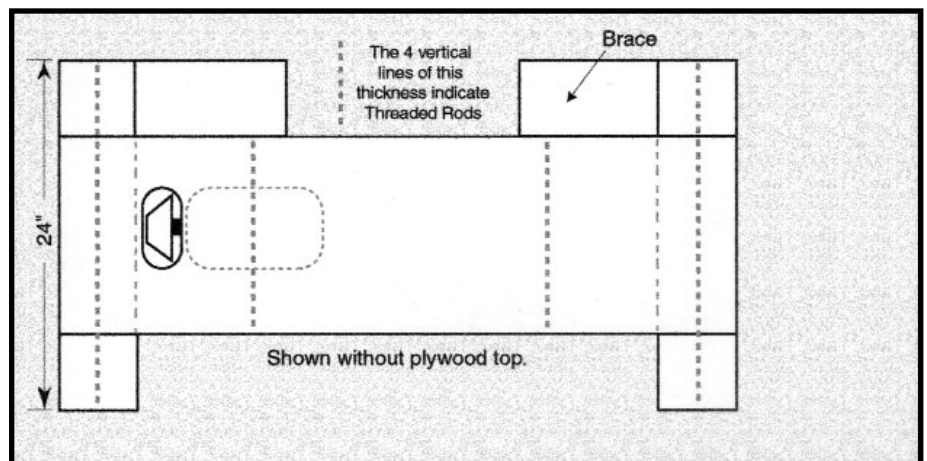
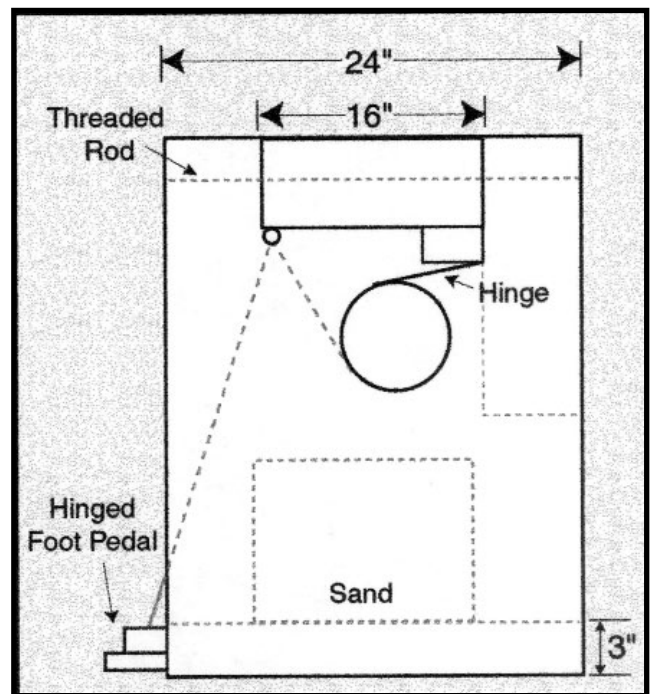
The legs in this bench are about two feet wide and about 6-in.- thick. The bench top is made out of a six by twelve timber and the base is about 16" wide and 3-or-4 inches thick. I went a little further and built a "sand box" on top of the base to hold 300 lbs of sand. Once I had the thing leveled, I also bolted it to the floor with angle iron. I know some people don't recommend bolting lathes down because an out-of-balance piece might tear up the lathe. I've not had any ill effects from bolting the lathe down, but I am careful not to run the thing out of balance.

*Bob Rosand is a professional turner in Bloomsburg, PA and a member of the AAW board of Directors.*



### Permanent Bench

The author's home bench offers lots of rigidity and mass, for stable, vibration-free turning. As you can see in the side view, right, a simple clutch assembled with a cable, hinge and turn-buckle makes an effective speed control. Other drawings show the front of the author's permanent bench, above, and the top, below. Drawings by John Wengren





# SANDING SAVVY

## *Five basic rules for getting the scratches out*

RUSS FAIRFIELD

**S**ANDING IS IMPORTANT, THE SECOND step in the turning process: turning, sanding, and finishing. These steps are not independent. A poorly turned surface will require more time sanding, and a poorly sanded surface results in a poor final finish.

