



Woodturner n. one who makes lots of chips and occasionally ends up with an object of art

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

ONEWSLETTER (5

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June 2013 VOLUME 9



Message from Colleen Samila, President



Welcome to the June newsletter — half way through the year already! Lots has happened in the past few months including the loss of Michael Bonnycastle who passed away on April 10, a great supporter of the WGO, giving freely of his time and knowledge – he will be greatly missed, please read memories of Michael starting on page 7.

On May 4 there was the auction of Ray Young's equipment up in Little Britain, what an event that was. If it wasn't for John Gibbons, I am not sure what Lois would have done with all that Ray had squirreled away. There were hundreds of bowl blanks, and pieces of wood and large scale burls. The day was supported by members from Barrie, Peterbor-

ough and our own WGO; a great day of camaraderie, coffee and donuts. John did a great job, and also mentioned that most of us should leave a detailed list of our equipment and tools along with values. If god forbid we get hit by that proverbial bus, we would all like to leave our loved ones somewhat prepared.

We saw Marilyn Campbell in April, what a great demonstration! She left one of her ½ finished pieces that we will be doing a draw for – more to come on that from Trinela. Our May Salon was a hit – it was great to see everyone, the tables were full of beautiful items once again this year and our infamous judge, Dorcy James had some sure fire challenges choosing the winners. Louise Bonnycastle and the children put on an incredible spread of Michael's favourite chili, which warmed everyone up and the sweets were delicious – thank you!

This month are the elections, ask not what your club can do for you, but what you can do for your club! I thought I stole this line from Richard, but he's denied it – so to whoever came up with it... thank you.* Every WGO member knows how much fun it is to get together every other Thursday and some have developed further friendships that have you seeing each other much more. We on the executive have fun scheduling, budgeting and supporting each other, programming and finding turners to show us and teach us. You too can help! Please think of giving some of your time to helping others and your club!

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*In his inaugural address, John F. Kennedy said, "ask not what your country can do for you, ask what you can do for you country. We may have paraphrased JFK's words. (Editor's note)

Click on Salon 2013 Results to see how you and your fellow members fared.

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See page 15 for a full list of WGO Executive Officers and volunteers

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 the editor at:
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Woodturners Guild of Ontario—June 2013



Experiences in Sharpening

Jack Gelber



We have all heard and read that Sharp tools make it much easier to turn. In our club the main proponents, in my short history, have been Richard Pikul and Michael Bonnycastle. We always seem to agree and nod our heads but how often do we push our tools until they are hard to cut and make saw dust rather than shavings? The photo on the right is Michael Finkelstein, the founding Editor of the WGO Newsletter. When one has a properly sharpened a turning tool, shavings as seen on Michael's head result. If we don't sharpen as Michael did, do we then blame the wood, our expertise or do we recognize the really simple answer; a dull tool? I was one of those 'pushers', making saw dust because I looked at the effort of sharpening as taking a long time.



Sure, I heard the suggestions of having the grinder close to the lathe so it would only take a single minute to re-sharpen the tool. Did I follow that advice? Most of us occasional turners are guilty of that laziness. I remember

the demonstrators we have had who reminded us to keep our tools sharp. Some carried a diamond hone in their pocket to clean up the tool several times during the demo. Do we do that?



At a recent skills night, I was attempting to create a better handle for a tool I had made using a newly sharpened roughing gouge. Richard insisted I use his gouge since it was 'sharper'. I was a bit put off by the insinuation of my poor ability to sharpen using my Wolverine jig (left photo). But guess what, Richard was right. The slight difference was noticeable. It took less effort with his somewhat sharper tool.

Over the next days I decided to spend some time to see if I could improve my sharpening skills. But how would I know if I was successful? Would it take too much time and thus take away from real turning? I have watched several demonstrations on sharpening by a bunch of turners and even remember a lot of it. I bought a few DVDs on sharpening to refresh my memory. I looked at my books again and all of them have a chapter on sharpening. I even looked on the AAW

site and the Internet to see if I could find a Miracle quick answer. They all seemed to say the same thing. It takes a basic understanding and practice to obtain the 'feel' for proper tool sharpening.

