

American Woodturner

The Journal of The American Association of Woodturners

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

President's Page

David Ellsworth, Page Editor



On behalf of the AAW Board, let me extend my sincere apologies for all the communication problems that have occurred between our members and the Main Office over the past six months. The position of administrator is complex and demanding; and it has been difficult to keep it running smoothly and efficiently. Consequently, the Board decided to seek professional help and hired a new administrator.

The new administrator, Don McCullough, is head of a small company in Austin, TX, that specializes in managing and promoting grassroots organizations exactly like the AAW. Don has 25 years experience and a staff of 18 employees. Two employees will be assigned to AAW duties.

Are you a Woodturner?



Do you want
information about
your association?

Write or call

American Association of Woodturners
940 East 51st Street
Austin, TX 78751-2241

The Board has talked with Don at length about our administrative needs, and he has agreed to help us solve them at no higher cost than what we are now paying. Our first two priorities are renewed communication and extensive promotion for the growth of the AAW - something we have needed for a time.

Efficient management and a secure future for the organization is the bottom line. This includes correct billings and Journals that arrive on time! So, if you have a question or a problem, please contact Don at the address listed below, or any member of the Board. This is the time to rebuild whatever communication has been lost, and we will be happy to respond to your questions and requests.

On another note, Pete Hutchinson has been doing a great job of expanding the size and content of the Journal. Do you like it? Hate it? What do you think? The main criticism so far is that the Journal does not have every answer for every question for every subject for every person in every issue. But, we are working on it. Remember, everything that appears in the Journal comes from **you**; and nothing would please us more than if we had a contribution for each and every subject. Do not become a member of the silent majority. A lot of our members have no connection to woodturning except the Journal. So, let's hear from you.

Three Board positions will open next year. Anyone who wishes to run for these positions should read Bonnie Klein's section on ELECTIONS in this issue.

Finally, time is running short for those who still want to sign up for the HUGE TURNING PARTY scheduled at Overlake School in Redmond, WA on October 13, 14, and 15. Sponsored by those tireless members of our Seattle Chapter, some of the turners who are coming include Dan Ackerman, Ron Becker, Bruce Bernson, Steve Blenke, Dale Chase, Kip Christensen, Frank Cummings, Wally Dickerman, Bob Flemming, Jerry Glaser, Chris Green, Bonnie Klein, Tom Neff, Steve Paulsen, Michael Peterson, Richard Raffan, Gail Redman, Michael Scott, Bob Street, Denver Ulery, and myself. Space is limited to about 500, so now is the time to register. To register please contact:

Denver Ulery, President
AAW Seattle Chapter
20301 NE 108th Street
Redmond, WA 98053

Hope to see you there!

The American Association of Woodturners is a non-profit corporation dedicated to the advancement of woodturning. It includes hobbyists, professionals, gallery owners, collectors and wood and equipment suppliers.

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On The Cover

"Spider Bowl" by Michael J. Brolly, 1989

Assorted Wood.

Photo by David Haas

On The Back Cover

"Familiaris-Arboratis" by Robert F. Salmonsens, 1989

Assorted Wood

Holiday Projects

Making Petite Bowls An Exercise in Production Turning for the Holidays

Dennis Elliott

*Native ability without education
is like a tree without fruit.*

Aristippus

This is a project in production turning for the holidays that should result in many small but flawless bowls. The bowls average $4\frac{1}{2}'' \times 2''$ in size, but can be of different dimensions.

The first step is to cut the disks on a band saw, mark circles on the wood, and mount the first one between centers. The little mark left by the compass point will locate the center for the four prong drive center. Rough out the piece, and cut a tenon for a spigot chuck. Do not worry about the shape of the bowl at this point, just get rid of enough wood to cut the spigot. Remove the piece from the lathe, and check for fit in the chuck, just to ensure the calipers are set correctly. Go through the same procedure with the rest of the blanks.

The next stage is to mount the chuck and load one of the blanks. True up the blank using a $1\frac{1}{2}''$ medium cut gouge with the wings ground well back, and take light pulling cuts from the chuck to the rim. The gouge cuts on the lower edge, and is more of a shear scrape than a cut. Try for smooth flowing lines, and bear in mind that the base will be removed later (Figure 1). Be prepared for the design to disappear into what is now held in the chuck.

Remove the blank, remount by the base, and excavate the interior. Using the same gouge as on the outside, get the wall thickness even all the way down. At this point, sand the piece inside and outside using a 2" Velcro-disk sander. Start with 180-grit and finish with 400-grit sandpaper. Be careful not to heat up the bowl or it may start to check. After sanding, wax the inside with carnauba and beeswax, and melt it in with a cloth while the bowl is rotating. Take the bowl out of the chuck, and put it aside. Go through the same process with the remaining pieces.

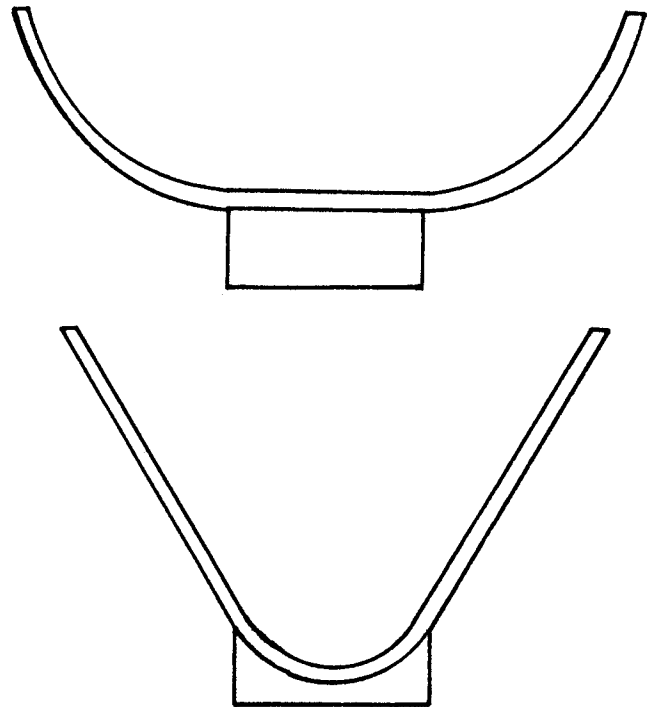


Figure 1
Bowl Forms

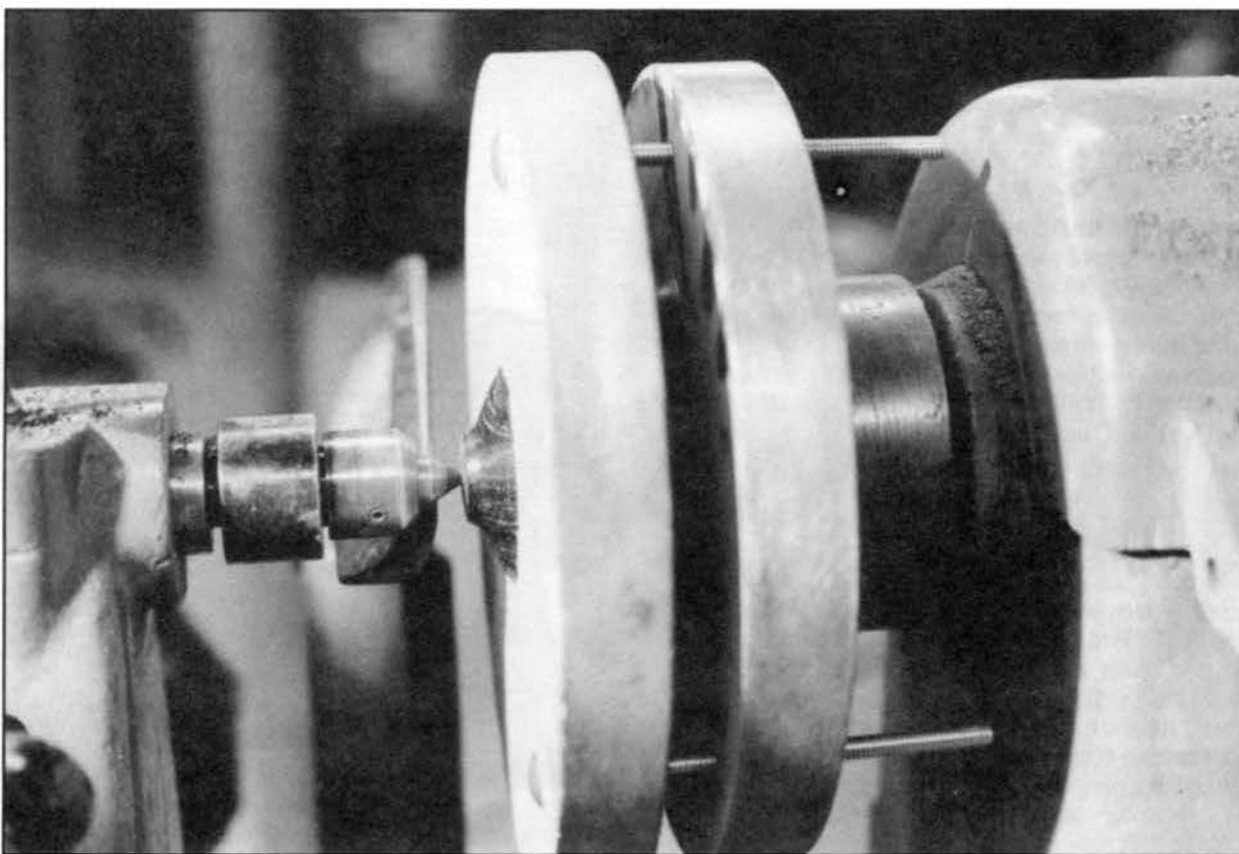


Figure 2
Bowl in faceplate clamping jig.

