



# IWG News

The Newsletter of the Island Woodturners Guild

May 2024



## About the IWG:

The [Island Woodturners Guild](#) meets from 1:00 - 4:00 PM on the 4th Saturday of each month (except for July/Aug) at the Central Saanich Senior Citizens' Centre, [1229 Clarke Road](#), Brentwood Bay, BC.

**Visitors are welcome.**

## Executive Committee

**President:**  
**Don Costello**

**Vice President:**  
**Don Robinson**

**Treasurer:**  
**Bonnie Hallas**

**Secretary:**  
**Michael McEwan**

**Members at Large:**  
**Hovan Baghdassarian**  
**John Kilcoyne**  
**Virginia Lee**

**Past President:**  
**Tim Karpiak**

**Newsletter Editor:**  
**John Kilcoyne**

The IWG gratefully acknowledges the support of the following companies:

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## THE PRESIDENT'S TURN

Hello all!

Let me start off by reminding you that we have shifted our May meeting and AGM to June 1<sup>st</sup> to allow members to attend the AAW Symposium. I hope that those of you attending in Portland have a great time and come back with a few stories about your experiences.

This meeting will be a good one with a few of our members stepping up to demonstrate. Graeme Evans will demonstrate turning finials followed by Tim Soutar demonstrating how to sharpen a bowl gouge.

As noted in this newsletter, we will have some smaller (6-8") walnut rounds for the taking and a few nice arbutus pieces that will be raffled off at the end of the meeting. This wood came to us through a good friend of Peter Pardee who wanted the wood to be used for a purpose other than mere firewood. He asked for a few bowls in return, so I hope that a few of you will step up. I want to thank Peter for making the connection as well as Don Robinson, Rick Bailey and John Kilcoyne for going out to buck the wood and bring it to the meeting.

I want to extend my thanks to Chris Leach for volunteering to serve as Treasurer for the upcoming year. It means we can continue to operate!

During Elizabeth Weber's demonstration she mentioned that she uses an ultrasonic cleaner for her burrs. I also use this cleaner in another hobby of mine - collecting and playing vinyl records. I am going to bring my cleaner to the meeting on June 1<sup>st</sup> and would be happy to run your dirty burrs through a cycle or two to clean them up.

I hope to see you all on June 1<sup>st</sup>.

Thanks

Don Costello

## **NEXT MEETING: SATURDAY JUNE 1**

This **jam-packed** meeting will feature the following events:

### **1. Free Walnut: 12:45 p.m. in the Parking Lot**

A few weeks ago, Rick Bailey and Don Robinson (with the not so able assistance of John Kilcoyne) were able to secure a considerable amount of walnut as well as arbutus and a few pieces of pear.

While the pieces of walnut are relatively small (maximum 8”), they will provide members with an opportunity to work with this species if they have never had the chance. New members (less than 3 years) will have first crack at these (no pun intended).



### **2. Annual General Meeting**

The formal meeting will start with our AGM. In addition to a brief report from the President and Treasurer, this will feature the election of a (sort of but not really) new Executive.



### **3. Turning a Finial**

Graeme Evans will provide a demonstration on turning finials. *(The challenge for the September 2024 meeting will be to turn a finial.)*



### **4. Dirty Burrs**

You may recall that during her demonstration, Elizabeth Weber mentioned using an ultrasonic cleaner to remove build up on rotary burrs – especially carbide-point burrs from Saburtooth or Kutzall.



As Don Costello notes in the President’s Turn, he will bring his cleaner unit to the June 1 meeting to clean member’s burrs. He estimates that it will take approximately 5 minutes. So, load up your burrs and bring them to the meeting for cleaning!

## 5. Random Reflections on AAW Symposium

Hopefully, those members who attended the Symposium will be willing to share some reflections.



## 6. Sharpening Gouges

Tim Soutar will give a demonstration on sharpening a bowl gouge.



## 7. Show and Tell

## 8. Parking Lot Raffle: Arbutus and Pear

As noted above, Rick, Don and John were able to harvest approximately 12 nice pieces of arbutus (clear and up to 16" in diameter) and a few pieces of pear. After the hall has been cleaned up, these will be available for the ridiculously low price of \$5. Those who are interested will enter their names in a hat and when selected, will pay the fee, and pick their preferred piece. (Exact change please!)

