

# Plate with pierced rim

Walter Hall shows how to make this unusual plate



**I have been intending to try my hand at pierced work since I first saw some of Richard Kennedy's pieces in an exhibition at the Biscuit Factory gallery in Newcastle upon Tyne several years ago. I had originally intended to base my design for this piece on his well-known tree bowls but instead of removing the negative spaces between the trees, I was going to remove the branches, leaving the negative spaces to give an impression of leafless winter trees.** Drawing up some designs for this, a workable design proved to be more difficult than anticipated with too many pieces remaining insufficiently supported, so I abandoned that idea for this project and opted for a more abstract design based on a ceramic plate that I remember from my childhood. It only ever came out on birthdays or

when the vicar was expected for tea and was used to serve homemade ginger biscuits and jam tarts, which perhaps explains why it sticks in my memory. Perhaps the winter trees would be better represented through pyrography – an idea for a future project maybe.

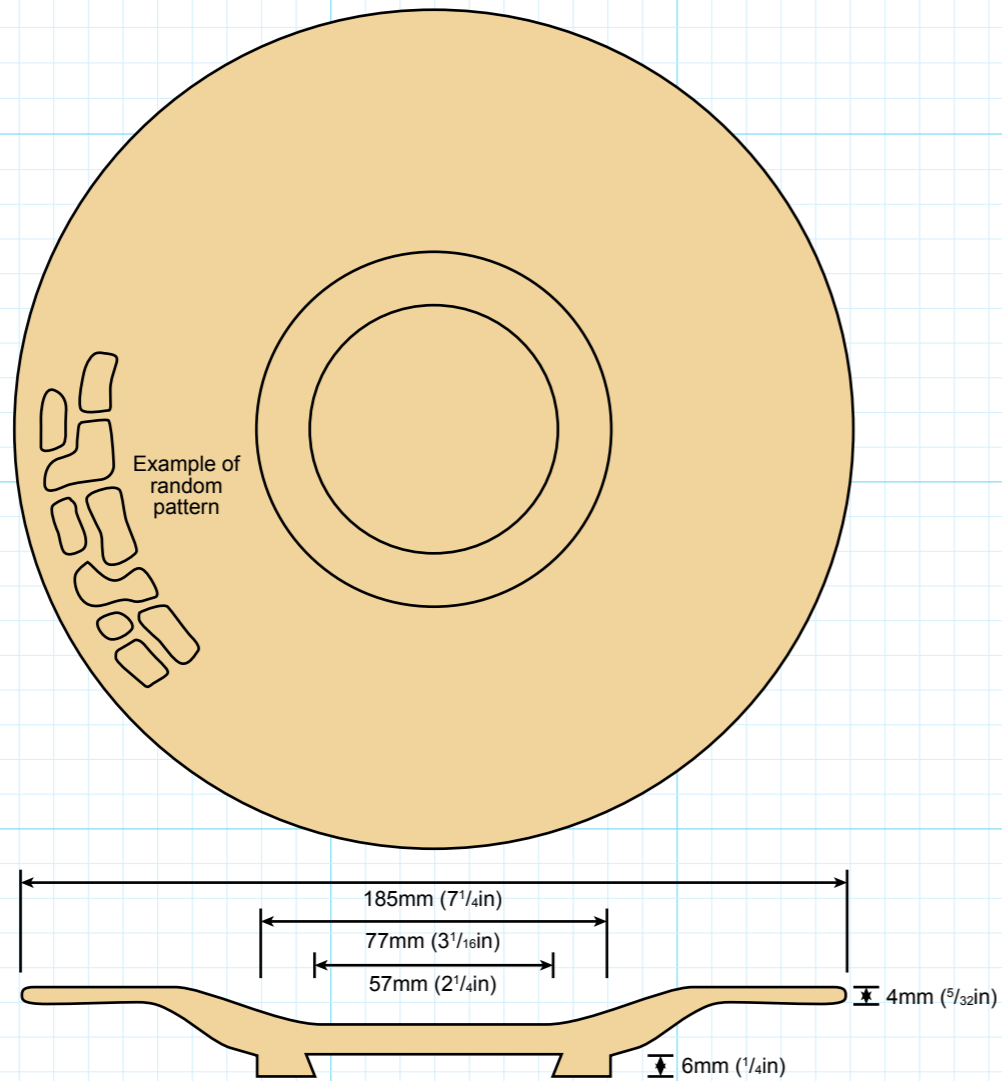
Another digression from my original intention was in the description of the piece. I had originally said that I would make a platter with a pierced rim, but after reading Pat Carroll's informative article about platters in *Woodturning* issue 328, my misconceptions about what constitutes a platter were corrected, so despite this being intended for serving rather than eating from, its diameter of only 190mm means it is more properly described as a plate, so that is what it shall be.