We are overwhelmed with information on turning tools and finishing products. Everyone wants to know about the latest tools, techniques and products. There has been very little published, and nobody wants to hear about sanding. In fact, it is more important than the finishing because the final finish will only be as good as the surface on which it is applied.

### **Sandpaper, The Tool**

We can't discuss sanding without some knowledge about sandpaper (or cloth). The commonly used abrasives can be listed in the order of their hardness, sharpness, and durability: Ceramics, Aluminum Oxide, Silicone Carbide, and Garnet. Aluminum Oxide will remove wood faster than Garnet because it is harder and sharper, making a deep V-grooved scratch pattern, while the softer Garnet wears faster and leaves a pattern of shallow U-shaped grooves. It makes sense to start with Aluminum Oxide and finish with Garnet.

Don't buy cheap sandpaper. The grit designations of sandpaper do not represent a uniform fixed particle size. Rather they are a range of particle sizes, with the majority of them being the stated size. The number and size of the particles that are different from that designated depends on the equipment and the quality specifications of the abrasive manufacturer. Unless we have access to their product specifications, we have to rely on either price or experience to determine quality. Cheap sandpaper isn't



The finished cherry bowl being polished with a coat of clear oil

necessarily a bargain because it usually has a broader range of particle sizes within a grit, and it is the big ones that we don't want.

### **The Five Rules Of Sanding**

Since sanding can't be ignored, we try to make it an easier task. I have summarized everything that I know about sanding into Five Rules. These rules will shorten the time between laying down the turning tool and realizing a museum quality finish.

Two prerequisites to sanding should be obvious. We can't sand in the dark, and we can't work when we can't breathe. Always use a bright light, the brighter the better, while sanding so that the scratch pattern on the wood surface is clearly visible. Always wear a dust mask while sanding, or better yet, use both a dust mask and a dust collector.

#### **Rule 1**

Sandpaper is a cutting tool - keep it sharp and keep it clean.

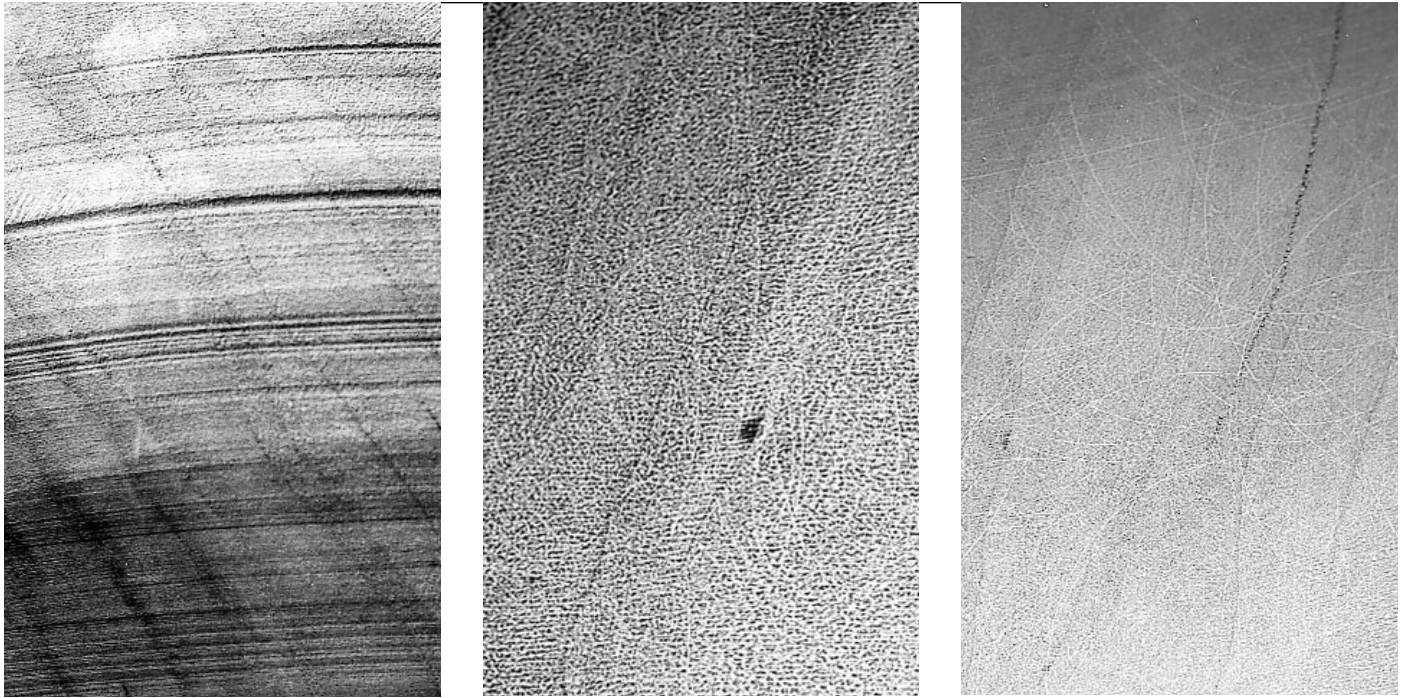
Throw it away when it gets dull. Don't use a worn-out coarse grit as a