Now how was I going to test my efforts? My ancient memory recalled a demo we had of using a mounted spindle with soft wood. We were shown to hold the tool with the bevel touching the wood surface and moving the tool's handle until the tool just starts cutting and see if you could get a clean shaving. The cutting will occur if you slowly turn the lathe manually. That was to be the best way of knowing if I was getting better.

Well Guess what. It worked. I made shavings, not saw dust! It did not take much extra effort, skill or time to try a few different ways to sharpen and hone to get a better edge. As always the challenge is remembering what I did and being able to do it consistently. When you only turn every few weeks as I do, the skills fade.

One of our mentors also advised that at every big or important turning session using good wood, we should take some poor wood and practice the basic skills so that our memory kicks in again before we work on the expensive piece. Do we remember to do that? Do we take the time to do what we know is better or do we jump in and go right at it? For those novices, like me, who are not creating turned pieces for sale but only to achieve personal satisfaction or presents for family and friends, do we take the time for practice? I don't very often and I wonder if I am alone.

However, if I stop to think about it and remember the theory and the actual results achieved, I sometimes remember to sharpen more often, even while I am turning an item. It does make it easier and the piece looks better.

My fellow novice turners should try it as well.



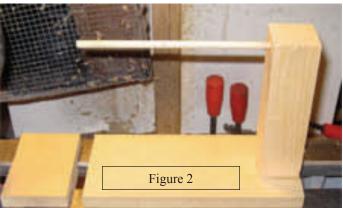


The Value of the American WoodTurner Peter Kaiser



I was in the process of finishing the bottom of a natural edged bowl which was held in place with a vacuum chuck. I thought I had judged the thickness of the bowl bottom while turning the inside quite accurately . But I was wrong.

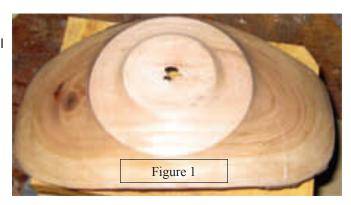
During the turning of the outside bottom of the bowl I broke through (Figure 1) and, of course, the vacuum was broken and the bowl flew off the lathe right towards my face.



the bowl if you are turning the inside. If you are turning the outside bottom the front edge lines up with the inside bottom of the bowl. Then when you bring the rod up to the bowl bottom, the distance between the wood on the left and the base on the right is the thickness of the bowl bottom. (also see page 6)

In the same issue of the **American Woodturner**, Andrew Chen wrote an article about face shields. He discusses 5 shields. The one that caught my eye is made of polycarbonate and has a safety rating of Z87.1.

I did some searching and could not find any face shields in Canada that met the Z87.1 safety rating. (Maybe I did not look carefully enough) I did discover, on the Fastenal website, that they sell a .06 inch thick shield made of polycarbonate rated at Z87.1. But it is not stocked in Canada. Their website tells you to call a local store and order it through them. I called the Fastenal store in Thornhill and the shield was ready for pickup in about 48 hours. The shield fastened quite nicely to the yellow head band I already had. (Figure 3)



Fortunately the bowl was not heavy and the face shield I wore withstood the impact. But it scared the heck out of me, since previously the only thing my face shield ever protected me from was wood chips.

I had recently read the April 2013 **American Wood-turner**. In the Tips section Aage Rendalen describes his simple method of measuring the thickness of bowl bottoms. As soon as the bowl hit my face shield I decided to give Mr. Rendalen's tip another look. As explained in Mr. Rendalen's article, the front edge of the piece of wood on the left (Figure 2) is placed directly under the outside of



Figure 3

Now having built the simple bowl bottom thickness measure and having attached the safer face shield I am ready to go back to my lathe with increased confidence.

I strongly suggest that my fellow wood turners read the articles to which I referred, above.

One final thought. The **American Woodturner** is a most valuable source for wood turners who want to improve the safety of their craft





Easy Economical and Quick (EEQ) PLASTIC THREADED CONNECTIONS Robin Bryan



This article shows the reader how to recycle the necks and lids of plastic containers and bottles to make EEQ (Easy Economical Quick) threaded lids/stoppers. The first step is to select a plastic container or bottle with a threaded lid of the size you require.

Below I have selected a pop bottle and made chucks so that I can make a number of threaded stoppers and inserts for salt and pepper shakers..

