



Dublin Chapter Newsletter

Irish Woodturners Guild

February 2023



Editor John O'Neill

Please check both your email and the Chapter website (<http://www.dublinwoodturners.com>) regularly for updates.



Our esteemed colleague Pat Walsh (Enniskerry) recently passed away. The picture is from a demo he gave in 2017. Pat worked with the board of works and dealt with many of the major building companies during his working life. He was a regular at our monthly meetings and will be sadly missed by all who knew him. Our condolences to his family. May he rest in peace.

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Vessel by Pat Carroll >>>>>>

Spring just around the corner and we're all well into getting back to normal after the pandemic.

Our demo managers have compiled a great list of demonstrators for the year, we're in for a great year of woodturning events. Full list on page 12, some of the top woodturners in the country on the list!

Our chapter challenge team have had their initial meetings and looking forward to getting down to work on the challenge.

Our demonstrator for this month is Pat

Carroll. Pat is a renowned turner who puts his own style into his turnings.

During the lockdowns Pat ventured into the world of virtual turning with his IRD (interactive remote demonstrations) and kept many of us going with his wonderful Zoom demos.



I still need help with some articles for inclusion in the newsletter. If you are turning a piece record your progress in pictures and prose and sent it to me, it doesn't have to be wonderful writing but we'd all love to see what and how people are doing with their craft.

John O'Neill

January competition photos



1st advanced David Sweeney



2nd advanced Brendan Phelan



3rd advanced Tony Hartney



4th advanced Sean Ryan



5th advanced Paddy Finn



6th advanced Frank Gallagher



7th advanced Vincent Whelan



1st experienced Hugh Nolan



2nd experienced John O'Neill



3rd experienced Charlie Byrne



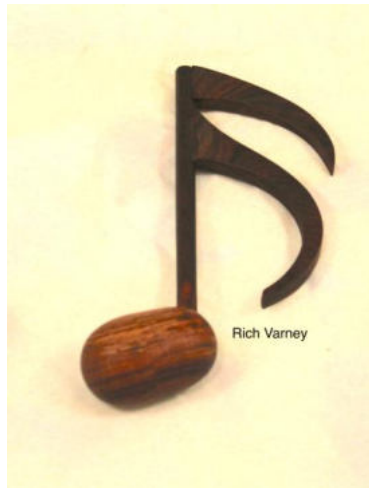
1st beginners
Graham Hunter



2nd beginners
Claire Godkin



3rd beginners Brian Houlahan



1st artistic Rich Varney



2nd artistic Diarmuid Dooley



3rd artistic John O'Neill



4th artistic
Frank Gallagher

Steel for woodturning tools by John O'Neill



HSS set of turning tools

hardness of the wood being cut. The High speed name indicates that it can be sharpened to a good cutting edge and cuts faster. M2 HSS tool can be reshaped easily and ground to the bevel that suits the turners style. A simple sharpening system is all that is required to maintain the edge. HSS tool sets are often sold as a starter set of tools but in reality many accomplished turners rely solely on HSS tools. They are often the chosen tool by wood turners for doing finishing cuts.

Cryo M2 High Speed Steel

The cryogenic freezing process makes the steel more hardwearing than M2 HSS resulting in a more durable edge, it will hold its edge for 50% longer than M2 steel resulting in less sharpening and more time for turning. The process also tightens the grain structure of the steel allowing it to be sharpened to a finer (sharper) edge. They cost 20-30% more than the M2 tools. Use the same sharpening systems to sharpen M2 and Cryo tools.

M4 High Speed Steel

There is limited selection of M4 HSS on the market, it holds an edge twice as long as M2 HSS. It has better hardness and superior wear resistance, but low toughness, a bit more brittle which may explain why it never took off in the woodturning world.

If you want a sharper edge that lasts longer pay that bit extra for the M4 tool but don't drop it on the floor!



Crown 236PM 3/8-Inch 10-mm Powder Metallurgy Spindle Gouge

Visit the Crown Store
★★★★★ 11 ratings

Price: \$64.94

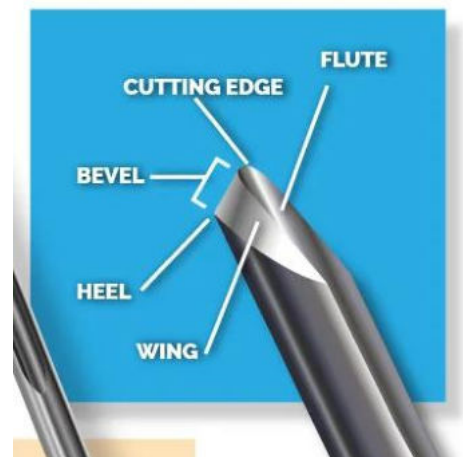
- The 'Elite' line of quality tools from Crown Hand Tools Ltd, Sheffield, England
- Made from advanced powder metal | Hardened to between 66° & 69° Rockwell
- Lasts 4-5 times longer than conventional High Speed Tools | Black Ash Handle with Brass Ferrule
- Overall Length: 19" | Handle Length: 12-1/2"
- Blade Length: 6-1/2" | Size: 7/8"

Which steel is best for woodturning tools? There is no single answer to this question (and the steel is only as good as the wood turner!). But we now have a range of steel types so this article will try to unlock a few facts around each type.

