Woodturners Guild of Ontario

Interactive Online Newsletter

LOCAL AAW CHAPTER

INTERNATIONAL EDITION

Woodturner **n. A person who enjoys the art and process of shaping wood into various forms**

"ask not what your guild can do for you; ask what you can do for your guild— you get back what you put in"

NOVEMBER 2006 VOLUME 2 ISSUE 6

UNWIN TREE RECYCLING SITE ACCESS APPROVED FOR WGO' MEMBERS

By Richard Pikul

After getting used to relatively easy access to the Toronto Parks department log storage yards for many years, the access rules have changed. The Parks department decided to close down all access to these yards as some people have been abusing the privilege and/or causing disturbances. I'm happy to say that none of these people were members of our guild. Not having access to this wood would be quite a blow to many of our turners, so we have worked on regaining access to the Unwin Ave. site. Our illustrious publisher has negotiated with the parks department to allow access under certain conditions. At the Unwin Ave. facility (located between Cherry and Leslie streets, South of Lakeshore Blvd) WGO members can access the site to obtain wood with the following restrictions: ·Access only when site employee is present (no schedule provided to date) ·"Wheelbarrow" access only ·Must have photo I.D. and a current WGO membership card ·Proof of passing a chainsaw operator's course (recent course organized by the WGO has been approved) · Member is on the list of names provided by the WGO to the city parks dept. Note that access to other 'log dump' sites remains closed. Another way of obtaining wood from trees that the city or it's contractors are removing is to 'be there' when the tree is cut down and have the workers cut the piece (or pieces) you want - on site. When approached in a civil and patient manner, city workers are quite accommodating. This method does depends upon luck or time to follow the trucks to their work sites.

"MONSTER TOOLS" HEAVY DUTY LATHE TOOL REST

By Michael Finkelstein

In July 2006 I was rough-turning a 23" x 10" deep walnut log on the outboard of my Oneway 1640 lathe, with the standard 16" banjo. The outboard tool rest is 14" long, which means only a 7" reach to the center. The bowl was so deep that the gouge overhang on the tool rest near the bottom center was around 3". I carefully approached the center to finish-off the bottom when all-of-a-sudden I got a catch—WHACK — in the face-shield. It made a little crater in my shield and gave me a sizeable blue bruise on my cheek.

So I started looking for a heavy-duty inboard tool rest that would be long enough for over-sized, deep bowls. I recalled having discussed this subject with Bill Grumbine at the AAW Symposium where he showed me his "Monster Tool Rest" that he used on the demo lathe in his booth. Bill referred me to call Randy Privett, the owner of Monster-Wood-Tool and Superior Design & Machine.

I called Randy and he suggested that the Monster-Wood-Tool #1 SBR Inboard Tool Rest would do the job for me. I ordered the unit with a 1" post. I tested the tool rest and found it to be a heavy tool that keeps vibration down to a minimum.

The material used is A2 Tool Steel. The center brace section provides super rigidity, while the hard and smooth surface makes tool movement easy. The tool rest reach is approx. 10" from the center or brace of the tool rest, to the curved end. Now, I feel safer when working on deep bowls. This unit (1' stem) costs U.S.$97.80 plus shipping. Call Randy for a quote !

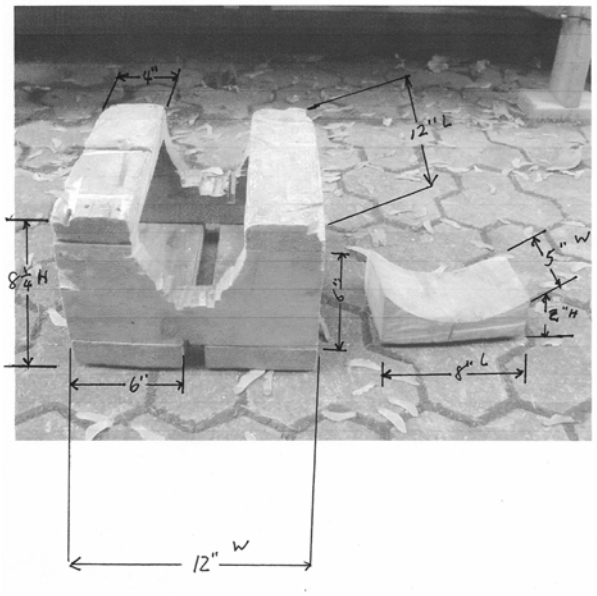
Randy makes the Monster-Wood– Lathe Tools in his own machine shop, on a custom-order basis. The craftsmanship is great and I would highly recommend him to anyone looking for a solid tool rest ! To keep costs down, he can ship via U.S. Parcel Post.