substitute for a finer grit. Worn-out 120-grit is just that, and it cannot be used as a substitute for 280-grit.

The spaces between the grit particles are like the gullets of a saw blade. The grit can't remove wood when the spaces are full. Clean both sheet and disc abrasives with a block of crepe rubber. (Yes, it works on sheets when we lay the paper on a flat surface and rub the rubber block across it.). Some turners glue a piece of rubber to a block of wood that is then attached to their lathe. Blocks of crepe are available through most of the woodworking catalogs, a \$10.00 purchase that will last for years. It is also available at the local shoe repair shop, but make sure that it is the pure natural amber colored rubber. Colored or white rubber and most caulking materials contain dyes and silicones that will interfere with most finishes.

#### **Rule 2**

Refine the shape, remove all tool damage and torn grain, and repair the surface with as coarse an abrasive as necessary to do the job - **BEFORE**



Sanding to a Fine finish -- The turned surface, above left, after being turned wet to finished size and then dried. The same surface after power sanding with 60-grit to remove the rough tool marks, above middle, shows scratches and, above right, a surface sanded with fine paper before coarse scratches were removed still shows scratches, which will be amplified by coat of finish.

moving to a finer grit.

The only purpose for all subsequent sanding with finer abrasives should be to refine and remove the scratch pattern made by the coarsest paper. If there is a lot of torn grain and other tool damage on the surface, go straight to a 60-grit, and don't fool around with anything finer. It makes no sense to brag about never using anything coarser than 120-grit, and then spend two hours to do the same job that could have done in fifteen minutes with 60-grit. The finer grit can be used, and for a shorter time, after we have improved our tool handling skills during the turning phase.

### **Rule 3 -**

Sand through all of the progressively finer grits without skipping any of them.

And, don't quit until 320. I usually start with 60 or 80, and proceed through 100, 120, 150, 180, 220, 250, 280, 320, and stop at 400, using whatever combination of power and hand sanding that is appropriate. It is much

faster to use all of the abrasive grits in the smallest increments possible, than to make large jumps in grit size. This is particularly true at the coarse end of the scale. Of course, we could go directly from 60 to 320 grit if we had a lot of time and sandpaper to waste.

### **Rule 4**

Remove all of the scratches and the sanding dust from the previous grit before going to the next finer grit. This step is faster when Rule 3 is also observed.

### **Rule 5**

Slow is good, and slower is even better.

There is a universal tendency to sand too fast. Heat is the enemy. Keep the sanding medium cool by sanding slowly. And, the slower moving abrasive removes more material than one that quickly skims the wood surface.