The list of steel types for tools includes,

- M2 High Speed Steel
- Cryo M2 High Speed Steel
- M4 High Speed Steel
- Powdered Metallurgy Steel
- M42 High Speed Steel
- Carbide

M2 Hss steel is a general purpose molybdenum-type high-speed steel exhibiting well-balanced toughness, wear-resistance and red hardness properties. M2 is a slightly harder version of the older HSS steel; M2 HSS can be sharpened to a razor sharp edge, the down side is that it will need to be resharpened often - how often will depend on the



Powdered metallurgy steel.

PM steel holds an edge 6 times longer than M2 steel. Has a drawback in that it cannot be honed to a fine edge. Often used for

pic left, M4 HSS tool on amazon @ \$64

roughing out tools with final finish to be done with M2 steel tools. Having such a durable edge reduces the time spent sharpening but doesn't come cheap, can be 3 times the cost of a M2 tool of same size. More for the professional turner who wants to speed turn large numbers of items than for the hobbyist turner.`

M42 high speed steel

M42 is a molybdenum-series high-speed steel alloy with an additional 8% cobalt. It was developed for tooling. M42 was

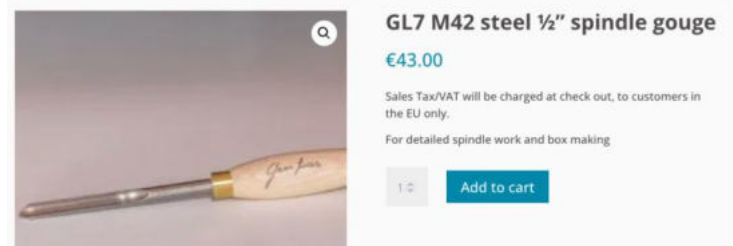
developed over 40 years ago. It is very hardwearing and develops an excellent edge. They are a little bit more than M2 HSS tools but the price gap has narrowed. M42 tools are advertised to hold an edge 3 times longer than M2 HSS tools.

Not all M42 steels are the same, there will be a slight difference between M42 originating in China (49% of world production) and M42 steel produced in USA.

The Chinese M42 may have 6-8% cobalt but the USA M42 will have 10%, this affects the



'Glen Teagle' carbide set



M42 spindle gouge on Glen Lucas website

hardness and how often they need to be sharpened. When it comes to sharpening your normal sharpening system is meant to do the job but a good system will always make the difference.

Carbide

A carbide is a compound consisting of carbon and a metal. The particular carbide that a woodturner will normally encounter is tungsten carbide,

consisting of equal amounts of tungsten and carbon in the mix. Carbide tools have improved with many new offerings out in the market

It's an extremely hard material and holds an edge for longer than the HSS steels. They were meant to be 'use and replace' tools but carbide inserts can be sharpened with a diamond card which significantly extends their lifetime. They are all basically all scrapers but can produce a good finish when a shear scraping technique is used. It is also possible to buy negative rake carbide cutters. The learning curve with carbide tools is not as steep as with HSS tools, search youtube for "woodturning with carbide" to see more. They are a good complement to gouges and skewers but the old gouge will nearly always produce the best finish.

Conclusion.

Be warned, you really do get what you pay for, always buy a good brand and beware of cheap offers!

The hobbyist turner can do all he/she needs to do with ordinary M2 HSS tools if they are well manufactured and the turners sharpening skills produce a sharp edge.

If the motto is 'sharpen less and turn more' then M42 is the best choice but good sharpening skills are required to produce the edge and allow the turner take advantage of the longer edge lifetime.

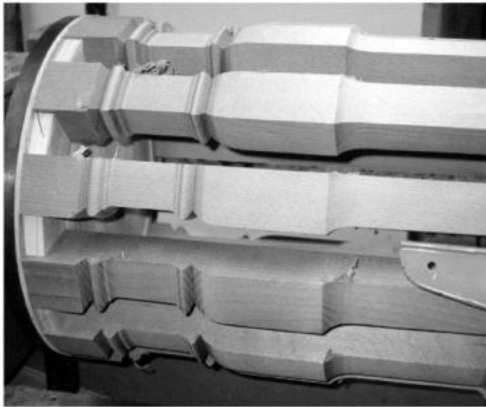
Whatever tool you decide to buy, enjoy using it.