Mount a face plate on the lathe. Take one of the bowls and place its rim against the plate. Bring up the tailstock and locate it in the center hole. Turn off the base, blending it with the outside shape, and sand. Use the 2" Velcro disks with the lathe running in reverse. Go a little more towards the rim with each successive grit until finishing the whole bottom with 40-grit sandpaper. Do the same to the rest of the bowls.

All the bowls still have the mark left by the tailstock. In order to remove the mark, make a face plate clamping jig similar to the one Jack Straka described in "Master Woodturners." It consists of a face plate, a disk of wood drilled to match three holes in the plate, and three long carriage bolts and nuts (Figure 2).

Mount the bowl between tailstock and face plate, bring up the wood disk, put the three bolts through the face plate holes, and tighten. A wrench is not necessary; just squeeze the two disks together at each bolt, and tighten the nut. Get it as even as possible. Now start the lathe, and withdraw the tailstock; the bowl should stay dead center. Take a small round nose scraper, remove the center mark, and maybe undercut the base. The bowl will no longer fit back on the lathe, so sign it! Sand the signature if it feels rough. Buff the pieces with tripoli for a beautiful finish, but if oil is applied, do not wax the inside.



How to Make Your Lathe Shake and Pour

Rus Hurt

Looking for a holiday project that:

1. Is basically started and finished on the lathe?
2. Is not complicated or overly demanding in terms of technique, layout, and execution?
3. Is fast from start to completion?
4. Uses existing equipment and gadgets already in the shop?
5. Is not only beautiful, but useful and functional?
6. Uses "left over" pieces of wood?

Try salt and pepper shakers.

To begin the project, start with a blank about three inches square, and approximately five to six inches in length. The blank is mounted on center between a standard spur center and a ball bearing center. With the tool rest as close to the work as possible, bring the blank into round; and part in approximately 3/4 inch up the blank from the spur center to a diameter close to that of the spur center. Removing the waste between the parting cut and the spur center creates a tenon which will fit through the hold in a drill press table and allow for a storage hole to be bored in the blank. Slightly undercut the shoulder surface to the tenon using a standard 3/8" HSS spindle gouge. This cut enables the work to sit flat on the drill press table without rocking during the boring procedure.

Cut down approximately 1/2 inch from the tailstock end to a diameter of approximately 3/8 inch. Using the gouge, remove the waste from the parting cut to the tailstock center, and slightly undercut the shoulder to the tenon as in the manner performed on the opposite end. Sand the end of the work to the small tenon with 220-grit sandpaper. Remove the work from the lathe; and place the large tenon in a hole in the drill press table and drill a 1 3/8 inch wide by 3/8 inch deep hole with a Forstner drill bit. Swing the drill press table directly under the bit, center and securely clamping the work before boring the hole. Replace the Forstner bit with a 15/16 inch multi-spur bit, and bore the storage hole to within approximately 1/4 inch of the end of the blank. Clean the hole of excess shavings by running the drill bit up and down two or three times.

Remove the spur center from the head stock and replace it with a Sears ball bearing center. Slip the bored end of the blank onto the outer shoulder of the ball bearing center. Bring up the tailstock and re-secure the work between centers. Adjust a set of calipers to a diameter slightly larger than that of the storage hole (about 5/32 of an inch or so over-size on each side). This prevents cutting into the storage hole. Use the parting tool to establish the location and depth of the neck of the shaker, and establish the



maximum diameter at the base of the shaker. Shape the arc which makes up the body and neck of the shaker with a 1/2 inch or 3/8 inch standard gouge. Reduce the 1 inch by 3/4 inch tenon at the tailstock end down to approximately 1 inch by 3/8 inch. With the 3/8 inch gouge, reduce the thickness of the top of the shaker from approximately 1/4 inch to approximately 1/8 inch. Leave a slightly domed top on the shaker. Sand the work on the lathe at reduced speed. Start with 220-grit and finish up with 400-grit; and use A weight paper because it easily bends and conforms to the shapes turned in the wood.

Finally, cut the tenon at the tailstock into the shape of a cone, reducing the point of attachment to as small as possible. Sand the top of the shaker with 220-grit sandpaper followed by 400-grit sandpaper. With a sharp knife, pare or sand off the point of attachment on the top of the shaker. Lay out and drill dispensing holes on the top in the shapes of the letters "S" and "P."

A sugar shaker is made following the same processes; however, a single 1/8 inch hole is bored in the top. A rubber stopper, from the local hobby/craft store, fits snugly into the recessed hole in the bottom, seals the bottom and allows for refilling. A good finish is Livos' Kaldet oil. Apply at least 2 or 3 coats, and buff with steel wool or 600 grit paper between coats. A table setting seasoned with hand-turned salt and pepper shakers will capture the compliments of food and craft lovers.



holiday projects

Cork Toppers

Bonnie Klein

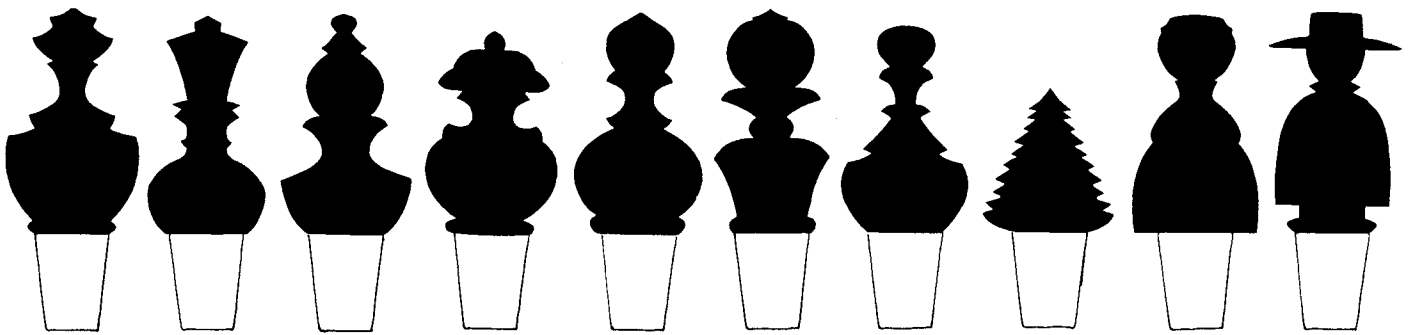


Figure 1
Cork topper examples

Cork toppers are an excellent project for craft fairs and gift shops, as well as for personal gift giving (Figure 1). These are very quick to make, good for building skill with the gouges, and can be made from scraps, such as the corners left from cutting out bowl blanks. Dark cork toppers seem to be more popular than toppers made from lighter woods. Also, harder, denser woods, with an attractive grain, are more successful.

Materials:

Wood—1/2" × 2" × 2 1/2" long, with the grain oriented lengthwise.

Cork —7/8" diameter, tapered to fit a variety of bottles, available in wine making shops.

Glue —A thick ("gap-filling") cyanoacrylate glue and accelerator, available in turning supply centers as well as hobby shops catering to model builders.

There are several ways to fasten the work piece onto the lathe, but the procedures for maximum use of wood and ease of mounting and turning are thus:

1. Fasten a piece of waste wood onto a small face plate, true it up and flatten the face.
2. As the lathe is turning, use a pencil to draw concentric circles on the face to help center the work piece.
3. Sand one end of the work piece flat in preparation for gluing.
4. Apply the thick cyanoacrylate glue generously to the flattened end of the piece, and rub it against the face of the waste block, spreading the glue evenly on both surfaces.
5. Pull it away and squirt the cyanoacrylate accelerator on one of the glue-covered surfaces, then very quickly put them back together again using the concentric circles to

help center the work piece. It will set very quickly, and there probably will not be time to slide the piece around. This method of gluing provides plenty of security for immediately turning pieces of this size without the need for tailstock support.

-or-

3. Rough the work piece down to a cylinder, and then turn the desired shape for the cork topper. The base will be towards the headstock.
4. After turning the basic shape, apply some decorative grooves or lines. Lay a skew on its side on the tool rest and use the point to make the grooves 1/32" deep. On the plainer dark woods, apply some chatterwork to the end grain, sometimes with a groove or two on either side.
5. Sand the piece with 120-, 220-, and 400-grit sandpaper.
6. For the finish, use a mixture of equal parts clear shellac, boiled linseed oil, and denatured alcohol mixed together in a small container. Dip a rag into the mixture and with the lathe on, apply it to the work piece. As the finish is absorbed, continue to apply pressure with the rag, building up heat to dry and polish the surface. The finish is quick and durable.

-or-

6. Part off the piece and sand the bottom flat.
7. Fasten it securely to the cork using a couple drops of the thick cyanoacrylate glue spread evenly on the base. If necessary, the corks may be easily replaced when worn.
8. Flatten the face of the waste block, and start again with step 2.



How To Make A Cylindrical Box

M. Dale Chase

*Art is like a border of flowers
along the course of civilization.*

Lincoln Steffens

The cylindrical box, an attractive gift, is turned from "end grain" quarter-sawn wood, which minimizes distortion from changes in moisture content and helps assure a good fit of the lid. Green wood is usually used. Seek something unusual in each piece of wood, and try to work it into the design (color, figure, sapwood, defect, etc.).

Rough-Turning

Boxes are initially rough-turned from green wood. Even if the wood has been drying for ten years, there is always some movement so the wall thickness must allow for movement of the wood in drying. For example, a box three inches in diameter is rough-turned to a thickness of between 0.3 and 0.5 inches. Boxes are turned to a very "generic" shape, which will allow almost any possible shape to be made from the turned blank.

The square blank is turned between centers, and tenons, approximately 0.3 inches in diameter, are cut at each end which allows the piece to be either worked between centers or held in a chuck. The orientation of the box is decided upon after turning to determine the most interesting grain arrangement. Try to include some sapwood in the edge of the box, but only if, in the final shape, it appears in both the lid and the bottom. The grain must match up when the two halves eventually are mated.