Don't spin the piece in the lathe so fast that the paper gets hot. If it burns your fingers, it is also burning the wood surface, and case-hardening

rather than cutting it. We have all experienced the situation where the sandpaper just quit cutting, and it took a coarser grade to break through the surface glaze, only to have the same problem when we used the finer sandpaper. I typically sand with a maximum lathe speed of 250 RPM for most work.

It is very easy to generate too much heat when power sanding because we have no direct touch with the abrasive. Heat will clog the disc, and destroy either the cloth backing or the sponge rubber on the arbor. Besides removing more wood faster, the disc is easier to control at the lower speeds. Just because an electric drill has a top speed of 2400 RPM doesn't mean that wide-open is the best speed for sanding. I use an old  $\frac{3}{8}$ -in. Black and Decker Quantum drill for most power sanding because it has an excellent trigger control and runs continuously at less than 150 RPM.

*Russ Fairfield is a woodturner and a member of the Florida Woodturners.*

## THE JOYS OF MEMORIES AND FRIENDS

"I'VE GOT A NEW JOB. CAN YOU guess?" asked Gary with a sly smile. We couldn't. There were six of us, all male, all in our mid forties, all sitting around the dinner table joking and swapping stories. It didn't occur to anyone that Gary, who wore jeans to the office and sported an earring, had become a judge. As we laughed and congratulated him I realized that we had reached a new stage in life. One of us had become a judge. Maybe we were finally growing up.

We had become friends at Sydney University [Australia] in the early 1970's when it seemed the Law, the Church and the Government were morally bankrupt. While we studied history and philosophy, the specters of racism, Watergate and the Vietnam war all loomed large and our parents' generation looked to have sold out. Now we were parents and one of us was a judge, a member of the establishment. I decided to make Gary a gavel with spalted she-oak in my back yard. It would mark his elevation to the bench and, because it would be a miniature, help keep his feet on the ground. It wouldn't do for him to get drunk with power.

A week or so later I flew across the Pacific to demonstrate in Canada and also at the World Turning Conference in Philadelphia. One evening, as I walked along the sandy shore of Lake Huron and watched the sunset, I thought how lucky I was to have kept my old friends. In 1991 we got together for a meal spiced with nostalgia and laughter. It was great fun and we've done it six times a year ever since. I spotted a twig in the sand, just the thing for a miniature walking stick to go with the gavel, a perfect emblem for Peter the merchant, the only one of my friends who has made much money. He runs a business supplying powered scooters for people with disabilities. "They aren't wheelchairs, wheelchairs don't sell, scooters do." A walking stick fes-



Turning as reminiscence-- the story of shared lives and friendships.

tooned with a dollar note would keep him focused on his opposition.

I started looking out for wood and making sketches of pieces that might symbolize the careers of the others in the circle. Steve, the scholar, publishes books which include translations of documents from the ancient world; legal opinions, letters, travel directions, recipes and anything of interest to other historians. The scroll seemed to reflect his work. It's made out of ash from Ontario and leather which was often used as a writing material in antiquity. The Greek inscription reads, 'In the beginning was the Word...'. At about 10,000 feet up on Pike's Peak in Colorado, perhaps halfway to heaven, I found some aspen for the cross. The tree had been felled for me by a beaver, presumably an agent of the Divine, so it appears to be appropriate material for a cross. The priest, also named Steve, still finds pleasure and humor in his work after more than 20 years. I chose not to make a traditional cross, severe and somber, but rather to incorporate the curves that I put into my turnings, curves

that for me, are life affirming.

I made an apple for the teacher from oak while staying in the mountains east of Albuquerque, NM. Peter, another Peter, is really an educational administrator now, setting up programs for kids with disabilities, but he finds his way into the classroom occasionally so hasn't reached the state where he assures everyone that schools are havens of peace and learning. In case he forgets how feral it can get, the detachable apple core is a cat o' nine tails to be brandished during rebellions.