Monster-Wood-Tool.Com Woodturning Tools; http://www.monster-wood-tool.com

E-mail; superiordesign@insightbb.com Telephone: (765) 766.5000 Contact: Randy Privett

BUCKING BOX - A SAFE WAY TO TRIM LOGS
by Michael Finkelstein

My simple shop-built "bucking box" took 15 minutes to build. I use it whenever I have to rip logs with my chainsaw, as it firmly supports most logs in the center cavity. As long as you have a slightly curved log in the center portion, your work will be stable and the log will not move while rip-cutting. I also use a 3'long C-Clamp for added support when cutting cross-grain. If the log has an irregular curve, I use a 8" x 5" wedge to help stabilize the log in the center cavity. I also use it shape logs into a bowl blank when they are too high for my bandsaw.



Note: the actual lumber dimensions (net) are 1 1/2 x 3 1/2 for 2 x 4 and 5 1/2 x 1 1/2 for the 2 x 6 lumber

Materials:
2 pcs of 2' x 4" spruce, fir or pine. 4 pcs of 2" x 6" lumber
Carpenters Glue or TiteBond

Construction: Find the mid-point on the front 2 x 6 piece and draw an arc from 3 1/2" on both sides, then cut out the half-circle on a bandsaw. Glue the pieces together, use dowels for extra support. Do not use screws or nails; your chain will always find the nail by accident!

Always wear protective gear and follow chainsaw safety guidelines when using your chain saw.

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THE PROJECT CORNER
Segmented Geometric Turned Forms
by Bob Rollings

The subject of this article concerns making laminated, turned objects using basic geometric shapes to create closed forms, collectively known as Polyhedra. From the Latin Poly; many and Hedron; having a specific number of sides.

Needless to say there is nothing new under the sun and ideas come from many sources. I quote Jack Cox's book Beyond Basic Turning: "When trying to dream up new ideas for woodturning projects, it is a rare occurrence to have an idea presented on a plate in more or less finished form. It is even more rare for the idea to be over 2000 years old."

