

Snainton Woodturners' Club Newsletter

Issue

Vol. 01 No. 08

September 2010

Printed copy 20 p; e-copy - free

Meeting held at Snainton Woodworking Supplies, Barkers Lane, Snainton,
North Yorkshire YO13 9BG

Back-to-back Turned Candle Holder

by Sue Harker



Sue planned to show us a variation on involuted turning (see 'Inside Out' by Sue Harker, *Woodturning Magazine* No. 187, May 2008, p 60).

But instead of four square pieces of wood being stuck together, the current demonstration involved turning two rectangular pieces of wood that are screwed together.

Once turned to shape, the pieces are rotated and glued 'back-to-back' to make a candlestick whose stem has two bow-shaped sides; the central hollow is decorated with two finials.

Sue concluded that back-to-back turning is a form of involuted turning.

The inspiration for this work came from a silver candleholder owned by her sister, which Sue borrowed, then she had to figure out how she could turn the bowed side-supports.



The detailed method used to make a back-to-back turned candleholder by Sue appeared in *Woodturning Magazine* No. 215, July 2010, pp. 39-43.

Timber requirements and dimensions, tools, and details of how the faces of the pieces are planed, connected and turned back-to-back, appear in this publication.

Rather than repeat the detailed steps here, a summary of the main points will be given, highlighting some of Sue's hints and tips.

Snainton Woodturners' Club

Meeting at Snainton
Woodworking Supplies

on Thursday

2 September 2010

Snainton Woodturners' Club

Meets at 1930 hr on the first
Thursday of each Month:

7 October 2010. Tony Wilson -
Round and Round

4 November 2010. Andrew Hall -
Half-size Hat

2 December 2010. Members &
Guests (Snainton Village Hall)

6 January 2011. Hands-On Night
with Members & Guests

3 February 2011. Jim Wood -
Pole Lathe Turning

3 March 2011. Mick Hanbury -
Decorative Work with Spalting

7 April 2011. Keith Brevitt - ?

5 May 2011. Bob Chapman -
Singapore Ball

2 June 2011. Ian Clarkson -
From Log to Bowl

(>> more, on p 4)

Back-to-Back Stem

Take two identical pieces of ash 190 x 32 x 35 mm (7.5 x 1.25 x 1 3/8 in), rectangular in cross-section (largely for ease of orientation but the wide axis determines the amount of bow in the arc of the stem). The wood is grain-oriented, and then it is marked at each end where the sides are to be left square. The intended arc, using a template, is drawn between the marked ends carrying the screws.



The pieces are clamped then screwed together, and the centre-line is marked at each end. A carpenter's scribe can be used or a specially designed right-angled MDF former (see below): a line is drawn on the end of the two screwed-together blocks of wood, halfway up. The centre-point of each end is marked by a bradawl and the piece is mounted between Steb centres.



The middle region is hollowed out using the marked arc as a guide, cutting downhill, to form the curve that will ultimately form the inside shape of the candleholder.



BW

A second semi-circular template is used, with an arc segment shallower in depth than the first, to define the final curve of the piece when it is placed *on the top of the turned wood surface* when the centre is turned to round. This is different from the first, more deeply arced, guide that was drawn on the side of the wood

surface. Unless the curved profile of the arc's inside (which this piece will become) is the correct shape, it will not look right. So use a full-scale drawing or trial modelling and ensure that the arc's shape will be satisfactory when the two halves are repositioned back-to-back and the centre is bowed outwards.



BW

Turn until the centre is round, and fairly thin, but don't round the top of the rectangular ends – keep them crisp and square. Seal and polish with melamine. Sue would normally use two coatings of sanding sealer and a melamine polish, but for speed during this demonstration she applied melamine directly onto the wood, first, then Speed an Eez® friction polish to finish the piece.

Unscrew and rotate the wood, then glue the ends together with the arcs bowing outwards in the centre, and leave it overnight to set (below).



BW

Load between centres and start at the tailstock end. Turn off the corners and take care that the centre section doesn't become too thin. The top and bottom ends of the arc need to be turned to the same width as that of the centre. Stop and check frequently.

The ends are turned to have a bead, just above the gap where the two pieces come together: use a skew chisel (making careful entry with

the bevel rubbing on the wood) to make the edges of the bead crisp and sharply defined.



Cut down with a parting tool on the outside of each bead to form a half-inch diameter peg on either end. Saw off the waste wood from either end. Sand, seal and polish, as described above.