The last member of our circle is neither butcher nor baker but candlestick maker. The candlestick is made from mesquite from the high country in New Mexico. I love fires and classical forms so a traditional candlestick was the go. I also love catching up with my old friends and listening to their jokes and stories, even the ones I've heard before, especially the ones I've heard before.

—Ernie Newman, a professional turner in Australia, will be a featured demonstrator at the AAW Symposium in Tacoma, WA, June 18-20.



On the Road  
To  
Recovery

Be Like  
A  
Turtle



Back to some light work, just thought I would send along these pictures of three pieces I just made for the del Mano small treasures show. When I was early in my recuperation they kept telling me to go like a turtle, thus the small turtle box...it is turned on the inside and the bottom shell comes off. The one with the bird and hands is called the ritual shedding of thorns and is also a container. Is the bird me? Only time will tell. The third one is a textured box with hercules club thorns and a magnifying lens in the lid.---DAVID SENDEL.



If you'd like to be featured in the Gallery, or would like your local AAW chapter featured, contact AAW editor, Dick Burrows, 929 Maynard Ave., Knoxville, TN 37917. We can work from black-and-white or color prints, slides, transparencies and some digital formats.

# A FIERY END FOR A LESS THAN PERFECT BOWL

I was pretty excited about getting the AAW scholarship to assist me in attending John Jordan's class at Arrowmont. I attended a two week class in July and it was great. Arrowmont began in 1912 through the University of Tennessee and is located in the heart of Gatlinburg; near the entrance to the Smoky Mountains National Park. The surroundings are beautiful and it is a great facility with several new wood studios. The woodturning studio has many of the newer lathes such as One-Way, Nichols and Woodfast. There was carving and small furniture making being taught next to the turning studio. It was nice to wander around and see what everyone else was working on.

After the second day in John's class I had learned a lot that I knew would help me make better pieces. I felt if the class ended there it would have been worth it. John is a great teacher, easy to understand and always willing to help everyone out. He had brought many of his own tools that he uses to turn and texture his work. He allowed students to use any of these, which is very generous.

When I thought it couldn't get any better, I was going to the dining hall on the second day and I heard a voice call me from the bulletin board near the entrance: "Psst, over here." There was a 3x5 card that read "Woodfast short bed 20 inch swing lathe, like new, hardly used, for sale."

I have been saving for a Woodfast for some time now but was not quite there. Well, this was too good to pass up. After contacting the seller, who was selling the lathe because he was moving out of state, I purchased it. It was like new. After picking it up that weekend I brought it into the studio and turned on it the second week.

Everyone in the class made quite a few pieces, not all up to par. The rejects were collected and sacrificed



Tossing a hollow form to the outdoor kiln At Arrowmont School. The temperature was about 2,000 degrees when students in John Jordan's class donated their rejects, many suitably inscribed to help fire the potters' wares.

to the anagama, a wood fired kiln that burns for three days and reaches temperatures of 2400 degrees. The clay artists work feverishly the first week to produce over 300 pieces to fill this large brick kiln built into the side of a hill. The clay people said our pieces made the temperature rise to melt the last cone which indicated the temperature needed; we were glad to help.

The Arrowmont experience was truly great; I made a lot of friends and enjoyed a lot of late night turning. The studio remains open from 7 a.m. until midnight. You turn, eat and sleep. I visited all the other studios and watched other artists at their crafts. You can learn many things from other crafts that will help you be a better turner.

I know what I learned will help me improve my skills and, of course, to pass those skills on to other members of our club.

For a few years I have been thinking about contacting our local high school to see if they were interested in a turning demonstration but never followed through, telling myself I was too busy or they probably wouldn't be interested. The day I came home and checked my phone messages I was surprised to hear from a local high school furniture and woodshop teacher asking if I would demonstrate turning. He had read about my receiving the AAW scholarship in our local newspaper.

He is trying to get local crafts people as mentors for his students. Getting other people excited about a craft that produces useful and beautiful objects is a joy.

Again, thanks to the AAW for a great experience!