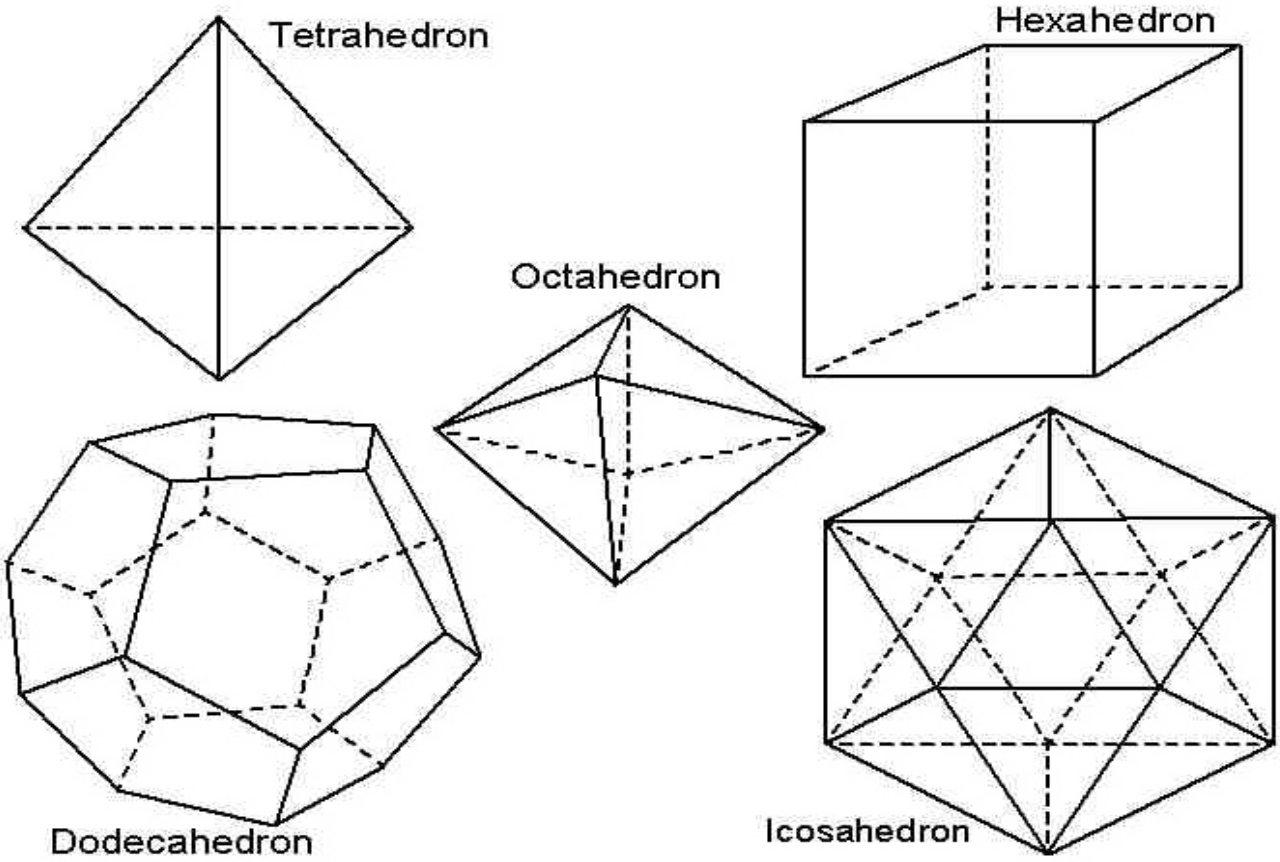


fig. 1.

The shapes I am referring to are familiar to those interested in Geometry and mathematics. The study and recording of the properties of these solids is attributed to Plato, the Greek philosopher and mathematician, hence these are also known as Platonic Solids. As these solids are made up of equal shapes, this also ties into the term 'Platonic'.
There are only five (5) regular Polyhedra, regular in as much as each of the sides are identical in every regard.
The five regular Polyhedra are as follows: (ref. fig. 1.)

Tetrahedron: A solid with 4 equilateral triangle faces.
Hexahedron: A solid with six square faces.
Octahedron: A solid with 8 equilateral triangle faces.
Dodecahedron: A solid with 12 pentagonal faces.
Icosahedron: A solid with 20 equilateral triangle faces.

Continued on page 4

Segmented Geometric Turned Forms by Bob Rollings— continued from page 3

Faceted forms, examples shown below

Segmented Geometric Turned Forms by Bob Rollings— continued from page 4

In Jack Cox's book, he emphasizes a need for extreme accuracy, however his method uses templates and a sanding faceplate to which he attaches angular blocks. I don't feel that this is a practical method and I suggest an alternate.
I will demonstrate the method I have developed in order to cut multiple pieces on a table saw that will be identical in shape, size and side angles. The side angles change for each of the 5 forms. My method is simple enough that incredible skill is not required. Template for Dodecahedron section shown in fig. 2.