Chucks



Figure 2

Female Chuck

Place a square blank larger than the selected lid in the chuck and make a recess for the lid and glue it in place. (Figure 1)

Male Chuck Cut the male threaded top off the bottle. (Figure.2) Screw it into the chucked female lid and turn off the bottle down to the beginning of the threads flush with the chucked lid and unscrew the male thread. (Figure 3) Chuck a blank with a square cross section larger than the male thread and turn a spigot to fit the in-

side of the male thread. Glue it onto the spigot and flush off the end. (Figure 4)



Figure 1



Figure 4

Threaded Inserts

Female Threaded Inserts

Screw bottle tops onto the male chuck and turn off the tops of the lids down until totally removed. (Figure 5) Prepare a suitable recess in the bottom of the shaker to fully insert the male stopper threads, and glue inserts in. (Figure 6)



Figure 3



Figure 5



Figure 6

(Continued on page 5)





(Continued from page 4)

Male Threaded Stoppers Chuck the block for the stopper and turn a spigot to fit the male thread and glue it on. (Figure 7) Make grip ridge/bar cuts on a band saw (Square Blanks, Figure 8) or (Round Blanks in a "Square" Female chuck, Figure 9) and sand on a belt sander. Screw the male stopper into the square female chuck, chuck in the lathe and turn it to the desired profile. (Figure 10).







Figure 8

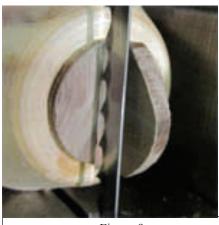


Figure 9



Figure 10

Finished Shakers





Figures 11 and 12

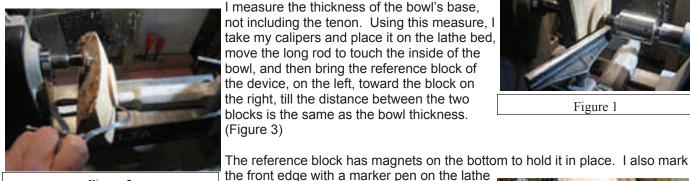


Measuring Bowl Base Thickness Peter Kaiser



On page 3 I showed a photo of a simple thickness measuring instrument discussed by Aage Rendalen in the April 2013 American Woodturner. Here I describe how I used this device when making a natural edged bowl.

I started out in the usual manner as seen in Figure 1. At this point in the project, I am ready to turn the bowl around and insert the tenon in a chuck. Before attaching it to the chuck I measured the thickness of the piece as seen in Figure 2. Note that



I measure the thickness of the bowl's base. not including the tenon. Using this measure, I take my calipers and place it on the lathe bed, move the long rod to touch the inside of the bowl, and then bring the reference block of the device, on the left, toward the block on the right, till the distance between the two blocks is the same as the bowl thickness. (Figure 3)



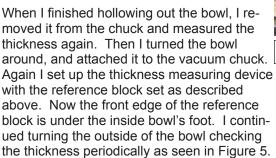
Figure 1

Figure 2

bed in case it gets moved.

Figure 4

I continued hollowing out the bowl, stopping periodically to measure the thickness of the bowl's foot as seen in Figure 4.





It can be seen in Figure 5 that I retained part of the tenon for the base of the bowl. The tenon was hollowed out a bit so that the bowl rests on the edge of the tenon. Also note that the distance between the reference block and the measuring block is very narrow, showing that the thickness of the bowl's base is not too great.



Figure 3



Figure 5

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WARNING! Woodturning is an inherently dangerous active activity. Readers should not attempt any process or procedure described in this publication without seeking proper training and detailed information on the safe use of tools and machines.





IN MEMORY of MICHAEL BONNYCASTLE



A friend who had a true giving nature and for so many years looked after many of our guild's needs.

Michael was one the Woodturners Guild of Ontario founding members.

As will be seen below, his contributions to the WGO were numerous, perhaps the most important of which was starting the beginner's hands-on skills night which Richard continues.

Thank you Michael for all of your precious time, good nature and guiet accomplishments.

Following are tributes from WGO members.

Mark Salusbury:

My friend, Michael Bonnycastle

It's a great honour to have been asked to tell you all about the Michael I knew; Michael Bonnycastle the woodturner.

I'd like to offer that we're here to share emotions and fond memories, to wish Michael well on his new journey and to express how much we respect Michael the man, the husband, the father and very best of friends to us all... and in doing so, show our admiration for the depth and quality of his very many accomplishments.