— Michael Kornblum

Mountain Home ,AR

## A LOOK AT THE ONEWAY MINI LATHE

I'LL START THIS REVIEW BY SAYING THAT you should never, never take possession of a lathe at an AAW symposium without informing your spouse. And never, never try to convince said spouse that the lathe designers like you so much that they're going to just let you keep that lathe indefinitely. Trust me, it ain't gonna fly. I'm still paying for that little deception.

I also should admit that I am a bit of a fan of OneWay products. When I first saw the big OneWay lathes at the 1996 Greensboro Symposium, I thought "Great, just what we need; another lathe on the market". Well, today, I'm a believer. I have, use and like many of the OneWay products, especially the new 1018 Mini-lathe.

I have been doing all my small work on an old Myford ML8 for as long as I have been turning. If you come across one, I'd still recommend buying it if the price is right. BUT, I am becoming very comfortable with this mini. At this point, it has become my primary demonstration lathe. One of the biggest reasons is that it is so quiet. I can now talk to spectators instead of yelling over the sound of the motor on my Myford. The 1018 comes with either a 1/2-HP (requiring 110 volts) or 1HP-motor (requiring 220 volts). Both motors are single-phase, AC electronic variable speed and both have full reverse. I chose the 1/2-HP motor because not all demonstration sites have 220. Otherwise, I probably would have taken the 1 HP motor for extra power, but I haven't had problems with stalling the smaller motor. Speed ranges are 0-1000, 0-2500 and 0-4000 and it only takes a few seconds to change speeds. I leave my lathe on the mid-range and like it there. Somehow, I can't imagine turning at 4,000 rpm.

The first thing I did when I got my 1018 was to slide the tailstock back and forth on the bed of the lathe. Just the sound and feel of the sliding action let me know that it



OneWay Mini Lathe manufactured in Canada.

was well machined. One thing that I really like is that the tailstock has about a 3-in. travel, which means, I can usually drill out what I need to in one pass. The 4-in. dia. hand-wheel screws in and out very easily. The tailstock is self ejecting. That is, when you retract the handwheel all the way, it will eject whatever tail center you have in it. I mention this, because my tailstock originally did not do this. By the time I thought to "harass" the OneWay people about it, the parts to make it self ejecting arrived in the mail, along with complete instructions. This is a characteristic I value in a company.

One of the things I look for in a lathe is the ability to move the tool rest base or banjo easily. Too many people get themselves in trouble by not moving the tool rest when necessary. The 1018 banjo, really just a mini-version of the banjo on the larger lathe, moves easily and locks very securely. I wasn't quite as impressed with the tool rest. I substituted the one from my Myford. The area where I place my hand is wider on the Myford and feels more "familiar." Not a big problem and may be

just due to the fact that I've turned with the Myford tool rest for so long.

The spindle on the 1018 is 1"X8 threads per inch, which means it will accept my Delta and other common accessories. The spindle length is a bit long, about 1 1/4-in. versus about 7/8-in. long on my Delta lathes. This is because of the machined groove that allows you to lock OneWay chucks or face plates in place to avoid accidental unscrewing. You may need to fabricate a spacer to properly use other 1"X8 accessories, but then you lose the locking ability.

The headstock has four bearings, two front and two rear. The front ones minimize radial and axial play, and the rear ones "float axially" to allow for heat expansion. The bearings require no maintenance. The 1018 has a #2 Morse Taper and 24 position indexing. Swing over the bed is 10" and the distance between centers is 18", thus you have the 1018. I appreciate the 18" between centers, because when you put a chuck on a mini, you lose a good four inches between centers.

This "mini" is significantly heavier than my Myford (about 140 lbs with



the motor) and not one you can just grab and go with. When I got mine, it came with a wooden bench. OneWay has since eliminated this bench and offers a metal stand as an option. I fabricated my own bench out of plywood and oak and it works very well. You may also purchase the lathe with or without a motor. I understand that a future option will be a bed extension.