Drying

The rough-turned boxes are placed in onion bags made of plastic net to prevent separation of the two halves during drying. The rough-turned pieces are placed on a cool, dry shelf. When the moisture content is below 30%, place the piece in a "hot box." A "hot box" is a large upright freezer with the cooling mechanism removed, and the heating element and fan wired to a controllable thermostat. Begin the drying by turning the thermostat to 70 degrees Fahrenheit, and progress five de-

grees every five days until reaching 125 degrees. Incubate the boxes at 125 degrees for two to six weeks. The moisture content is always less than 6% at this point. The boxes are not returned to the lathe for at least another two weeks to allow equilibration with ambient humidity. If any part of the above is rushed, checking may result.

Finish-Turning

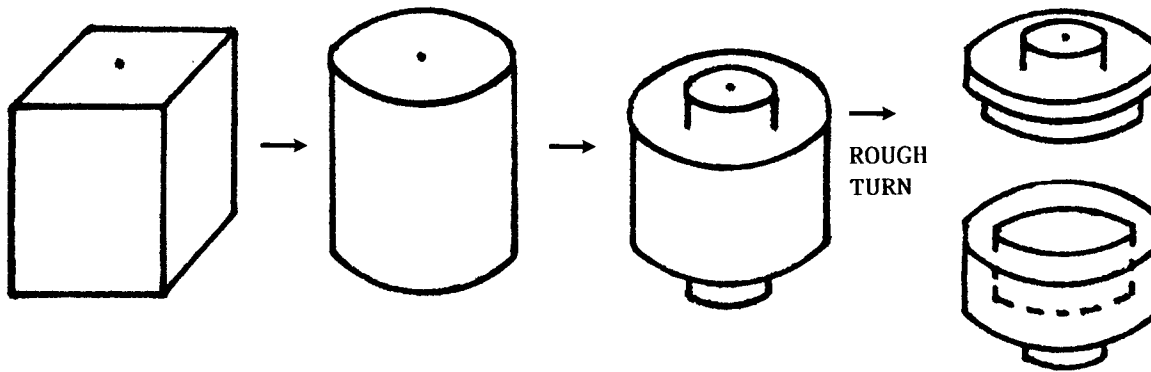
The first step is to true the holding tenon and place a precise new center mark on it. For a three-inch box, make the tenon just over one-inch in diameter. The larger the diameter of the tenon, the more rigid the piece and the less it vibrates on the lathe when mounted on a three-jaw chuck.

After the holding tenons are complete, finish-turn the inside of the bottom of the box. At this point, make a precise commitment to the inside diameter of the bottom, and be certain that the lid has not been rough-turned to a point that there is not enough material to fit inside this bottom. The bottom is finish-turned either on the wood lathe or the metal lathe. It is sanded, finished, oiled (Watco), and allowed to cool before measurement by caliper.

Next, the tenon on the lid is fixed to a chuck, and the lid is turned to the exact inside diameter of the box. Leave the fit of the lid tight until the step in the lid can be sanded. If the sanding makes the lid hot, let it cool for a few minutes before making the final fit. Once the lid fits the box firmly but not tightly, turn the inside of the lid to the shape desired.

Mate the two halves together and turn between centers. If the final shape of the box is to be rounded, either put a detailed bead on the top and the bottom of the box, or round the edges of the halves so thumbnails can be used to pry off the lid. It is very frustrating to have a box the maker cannot open.

holiday projects



Once the box is finished-turned, the bottom is scotch-taped to the lid. The tape is folded in several areas to make it easy to remove. Prevent the box from getting warm at any step, the scotch tape may be difficult to remove intact and may leave behind some adhesive.

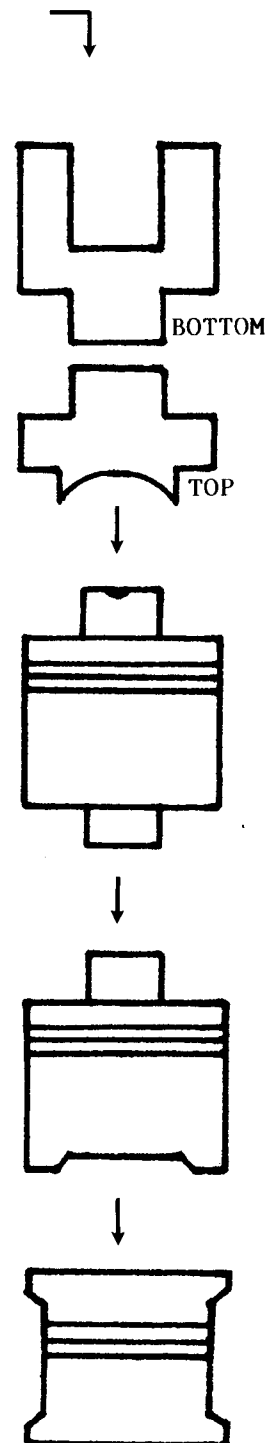
The box is now grasped by the lid tenon, and the bottom tenon is turned off and finished. Either turn a foot or a recess on the bottom using a small gouge. Remember, the work is quite unstable and vibrates easily since it is only being supported by the tenon on the lid.

When the bottom is finished, the lid is removed and grasped by the inside. The top holding tenon is then parted off, and the top is finished. A threejaw chuck is used for both of these steps. The use of smaller tenons are better since it is quite difficult, and rather dangerous, to finish-turn near the three-jaw chuck.

Finishing

Sand the outside up to 600-grit sandpaper; but it is not oiled until all steps have been completed. When the grain is very straight, start at 320- or 400-grit. When the wood is highly figured or difficult, begin at 220-, or occasionally 180-grit. Only one thin coat of clear Watco Danish oil is applied and then rubbed-out. Occasionally, it is necessary at this point to make a forced-fit holding fixture if refinishing is necessary.

The metal turning lathe is invaluable, particularly in fitting the lids or making the tenons and for turning and inlaying materials such as pink ivory and precious metals. Turners should consider the use of a metal-turning lathe which will introduce an element of speed, precision, and predictability. (C)



Turning Fancy Pens

J. Paul Fennell



Figure 1 Finished pens with various designs and woods.

Turning highly decorative pens that accept common, replaceable inexpensive BIC-type ball point inserts are a challenging and enjoyable project (Figure 1). It is an exercise that will enhance spindle-turning skills in a relatively short time, since a pen can easily be made in one hour or less after learning the technique. The project uses materials, cut-offs or scraps that are normally discarded or burned. Since this is small-scale work, tools can easily be made from common items such as concrete nails, high-speed drills, files, and Exacto blades. However, miniature turning tools in high-speed steel are also available from supply houses. Finally, these pens make a unique gift that the recipient will treasure for years to come.

The forward section is fairly consistent from pen-to-pen; and has a gently curved barrel, flared at the end to aid grasping (Figure 2). The rear section, however, can be designed with combinations of various size beads, coves, balls, flutes, discs, ogee curves, fins, or rings. Try not to overdo the number of "elements" on a pen. The overall design should appear graceful and elegantly simple, with a few crisply executed forms that complement and enhance one another. Try to avoid making the pens appear chunky or fat; rather, there should be clean, smooth-flowing lines and forms.

Adequate lighting is essential in small-scale work. Use an inexpensive 50-watt student lamp with a swivel-clamp, attached to a flexible drafting light fixture. Optical magnifiers are a great aid for close work.

The overall finished dimension of a typical pen is $7/16"$ in diameter \times $7"$ to $7\ 3/8"$ long, depending on the design. To make the pen, start with dry, dense, close-grained stock, approximately $5/8"$ to $3/4"$ square, by about $9"$ long. The stock is then turned to a cylinder between centers. A $1/2"$ diameter tenon is turned at the left end, fixed in a Jacobs chuck in the

head stock, and the blank is trued again. The wood should be examined closely for small cracks or checks, as these could lead to disastrous consequences later as the slender shape is developed. Cyanoacrylate glue can be used to repair cracks, if it does not interfere with the overall appearance. Remove the tailstock (the blank should still run true while being held by the chuck alone), and drill a $9/64"$ hole with a $4\ 1/4"$ long bit into the free end. Instead of using the tailstock in drilling, drill free-handed. This tends to minimize the bit from drifting off-center since the hole will approach the smallest diameter cross-section of the pen. Next, to accommodate the housing of the ball point, bore out the first $1/2"$ of the hole using a $5/32"$ drill. This will allow the insert to fit snugly, but not split the wood. After drilling, bring up the tailstock with a pointed, live center to ride in the hole and steady the blank for the rest of the turning.

The rear section is created by a series of elements that are compatible with one another. Try sketching a few on paper to see which appear best. The forms must be crisp and sharp, and well-defined, not distorted or dulled by sanding. Again, working from right to left, each element is made before the next one to keep vibration to a minimum. Extra support is provided by the left hand which is curled over the tool rest and around the work (Figure 3). This helps a great deal if the wood begins chattering. The elements are made with small skewers, gouges, scrapers and parting tools. After forming the final element, the pen remains attached to the tenon by a thin section of wood, sheared off after applying the finish.

Shape the pen with small skew chisels, beginning from the right end and proceeding towards the head stock. First, turn the blank to the final largest diameter, about $7/16"$. Begin shaping the forward section, using a small skew, starting with a

holiday projects

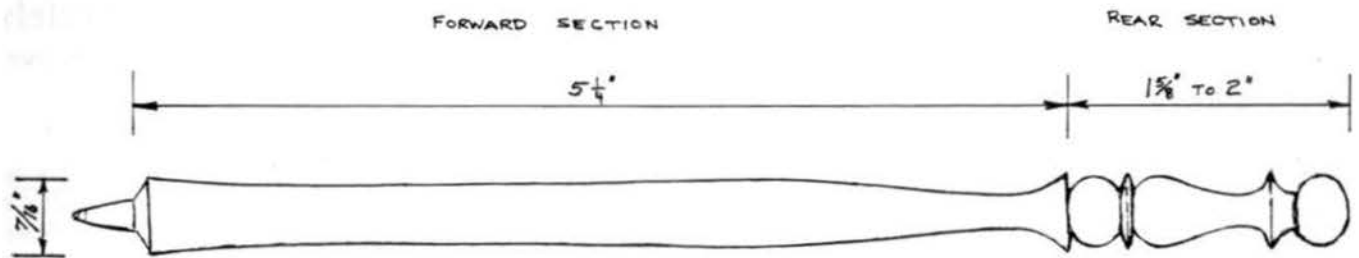


Figure 2 Typical pen shape and dimensions.

chamfer at the hole, and progressing to the point where the rear section begins. Begin the more intricate design of the rear section when the forward section is successfully completed.