PS, Sharpening is still as important a factor as what type of steel which your tools are made from!

Saturday Demo
 Demonstrator Frank FitzPatrick
 Notes by Pacelli O'Rourke
 Pictures by Richard Varney
 Subject: The basic ins and outs of
 therming and an unusual bud vase



I had never come across the concept of therming before, so when Frank said 'there will not be much turning involved' I knew it was going to be an uphill



climb! Let me explain in the simplest terms my understanding of what 'therming' is. Basically, it involves the construction of a jig or drum which is designed to maintain a series of spindle-blanks precisely in the same attitude regarding the relative position of blanks to toolrest. This makes possible the turning of multiples of identical spindles simultaneously.

pic left, a large commercial therming setup

'Therming dates back to the 18th Century and is mentioned in

a letter to Thomas Jefferson from Nathaniel Colley, dated 22 January 1791.

The image on right of the two therming mounting discs used by Frank on the day.



There seems to be some uncertainty about the origin of the word therming. The term dates back to at least the 1700s and seems to refer to a pillar design used for statue bases. The word itself is likely derived from the name of a Greek god, either Hermes or



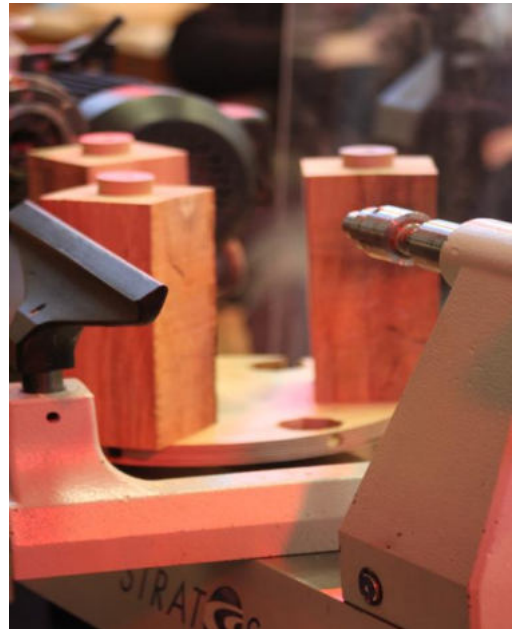
Terminus. Therming has also been called "barrel turning," "drum turning," and "angular turning."

The first item I noted was an 18mm thick circle of plywood about 200-250mm in diameter held in the headstock with a faceplate ring. Another circle of plywood with equal dimensions will be held with tailstock support when the whole assembly is ready to go. A word about the spindle blanks; absolute precision is the name

of the game here. The blanks must be square-on at both ends and equal in all dimensions. Otherwise discrepancies will arise and defeat the purpose. The headstock piece has a circular pencil line inscribed. At equal distances along this line are six countersunk depressions with octagonal rims. Married into these depressions will be a series of precisely made octagonal pieces which have been screwed into the end grain of each blank. Our demonstrator had colour coded each



facet of these pieces to help the turner to maintain the appropriate angles when moving from one position to another. Holes are also sunk from the rim to the face of the plywood, again giving the turner sighting of the colour to which the blank is turned for each new point of the process. A similar set-up applies at the tailstock though without octagonal shapes etc. Really, it seems that the eight sided pieces at the headstock are for reasons



of traction and prevention of unwanted slippage. Now what is required is good tailstock support. The next part of the process is identical positioning of each single blank. The upper side of each blank needs to be above the rim of the plywood. This improves access when forming spindle aspects such as convex, concave, ogee and beads etc.

image left, 3 blanks mounted on therming disc

Regarding lathe speed, Frank urges major caution. At its best, 800rpm probably represents the maximum safe speed for therming. Other cautions were as follows: "Keep the toolrest parallel to the lathe axis...before switching on the

rest...when progressing with the profiling, keep your eye on the 'horizon' rather than the cutting edge of the tool." If you are a beginner, practise with some cheap old timber"



Frank starts with the parting tool to clarify the length of the blanks. A convex



profile is created followed by a concave on the opposite side giving a pleasing shallow 'C' shape. Although technically spindle turning,

left, therming discs in action. below right, border lines done with parting tool.