Besides my dislike of the tool rest, I wasn't real fond of the cover OneWay fabricated for the belts. To my mind, it just doesn't quite fit with the rest of the lathe and it is a bit flimsy. But to be fair, I don't have a suggestion for an alternative, except to make it a bit heavier and when I'm using the lathe, I don't really notice it.

Is the OneWay 1018 a good lathe? In my opinion, yes, absolutely. It's user friendly, quiet, solidly build and beautifully machined. Can you live without it? Absolutely, but if you enjoy turning and can afford it, the 1018 makes life a bit happier.

It is not a cheap lathe (around \$1,500 if you purchase the entire package; lathe motor and stand). But if my memory serves me, my Myford cost close to \$1,000 and the motor was around \$200 and that was close to 20 years ago. I mentioned earlier that the 1018 I have now is my demonstration lathe.

My only problem at present is how to convince Susan that I need to purchase another one to mount permanently in the shop.



—Bob Rosand is a professional turner in Bloomsburg, PA, and a member of the AAW Board of Directors.



## A Dust Mask that works For Me

I'VE BEEN TAKING DUST A LOT MORE seriously since a doctor told me that inhaling wood dust was more dangerous than smoking.

But, even though I've been conscious of the problem and set up various fans and fan-and-filter systems, I've never managed to invest in a decent dust collection system.

I've relied on masks—mostly disposable paper ones or rubber-like things with paper filters—but my good intentions always ended up in a heap on the floor when my glasses fogged up and I couldn't see what I was doing.

That's all changed since I bought a Dust Bee Gone mask from woodturner and designer Paula Nicks during the AAW Symposium in Akron, OH, last year.

Not only had the mask eliminated my turner's cough, it is lightweight, fairly cool and can be adjusted so

that my glasses don't fog up. The nose clip and the cloth straps with Velcro fasteners make adjustments easy. That means I wear it all day, even when I'm doing things that don't produce much dust.

The manufacturer says the material in the masks is an interlaced monofilament structure that's effective against non-toxic dusts: all that means to me is that it works and is washable. A simple wash with water and mild soap, rinse and twirl it with your hand a little to dry and I start the next day with a clean mask. No more trying to stretch those nasty paper ones one more day!

To order a mask or obtain additional information, call (941-694-3627) (888-563-6355) or write Dust-Bee Gone, 226 Palmcea Rd., Ft. Myers, FL. 33905.

—Dick Burrows, Knoxville, TN

## McNaughton Eccentric Faceplate

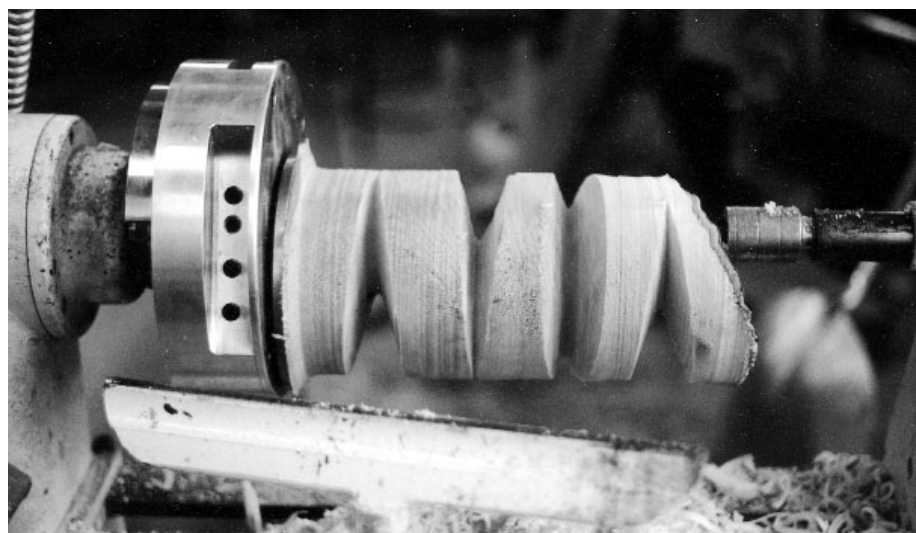
I RECENTLY HAD THE OPPORTUNITY TO "test drive" a new off-center face plate made by Kel McNaughton from New Zealand, well known as the creator of the Bowl Saver System and other turner's tools.