Taken from us all too young, he enjoyed the accomplishments of several men in his time span here. A life well lived indeed.

Michael and I came together over a spinning wheel. In 1988 he was interested in spinning wool and was making a spinning wheel. At that same time, my wife Susan and I were building a new woodworking retail business with lathe work... woodturning, at its core. Michael wanted to craft spindles and spokes for his wheels and turned to our store and a new woodturning club we were forming as resources.

The Michael I came to know was not content with appreciating merely the surface details on anything he became interested in; he had to inspect it down to the roots so he could know it and understand it throughout. He could have bought a spinning wheel at a wool shop, but no, he needed to make one. He had to make, fit and assemble each of the many components, which meant he had to learn all new skills....how to turn wood on a lathe.

It wasn't long before I came to know something else about Michael...if he was going to get involved with a group he wasn't content with sitting on the sidelines. Michael was a "giver", bringing whatever skills he had freely to the group. A fair exchange in his mind...his knowledge for fresh skills and new friendships.

Not long after joining our fledgling club... the "Woodturners Guild of Ontario"..., Michael accepted a position on its Executive which would be the start of a decades long involvement in our craft. He learned to turn spindles, bowls, boxes with fitted lids and all manner of lathe produced items. He learned well and became a very accomplished craftsman. And give-back he did... he consulted, managed, organized, taught, demonstrated, and was an inspiration to many countless woodturners. I lost track, but over the years I believe Michael held most of the positions on our

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Executive at some point in time, ultimately serving as the WGO's President, a position he popularly held for many years to then become a most active Past President, and long time skills development instructor. His relationship to the WGO lasts to this day.

I could always count on Michael's wonderful smile; the happy, knowing twinkle in his eye; his lilting, cheery voice and the most thoughtful, determined attitude I've ever had the pleasure of experiencing.

His patience, knowledge and willingness to share and donate was central to making the Woodturners Guild of Ontario the premiere guild in the Province if not the nation, ultimately spawning numerous regional clubs and guilds based on the WGO model.

In 1989, Michael and I drove to Ottawa one cold November night on what would begin another chapter in his woodturning life. We'd been asked to consider taking the reins of the Canadian Woodturners Association, a national, subscriber-based entity with merit but lacking the energy and vision to keep going. We travelled to Ottawa to learn, ponder and choose whether it was something we should get involved with.

"Sure...this is worthwhile...we can do this!" was Michaels response. It was and we did.

With Michael's energy and wisdom, the Canadian Woodturners Association was renewed parallel to the WGO with Michael serving on both Executives for a time, until, with the journal-based CWA refreshed and publishing once again and wise to his own limits, Michael stepped back from the CWA to focus all his energy on the Woodturners Guild of Ontario, Michael preferring to be hands-on in a room full of like-minded enthusiasts with smiling faces and enquiring minds. His modest, meaningful return...the joy of giving to others, the satisfaction which comes from doing "good" and the many friendships he made.

Michael has been the embodiment of all that's good about volunteer organizations. He gave far more than he received and will continue to be an inspiration to all those who had the privilege to receive one of his smiles, his cheery "Fine and Dandy!", and the skills and wisdom he so willingly shared.

We were always good friends...never close, but always there for each other at a moment's notice. Good friends are hard to come by; I'll miss him surely. But he also surely wouldn't want any of us to linger long on his passing; life was too precious to him and he'd wish us to get on with ours knowing he's with us in our thoughts.

As we are here, expressing our love, respect and admiration, I'm certain Michael's in a much finer place... a bright white place... with clear air... and warm following breezes.

"Godspeed" my friend.

Richard Pikul:

Michael was very confident in his own character and abilities and did all of his work without soliciting praise or accolades. In fact, he did most of his work in the background, quietly and effectively. I will always be grateful for the skills he taught me and for the cheerful way it was done.

Michael was instrumental keeping WGO membership open to anyone when some wished to restrict how many members we would accept. In 1999, when the WGO was required to move out of the Markham high school where our meetings were held, Michael quickly found the WGO a welcoming home at Dunbarton High School.