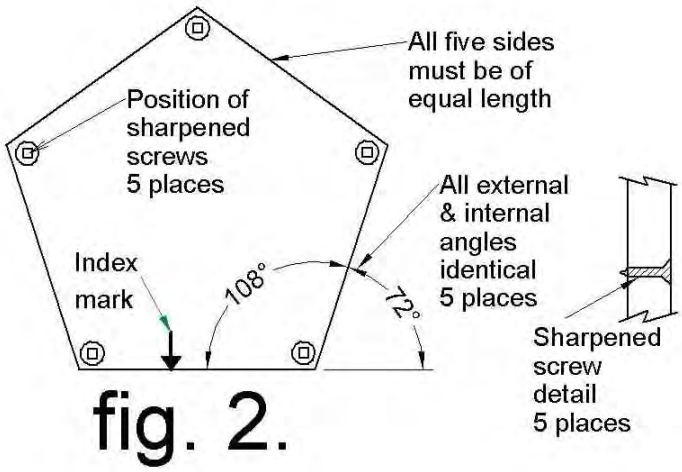


fig. 2.

The success of your finished item will be determined by your ability to make a 100% accurate template (ref. fig. 2).
The length of each of the sides and each of the angles must be perfect or you will not obtain good closure of the joints between the pieces. I like to use Baltic Birch plywood for these templates as it holds a fine line when marking out, can be cut with fine, smooth edges and will hold the sharpened screws securely.

After making the template, put a screw with a sharpened point near each corner. Use screws that are long enough to reach through the template, file or grind the tips to a sharp point. Use screws with threads over the entire length of the shaft to ensure good grip in the template. The sharp point of the screws must protrude through the template just far enough to grip a surface below the template evenly. This will allow reliable placement of the template on the workpiece without using double-sided tape or glue.
Having decided on the size of your blanks, use a cardboard or hardboard template to mark out the pieces on your wood. Mark them out larger than the finished size, and then cut them out roughly using a bandsaw. Note that these pieces do not have to be the same size as your cutting template as you will be able to cut the finished pieces larger or smaller than your cutting template. This will be explained later, ref. fig. 3.
Consult Table A for determining the angle to set the table saw. It will be best if you have an inserted plate which allows no gap other than the saw kerf as the pieces you are cutting off are wedge shaped and you don't want them to jam between the plate and the saw blade. At this time clamp your wooden fence (see fig. 3) either to the table saw fence, or to the table top of the saw. The purpose of the wooden fence is to allow for the escape of the cut off wedges and to allow cutting pieces larger than the template.