Finish the pen by sanding the minuscule ridges or tool marks smooth with 400-grit or higher. With proper tool use, there should be no tear-outs, scratches, or badly-defined shapes that would require extra time and effort to sand out or shape by sanding. The sharp edges of any element should be left alone, or if necessary, sanded with just the lightest touch. A clear

acrylic lacquer is then applied to protect the wood. It dries within minutes, and brought to a high luster by buffing with a small amount of white rouge and mineral oil while the pen is spinning. The lacquer does not darken the wood and the rouge creates a smooth, silky feel to the touch.

The pen is then separated with a shearing cut, touched-up, and the trimmed-to-size BIC "Stic" pen insert is pushed into the hole, creating a beautiful gift that will be treasured for a long time.



Figure 3 Use of skew in shaping pen. Fingers of left hand curl around blank to steady work, while left thumb provides control and movement of skew chisel.

Bracelets

Denver Ulery

A beautiful design for an elegant bracelet consists of gluing together eight rhombohedral blocks (Figure 1). The rhombohedrons are cut from a length of laminated wood $3/4"$ by $12"$ long (Figure 2). The width of this strip determines the width and final cross-section of the bracelet, usually $5/8"$ to $7/8"$ in diameter. The rhombohedrons are cut from the strip using a 45° miter push box on a table saw. Use a stop on the miter box to ensure that each block is $1\ 15/16"$ long. Note how the eight pieces can be cut from the strip with very little waste. A saw blade that will leave a smooth finish should be used, so the edge can be glued together without additional fitting. Be sure the blade is perpendicular to the saw table.

The gluing process is done on a smooth, flat, and level surface (preferably a Formica counter top), covered with a single layer of newspaper. Clamps are not needed or used. Both surfaces are covered with an ample layer of glue; then rubbed to-

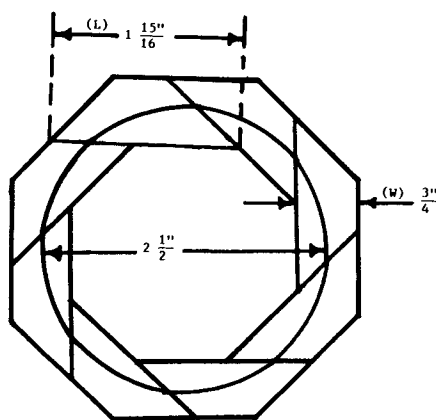


Figure 1
Ring for basic bracelet.

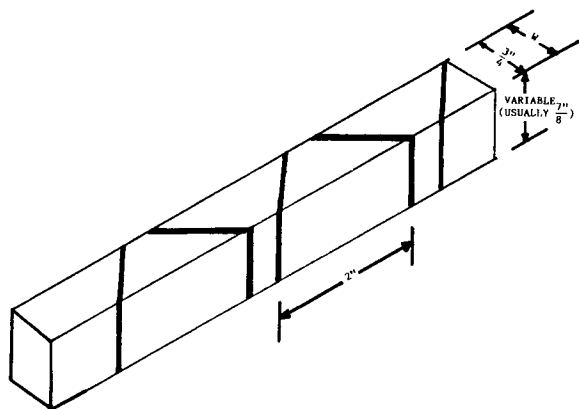


Figure 2
Method for cutting strip for bracelet.

gether; aligned to the desired position; held tightly together for a count of ten; and then placed on the newspaper to dry. A yellow, "Willhold" industrial grade glue works very well. Newspaper that sticks to the bottom of the pieces is sanded off on a disc or belt sander so the bottom, or base, of each piece is flat.

The pieces are first put together to form 2's and then the 2's are combined to make 4's (Figure 3). The next step is to prepare the two 4's, so they form a complete ring with tight, well-fitting joints. With the 4's on a disc-sander table that has been care-

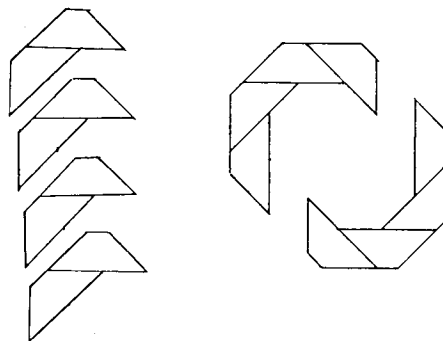


Figure 3
Gluing blocks.

fully adjusted so that it is perpendicular to the disc, touch surfaces (C) and (D) lightly to the sanding disc to ensure that they are a flat surface and perpendicular to the bottom (Figure 4). Next, put the 4's on a flat surface, form a trial ring, and test for a good fit. If the fit is poor, sand surfaces (A) and/or (B) on the appropriate corners (1) or (2), and/or (3) or (4) very slightly, and test again for a fit. Sand-test until a good fit is obtained, and glue them together.

When the rings are dry, attach them to a waste block that has been secured to the face plate and trued upon the lathe. The waste block should be about $3\ 1/2"$ in diameter and at least $1\ 1/2"$ thick. While the block is still on the lathe, mark it with a

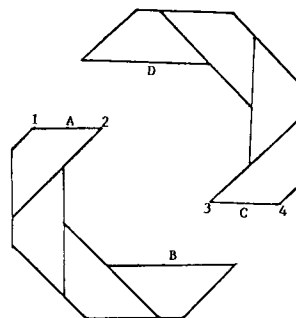
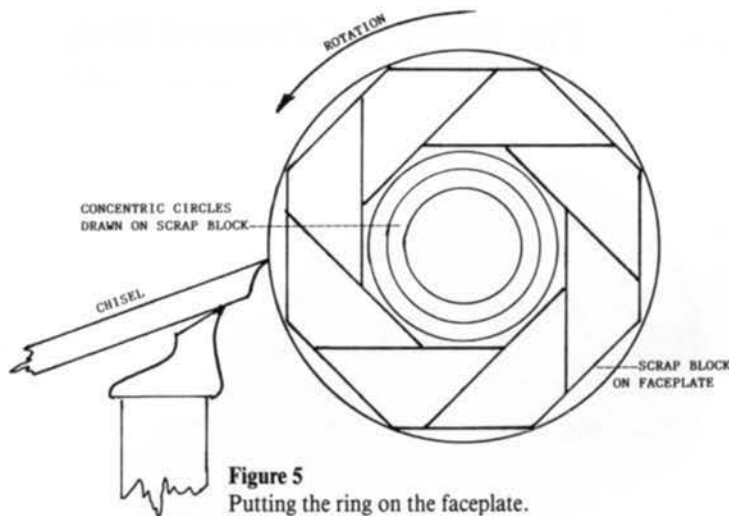


Figure 4
Sanding and fitting the glued blocks.

series of concentric circles about $1/4"$ apart from the center out to about a $2"$ diameter. This helps to center the ring when it is attached to the waste block. The rotation direction of the ring on the lathe is very important; otherwise, the chisel might

holiday projects



catch in the end grain of the wood and spoil the ring (Figure 5). Determine the side of the ring that will be attached to the waste block and sand it so it is flat. Apply glue and secure to the waste block, using the pencil marks for proper centering. Set it aside to dry.

Use a 3/8" spindle gouge to turn the outside of the ring round. Still using the gouge, in a cutting action, turn the inside of the ring to the desired diameter. 2 1/2" is a good average size for the inside diameter. The bevel of the gouge should be parallel to the bed of the lathe as the inside cuts are made. A shear-scraping action, with the gouge rolled over on its side, is also helpful in finishing the inside of the bracelet. When the inside surface is flat and level, the glue joint lines should be straight and parallel to the bed of the lathe. Extend the cut on the inside of the bracelet about 1/4" into the wasteblock to assist in the parting off process later.



Figure 6
Typical cross sections of bracelets.

Next, develop the desired outside shape of the bracelet and finish (Figure 6). A 1/2" skew, used as a scraper, is helpful. The next step is to part the bracelet off the waste block with the point of the skew. This cutting should be done in the waste block, not in the wood of the bracelet. Catch the bracelet as it comes off the block with the hand that is not holding the skew.

A three-jaw chuck is used to finish the other side of the bracelet. Adjust the chuck so its jaws will catch and hold the inside of the bracelet and center it as the jaws are opened. This will secure the bracelet so the unfinished side can be turned and shaped. With the three-jaw chuck, it is possible to keep reversing the bracelet from side to side to do touchup turning until the desired shape is obtained.

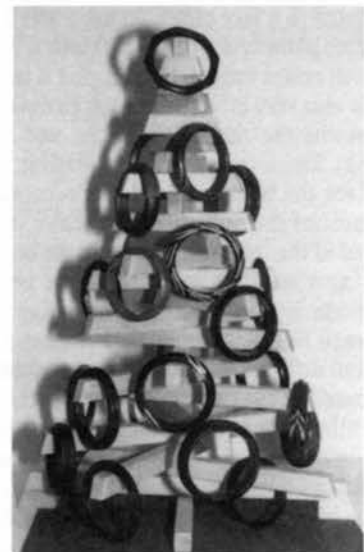
Final sanding, and polishing with steel wool is done on the outside of the bracelet by means of a tapered wooden mandrel that is mounted on the lathe with some type of chuck. The mandrel is about 6" long and varies in diameter along its length. Slip the bracelet on the mandrel from its free end, until it fits snugly, and rotate for sanding or polishing. A leather glove worn on the left hand is useful in holding the bracelet on the mandrel. The bracelet can be reversed as desired to finish both sides of the bracelet without stopping the lathe. If the inside of the bracelet needs to be sanded, it can be done with a sanding drum mounted in a drill press.