Drilling Jig: Make a jig by mounting a square of hardwood (about 25-30 mm) in the gap between scroll-chuck jaws. The centre of this wood block should be at the centre of the peg when the arched stem is placed on its side on a flat surface.



With a Jacobs chuck in the tailstock, drill a 12 mm (1/2 in) hole to a depth just greater than the length of the pegs on each end of the arched stem. Then drill a 3 mm hole right through the block of wood. Alternatively, if many of these candle sticks are to be made, a more robust jig can be made of metal (shown above), which does not wear quickly.

Lay the jig on a flat surface, and place the pegs of the arched stem, alternately, in the 12 mm hole in the jig (the jig and stem should both to be held flat on a level surface, as shown above). Drill a 3 mm hole right through the peg and down into the central, middle of the arched stem. This is where the upper and lower finials will be inserted.

Candle holder

Mount a block of ash, about 45 mm square by 76 mm (1.75 in square by 3 in) between centres and turn to round, with a dovetail spigot at the tailstock end. The angle of the dovetail should match that of the jaws; there should be a clean, sharp junction with the vertical face, which

should be uniform and clean-cut so that a steel rule fits perfectly against the face.

Rotate into the chuck jaws. Use a spindle gouge for end-grain work with the rest brought up to the end-face. Bevel-rub on the face then gently lift the handle to get a light shaving. Bring the gouge carefully back to the edge of the piece, and when at the edge, make a gentle bevel-rubbing cut forwards across the face. This will prevent the gouge from kicking back.

Cut a hole with a 22 mm (7/8 in) Forstner bit in a Jacobs chuck to the depth that will accept the candle-holder cup. If necessary, the sides of the hole can be widened to accept the cup.

Then drill down through the wood with a 12 mm (1/2 in) Forstner bit to the eventual depth of the candle-holder top, where it will be parted off. Don't drill too far and damage the drill bit on the jaws.

Mark the depth of the hole on the outside of the piece, then use a parting tool to make this mark easier to see. Shape the top of the candle holder, undercutting the lip using a shearing cut, being gentle at the edge so as not to tear it.

Shape the rest of the candle holder to an acceptable thistle-shape. Sand and polish, then part off.



Rotate the candle holder and load onto a slightly tapered jam chuck, turned to fit into the candle-cup hole.

To line it up, bring up the tailpiece (with nothing in the Morse taper) and press the flat edge against the piece until, when the tailpiece is removed, it rotates without wobble.



Carefully shape the underside of the candle-holder so that the shape blends with the top of the arched stem (above). If the jam chuck becomes loose, moisten it with 'tongue oil' (saliva or water) before reconnecting the piece. Sand, going gradually into the previously polished area with each grit, so that when the piece is re-polished, the new and polished areas will blend. Polish.

Base

An ash blank about 80 square x 45 mm (3 1/8 square x 1.75 in) has a chuck recess cut using an appropriate Forstner bit (about 50 mm or 2 in, depending on the chuck). Hold the blank in a clamp when drilling, for safety reasons.

As side and end-grain wood will be cut, use a bowl gouge to turn to round (DO NOT use a roughing gouge). True up the face.

Drill a 12 mm (1/2 in) hole using a Forstner bit to the depth of the peg on the end of the arched stem and check the depth.

Shape the base, cutting down from the outside edge, then check that the bead of the stem sits satisfactorily against the base. With a 10 mm (3/8 in) spindle gouge, cut a ring and bead around the edge of the base, and make it crisp with a skew chisel (below). Sand, seal and polish.



Part the base off with a thin, fluted parting tool, making sure the cut is more than one tool-width, to prevent binding. Undercut the base slightly, then turn the speed down for the final parting cut.

Remount on a jam chuck, and bring up the tailstock to align the piece, as before. Turn the underside smooth, cut two rings with a parting tool (below), between which the maker's name and wood-type can be written, leaving a central circle for the price label! Sand, seal and polish.



Finials

Use a dark wood, ebony, blackwood, or ebonised white wood, to contrast with the ash. Shape these to suit your aesthetic views and design to fit into the holes drilled through the top and bottom of the arched stem. Sue has found the upper finial should be one-third and the lower one two-thirds of the gap height in the arched stem.



Above, Sue places the lower finial in the back-to-back turned candle holder.