Michael became President and held the post for six years, then past president for four years. In the beginning, the WGO met only once per month, Michael added an additional meeting each month specifically for new members for the sole purpose of teaching new turners. Then Michael stepped right in to run the 'beginners' meetings, and did so for almost ten years.

I am one of the many beneficiaries of Michael's mentoring, attending the training night meetings, where I not only improved my turning skills, but also learned how to enjoy them at the same time.

I will always remember and treasure Michael's friendship.

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Peter Kaiser:

I did not know Michael well. But I attended a number of his skills nights, especially when I was a new member.

Prior to retirement I was a professor and am well versed in what makes a good teacher.

Michael was an excellent teacher. He effectively transmitted woodturning skills and techniques. It was a pleasure to be one of his students. I learned a lot from him.

I recall the first skills night I attended. When it came to an end, I publicly praised Michael for the interesting and informative session he just completed. It was clear from his response that I embarrassed him.

Joe Kappy:

He was a nice man. He was comfortable with himself and made others feel comfortable with him. He wanted to enlighten others to their own skills and creativity. He motivated others to find their joy in woodturning. He was an example of the inner peace, and perhaps, woodturning was an aid in his journey.

I met Michael in 2006, when I joined the Guild, and I was eager but intimidated. I attended his monthly learning sessions and watched his easy relaxed approach. This was what I was looking to achieve. To connect to a skill that was entertaining, productive and good therapy. I learnt those basic skills from Michael along with how to hold a gouge, use a skew, and turn a bowl.

As president of the WGO, he encouraged camaraderie, the sharing of skills, and the positive benefit of contributing by volunteering by his own example. He will be missed. Thanks....

Alan Wright:

I didn't know Michael very well, as I haven't been a member too long. However, I would like to say that in ALL my interaction with him, he made feel at ease and that he was really interested in what I was saying. I am very sad to see him go, he was a very nice fellow, its just too bad he had to go. I should also say how much I enjoyed the treats his family made for us all.

Irene Kneeshaw:

My personal reflections are much the same as many other people. Very generous with his time, help in any way that you needed or wanted help.

He certainly was the backbone to the WGO and as mentioned at the funeral he knew all that he needed to know and to pass it on to others.

I am glad that I knew him at WGO and a little personally.

Joe Houpt:

I Remember Bonny:

The screensaver on Angela's laptop is a photo of a gorgeous phalaenopsis (orchid). Michael Bonnycastle saw this orchid in full flower in our home and always camera-ready, permission asked of course, he snapped it and sent it to us. Louise tells me that since then, Michael was so enamoured by orchids, that he surrounded himself by them in his home.

Michael was very particular about accurate measurement. It was from him that I learned what a 'thou' was. He showed us how to make a calliper, and preferred it to measure wall thickness.

Michael was passionate about teaching. From him we learned how to mount and rough out branch wood; how to use a chuck without scraping our knuckles; how to rough out bowls; how to hand sharpen our tools. He really didn't like the sharpening jigs, showing that one could achieve a better swept-back grind on a gouge by hand than with the fixed position of the Oneway jig. He preferred the original Oneway chuck with tommy bars to the new tools

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as they came on market.

We learned tool-making from Michael. We purchased the appropriate silver solder and made small hollowing tools useful for small ornaments. Michael's approach to the challenge of turning was for me, a lesson in life. As I watched his demo last year of the two handled cup, it seemed as if he was asking: "I have a problem, how do I approach it, how do I do it, how do I complete it and teach it."

Photographs of Michael

A search through the WGO gallery files could not produce very many pictures of Michael. He was usually the one with the camera taking many pictures and there are only a few which feature his open smile. Below are few of the photos from the 2004 WGO annual competition showing Michael congratulating some of the best woodturners.

















Michael was not just a woodturner he was first and foremost a beloved husband and father.





WOODEN TOOL HANDLES THAT YOU WILL LIKE TO USE! Richard Pikul



Admit it, you haven't really thought much about your wooden turning tool handles, have you? Maybe you purchased a handled tool but don't like the way it fits in your hand, or made a special tool but not satisfied with the handle you made? Here is a way to make wood handles that work efficiently and are comfortable to use.

I have searched around to try and find some information regarding how to design an ergonomic turning tool handle. Lots of how-to's for a specific shape and buckets of finished handle photos, but could not find any information regarding how the design was justified.

Sooo lets start from scratch.