**Whew!!!**

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## **THE NEXT NEXT MEETING**

Our last meeting before the summer break will take place on Saturday June 23<sup>rd</sup>. It will feature a live, remote demonstration by Gord Kifiak in his shop on double-axis turning



## APRIL RECAP

Don Robinson gave a very informative demonstration on turning spheres – as well as a very impressive display of tool control.

### A. INTRODUCTION

Spheres are fun to turn and decorate, easy to sell and are a good use of small chunks of prized wood. However, as Don illustrated, they also provide excellent practice for tool handling, body movement and visualisation.



### B. THE PROCESS

#### 1. The Blank

Don began by turning a cylinder to a diameter which matches the intended diameter of the sphere – in this case 3.5” which meant a radius of 1.75”. A tenon was turned for chuck mounting leaving a length of approximately 4.5”.



#### 2. Layout and Preparation

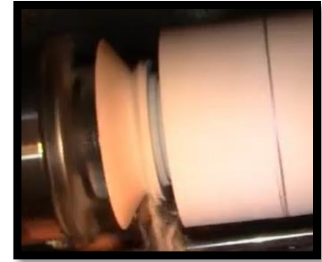


After confirming the diameter with calipers, he made a pencil line approximately 2.25” from the tailstock end which marks the centre of the sphere. From this line he marked lines on either side of the centre line which were 1.75” plus 1/16”. This extra “length” provides him with a safety margin when turning.

Using a parting tool, he cut in at both ends until there was approximately 1.5” remaining. He was careful to ensure that the cut was perpendicular to the blank.

**Tip:** Don noted that when making a deep parting cut such as this one, there is a danger that the tool may bind. To prevent this, he periodically withdrew the tool and make a second cut approximately 1/16" on the waste side to ensure clearance.

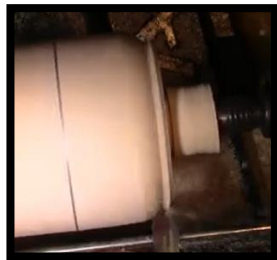
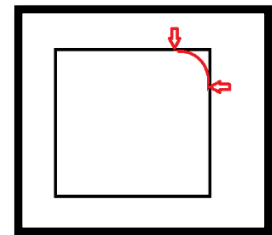
To provide tool clearance while still protecting his hands from the chuck jaws, he removed an angled portion of the waste end at the head stock.



He then moved to the tailstock end and reduced the size of the waste portion in order to provide clearance.

### 3. Turning the Sphere

Don started working at the tailstock end of the blank. Ideally, you want to produce a series of arcs that are of equal size (Right diagram) . For example, if you begin the first cut 1/2" from the top edge, the cut should finish 1/2" down the end.



He used a bowl gouge in a push cut and completed each "arc" in one smooth motion.

**Tip:** For first timers, you may want to place the tool rest at a 45° angle to help maintain a smooth cut.

Successive cuts were made each one moving closer to the centre line but never touching it. **The centre pencil mark should be visible once you are done.**

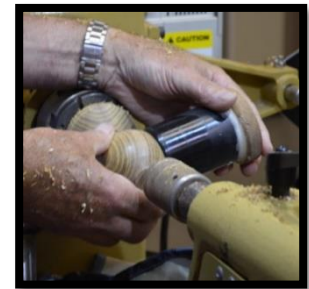
**Tip:** To assist in seeing the sphere outline, place something dark (e.g. paper, cloth) behind the turning.





He then repeated the process on the headstock side of the sphere again stopping just shy of the centre line.

**Tip:** While Don relies on touch, he noted that you can check the accuracy of your sphere by sliding the mouth of a jar or a piece of pipe on the turning. If there are no gaps, you have created a perfect sphere!



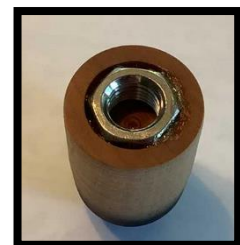
When satisfied with the form, Don used a parting tool to reduce the nubbins on either end. With the lathe off, he then used a saw to remove them.

The sphere is then mounted between centres in “jam cups”. As Don is a sphere addict, he has a number of these sized for different spheres.



In making the headstock cup, the inside curve should be approximately  $\frac{1}{3}$  the diameter of the sphere with craft foam on the inside to protect the sphere. For the tailstock, Don uses a threaded cup again with craft foam on the inside.

**Tip:** As an alternative to a threaded cup, you can purchase a nut which matches the threads on your live centre and secure it in a recess with epoxy.