Show Successes

Burniston & District Show 30 August 2010

Handicraft in Wood by a Senior Citizen

1st & Best Woodwork Entry: Tea set by Brian Wrigglesworth



Handicraft in Wood

1st. Tulips in vase by Brian Wrigglesworth (centre)
2nd. Oak vessel on stand by Dave Lowe (right side, centre)
3rd. Bowl and jug by Brian Wrigglesworth (front, left)



Photos by David Lowe & Brian Wrigglesworth

Rillington Show 16 September 2010

1st. Sunflower bowl in wild olive, zebrano and ebony by Gordon Malan



2nd. Horse chestnut bowl by Lynn Hodgson



3rd. Sycamore bowl with ornamental pierced edge by Albert Kitchen



2nd: Corinthian Helmet by G Earl (Teesside Club)

3rd: Skeleton clock on a globe axis stand by Keith Nellis



Piece of Furniture in Wood

1st. & 2nd. G Earl, two stools
3rd (on right). Oak stool with oak bur inlay to top and tip of legs by Keith Nellis.



Club Meetings

Continued from p.1:

7 July 2011. Sue Harker – Something Different

4 August 2011. Club AGM & Bring-and-Tell

1 September 2011.
Joey Richardson – Colouring, Texturing, Air Brushing, Piercing & Design

6 October 2011.
Margaret Garrard – Off-centre Textured Bowl with Involved Flowers

Snainton Woodworking Supplies, Tel 01723 859545
<http://snaintonwoodworking.com>

Free Admission Demonstrations 1000 to 1600 hr:

Sat 25 Sep 2010:
Simon Whitehead

Current Deals: Ask at the shop or see the web site. R Sorby's Ultima® hollowing tool is now available. Register on the site, and get access to downloadable copies of our Club Newsletter from Snainton Woodworking Supplies web site.



Left and above, some of Sue Harker's pieces on display at her demonstration.



Newsletter Edited by Gordon Malan © 2010

Comments, copy, and suggestions or additions to the e-mail list to:
mobile: 07809605969, tel: 01944 758287; pgmalan@biotech-is.co.uk

Thanks to Stephen Fearnley for kindly arranging the printing of this newsletter and to Brian Wrigglesworth for his video recording of the meeting; Brian's images used here are labelled BW.

Pages 5 & 6 are for e-mail subscribers only

Hints & Tips

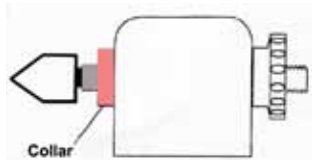
Thanks to Dave Clark for these tips.

Removing the Live Centre Quickly

by Jeffrey Boddy

Have you ever wished you could remove the live centre from your lathe quickly, without looking round for a metal rod or a long screwdriver with which to poke it out?

Here is an idea that is extremely helpful on a Record lathe. Make a collar to fit around the tailstock shaft. Unwind the rear nut, and the collar will automatically push the centre or Jacobs chuck out of the Morse taper.



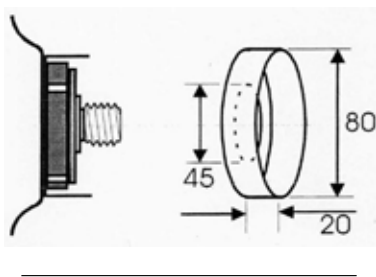
Oil Catcher for Record Lathes

by Jeffrey Boddy

Lathes with phosphor-bronze bearings can be rather messy. This useful tip provides an excellent solution.

Obtain a tin or flat-bottomed plastic container of 80 mm diameter. (You might get some funny looks if you go round measuring containers with a Vernier gauge in your local supermarket!)

Cut a 20 mm high rim above the base, then a 45 mm diameter hole in the centre of the flat bottom (see diagram). Remove the locking nut from the spindle and put the catcher over the spindle, with the 20 mm rim facing towards the tailstock. Replace and tighten the lock nut: you will then no longer have black-spotted smocks, glasses, windows, etc.



Robert Sorby Demonstration at Snainton Woodworking Supplies, 21 August 2010, by Chris Pouncy

Snainton Woodworking Supplies organised and hosted an interesting all-day demonstration of Robert Sorby woodturning equipment and tools on Saturday, 21 August 2010. Chris also answered questions from the fair-sized audience of around 25, some from as far afield as Teesside and Durham. Chris also helped those seeking specific advice.



There was a useful discussion of 'gold' (ie titanium nitride-coated) tools, carbon-steel tools of 20 years ago and modern High Speed Steel (HSS) gouges, as well as some modern powder-coating metallurgy to give sharper, but often more brittle, tools.