Final finish consists of a liberal coating of PROFIN Hard Drying Oil Finish that is wiped off and buffed, after it has had several minutes to penetrate. After drying overnight, the bracelet is coated with a thin layer of good paste wax (Clear Black Bison Wax) and then thoroughly buffed to the desired finish.

To achieve contrasting colors, the following combinations of woods work very well: Indian ebony and purpleheart; Indian ebony and orangewood or holly; padauk and maple; purpleheart and maple; cocobola and maple; ebony, cedar, and purpleheart; vera wood, chittam, and ebony.

Better surfaces will be obtained if some of the operations are performed with the lathe in reverse. Of course this requires a tool rest position for lefthanded turning. (Make sure the face plate is SECURELY tightened to the lathe before you try this.) Regular, forward turning is performed on the outside surface of the bracelet. Reverse turning is done on the inside of the bracelet. In other words, the lathe is continually reversed as the various steps are done. This has to do with the way the grain runs in the wood blocks of the bracelet ring. Working carefully with this procedure produces very smooth surfaces and little need for sanding.

The original strip can be laminated with several contrasting woods before the blocks are cut. Combine two or four of these rhombohedrons with ones cut from solid wood, or make the rings entirely of laminated rhombohedrons.



Denver Ulery
Bracelets with holder.

*Every child is an artist.
The problem is how to remain an
artist once he grows up.*

Pablo Picasso

The Trivet and Covered Dish

Wilmer L. Senft



Figure 1
Trivet and covered serving dish with
trivet glued to dowel and mounted in chuck.

The trivet and covered dish, a three part project consisting of trivet (base), dish, and lid, are made using miniature chisels constructed from drill rods, cement nails, or any material with high carbide content.

Select a piece of blackwood or dense wood and glue it to a piece of dowel to make the trivet (Figure 1). The work can now be mounted to a face plate. Secure a small piece of scrap wood to the face plate and true it up. Make a recess to fit the dowel which will center the work; then glue it in place. The three jaw chuck is also very effective for use in making this project.

Determine the size of the trivet, and cut the wood to size (Figure 2). Shape the outside of the trivet, and decide the width needed for the base so that it will accommodate the legs. Remove most of the bulk from the center of the trivet, to about one third of the total width. Divide the base of the trivet in half by cutting a small groove around the perimeter with a skew; then divide it into four parts, making a small indentation where each leg will be mounted. Remove the chuck from the lathe, and drill the leg holes of equal depth in the base with a drill press. Rechuck the work to the lathe and continue to remove bulk from the center of the trivet. Start to shape the inside of the trivet, too, matching the shape to the outside. Continue cutting to about three-quarters of the total thickness. Sand the inside and outside of the piece, working through 250-, 400-, and 600-grit sandpapers to get a polished finish. Next,

use the specially made, small hooked chisel to cut from the top of the trivet to meet the cut from the bottom (Figure 2). To put

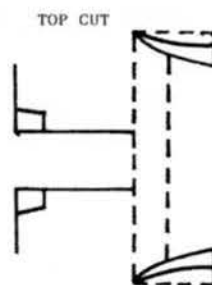


Figure 2
Trivet profile in chuck.

the first of the finishing touches on the trivet, make a small face plate with a recess so the bottom of the trivet just fits (Figure 3). Now with a light touch, the top of the trivet can be finished with chisels and sandpaper. The final touch is to make four legs of equal length and size (Figure 4), and glue in place with cyanoacrylate glue.

Use African padauk wood to make the covered serving dish that fits into the trivet. Using the spur drive and tail stock cen-

holiday projects

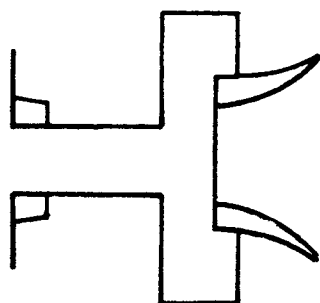


Figure 3
Trivet profile in small face plate.

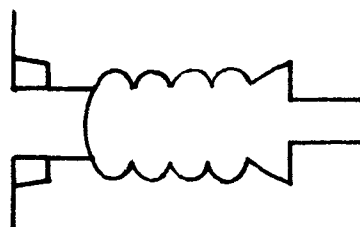


Figure 4
Trivet leg profile in chuck.

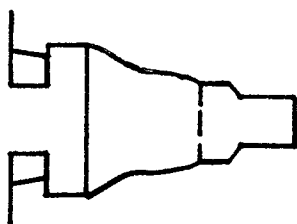


Figure 5
Dish profile with spigot.

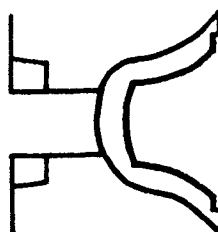


Figure 6
Dish mounted in chuck by the spigot.

ter, make a round dowel a bit larger than needed. Make one piece for the lid and one for the dish. Downsize each piece on one end so that it is easy to mount to the chuck. Also, leave a spigot on the bottom of the dish to use for remounting. Mount the material to the chuck, and begin to shape the dish to fit the trivet (Figure 5). Downsize the spigot so that the trivet fits over it easily, and use the trivet as a guide for a perfect fit. Finish and sand the completed area. Part the dish from the lathe with a cut off chisel, and remount the started dish by the spigot end (Figure 6). With a little patience, it will run true. Remove the bulk from the center of the dish to get the desired thickness, and make the necessary provisions to the dish so that the lid can be fitted. Sand and complete the inside of the dish. Remove the dish with a cut off chisel. Finish the bottom of the dish using the method described for Figure 3, or just complete the bottom by hand.

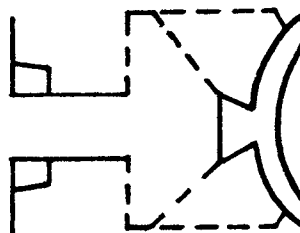


Figure 7
Lid profile

Mount a piece of material and begin to shape the lid to fit the dish (Figure 7). Remove bulk from the inside, shape, and sand the inside of the lid. Finish and sand the outside of the lid as it is shaped. Continually check the fit of the lid. Shape and sand the underside of the knob, and sever the work from the lathe. Use the method in Figure 3 to finish the knob, if needed.

Use an oil and varnish mixture to complete the project. ☺

Tree Ornaments

Dick Gerard

A tree ornament is a wonderful gift idea because it is easy to make and it uses up scrap wood. The trees illustrated in Figure 1 are just a few examples of the surficial ornamentation available. Also, glued-up wood gives a "decorated" tree effect.

The overall height and diameter may be varied to suit personal taste and need. The turning may be done with any tool available, and can be accomplished by any turner. If the turnings are setup as split turnings, the finished product can be used to decorate packages, along with traditional ribbons and bows. The split turnings can also be used to identify package recipients.

Palmer Sharpless

The "Tree Inside a Box" is a beautiful tree ornament that is constructed of 2" square pine (Figure 2). The pine is turned between centers to produce the negative of the tree design in cut out form. After turning, it is cut into four equal segments. The segments are reversed, turned inside out, and glued together to form the inside pattern. The finials, one for the top and bottom, are then turned with a second mounting between centers.

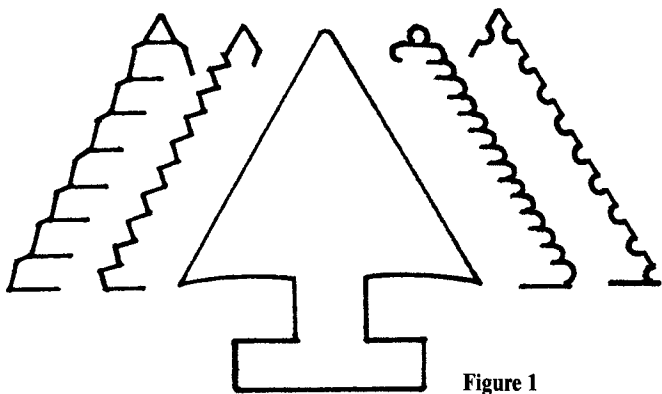


Figure 1

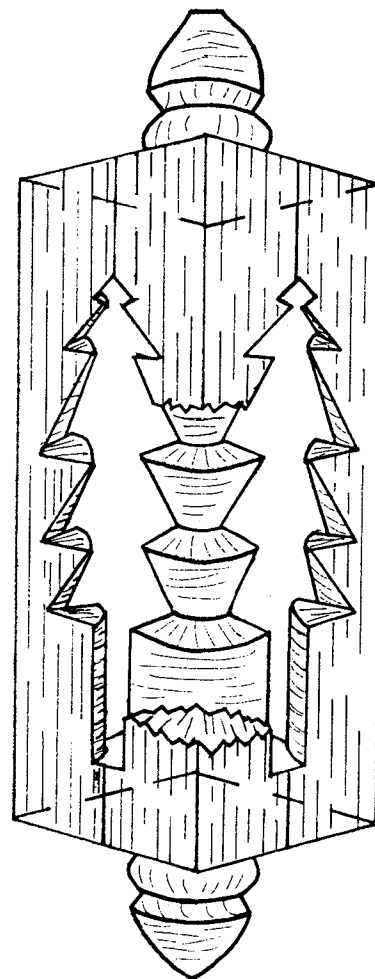


Figure 2

holiday projects

Turning a Translucent Wooden Goblet

Bob Street



Figure 1
Ash goblet

Beautiful turned goblets can be created from well seasoned ash (Figure 1). Ash is selected because of its light color and beautiful grain, and because it is an easy wood to work.