The piece is then mounted at 90 degrees from its original orientation i.e. with the centre pencil mark in a longitudinal position (right)



**Tip:** The sphere must be centred on the 2 cups. While Don relies on touch and eye, you might want to use a ruler to measure the distance from the tool rest to the centre line and rotate the sphere to check the measurement on the other side. Continue to shift the piece until the measurements are the same.

He then turned off the “nubbins” and relying upon the shadow line, fares the surface to produce a smooth curve. He relies on touch to identify any ridges or out-of-round portions.



Don continues to rotate the sphere (90 degrees and then 45 degrees) until he is satisfied with the result.

**Tip:** To avoid producing a marble, Don emphasized the importance of going slow, using a light touch and constantly check for symmetry.

#### 4. Sanding

Don power sands his spheres. With the lathe off, he first “spot” sands any areas in need to clean up. He then power sands with the lathe on frequently rotating the sphere and stopping often to “spot” sand.



**Tip:** Since in most cases you will be alternating between end grain (hard) and side grain (soft), use a light touch to avoid deforming the sphere.

## Hand Sanding Technique

Noted turner Soren Berger uses a unique hand sanding method on his spheres. He places a piece of sandpaper on the turning and then applies (soft) pressure using a PVC pipe cap. Regardless of the diameter of the turning, this means that the paper only contacts the wood at equal spherical points. You can see this technique in his video at the 9:00 minute mark: <https://www.youtube.com/watch?v=R4s5LziiS08>



## 5. Buffing

After applying a finish, Don buffs his spheres using the Beall Buffing System. (LV: \$124).



**Tip:** You must hold the sphere firmly to avoid it making an expedition around the shop.

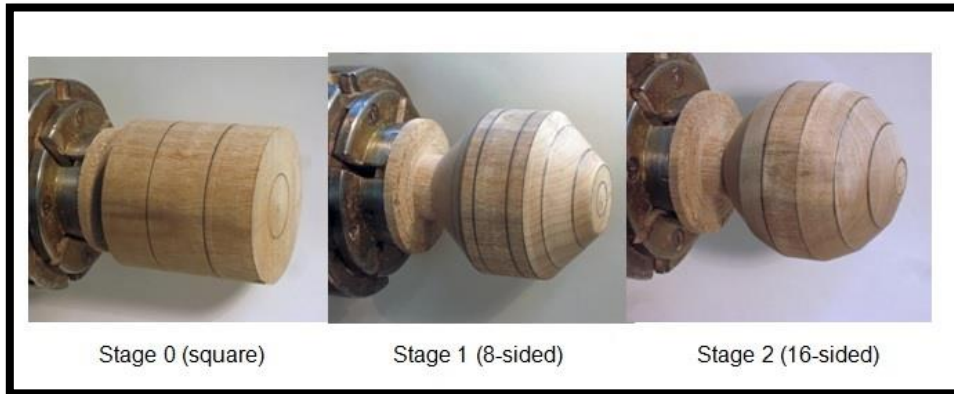
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## POST-SCRIPT: OCTAGAN METHOD FOR NEW TURNERS

The skill that Don demonstrated is the product of having turned over a hundred spheres. And the virtue of his approach is that in addition to producing a sphere, it does so in a manner which helps to develop valuable turning skills. Having said that, it can be frustrating for a first-time sphere turner. A popular alternative for new turners is the so-called *Octagon method* which is based on a technique developed by Al Hockenberry and Soren Berger.



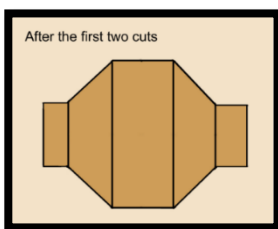
The basic idea is to turn an octagon with 8 straight sides (or alternatively 16) which intersect the edge of the sphere and then remove the high points between each “corner”.



The initial steps are the same as demonstrated by Don: turn a cylinder, measure the diameter, and mark this on the turning and then add a centre line. However, subsequent measurements are determined by mathematical formula – which appears to be more complicated than it is in practice.

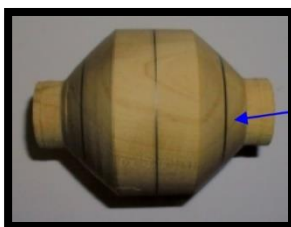
Using a parting tool, turn a tenon on each end. The diameter of these tenons should be **0.414 x the diameter of the cylinder**. Hence for a cylinder with a diameter of 3”, the tenon diameter would be 1.24”.