Design Requirements:

- 1. Reliably hold the steel tool in place when subjected to turning forces, without failure, for the life of the steel.
- Choose a straight grained hardwood. I prefer to use the following: Ash, Maple or Hickory. These are the same species used for wooden bats, hockey sticks and implement handles (axes, shovels, pickaxes, etc). Many other species will certainly be suitable, but do avoid any 'oily' species, particularly some tropical types such as Cocobolo that may cause skin problems.
- The wood grain must run lengthwise with the handle, handles made from burls may look good, but you may have problems with strength.
- 2. A method of permanently holding the end grain together where the steel enters the handle
- Ferrule (a corruption of Latin viriola "small bracelet", under the influence of ferrum "iron"). A ring placed around the end of the handle to strengthen the end grain.
- Ferrules are normally made of brass, steel or copper for a reason. Metal ferrules are strong, will give a little, without breaking when heavily stressed and do not loose strength over time. I have seen string or cord, impregnated with epoxy used as ferrules. If you choose this method, remember that this type of ferrule will slowly expand in diameter with the stresses of catches etc that happen while turning. The final result? The end of your handle will begin to crack and the steel tool end will not be held reliably.
- 3. Fit comfortably in the turner's hand(s)
- Wherever you grip the handle; your fingers should not touch or overlap your palm.
- Shaped so that the handle contacts a large area of the hand for control and comfort.
- Smooth curves, no areas where abrupt curve changes could promote blisters.
- 4. Shaped to allow a turner to easily manipulate the tool
- Be able to smoothly rotate the handle without losing grip, even if holding with one hand.
- Be able to, one handed, swing the tool with wrist action.
- For gouge and chisel tools, the handle must be long enough to rest against the inside of forearm, well beyond the wrist.
- 5. Finish must be easy to clean, wax free and not polished so as not to promote blisters
- Do not use any film finishes! A multiple coat polyurethane or lacquer finish may look good, but your hands will tend to 'stick' to the handle and long term use will promote blisters.
- Use a penetrating oil finish that 'cures' to preserve the wood and enhance appearance. Suggest using polymerized linseed or tung oil product.
- 6. Last, but not unimportant, the handle should look good
- Smooth curves that fit into your hand will always be pleasing

O.K. now to decide on the shape.

Do you have a favourite tool? Is it your favourite because of the steel or because it's comfortable to use. If it's the latter,

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maybe you should copy the shape. I have found that the major tool makers who include wood handles for their tools have shapes that are very similar. A surprise? No. Some of these makers have been producing turning tools for over a hundred years and are using shapes that have been developed by turners over many centuries. Can't really argue with that kind of pedigree.

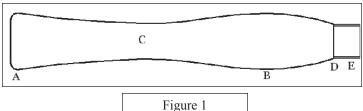
I have looked at the tools I find comfortable to use and come up with a single shape for gouges, chisels and scrapers that I can turn with all day long without any aches, cramps or blisters. The design (see fig.1.) is a combination of three of my favourite commercially produced turning handles – with just a few tweaks to change curves to suit my way of work

How the handle works:

The diameter at 'A' is the same as diameter at 'B'. Shape at 'B' fits your hand, with thumb on the ferrule 'E'. When turning, 'A' can be in the air, or placed against the inside of forearm to gain some stability while the 'other' hand is holding the steel. The 'other' hand, for right handers is left and for left handers is right. Practice turning with the 'wrong' hand - lots of situations where it's almost mandatory to be able to use your wrong hand when turning. 'A' can also be held in the 'other' hand for two handed turning, without supporting the steel in one hand.

Note that the shape between 'A' and 'C' will make it difficult to push the tool into the workpiece. If you need to push the tool against the workpiece to cut wood, it needs sharpening, so if your hand slips forward from 'A' - sharpen the tool.

The handle is flat on the end at 'A' for a reason. When you put your tool away, it should be positioned with the sharp end covered in some fashion. The flat can be used to put an identifying mark or symbol to quickly see which tool it is.



Now, size the handle for your hand:

Make the diameter 'A' the same as 'B'.

For a fairly large hand size like mine, I find that 1.4" (36mm) is ideal. Even if you have really small hands, do not make it smaller than 1.25" (32mm). Even children's hands are not comfortable if the diameter is less than this. I suspect that it's the minimum diameter that a palm is comfortable holding.