Reverse what might be considered the usual approach by first turning the inside of the bowl. This requires a template which is developed from a drawing of the goblet. The original template is made of cardboard, and carefully cut with a sharp knife, being faithful to the drawing. If the template is made of metal, it is more durable, and its edge can be covered with pencil graphite, which can leave a mark indicating where to make the next cut with the lathe tool. Use a sheet of .062 inch thick aluminum which is easily cut and filed to the precise shape (Figure 2).

The turning blank should be well secured to a 3" or 4" face plate, and the outside roughly turned to a goblet shape. A steady rest is used to reduce vibration while hollowing the bowl. There are a number of tools that can be used for this purpose. One can be made from a 1/8" x 3/4" piece of high speed steel, ground to a lady finger shape, having about a 60 degree cutting angle. The tool is not used as a scraping tool, and it leaves a clean, smooth surface. Keep the tool razor sharp, and continue to turn the inside of the bowl until the template fits very faithfully.

From this point, the goblet will be turned between centers with the steady rest removed. This will require a ball bearing center in the tail stock, fitted with a wood plug that precisely fits the inside of the bowl of the goblet. With care and relative ease, the goblet can be turned to replicate the original drawing. Turn the bowl to 1/32" thickness, and the stem to 3/16" in diameter, at the thinnest point. The base is 1/16" thick at the outermost edge and slightly hollowed. Final sanding is done with 600-grit paper. The finished goblet is 7" tall and weighs 1.2 ounces.

The goblets can be left unfinished in order to allow the wood to be fully appreciated when held in the hand. Remember, these goblets are made for giving not for drinking.

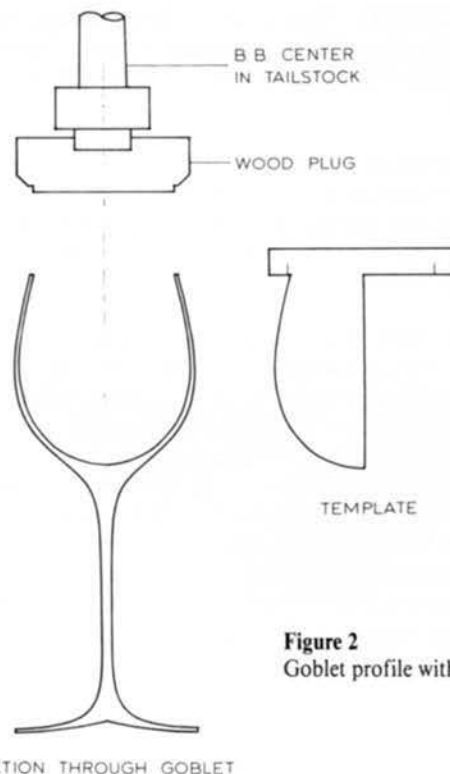


Figure 2
Goblet profile with wood plug and template

Letters To The Editor

Dear Editor:

I congratulate you on a most magnificently "designed" and edited issue of the Journal. It will be hard to keep up the quality of articles, as I know from putting together our newsletter "Turning Points."

Please indicate to your readers that the exhibition "Turner's Challenge" was curated by Albert LeCoff, Executive Director of the Wood Turning Center. The Calendar section of the June issue of the American Woodturner; however, did not indicate that the exhibit was organized by the Craft Alliance.

Thank you for clarifying this issue and for producing such a great magazine.

Albert LeCoff
Curator of "Turner's Challenge"

Dear Patient Reader:

The Journal is expanding and with this expansion your articles and projects are needed to improve the Journal. All articles are considered for inclusion so don't hesitate, send them to the Editor-in-Chief. We have organized each issue around a particular subject but there is room for other features. Although we are all volunteer and do not pay for articles, we will send you a personalized thanks.

Prior to the mailing of the June issue of the Journal, the administrator's computer died and with it, our mailing labels. The process of rebuilding the files took over one month. No one can imagine the frustration of having boxes of the Journal and no way to distribute them. The new administration is diligently reconstructing the operational processes of our organization. Please call the new administrator, Don McCullough, for help in resolving your membership and Journal problems.

Thank you for your patience and articles.

Peter J. Hutchinson
Editor-in-Chief

Dear Editor:

Delta International Machinery Corporation has undertaken a program to inspect and correct any motor controllers on early versions of its DL-40 60" Electronic Wood Lathes (Model #46400) which evidence an overspeed condition during operation. Only units produced prior to March, 1989 are involved.

If you have experienced any overspeeding conditions in the operation of your Delta 16" Wood Lathe, please contact Delta's Customer Services Department at 1-800-223-7278 to obtain further information regarding the inspection and retrofit procedure.

Mat A. Ros, CPCU
Delta International Machinery Corporation
246 Alpha Drive
Pittsburgh, PA 15238

Dear Editor:

I showed the last issue of American Woodturner to a friend of mine who is a cabinet maker. The publication so impressed him that he is joining the organization just to receive the magazine. He does not own a lathe and has never turned. This is quite a statement as to the high quality of the Journal! Keep up the good work!

Larry Roberts
Arlington, TX

Dear Editor:

With regards to the letter from Mr. George Paes, in the June, 1989 issue of American Woodturner, concerning the discontinued Oliver No. 52 Lathe and its special applicability to faceplate turners, I would suggest that any woodturners with a major interest in faceplate turning contact Mr. Howard Lewin at Custom Wood Designs, 3825 W. 139th Street, Hawthorne, CA 90250 (213) 679-2485. Howard has designed a lathe that is especially suited for faceplate turning.

I just received my first issue of the American Woodturner (June, 1989), and I find it to be quite eclectic in content and very enjoyable to read.

Frank Short
Anaheim, CA

Dear Editor:

The June issue of American Woodturner was a delight!

I have a question regarding the article "Getting Started" by Dick Gerard, pages 22-23; where can you buy the videos listed in his bibliography?

Woodturning with Richard Raffan

Bowl Turning with Del Stabbs

Also, does AAW have a list of suggested books/videos?

C. J. Pigford
Birmingham, AL

Reply: AAW is currently building a list of books and videos available for sale. It would help if our readers could send us the addresses of the more obscure publishers to complete the list. The videos you requested, reviewed, respectively, in the December 1986 and September 1987 issues of "The American Woodturner," are available from The Taunton Press, Connecticut, the publishers of "Fine Woodworking," for about \$40.



CONTRIBUTIONS TO THE "AMERICAN WOODTURNER"

*"I would have written
a shorter letter
if I had had more time."*

B. Pascal

American Woodturner articles should be short, innovative, provocative, and of interest to a broad audience of woodturners. The ideal maximum length of articles is 2 printed pages, approximately 5 to 6 double-spaced manuscript pages, including tables and illustrations, at the smallest readable size with captions. Illustrations should be copies, not originals. If rough-drafted, they will be redone in our office. Include only large uncropped black and white photographs.

Manuscripts should be submitted in two parts to the Editor. The text must be typed double spaced; and, if available, submitted in computer-ready format. The copy must be checked to insure that the figures are referenced in the text. The second part consists of the illustrations and photographs in the order in which they appear in the text. Preface the illustrations with a list of the figures and full figure captions. Do not write with a pen anywhere on them. Ink can rub-off or make marks on other illustrations. Do not write on the back of a print with a pencil because the indentations can show through. Do not paperclip illustrations together. Instead spraymount each illustration to a full sheet of paper which has the author's name and figure number on it. Manuscripts are copy edited after acceptance. Unfortunately, the author will not be able to see galleys or page proofs.

To escape criticism – do nothing, say nothing, be nothing.

Elbert Hubbard

DISCUSSION

On December 4, 1988, I submitted an 800-word illustrated review of the Stabilax skew chisel adaptor which was advertised in the AAW Journal. The editor rejected the article as “too long and too strident” and, instead, afforded me 200 words. Despite my belief that the AAW Board should encourage, not discourage, articles of intellectual truth, I reluctantly list my criticisms (unsupported, alas) below.

1. Jerry Glaser claims “It’s the taming of the skew” as his own phrase in the advertisement heading. The “It’s” is his, but the rest of the quote is from Shakespeare and “Fine Woodworking,” September/October, 1982.
2. The stabilax is claimed to “eliminate catching and tearouts.” It cannot because, in bead rolling, such problems are not due to rotational stability, but are due to improper positioning of the short point on the wood. In fact, the stabilax lessens rotational stability during bead rolling.
3. The stabilax will make planing easier - most of us did not realize it was a problem cut.
4. Rolling of small beads with the stabilax would necessitate moving the tool laterally backward along the rest - hardly an advance.
5. Parting, that is reducing work piece diameter with the skew’s cutting edge held parallel to the lathe axis, becomes more difficult because of the possibility of axial rotation of the tool.

I believe that the stabilax is not a forward step in turning tool design. Rather, it is a gimmick which is not a substitute for proper tuition and sound practice.

Mike Darlow

Author of “*The Practice of Woodturning*”

REPLY

The following is my response to Mike Darlow’s letter regarding the stabilax which I designed and manufactured for turners to help overcome the difficulties of using a skew chisel.

1. Darlow has neither seen nor used a stabilax. In his own words, his criticisms are “unsupported, alas.” He has based his criticism on his own theories or tool usage, and not on experience with the stabilax. The stabilax does exactly what it is supposed to do and makes it easy as well.
2. “It’s the taming of the skew” according to Jerry Glaser after he tested the first stabilax; and Jerry has no connection with Beech Street Toolworks.
3. It is a fact that even a novice can use a skew equipped with a stabilax and not experience catching and tearout. The stabilax increases rotational stability by placing support under all parts of the cutting edge, rather than the tool edge.
4. By virtue of its large diameter, the stabilax slides easily on the tool rest, as opposed to the rather sharp edge of a chisel, in making a planing cut.
5. Rolling a small bead is done by moving the tool forward laterally, not backward, along the tool rest.
6. Obviously, in reducing the work piece diameter by having the flat side of the skew resting flat on the tool rest, you can merely remove the stabilax unit. This is the *only* cut in which the use of the stabilax is of no particular advantage.
7. To the best of my knowledge, the skew is several centuries old; and since this is the first time a device has been made to make the tool fun and easy to use, I would say the stabilax is very much a forward step. The stabilax works, and does everything for which it was designed.