From each corner, make a mark (**M2**) at **0.293 x the diameter of the cylinder**. For a 3” cylinder, this would be .88” in from each corner.



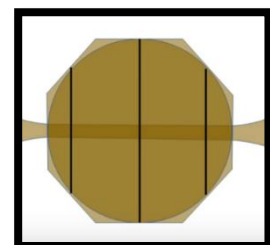
*Doc Green*

Then make straight cuts from each M2 to the intersection of the tenons and the body which will produce the shape at left.



*Al Hockenberry*

Then make a mark at the centre of each flat facet that you just turned. **This mark represents the outside of the sphere.**



*As Wood Turns*

At this point you can reduce the size of the tenon and make curved cuts **between the lines** (the lines must not be removed) to produce the sphere.

### Octagon Information

<https://sorenberger.co.nz/pages/videos>

<http://aaw.hockenbery.net/Turning%20a%20ball%20basicsforweb.pdf>

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## MASKING TAPE FOR TURNERS

If you want to apply paint to only a portion of a turning, in many cases you can apply the paint in a relatively imprecise manner and then turn away the “excess” to create a clean demarcation.



However, where this is not possible, you will typically need to use masking tape to protect those areas that you do not want coloured. This note offers some recommendations on a few tapes (paper and film backed) to use and some tips on their use.

### DISCLAIMER

For this note, I did rely on manufacturer’s websites but only for technical information (e.g. material, adhesive, thickness, elongation). For a more qualitative assessment of various products, I relied primarily on websites and videos of professional automotive painters and air-brushers.

## Introduction

The two most important tape features for turners are no bleeding and elongation (stretchability) which will facilitate application to a curved surface.



None of the basic “blue painter’s tapes” that we are familiar with are recommended. While most reputable manufacturers use crepe (versus flat) paper for the backing which will provide some degree of elongation, this is typically very slight. More importantly, as a variety of tests show, these tapes do not do a good job of preventing bleeding.

While no tape is foolproof, the best tapes in terms of both elongation and bleeding are those which were developed for use in industrial and automotive paint applications. These can be found at most auto body supply stores. (In Victoria, *Rondex* appears to have the largest selection. (<https://rondex.ca/>))

## A. RECOMMENDATIONS

### 1. PAPER BACKED

#### a. 3M High Performance Green Tape (233+/401+)

*(These two tapes are presented on 3M sites as the same and I was unable to determine why they have different numbers.)*

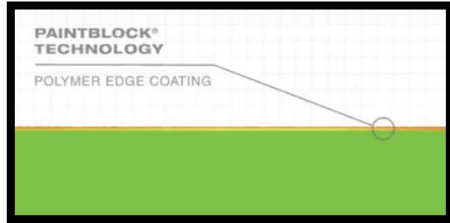
They both feature enhanced crepe paper backing which has been treated to minimize surface bleed and a proprietary rubber-based adhesive which will work equally well in hot and cold conditions. They are 6.7 mils thick and have a 10% elongation.



They are available in various widths ranging from 1/8” to 3”. (*Rondex* 3/4”/60 yds: \$7.10) This tape is used by a few Guild members who report good results.

## b. Frog Tape

In terms of composition, Frog Tape (Green) is similar to the 3M tapes with a crepe paper back and a proprietary rubber-based adhesive. However, this tape is thinner (5.0 vs 6.7 mils) which means a lower paint “ridge” as well as slightly better elongation (13%). (Rona: 1” x 60 yds: \$10.60)



However, the most distinctive feature of this tape, and the justification for the higher price, is the use of *Paintblock Technology*. This is an absorbent polymer on the edges of the tape which reacts with water (in acrylic or latex paint) to form a gel which provides a micro barrier preventing bleeding.

While I was unable to find any test comparing this tape to the 3M 233+/401+ tape, independent tests against other 3M products (right) reveal a much sharper line without bleeding. Moreover, I find it interesting that 3M now offers *ScotchBlue Ultra Sharp Lines* tape (#2098) which features.....(wait for it).... *Edge-Block Technology!!!*



### Important Practice Note



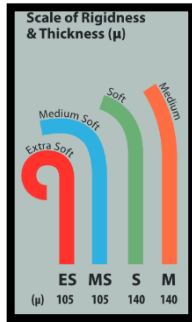
If you are going to use Frog tape, after applying and burnishing, rub a damp cloth over the edges to trigger the formation of the gel barrier **before** applying paint.