For years he has been experimenting with an off-center chuck that would be safe and easy to use and make off center work even possible on smaller lathes. His efforts resulted in a very successful accessory. It allows you not only to balance work that is in itself very unbalanced, due to decay, bark, voids or uneven moisture content, but to also turn work relatively safely on many different axes, without the immense vibration normally associated with this kind of work.

The faceplate is well constructed. Machined from solid engineered aluminum, it weighs in at a hefty 33 pounds. It has three main parts. The main body measures 10-in. in diameter and is 4-in. deep and attaches with a threaded adapter to the lathe shaft. On the side facing the headstock are two 1/4-pie-shape counterweights that travel in a circular slot and can be locked in place anywhere along this slot.

The main body contains the female plate that sits within a housing and has travel of 1 3/4 inch from its central position. This female plate can be secured by 8 set screws anywhere along its path. The 7 1/2 inch diameter faceplate threads into this female plate.

There are many different ways in which you can use the faceplate. Here are two that I tried. I mounted a roughly bandsawn block on the faceplate, with the many screw holes provided. It is important to remember that even though the counterweights will balance the unevenly distributed weight and eliminate a lot of the vibration, the centrifugal force on the stock itself remains the same. So good



McNaughton faceplate allows work to be mounted off-center, both for multi-axis designs and stable turning of out-of-round stock with minimal vibration. attachment is critical!!!

I then centered the female or sliding plate in the main body (here a set screw assures that you can return to the center again and again), tightened the side set screws and rough turned the wood. I continued to turn a simple vessel. Depending on the size of your wood you can bring the tailstock in or not. I wanted to create a series of irregular grooves on the surface of the vessel. To create this effect I only need to offset this vessel a little bit. By loosening the set screws I slide the female plate about a 1/4 inch off center and then retighten the screws. Because of the imbalance created I now need to move the two counterweights, which until now were locked exactly opposite of each other, in the opposite direction that I had moved the stock to, until the whole body rotates freely and balance has been restored. Now I brought the tailstock back in for extra support. I do think that it is important to have a variable speed control for this thing: you certainly will want to avoid going too fast. There is a lot of mass spinning!

I cut a series of maybe three shallow grooves with a diamond shaped tool all on the same axis. By

loosening only the screws on one side I can then loosen the female plate and slightly rotate it. There are indexing holes all around the plate to make this very accurate. At first it took me forever to figure out which screws to loosen and tighten, but after a while that became easier.

I repeated this process until I had overlapping grooves all around the vessel, which gives it a pleasing effect. Besides the many possibilities for surface decoration there are also a lot of sculptural possibilities to be explored here.

After playing with this thing for a while, I wished that the faceplate itself would tilt as well, which would add another dimension to what can be done. McNaughton says that accessory is already available.

I think that this faceplate adds greatly to the vocabulary of the turner who wants to try new things. Not everything that comes off the lathe has to be round.

The McNaughton faceplate is available from Woodchucker's Supplies (800-551-0192) and Kelton Industries PO Box 589, Kaitia, New Zealand. (9-4085-862).—*Christian Burchard is a professional turner in Ashland, OR*

# Woodturning In the Heartland

"What is Woodturning" was a surprise question at the Chesterton, IN, Art Gallery show last Fall. The answer was a delightful and elegant performance by 19 American and international turners. Exhibited works covered the whole panorama of contemporary turning from tops to torsos, spiced with individual visions of talented artists. For more, see the article on Page 6.



Saturn Waveform, above top right, by John Anderson; Footed Bowl, middle right, by William Geise (Dan Bruhn photo); Ian Fish, bowl, lower right (Dan Bruhn photo); and Rolly Munro, turned sphere, above.