Frank prefers to use a bowl gouge because of its heavier construction. Also, it affords steadiness when over reaching. Sometimes the expression 'air turning' is used with reference to therming; a timely reminder of the urgent need for light handedness; the whole therming drum would hardly withstand a dig in! Heavy handedness is likely to end in tears! Any sanding is best done with the lathe stationary.



For a final feature, Frank set out to turn, with one of the newly created spindles, a bud vase “with the oddest shape you’ve ever seen.” However as often happens, time was against him and he had to modify his plan: “I think I’m going to make a fairly simple shape on this.” So, with two opposite sides flat, and the other opposite sides convex and concave, the outer profile was indeed unusual. A Forstner bit held in the tailstock provided the means of hollowing. This process is carried out at a low RPM lest heat should cause cracking and damage the bit. For the same reason, it is



necessary to clear the dust and shavings as the work continues. At this stage a thin parting tool is used to part off the item. the base is slightly dished to prevent wobbling.

So, many thanks, Frank, for an interesting journey into the world of therming.

left part turned therming pieces.

For further reading on therming read a good article by Art Liestman titled "Beyond round, Therming" His website is artliestman.com where he describes himself as a guy who makes stuff. The article shows how to make a therming jig.



picture below left, part turned piece remounted on jig

picture below right a thermed stool.



Wednesday demo by Tony Hartney
subject Pendants and jewellery
Photos and text by John O'Neill

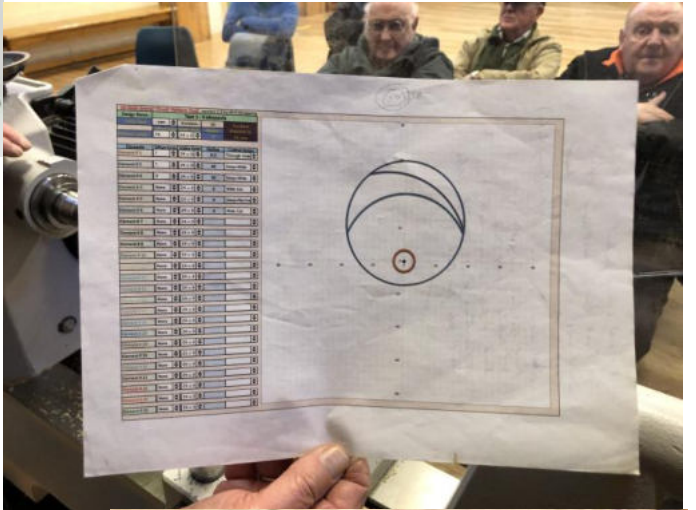
Tony introduced us to his methods and tools for turning pendants and jewellery. Two of his pendants in picture on right. The jig he uses is the 'joyner off centre jig'. The kit costs about \$100 from the USA, picture of full kit below. There is a bit of a learning



curve when starting with the jig, probably best to start off with some cheaper wood blanks until you get used to it. There are good videos and howtos and the website "nilesbottlestoppers.com".



Many patterns are possible with the jig and Tony showed us a spreadsheet which can be used to determine how to setup the jig and what patterns would be obtained with the chosen configuration. Spreadsheet printout shown on right. This spreadsheet really takes the guesswork out of the equation. When he had setup the jig for the chosen configuration then we looked at how the blanks are cut.



He uses a hole saw (picture on right) to cut equal sized circles in a board and then cuts them out with the bandsaw, as in the image below, this method ensures



that the blanks are all the same size and depth. A wooden mounting plate is mounted onto the jig and then



double sided tape is used to hold the pendant blank to this

plate, use the tailstock to keep pressure on this joint for a few minutes while it sets. Tony uses a flat tool rest when creating the 'designs' on the pendant blank. A pencil can be used to mark out what the design will be before the actual turning begins. Make a





mark on the tool rest to indicate where the tool needs to be placed, there's only one chance to get it right!

Patterns such as the one on left are possible using this method.

Reasonably high speeds are required, 2100RPM was used on the day.

He had a few custom made repurposed tools specially for the job.

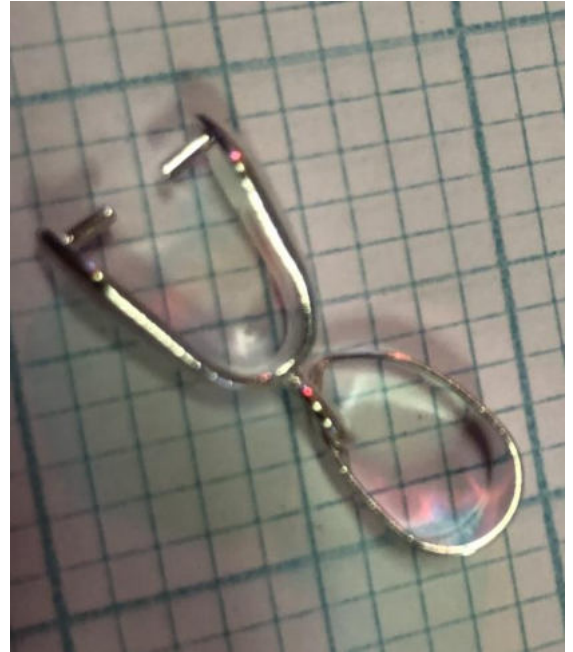
pic left, another of Tony's pendants.