Richard Lukes

Beech Street Toolworks

AAW Member #01213

*Then of thy beauty
do I question make,/
That thou among the
wastes of time must go.*

William Shakespeare

Getting Started

Part II: Face plates

Dick Gerard

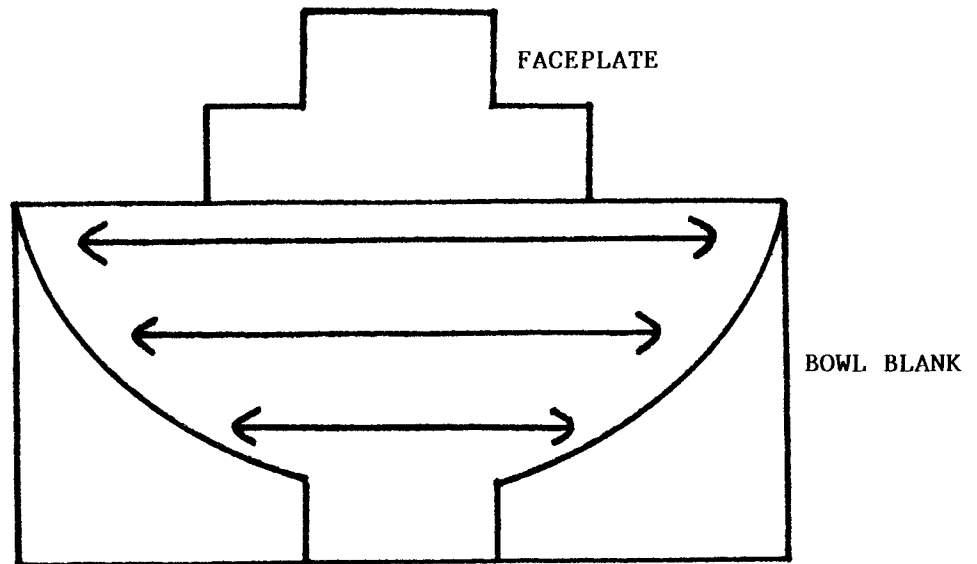


Figure 1
Faceplate mounted to blank. Arrows indicate grain direction.

For face plate turning, wood is normally oriented so the grain is perpendicular to the axis of rotation. The end grain of the wood can be attached to the face plate, but it is a dangerous operation. Obviously, wood affixed to a lathe, where the holding force is dependent upon a few screws in end grain, is a risky process; and therefore, is unsuitable for beginning turners. Beginning turners should use green wood, because it is easier on the turner, the turner's tools, the turner's nerves, and the turner's checkbook.

Mount the side of a precut bowl blank that will be the top of the bowl to the face plate (Figure 1). Before going any further, ensure that the lathe is on the lowest speed setting. Then, mount the face plate to the lathe. Adjust the tool rest so that it is parallel to the face plate; and rotate the wood by hand to make sure that the wood does not hit the tool rest. The rest should be as close as possible to the wood without actually touching. Now the outside of the bowl is ready for turning. (Since this article is about mounting wood, the actual turning process is omitted. There are many good books and videos available, and several turners offer hands-on training.)

For the most part, when turning the outside of bowls, a face plate and screws are the safest and most practical way to go; but, there are alternatives. A good screw chuck, such as the Glaser screw chuck, is acceptable, but beginners should use a face plate and screws.

When mounting the wood to the face plate, use the largest screws that the holes in the face plate will allow, such as sheet metal screws. It is a personal preference whether slot head screws, Phillips head, square drive (Robertson) or some other type are used.

Once the outside of the bowl is turned and sanded, attach a hardwood waste block to the flattened bottom of the bowl using super glue. After the glue sets, put a drill bit and chuck in the tailstock; and drill a hole in the center of the waste block to accept the screw chuck. Doing the drilling on the lathe ensures that the screw chuck uses the same center as the face plate. Then, take the face plate and wood off the lathe, remove the face plate, mount the screw chuck to the lathe, and fix the blank on the screw chuck using the hole in the waste block that was just drilled.

*It may be those who do most,
dream most.*

Stephen Leacock

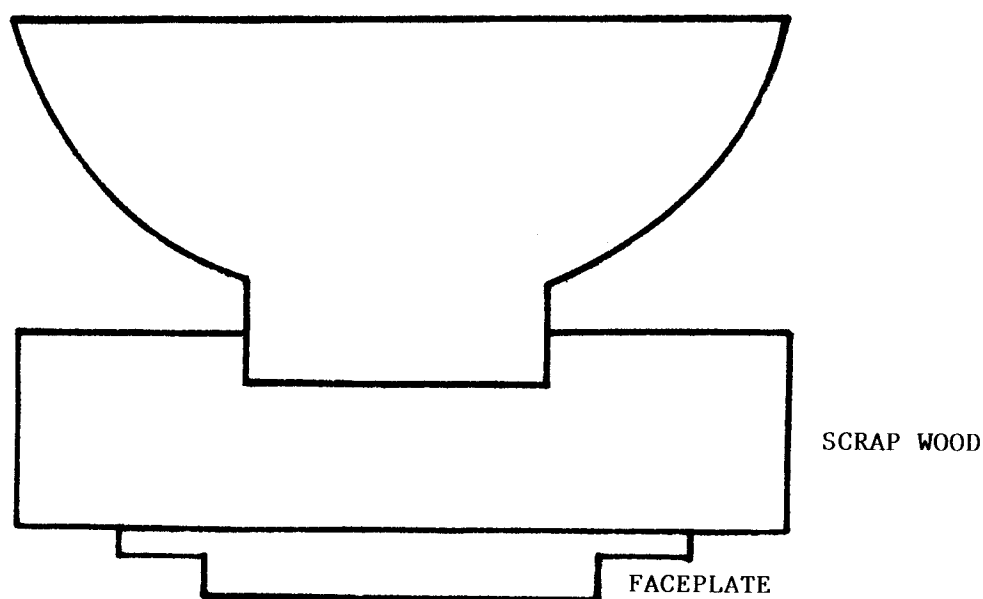


Figure 2
Bowl foot mounted in scrap wood.

There are many chucks on the market made by different companies. Some are: the Precision Combination Chuck; the Delta Super Chuck; the Precision Spigot Chuck; the MultiStar Chuck; and Raffan Chuck. These chucks offer several ways to mount wood. The bowl may be mounted on metal face plate rings that are used in conjunction with the expanding collet feature; or a recess may be cut into the bottom of the bowl and the expansion feature used by itself. Another way would be to turn the appropriate sized tenon, and use a grip-type chuck such as a 3-jaw or 4-jaw chuck, or the new Raffan chuck (which is capable of both expansion and contraction), or the Precision Spigot chuck. Some of these grip to as little as 1/8 inch. Some companies now offer 4- and 6-jaw chucks that operate just like the 3-jaw chucks. The advantage of more jaws is better gripping power. One turner has even developed a “nut”

chuck into which the tenon can be threaded. The threads are machined such that the holding power is quite strong.

For a real “low tech” fixture, consider the wood chuck (Figure 2). Just mount a 2” to 3” thick piece of wood to a face plate. Then, turn a small recess in the wood with parallel sides to accept the small foot or tenon that was previously turned on the bowl bottom. The fit should be quite snug. Glue the foot into the recess using super glue. After the glue has set, finish turning the inside of the bowl.

The other methods of mounting involve turning the bottom of the bowl after the inside has been completed include pre-shaped “bungs,” wooden jam chucks, wooden face plates with “capture” grooves and double stick tape. These forms of attachment are really not advisable for the beginner. ☹

About Wood

Casimer Grabowski

Have you ever wanted to find out if the log you just got is a gem or will just turn into a mess of splinters? What is the wood listed in the advertisements for exotic wood really like? Or maybe you just want to find out something about wood. Here is an annotated list of a few books on this subject that I find particularly useful. I have divided them into light, medium, or heavyweight categories depending on the level of the technical information.

Lightweight Books

These are semipopular books which are informative and well illustrated, but not too technical.

1. *Fine Hardwoods Selectorama*. Published by the Fine Hardwoods/American Walnut Association. 54 pages.

Contains information on approximately 100 hardwoods, numerous large color photos of panels of finished wood. Also contains tables listing properties of woods such as density, curing characteristics, etc. This is a very useful reference for both American and foreign woods. A revised 1987 edition is available directly from the Fine Hardwoods Association, 5603 W Raymond, Suite O, Indianapolis, IN 46241, for \$10.00, which includes postage.

2. *International Book of Woods*. Edited by Martyn Bramwell, Crescent Books, NY, 1984. 275 pages. Hardbound.

This book is great, and at \$16.00, a bargain as well. It is lavishly illustrated and interestingly written. It contains a lot of general facts about wood, structure, growth, lumbering, etc.; and many sections on how wood has been used by different peoples throughout the ages to build houses, furniture, boats, musical instruments, etc. It concludes with a list of 144 hard and softwoods, each with a photograph of a panel; a photomicrograph showing structure; and several paragraphs on source, availability, and working characteristics.

Mediumweight Books

1. *Understanding Wood*. R. Bruce Hoadley, The Taunton Press, Newton, CT. 1980. 256 pages.

This is a moderately technical book on wood technology. It includes chapters on the nature, properties, and identification of wood, and wood/water relationships.