## 2. FILM BACKED

There are a variety of film backed tapes which are typically referred to as slimline or pin stripping tape. The film backing (thermally stabilised PVC) provides a huge increase in elongation (up to 200%) over paper-backed tape. You may want to consider the following brands if you require this higher level of “stretch”.

### a. FBS ProBand Fineline

Manufactured in Germany, this tape appears to be very popular with custom automotive painters as well as air-brushers.



It is available in multiple sizes (1/16", 1/8", 1/4", 1/2", 3/4") and 4 different rigidities which determine how much the tape can "bend". (Rondex: 1/2"/60 yards: \$15.40)

### b. 3M Vinyl Tape 471+ Fineline

This is another popular tape. While it appears similar in composition to the FBS, the backing is semi-translucent which will make it easier to apply if you need precise alignment.



However, at \$30 for 1/2" x 36 yards, it is significantly more expensive than the FBS tape.

## B. TIPS

The following are some points to keep in mind when using any of these products.

### 1. Burnishing

After the tape is applied, use a dowel or pencil to burnish the edges of the tape to ensure tight adhesion to the wood.

### 2. Paint Viscosity

Obviously, paints with a low viscosity such as Golden High Flow or Fluid Acrylics will pose a greater risk of edge bleeding.

If you are using an air brush, this should not be a major problem so long as you use multiple light coats since the atomized paint will dry very quickly.

However, hand brushing will be more challenging. In response, Tim Soutar has adopted the following approach. He uses Heavy Body acrylics but applies them using a dry brush technique. As Donna Banfield demonstrated, this involves loading a brush with paint and then tapping it on a piece of paper towel to remove most of the paint. A very light brush stroke – one that just “kisses” the surface – leaves a near microscopic layer of paint. Tim applies multiple coats until he achieves the desired look.



Regardless of application method, you should apply the paint moving from the tape to wood to avoid “pushing” paint under the tape edge.

### 3. Groove

If appropriate, you might consider turning a shallow groove at the demarcation line and burning the groove. This will allow you to press the edge of the tape into the groove providing a better barrier.

### 4. Narrow Strips

Narrow tape will make it easier to follow a curve. As Ed Pretty noted in his demonstration a few years ago, if your tape is 3/4” wide, you can mount it on a chuck and use a skew or razor knife to cut narrower strips.



### 5. Storage

Tape shelf-life ranges from 6 months to 2 years depending upon the composition of the tape (paper vs film) and the adhesive (acrylic vs rubber). Most 3M products are rated at 12 months.

You can prolong the shelf life if you store your tapes in a plastic lidded container. Better yet, add a few dessicant tabs to the container.

**Note:** In the case of Frog tape this is crucial. Otherwise, the absorbent polymer on the edges will be “triggered” by moisture in the air.

This will also protect your tape from bumps on the edge which will inevitably produce bleeding.

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# LATHE ALIGNMENT

Many sources suggest that turners should periodically check the alignment of the headstock and tailstock. The following note offers some information on how you can do this.

## 1. Tests for Alignment

While there are several methods, the following are the two most common ones.

First, insert two sharp-pointed centres and, with the quill retracted, bring the tailstock centre up to within 1/8" or so of the headstock centre. Lock the tailstock and quill and examine the two points to see if they align both horizontally and vertically.



Secondly, extend the quill to near its maximum and then advance the tailstock close to the headstock centre and compare with the first results.

Noted turner, Al Hockenbery suggests an alternative method. Put a block of wood approximately 8" long in a chuck, turn it round and then clean off the face. With a non-revolving, sharp pointed centre in the tailstock, turn on the lathe and advance the point slowly until it just barely touches. If it produces a point (or small circle), you are good to go.

## 2. Close Enough?

While ideally these should be perfectly aligned, as many professional turners point out, a woodturning lathe is not a precision instrument. Given the vagaries of machining and the need for clearance of tailstocks and some headstocks (sliding or rotating), perfect alignment may not be possible or indeed even necessary. If the alignment is "close", in the vast majority of cases this will have little or no effect on your turning. As one experienced turner and machinist noted after reading dozens of posts on this topic, this is a "*non-problem looking for a solution*".