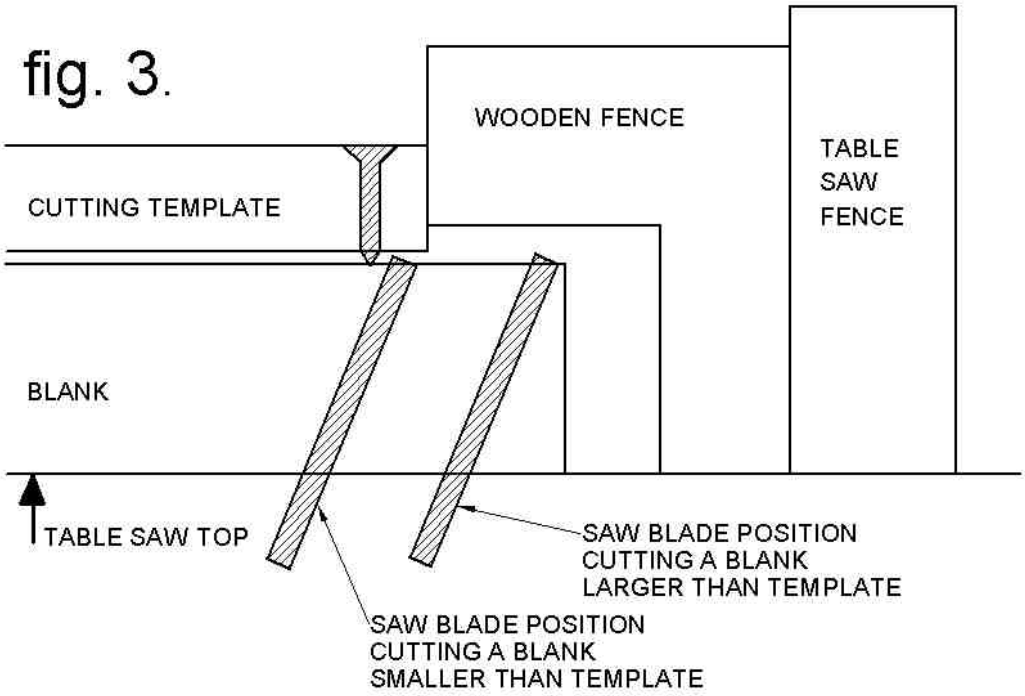
TABLE A

# of facets	Shape	Mitre Angle (B)	Maximum Ball Diameter (D)	Minimum Thickness (T)
4	Tetrahedron	35.264	0.408	0.136
6	Hexahedron	45.000	1.000	0.211
8	Octahedron	54.736	0.816	0.173
12	Dodecahedron	58.283	2.228	0.228
20	Icosahedron	69.095	1.512	0.155

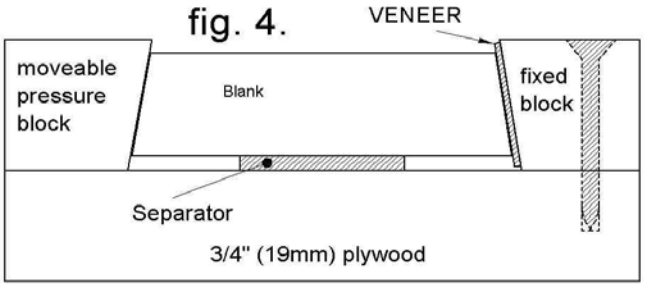
Example calculation for Dodecahedron: If the length of one side is 3.0 inches (S) Maximum diameter is: S x D from Table A) 3 x 2.228 = 6.684 inches maximum diameter Minimum thickness of sides is (S x T) + 0.375 (3 x 0.228) + 0.375 = 0.959 inches (1 inch can be used)

Segmented Geometric Turned Forms by Bob Rollings— continued from page 6

Before fastening blank and template together, put an indexing mark on the blank to align with mark (as shown on fig. 2) on the template. This is important if the two are to be reattached later. Attach the template to the blank by tapping with a hammer so that the sharpened screw points bite into the blank. Note; the holes made by the screw points are in the corners and will disappear when you turn the sphere. Proceed to cut, pushing the template along the fence, one side after the other. Now you can begin to cut your segments (see fig. 3 for set up).



SET UP THE FENCE TO MAKE THE PIECES LARGER THAN REQUIRED FOR THE FINISHED SIZE, AS YOU FIRST MUST CONFIRM THAT THE ANGLES ARE CORRECT.
Although the angles given in Table A are correct we cannot be certain that the calibration of the table saw angle is exact. This can only be verified by taping the appropriate number of pieces together and making sure the joints are all closed, both on the inside and the outside. The angles may have to be fine tuned two or three times before you are satisfied. Only at this time can you cut pieces to the finished size. As many pieces as desired can now be cut without further checking the angles.
Veneer stripes of contrasting colour can enhance the look of the geometry. Try to select the same number of sides of each segment to put the veneer on, so as not to change the size of any one segment too much. If you pre-assemble and mark the sides you want to veneer, it should not present a problem. Use only thin veneer (1/32" (0.8mm)) or thinner. The veneer can be easily glued on the angled edges using the jig shown in fig. 4.



Gluing the segments together: For this operation I like to use an epoxy glue with a long pot life - at least one hour. My preference is Lee Valley's G2 (item # 56Z72.03 for 375ml or 56Z72.01 for 750ml). Another good epoxy is West System #205 kit (60-70 minutes pot life) or #206 kit (90-110 minutes pot life). The West System kit sizes are one litre (39oz).

