

Shavings No 41 May 2018

The Ulster Chapter Newsletter

By Peter Lyons and Brendan McAreavy

May again, next up is our Seminar in June.

Do you have anything that will add interest to this newsletter, please let me have it by email.

For Sales or Wanted

Keep looking at. iwgulsterchapter.com for things useful for sale.

Announcements

I will send out a separate mail for the Seminar

Calendar of Demos for 2018

The 2018 programme is as follows:-
June 9th Seminar, Joss Naigon, all day demo.
Sept Joe Laird
Oct TBA
Jason Breach will be here in November.
December AGM and TBA

Shavings - May 2018

by Brendan McAreavy

On Saturday 12th May 2018 Kieran Reynolds visited the Ulster Chapter of the IWG to present a very enjoyable, and informative, demonstration.



The theme for the demo was 'No Chucking Point' and Kieran showed how to use a doughnut chuck to have other turners scratching their heads and wondering how you held the piece after they turn it upside-down as soon as they lift it to find out.

The Doughnut Chuck

The doughnut chuck is simply two pieces of good, furniture-grade plywood that are connected by using three long bolts with wing nuts that make tightening up the chuck easier. Firstly decide how big you want the chuck and cut two pieces of ply roughly to shape. Attach a faceplate to one and mount it on the lathe to cut a recess on the front that will be the chucking point for the doughnut chuck. Remove the piece from the lathe, remove the faceplate, and attach the



second piece of ply to the front of the piece with the recess using screws and remount on the lathe to true the edges and mark three points on the circumference to drill holes for the bolts. It is recommended that you use round-head bolts to prevent injury when turning. When the hole points are marked (not too close to the rim) cut a hole in the front piece of ply to allow access to the piece of wood that will be clamped between the plates eventually. The hole doesn't need to be really big because it can be made bigger as required by subsequent blanks. Kieran put a bevel on the hole to allow him to hold bowls more securely when they are turned to have the base worked on. It is worth noting that he also cut a shallow depression in the back plate to assist with centring bowls and spheres. Kieran also made a number of front plates with different sized holes that can be selected to suit whichever piece is being worked on. Having seen the versatility of the large chuck he made some smaller ones to expand the range of blanks that he could hold on the lathe.

Mounting a blank

Kieran used a piece of Laburnum crotch and, with compasses, found the centre of the blank to try to balance it as well as possible in the doughnut chuck. The blank was then mounted between the chuck plates using the tailstock to centre it and hold it while the bolts are being tightened. Kieran



used a pair of pliers to help tighten the wing nuts as he wanted the blank to be very securely held between the plates. If necessary, use wedges to support the blank and square the base to the opening of the hole in the front plate. Some hot melt glue would be helpful here.

We were advised to start turning the piece slowly and think 'winged bowl' as you are working because you don't want any bits of you going in front of the tool rest. When you start cutting you will be cutting a lot of air so there is good



potential for a catch and that will move the blank in the chuck. Kieran recommended leaving the centre mark in the blank for as long as possible in case the blank needs to be moved on-centre again. When cutting, Kieran cut in both directions to clear out wood, make access to the blank easier, and only removed the centre of the blank

as late as possible. However, when working on the centre of the blank you are working on more stable, solid, wood so catches are not as likely.

As the demo was about the doughnut chuck Kieran didn't finish most pieces because he wanted to show the versatility of the chuck so he showed us other pieces he made using burrs that had one and two bowls cut in them... or however many you wish. There were some pieces with overlapping bowls that were very attractive and Kieran advised that we make sure the wall between the bowls had a sharp edge to define the joint.

Round-bottom bowls

Kieran passed some round-bottom bowls around and explained that he wanted to make a piece that was artistic and functional so, using the doughnut chuck he was able to make a round-bottom, off-centre, bowl that sits well but it still functional. The bonus is that we get to see the grain inside the bowl without having to look over the rim.

A piece of Spalted Beech was mounted on a screw chuck and Kieran turned the base of the bowl into a curve with no flat spots. He shear scraped the bowl to achieve a curve he was satisfied with and told us to use a piece of wood (or a pencil) to determine if there are any flat



spots. Simply roll the wood lengthways over the curve and you will feel any flat spots that can then be dealt with and the bottom sanded and finished. When satisfied with the bottom of the bowl move to the top (which will entail some left-handed turning) and flatten the rim as far as possible into the bowl. This is the only chance to do this because the face of the bowl will be behind the front plate of the doughnut chuck when the centre is removed. Sand and finish the top before removing the blank from the screw chuck.

The next step is to decide where the off-centre bowl is going to go. Kieran recommended looking for the area with least figure to be the

bowl in order to leave as much interest as possible on the finished piece. He told us that bowls always look best when the grain is running



horizontally through them i.e. the bowl goes across the grain. In order to position the off-centre bowl in the centre of the blank you need to draw a chord across the bottom of the blank, bisect it, and draw a line through the centre of the chord from the centre of the circle. That will give a reference line for the point of your compasses and allow you to determine where the bowl will be positioned. Then the circle outlining the bowl is drawn and the blank mounted between the plates of the doughnut using the tailstock to hold the blank in position while the chuck is tightened up. Kieran explained that you will have to put more tightening effort on some bolts than others to get the blank to sit square and that you should test for balance by putting the tool rest close to the chuck and assess distance between both with your thumb (or a ruler). As before, start cutting slowly and leave the centre of the bowl as a reference point in case the blank moves after a catch. Be careful to remember that the bottom of the bowl is off-centre so it is possible to go through the base of the bowl as the internal bowl is now part way up the external curve. If you aren't getting a good finish from the chisel Kieran recommended getting some P40 grit sandpaper from Charlie Ryan in Dublin.