(The one exception to this is that misalignment may cause a slightly oversized or off-centred hole when using a Jacobs chuck to drill on the lathe.)

Having said that, there is no measurable standard to distinguish between “close” and “not close enough” as this will hinge on a wide range of factors. If you are concerned, you should ask a senior member for advice.

### 3. Significant Misalignment

Dealing with significant misalignment is beyond the scope of this note as there are literally dozens of possible causes.

Having said that, the most common response to vertical misalignment is to glue a shim (feeler gauges are a good choice) to the underside of either the tailstock or headstock. Horizontal corrections are more complicated, although the following video (at 9:07) demonstrates one of the more popular steps.



[https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.youtube.com/watch%3Fv%3DLhp\\_kmryRN&ved=2ahUKEwin2L2b1piGAXUSGjQIHeJGCaAQz40FegQIDRA2&usg=AOvVaw3FLCNtAQOMzSCN6rw89xVk](https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.youtube.com/watch%3Fv%3DLhp_kmryRN&ved=2ahUKEwin2L2b1piGAXUSGjQIHeJGCaAQz40FegQIDRA2&usg=AOvVaw3FLCNtAQOMzSCN6rw89xVk)

Nonetheless, there are some commonly recommended steps you should consider first.

- a. There are many on-line reports of poor OEM centres. Accordingly, if you are using these, borrow some after-market centres from a member and recheck.
- b. Clean out the morse tapers on both the headstock and tailstock.
- c. Check if there is any buildup of dust or debris under the tailstock (and the headstock if moveable). While you are at this, also check that surfaces on the bottom of the tailstock (and headstock if possible) for any casting imperfections or slag which may prevent a flush fit. If so, file them off.
- d. Check if the locking plate on the underside of the tailstock is securely locking the tailstock to the ways. If there is slop, this may account for any horizontal misalignment. Obviously, you should also check for slop in the quill.



e. If your headstock is bolted to the ways, check the bolts to see if they are loose, bent or rusted. This is particularly recommended for small lathes.

f. Check your owner's manual or contact the manufacturer. For example, on a *Oneway* you can align the headstock by adjusting the jack screws while on some *Nova* lathes, you can do so by repositioning the ways.

g. Finally, conduct an internet search to see if there are postings related to your lathe. (This is particularly the case if you own a *Nova Galaxy*.)

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## **FOTO CAPTIONS**

The following are the captions suggested for this photo of Tim and Mike.



***"Watching paint dry"***

***"Its past our nap time."***

***"André did you fall down again?" OR "Kilcoyne overdid the wine again!!!"***

***"Mentally at the beach?"***

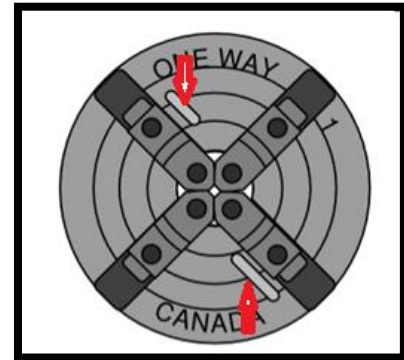
***"Smart and Smarter"*** (from MN) OR ***"Smarter and Smart"*** (from TS)

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## ONEWAY CHUCKS: WHY TWO SLOTS?

This is a response to a question concerning why there are two slots – one long and one short - machined in the face of Oneway chucks (right).

They are both designed to accept a pin in one of the jaws which prevents the jaws from loosening and flying off the chuck.



The longer slot allows for maximum opening size and is designed for experienced turners. The shorter slot prevents the jaws from protruding beyond the body of the chuck and is designed to protect the knuckles of beginners and students.

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## RICHILEU: MOHAWK TUNG OIL

This note is for those of you who purchase this finish from *Richilieu*. The staff advise that since they were only selling one or two containers a year, they will no longer stock it on a regular basis. They will however include it in their next order from Vancouver which may take a few weeks to arrive. Accordingly, if you are running low, contact the store before you run out. (They will express order this product for you but the surcharge of \$30 for a \$52 item hardly makes sense.)



**Note:** As a wholesaler, their bookkeeping requires an “account” for every purchase. The name of our account is “**Island Guild**”.

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## PARTING OFF

Thanks to Mike Neal for help with the note on lathe alignment and to Rick Bailey and Don Robinson for their work on harvesting the walnut and arbutus. And last, but not least, thanks to the members of the Executive!

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CONCLUDING THOT