Make diameter at C 0.9" (23mm). This is the same, regardless of hand sizes.

Follow the curves shown on the full drawings, particularly between 'C', 'B' and 'D'. This curve is designed to follow the shape of a closed palm.

All this way, and not a word yet about how to make one!

NOTE: READ AND UNDERSTAND ALL STEPS OF THE FOLLOWING PROCEDURE BEFORE YOU BEGIN! I'm not kidding, if you just plow straight ahead without understanding the entire project, you will either waste a few pieces of wood before you make a good handle or made unrecoverable mistakes.

- 1. Print out the drawing. before you start. If you print 'actual size', the print should be full size (check with a ruler) and can be used as a template. Note: drawing shows details for an 8.25" (21cm) and 10" (25cm) handle. Dimensions for 12" (30cm) and 14" (35cm) handles are also included.
- 2. Choose a straight grained piece of wood, 1.6" (40mm) square and at least 2" (50mm) longer than the finished handle dimensions. My first choice is Ash, but Maple, Hickory, Walnut or Oak are also good choices. The only tropical species I have used successfully is Purple heart. Stay away from 'oily' tropical wood species such as Cocobolo as most of these contain skin irritants.
- 3. Ferrule: You can purchase completed ferrules (one source is Woodchuckers) but be careful, some of the ferrules sold are quite thin and others have a closed end which makes them hard to use. I like to use 3/4" (19mm) straight copper pipe connectors that can be cut in half to make two ferrules. Note: when cutting these in half, put the 'cut' ends facing away from the handle. Why will become obvious when you make your first tool:)
- 4. Choose the straightest grain end of the wood for inserting your steel.
- 5. Mark the centres of each end. If you have a chuck, hold the butt end of the handle in the chuck, bring up the tailstock centre into the marked end and tighten the chuck.

(Continued on page 13)





(Continued from page 12)

- 6. Move the failstock end back and insert a chuck with a 3/16" (4mm) 1/4" (6mm) drill bit, adjust your work piece so the drill bit meets the end at the marked centre. With the lathe set at slow speed (300 600 rpm), ad vance the tailstock (with drill bit) to carefully drill a hole. Hole should be 2.5" (66mm) deep minimum. Do not drill the hole larger than this as it will be enlarged later to fit your steel. If you do not have a chuck, you will need to work out another way to drill the hole straight into the end of the handle. Yes, there are many reliable ways to do this
- 7. Put live centre back into your tailstock and use it to support the end of the handle. You can turn the handle with a chuck at one end or between centres.
- 8. Turn the entire handle to a round cylinder. Now, turn a tenon on the tailstock end to a diameter that is just a little too big for the inside diameter and twice as long as the ferrule. Turn half of this length to a diameter that the ferrule will slip over easily. The 'cut' end of the ferrule will have a burr inside (particularly if you used a wheel type pipe cutter), clean this off first so that it will not interfere with its mounting. Mount the ferrule on this part of the handle, bring up the tailstock and then slowly adjust the diameter of the rest of the tenon you made until the ferrule goes on very tight. Push it tight against the end grain where the ferrule meets the rest of the handle. If you make a mistake and the ferrule is loose you can rescue what you have. You can turn another length to try again, which uses up some of your length, or you can use epoxy to glue the ferrule to the tenon. If you epoxy the ferrule in place, first rough up the inside of the ferrule with 180 or so grit sandpaper so the epoxy will adhere and don't continue turning until the epoxy has cured.
- 9. Mark off all of the transition points (shown in red on the drawing Figure 2) on the cylinder.
- 10. Turn the handle shape. Make a smooth transition to the ferrule. At the butt end, turn the shape, but leave about 1/2" (13mm) diameter for support while sanding etc.
- 11. Sand the handle, starting at 120 grit (80 grit if you can't seem to get a smooth tooled finish), continue with 180 grit then 220 grit stop there. When sanding, stop the lathe at each grit and sand (every grit) in line with the grain. Why? First, sanding against, then with the grain will create a cross hatch pattern that is comfort able to hold sanding only to 220 grit will, if you use a light touch, leave a scratch free, cross hatch pattern on the handle that feels great when it's in your hand. One exception, you can sand the ferrule to create what ever finish you wish. I like to go to 400grit which leaves an almost polished look that does not reflect light.
- 12. The ferrule, if copper or brass can be turned, if done slowly, with a scraper or parting tool. So you can now finish turning the end of the ferrule, but do not part right off just yet.
- 13. Turn the waste at the butt end down to 1/4" (6mm), now you can turn the other end down to as far as you are comfortable with.
- 14. Remove the handle from the lathe, cut off the waste at each end, sand smooth.
- 15. Now you can enlarge the hole for your steel. Do it in steps, enlarging the hole only about 1/16" (1.5mm) maxi mum each time. This method makes increasing drill bit sizes 'follow' the previously made hole with minimum wandering. Wrap the handle with a cloth towel and hold it with a leather glove while you drill slowly. Make sure that the final hole size is not larger than your steel! The steel should be a VERY tight fit into the hole.
- 16. Ensure the tool end that will be put in the handle has a chamfer (sharp corner(s) removed) to allow the tool to be cleanly inserted. Clamp your steel in a vise (use some wood or soft jaws to prevent marring your tool). Put the handle on the end of the steel tool and, using a mallet or a piece of soft wood as protection, gently ham mer the handle until the steel tool shaft bottoms out in your handle's hole.
- 17. Put a finish on the handle while the steel in the vise no mess. I like using a polymerized linseed oil that penetrates into the grain. Needs only one coat to protect the wood, enhance the grain and make it easy to clean.
- 18. After the finish is cured start turning.