Kieran talked about decoration and said that Oak, for example, can be improved by texturing or torching and brushing with a wire brush. There are various methods for blackening Oak like Ebonising Lacquer, vinegar and bolts (effective but smelly) and, Kieran's favourite method, using Indian Ink. The best value he has found is Brian Clegg Drawing Ink, available from art supply shops and here <https://artdiscount.co.uk/products/brian-clegg-indian-black-ink-600ml-bottle>. He also likes this ink because it tends not to bleed through like some other inks and dyes do.

The Sphere

In order to create a sphere Kieran mounted a blank on the lathe that was dimensioned so that the length was equal to the width. He wanted to make that into an octagon so, to measure where to mark his lines, he multiplied the diameter by 0.29 which is the ratio of the piece you need to remove to the length of the blank. In this case the diameter was 97mm so the calculation was:



$$97 \times 0.29 = 28.13 \text{ (rounded to 28mm)}$$

So, Kieran marked 28mm from the end of each face and joined those lines up to get an octagon. Once that was done he divided each plane in half and joined those up, continuing this process of dividing planes until he could scrape the blank into a sphere. He recommended using templates to assess the quality of the curve. Once satisfied that the shape was good Kieran removed the blank from between centres and remounted it between two 'cups' allowing him to remove the little nubs remaining where the drive and revolving centre held the blank.

Once the sphere was complete it could then be mounted in a smaller version of the doughnut chuck for decoration. A small depression in the back plate of the chuck makes centring the sphere easier and the front plate was reversed so that the bevelled side was nursing the sphere. In order to create little craters on the sphere it is basically the same as turning a tiny bowl. When the bowl is finished sand it using cloth-backed paper to make it easier to conform to the profile of the bowl and don't sand beyond P320 as that makes it difficult for oils to penetrate the wood. Once finished, the sphere can be repositioned and a new crater cut. Kieran overlaps the craters slightly to avoid having spaces between them and, when coming towards the end of the circle of craters, he assess the width of the last three craters to try to keep the size reasonably consistent. When cutting the craters try to ensure that the edge between each pair is sharp and crisp.

The Emerging Bowl

The emerging bowl is half a bowl coming out of a log. It is a complicated piece of work but Kieran showed how to make one using a doughnut chuck and it was much more straightforward than doing it the accepted way. However, accuracy is

very important so measurements must be spot on.

Kieran mounted a Cherry log and cut it to solid wood, removing all the bark. He measured the diameter and, seeing as this was half a sphere, he measured half the diameter from the end of



the blank and using the 0.29 ratio multiplied the diameter to find the distance to mark the first two cut lines. In this case the diameter was 98mm so he marked 48mm to determine where half the sphere was and then 28(+a bit)mm to mark the cut lines to begin the half octagon. When those corners were removed Kieran divided the planes in two, as before, and cut those corners off until he was able to scrape the sphere into a perfect curve. He stressed that the sphere must be perfect because any variance in wall thickness will become very apparent when the bowl is hollowed out later.

The blank was removed from the lathe and the spigot removed. Kieran then measured from the table to the centre of the semi-sphere and marked a series of dots that he was able to join up with a soft tape. This determined the centre of the sphere for cutting on the bandsaw. Once the blank has been divided you will have two emerging bowl blanks that can be mounted in the doughnut chuck.

In order to lay out the circle for the bowl draw a line across the shoulders of the blank and divide that in half. Put the compasses on the line and determine the best circle, adjusting the compasses as required to find the best and most even wall thickness. You now have a centre mark that can be used to mount the blank in the chuck. Mount the blank so that the thick part is between two bolts in order to ensure maximum clamping pressure on it. The centre of the bowl can be removed, once again, cutting from the

outside in to keep the centre mark as long as possible for re-chucking purposes in the event of a catch. When the bowl has been cut just sand and finish.



And, as a final tip, Kieran recommended using 4B pencils for marking out on wood.

Kieran's demo was really wonderful because he brought a type of chuck many of us hadn't given much thought to and opened up a new world of design opportunities using a tool that is easily constructed. We thank Kieran for visiting us and assure him that he will be asked to come again.

You can view some of Kieran's work on Pinterest.

[https://www.pinterest.co.uk/search/pins/?q=Kieran%20Reynolds&rs=typed&term_meta\[\]=Kieran%7Ctyped&term_meta\[\]=Reynolds%7Ctyped](https://www.pinterest.co.uk/search/pins/?q=Kieran%20Reynolds&rs=typed&term_meta[]=Kieran%7Ctyped&term_meta[]=Reynolds%7Ctyped)

Brendan McAreavy

Competition in May



A good entry for the May competition, all entries grouped together.

Category 1 **Something for the Garden**

1st David Faulkner



2nd Jim Neill



3rd Willie Adams



Category 2 A Finial Container

1st Dermot Doherty



2nd Jim Stevens



3rd Michael Dickson



Here are a few other pictures from the day. If anyone want any pictures, let me know and I will send them to you.





Our illustrious scribe, Brendan