It is important to realise that tempering metal is dependent on *both temperature and time* to alter the metal's grain angle to give a strong, but sharp, structure. It isn't a simple technique to do properly, and dipping a hot chisel or gouge into cold water does not necessarily achieve the desired effect!

Sorby tools are all hardness-tested – a small mark can sometimes be seen on the end of parting tools or scrapers, but it is ground off when other tools are sharpened. The metal in Sorby parting tools and skew chisels is softer near the handle: it is designed thus so that the tool is more likely to bend than break when it 'catches'.

Chris demonstrated the following:

- Turning the outside of a bowl using straight-grind and finger-nail grind bowl gouges, skew chisel and scrapers;
- Sanding using power tools and the Sorby Sandmaster;
- RS200 hollowing tool undercutting a bowl rim;
- Sovereign handle system with gouges having a round cross-section to fit into the engineered handle (forged tools like skew chisels, parting tools, etc, are not round-fitting and are designed to go into wooden handles).
- Gouge dimensions are in imperial, not metric, units:
 - Bowl gouge sizes refer to flute dimensions (**not** the width of the bar);
 - Spindle gouge sizes refer to the diameter of the bar.
- Pro-Edge Sharpening system; a Pro Edge Plus indicates the inclusion of jigs in the package. The angle settings for the various chisels and gouges can be made quickly and easily, and Chris showed how these tools can be sharpened.
- Pro-Edge Belts:
 - Aluminium oxide in 60, 120 and 240 grit for carbon steel;
 - Zirconium in 60 and 120 grit for HSS;
 - Ceramic in 60 and 120 grit for drill and router bits (or a quick touch-up for HSS).

- Wobble chuck, suitable for offsets on items less than 10 in long. A high lathe-speed gives smoother cuts with a better finish.



- Spiralling and micro-spiralling tools, and how they should be used. The texturing tool compresses the wood and does not tear it. Choice of wood can be important, with box, holly, yew, laburnum, ebony, 'alternative ivory' and lignum vitae all giving good results. Cross-grain of ash can be textured, but end-grain is

less successful. The micro-texturing tool doesn't have bearings so should be oiled, and run only in the direction of the lowest part of the cutter at about a 45 degree angle to the wood. A brass-wire brush should be used to clean the



channels, and the grooves can be filled with coloured or metallised two-part epoxy mixes, if required. A bowl can be textured outside, then hollowed carefully to give a thin bowl with a lattice effect.

- A skew chisel, or a Spindlemaster used as a skew chisel, may be used to cut vees, roll beads and cut coves. The finish is good on spindles and finials that rarely need sanding to finish.



A superbly threaded and patterned polyester box by Albert Kitchen

Wild About Wood at Castle Howard

On Saturday 11 & Sunday 12 September 2010, the *Wild About Wood* event took place at Castle Howard. The purpose was to raise funds to support the Castle Howard Arboretum Trust.

For those who braved the odd shower, this was a marvellous setting for such an interesting event. All those who made the effort found that this was an amazing presentation of all aspects of wood management and use, and more besides.

Artistically designed furniture, making and paddling coracles, falconry (the birds sit on turned stools!), wood turning on electric and pole lathes, every form of carving, including using chain saws, finished artistic objects, flutes, didgeridoos and thunder-machines, were just a small sample of the displays.

The organisers had sent out a large number of wood logs, about 150 mm long x 75 mm in diameter and asked various 'celebrities' to make something of their log. Some items were interesting, some were weird, and others were fantastic, including the pieces by Binh Pho and Joey Richardson, illustrated below. All the items are to be auctioned on-line at:

www.i-bidder.com/branchingout

with the auction closing at midday on 30 September 2010.



Above, centre: The Snainton Woodworking Supplies Team at *Wild About Wood* – Graham & Sue Harker (back, centre), Terry Taylor, Rob Thompson & Bernard Moment. [Photo courtesy of Ron Rogers]

Top right: Joey Richardson's creation; sycamore turned, pierced, painted and textured, depicting arboretum trees, flowers, leaves & butterflies. The large butterfly represents Joey's children and freedom, and sits on a leaf carved from an historic American horse chestnut.

Bottom Right: Binh Pho turned *Caeruleus* (Latin for blue) on a lathe, then used a pyrography pen, airbrush, colours and a dental instrument, with a magnifying glass for the finest detailing. Blue is the colour of hope and of the ocean, which Binh crossed from Vietnam to reach safety in the USA. This piece records his dearest memory of time with his beloved wife. On one side it depicts the beach, on the other a secret garden with purple flowers. The blue poppy is looking to the sea shells hoping for a happy return.