On the following page find complete diagrams and specifications for two sized tool handles. This diagram can be printed and used as a template. NOTE: select "actual size" button when the print dialog page appears.

If you have a handle design that is different than mine – contact me with the details and let me know why it works for you. I'm always looking for new ideas and a 'better way'.

(Continued on page 14)

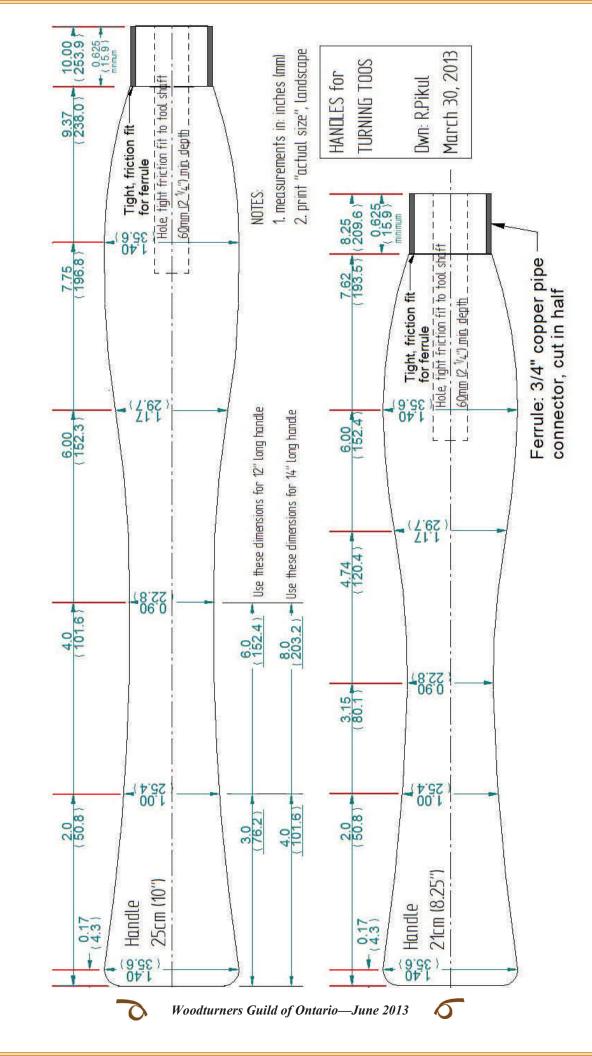
Frank Howarth presented a most unusual demo on segmented turning which is shown in the *Woodturning Online*, *May 2013 News-letter*. It is unusual because it appears as an animated video. To view the video click on the following URL.

http://www.woodturningonline.com/index.php?utm_source=nl_may2013&utm_medium=email&utm_campaign=Newsletters

When you enter the *Woodturning Online Newsletter* scroll down to the Featured Project.







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