Long pot life is required! It takes a considerable amount of time to balance out all of the joints and ensure that the pieces fit together without gaps. It is particularly important if making a box to ensure that the upper half will fit neatly to the lower half. Note that these epoxies do take a minimum of 24 hours to cure at 20°C (70°F) and must not be moved or worked on during this time. When the epoxy has cured a sphere can be turned. Simply glue a sacrificial block at each end and turn the sphere between centres. For more information regarding Platonic solids and how to make different shapes and boxes, I recommend Jack Cox's book "Beyond Basic Turning" (ISBN 0-941936-25-2)

Platter Support (Stand)
By Joe Houpt

There are many ways to support and show off your platter, this is one that I found easy to make and to use:

•The dimensions are for my 18 ½" diameter X 1 3/8" deep platter, but can be easily adapted for your piece. It is made out of a piece of¼" Baltic plywood, approx 8 ½" X 11". The sides and top/bottom should be square and parallel to allow accurate cutting of the slots

•The basic pattern is stuck to the plywood and the inside curve is roughly cut on the band saw leaving two pieces (parts A &B). Do not cut the outside curve nor the bottom foot yet

•The ¼" slot is now cut accurately on the table or band saw, a little more than ½ way in the top of one piece (A) and a little more than ½ way in the bottom of the other piece (B). These slots ***must*** be perpendicular to the bottom or the stand will not sit correctly and you will swear at me.

•The slots need not be snug; this allows the feet to spread. *You can now stick one support piece (A)to the other (B)with double sided tape, aligning the slots accurately, and finish band sawing the profile of both together.

•Sand all edges with both sides still held together using a drum sander in your drill or lathe or the roller edge of a belt sander. The shape of the curves is up to you. The front curve at the top can be relieved to allow your piece to sit back further if you wish.

•Separate the 2 pieces now and remove the double sided tape that you used to keep them together to cut and sand. You may wish to add a tiny bit of leather or foam to the leading edge of the top curve at the front and where the platter sits on the foot. This is suggested by Martin Groneng to avoid marking the back or perimeter of your piece.

•Interlock both pieces, spread the legs and test the position of your platter. You may have to finess the curves with the sander. The bottom of the feet must not be aggressively sanded and must remain at right angles to the front and back.

•Spray paint matte black.

Joe Houpt, e-mail; **jbhoupt@sympatico.ca**

Please see full-scale drawing on next page

PLATTER STAND

for platter:
18 1/2" x 1 3/8" (470 x 35 mm)
Dimensions: inches
Bracketed dimensions: (mm)