Heavyweight Books

These tomes are literally, as well as figuratively, heavy. They all include material on color, quality, and working characteristics of wood. They are not as forbidding as their size may suggest. They may be hard to locate.

1. *Identification of the Timbers of North America*. S. J. Record. 1934. John Wiley. 205 pages.
2. *Timbers of the New World*. S. J. Record and R. W. Hess. 1943. Yale University Press. 640 pages.

This book, in particular, contains a lot of useful information about the woods of North, South and Central America.

3. *Common Trees of Puerto Rico and The Virgin Islands*. Vol. I. E. L. Little and F. H. Wadsworth. 1964. 548 pages. Vol. II. E. L. Little, R. O. Woodbury, and F. Wadsworth. 1974. 1024 pages.

Both books are published by the U. S. Department of Agriculture Forest Service.

Despite the narrow title, this is the standard reference for trees of the entire Caribbean, including South Florida, and much of Central America.

This is not, by any means, an exhaustive list. In the library, you will find other useful books under the headings of Wood, Timbers, and Trees. Generally, books on Wood and Timbers are about the dried product. Books on Trees concentrate on the living plant, but often have sections on the appearance and working characteristics of the wood.

Before information can be obtained about a wood or a tree, you need to know its name. Common names are helpful, but can be confusing, since a tree that grows in several countries could be known by 20 or even 30 different common names. Commercial lumbermen often create confusion by conferring common names that imply a relationship to a more desirable group of woods than may be merited. Scientific names are more precise and are similar to a person's name, in reverse order. The *Genus* is equivalent to the family name and is listed first and capitalized. The *species* name is equivalent to a given name and is listed second, in lower case letters. For example, the scientific name for black walnut is *Juglans nigra*; the California walnut is *Juglans californica*; and the butternut (sometimes known as white walnut is *Juglans cinerea*. The goal of taxonomic terminology is to give every organism a unique and exclusive single name. However, sometimes scientists "revise" family relationships and change names. But the older names are not always completely deleted from the literature; and not infrequently, you will see a listing of a tree with a precise scientific name and scientific aliases.



Your Most Versatile And Valuable Tool

Paul F. Korbach

Hands are an unique tool which are capable of performing such tasks as threading a needle, making a 1/4" goblet, or grasping a four-foot long bowl gouge for creating a two-foot tall vase. In woodworking, hands are constantly exposed to a wide range of hazards. Sharp-edged tools, heavy objects, rotating equipment with belts, and unpredictable flaws in the wood, are just a few. Industrial safety programs emphasize hand safety for a good reason — *Over one quarter of all industrial injuries occur to hands.* Five types of hazards to the woodworker are electrical, chemical, heat, mechanical, and hand tools.

Electrical Hazards

These are usually obvious and avoidable if negligence or shortcuts are avoided. Replace those frayed, cracked cords and taped, cracked plugs; and do not drape cords near moving parts.

Chemical Hazards

Chemical hazards include fumes and dust from the wood (see American Woodturner, Vol. 2, No. 3). These can cause hand dermatitis. Toxic and corrosive chemicals are used for bleaching and finishing, and they can give hands bad burns. Solvents used to clean the hands can deoil the skin, leading to cracks and infections. Many solvents and finishes are absorbed through the skin. The better the solvent, the more likely it could be harmful. Sensitivity to finishes can develop with exposure. Disposable gloves are available for as little as ten cents, or heavy duty, reuseable gloves for a dollar or two. One of the most common throwaways is polyvinyl, but many solvents go through the gloves. Get the polyethylene gloves as they are more resistant, or the heavier-duty rubberized gloves. Latex gloves are also readily available, but they also weep some solvents. For a very modest price you can protect your hands while finishing. It is also quicker to use gloves than to clean your hands later. It is a good practice to use a hand cleaner on your hands before you start to work. Get it in under the nails and cuticles. Wipe off with a dry towel. It keeps the grime out and makes cleanup faster. Reread the labels to the solvents, cleaners, and finishes, do what they say, and protect yourself!

Heat Hazards

For wood turners, a potential source of burns is grinding. Touching the wheel, even briefly, can cause a very hard-to-heal friction burn. Shavings from a cut can get very hot. Usually you will move your hand or pause before being burned too badly. The risk is that hot chips might provoke an unsafe movement of the tool, resulting in an injury to the hand. Holding sandpaper against the wood for a long time with the fingers can cause burned and abraded fingers. A piece of masking or duct tape or artist's finger (costs \$0.10) can take care of this. Gloves with the fingers cut off are not safe as they can snag on the wood. When in doubt, mount the sandpaper on a dowel or homemade jig. Another source of burn is Super Glue. There is almost always enough moisture on the skin to start a rapid curing of the glue. A lot of heat is released quickly and can burn.

Mechanical Hazards

Read all the safety literature BEFORE you start using the equipment. Buy a good general woodworking book, or use your library, and learn about hazards and how to avoid them. Seek training, including safety tips.

HandTool Hazards

A very common source of severe hand injury and puncture wounds, is the screwdriver. Use vises, clamps, wedges, double stick tape, and rope loops to hold the piece so the other hand is not in danger. As with power tools, keep your hands out of the line of action of the hand tools. Lathe tools may be more of a foot than a hand hazard. Do not set skews on the ways. Falling skews give nasty foot wounds.

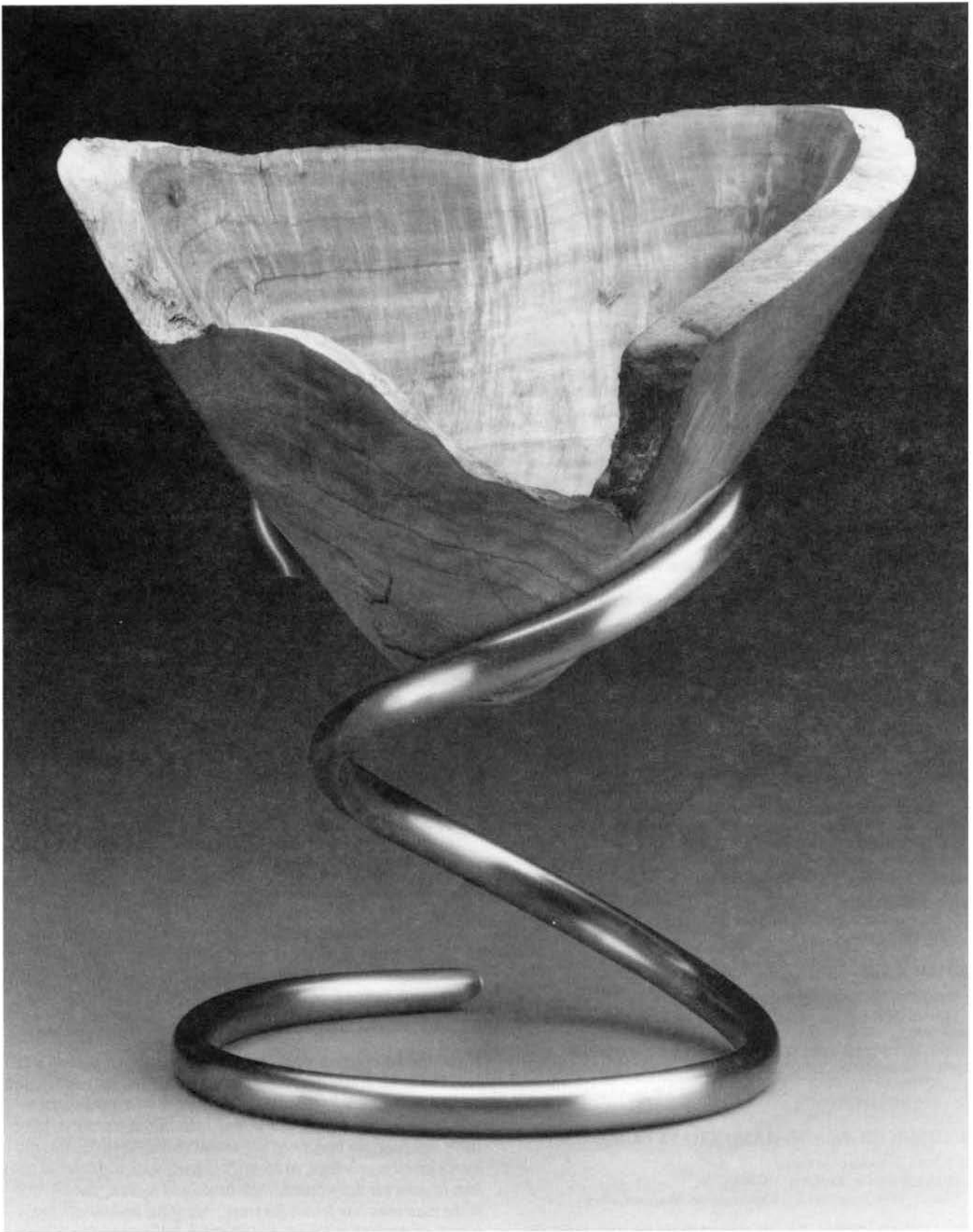
Summary

Many of the turner's dust jackets would not be tolerated in an industrial situation. As a minimum, put rubber bands on the floppy sleeves. Do not use rags at the lathe, use paper towel strips. If they snag, they tear and they work just fine for applying finishes. When sanding, be very cautious not to cause a wrap-up that could trap your hand. When holding the paper by both ends, do not bring the hands together.

While far from complete, let's hope the review will encourage you to take the time to examine your work practices from a safety standpoint. Safe work practices do not come from articles or lectures, only from a basic attitude that safety comes first and requires awareness. "I will always approach the work with safety in mind." We get hurt when we forget ALWAYS. ☺

*We all want to be a success in life.
Some achieve heights of fame
in their fields, others live quiet lives.
Yet who can say that
they are not equally successful?*

Esther York Burkholder



"Chalise Bowl" by Rus Hurt, 1989, Curly Maple