The finish used was sanding sealer and micro

crystalline wax, yorkshire grit and then buffed to a high sheen

To provide a mounting method for a pendant there are various options. Simplest if to turn an opening for cord/leather tie, may require that the piece be remounted in order to reposition the piece to allow opening on opposite side as above.

Fixtures can be purchased, these are called bails and come under the 'findings' class, picture of a bail on the right. Tony gets his supplies from the yellow brick road on Batchelor's Walk, Dublin. Their website is yellowbrickroad.ie. These findings are available for a few euro. The shop is an aladdin's cave for woodturners. If you wanted to try out pendant making to get a feel for this turning before investing in the joyner jig it's possible



to make a jig which can do the basis functions for you. There are a few available on the internet, search for "shopmade chuck for offset turnings by David Mueller", this is a easily built and usable jig, show in image on the right. They are easy enough build, wood and 2 screws all that is required.



Chapter Challenge

First meeting of the chapter challenge team was held in January, the members are

Charlie Byrne, James Gallagher, Brendan Phelan, Colm Murphy, John O'Neill, Michael Fay, Tony Hartney, Tommy Hartnett, Mark Daly.

Brigie DeCoursey holding the camera!

A plan of action was agreed upon.

Rose woodturning engine
by John O'Neill

During Tony Hartneys demo mention was made of a 'rose woodturning engine'. This is sometimes called an ornamental lathe. It's possible to buy a fully equipped rose engine, probably fairly expensive, but it's also possible to built one in 'da shed'.



Complex patterns are possible with a rose engine, as in pic on right.

There are many plans and much advice on the net, one good site is

<http://ornamentalroseengine.com>. A guy called Jon Magill has designs for an MDF rose engine, shown in image on the right, mainly MDF constructed so it looks dooable. Search for 'ornamental turning book of knowledge' for more information.



If anyone builds one or already has one let us know, looks like an interesting machine.

Competition Table

Beginners	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Totals
Claire Godkin	13	13											26
Michael Stevens	15												15
Graham Hunter		15											15
Brian Houlahan		11											11
Experienced													
Charlie Byrne	15	11											26
Hugh Nolan		15											15
Ray Ivers	13												13
John O'Neill		13											13
Advanced													
Sean Ryan	15	9											24
Brendan Phelan	9	13											22
Tony Hartney	6	11											17
David Sweeney		15											15
Paddy Finn	7	7											14
John Duff	13												13
Frank Gallagher	5	6											11
Tommy Hartnett	11												11
Vincent Whelan	5	5											10
Artistic													
Diarmuid Dooley	15	13											28
Frank Gallagher	11	9											20
Rich Varney		15											15
Michael Stevens	13												13
John O'Neill		11											11
Michael Jordan	9												9

Demonstrators 2023

Feb Sat 4th Pat Carroll
Mar Sat 4th Emmet Kane
Apr Sat 1st Diarmuid Dooley
May Sat 6th Robert O'Connor
Jun Sat 3rd Kieran Reynolds
Jul Sat 1st Danny McGeever
Aug Sat 5th Pat Carroll
Sep Sat 2nd Joe :Laird
Oct National Seminar
Nov Sat 4th Michael Fay
Dec Sat 2nd Joe O'Neill

Competition Pieces for 2023

January: Set of napkin rings (2 for Beginners: 6 for Experienced and Advanced)
February: Salad bowl - with servers for Experienced and Advanced
March: Hollow form
April: Gavel and base
May: Open
June: Flower pot stand
July: Picture or mirror frame
August: Salt and pepper set
September: Goblet - with captive rings for Experienced and Advanced
October: Egg cup with egg

Whats on

Land/Marks14 February 2023 – 20 May 2023 Kilkenny design centre, ceramic forms exhibition.

From the internet

Hungarian woodturner <http://faesztergalyozas.hu/en/index.html>

Chapter Officers

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Audio Visual	Tony	Hartney		
Wednesday	Demos	Brendan		
Newsletter/WebSite	John	O'Neill		webmaster@dublinwoodturners.com
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