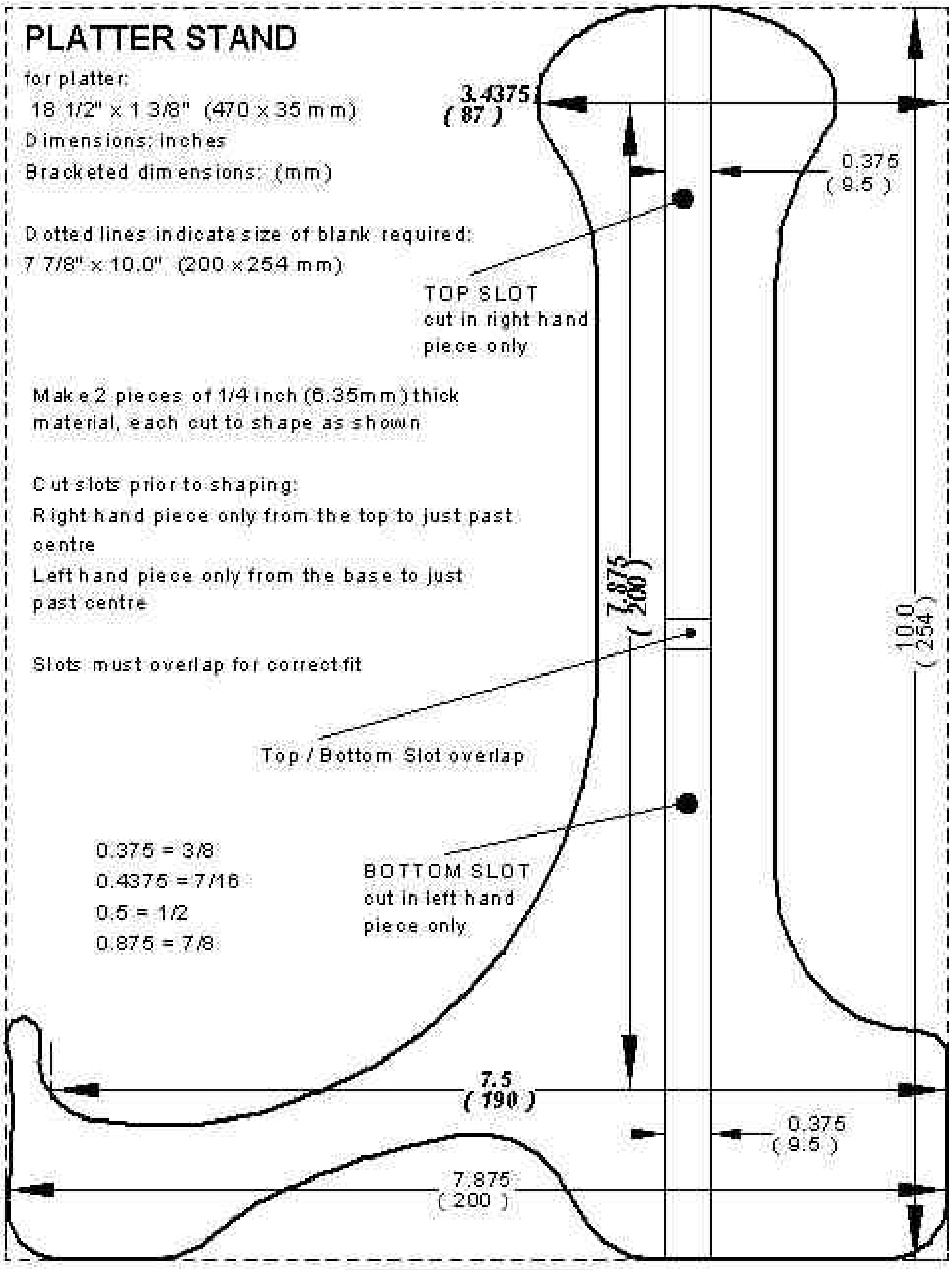
Dotted lines indicate size of blank required:
7 7/8" x 10.0" (200 x 254 mm)

Make 2 pieces of 1/4 inch (6.35mm) thick material, each cut to shape as shown

Cut slots prior to shaping:
Right hand piece only from the top to just past centre
Left hand piece only from the base to just past centre

Slots must overlap for correct fit

0.375 = 3/8
0.4375 = 7/16
0.5 = 1/2
0.875 = 7/8



Drawing Courtesy of R.Pikul

MALCOLM TIBBETTS DEMO

We were greatly appreciative of Malcolm Tibbetts segmented turning instruction at our last meeting. He has the ability to describe some of the most complex turnings in an easily understandable manner. I particularly enjoyed watching some of his methods of assembling easily cut rectangles, then using them either directly or cut into other shapes and reassembled for some dramatic results. The pictures here hardly describe what we were treated to all evening.

I was impressed with his work methods and had a good look at his book "The Art of Segmented Wood Turning" during the evening. But, I was too slow and missed my chance for a copy - will have to get John at Woodchuckers to hold a copy for me. If you are at all interested in segmented turning it's a book that should be in your personal library.

Check out the book's details on Malcolm's web site - http://www.tahoeturner.com/
The web site includes a full table of contents for Malcolm's book. Those used to high prices for woodturning books take note - the book's price is lower than you are used to paying for informative and instructive woodturning publications.

At the same time have a good look at some of his work shown on the web site. You will find more than the usual set of great pictures of superb turnings, Malcolm also adds a story to many of the pictures and some pieces have different views displayed.

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IT's YOUR GUILD - BE INVOLVED !

Share your talent and learn from others at the same time.

Do you have ideas for us ?

Please tell us how you can help - e-mail me at: michaelfinkelsteinwoodturner@gmail.com