**TOOLS AND MATERIALS**

- Personal and respiratory protective equipment (PPE & RPE)
- Bowl gouge
- Skew chisel
- Abrasives, 120 to 320 grits
- Rotary carving/multi-tool with flexible drive
- Carbide burrs
- Abrasives

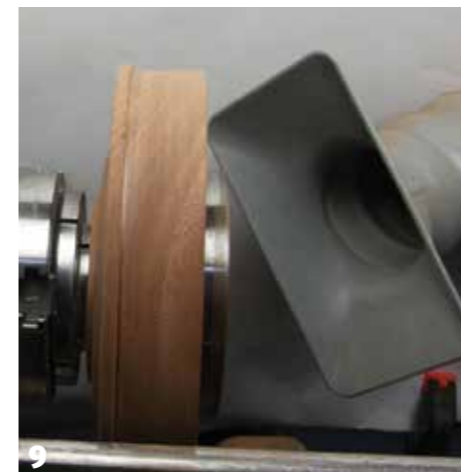
**MATERIALS**

- Hardwood blank, 200mm diameter x 25mm thick



**1** You will need a bowl blank about 200mm in diameter and at least 25mm thick. I used a piece of reclaimed mahogany which was a little thicker than needed and mounted it on the lathe using a faceplate ring to fit my chuck. A faceplate could be used, or even a screw chuck if the blank is thick enough.

**2** Begin by turning the blank to round and, if necessary, trueing up the face using the bowl gouge. The latter was not necessary with the piece I used, it having come from a board that had originally been planed true on both sides, but as the rim is to be quite thin getting the face true is an important step.



**3** I normally prefer to mount my work on a spigot rather than a recess but in this case, as the rim was to be only 4mm thick and pierced, I was not certain that it could safely be reversed in Cole jaws to remove a spigot, so I used a recess. Mark the diameter of the recess to match your chuck jaws using dividers.

**4** Prepare the recess using the bowl gouge. It need not be the full depth of the chuck jaws, but the base of the recess must be flat and true where it contacts the face of the jaws or the work will not run true when remounted.

**5** Using the skew chisel as a negative rake scraper, form a dovetail if necessary to fit the shape of your chuck jaws. If no dovetail is required, the sides of the recess may be squared off using a square-ended scraper or a beading and parting tool. As before, check to ensure that the bottom of the recess is flat and true.

**6** Once you are happy with the recess, mark the size of the foot. This is a matter of personal choice, but the rule of thumb that the diameter of the foot should be about one-third of the overall diameter of the piece works well in this case.

**7** Form the shape of the outside of the plate using the bowl gouge. A shallow curve approaching an ogee form with a wide rim is what is required to allow sufficient room for the piercing.

**8** While the work is still mounted on the faceplate power sand the outside through the grits to a good finish. Further work will be required after the piercing is completed but a good finish at this stage will save work later. I used Simon Hope sanding pads with Grip-a-Disc pads which gave a double level of foam backing. Wear appropriate PPE and use an extractor to minimise risk from inhaling dust.

**9** Remount the work on the chuck using the recess you have just formed. Don't remove the faceplate at this stage. With the bowl gouge, turn away part of the waste from the blank leaving a rim about 4mm thick. Stop the lathe and check that this is an even thickness all the way around. If not you can rework the bottom of the piece from the headstock side until the rim is true and then remount using the faceplate to refinish.

**10** Remove the faceplate and turn away the excess material down to the thickness of the rim. Don't attempt to hollow the centre at this stage, just aim for a flat face with a rim of even thickness.

11 Once the excess is removed and you are happy with the rim thickness use the lower edge of the bowl gouge to make light finishing cuts to the rim area. I settled for a 4mm-thick rim as the plate will be used (for serving biscuits), but you could go thinner if it is only intended to be decorative. A thinner rim would make piercing easier too.

Now hollow out the shallow centre of the plate. Take care not to make this too deep, bearing in mind that there is a recess in the base so you don't have the full depth of the piece to work with. Check occasionally with callipers as you work if you are not confident of the depth.

12 Before beginning work on the piercing make sure you are wearing appropriate respiratory and eye protection. High-speed grinding with tungsten carbide burrs produces fine dust (and smoke if you overdo it) so your RPE should be rated for hardwood dust. Eye and face protection is also essential in case something snaps or flies off.

13 If you are artistically skilful and sufficiently dextrous you may be able to work out the design as you go along and work freehand. I don't have that much confidence in my ability to get it right first time so I prefer to draw out the design in pencil so it can be amended to my liking before piercing.

14 You will need a high-speed rotary drive of some kind to power the cutters. This can be anything from a Dremel-type multi-tool to an industrial, quality, suspended motor and flexible drives. I used a fairly cheap multi-tool fitted with a flexible drive. I found the handset of the flexible drive easier to hold and work with than the body of the multi-tool itself.

15 There are many types of tungsten carbide burrs available but essentially what you require for this job are a long, thin, taper burr for the initial piercing and a straight-sided burr for tidying up and finishing the cutouts. Good-quality burrs are expensive, but I used a cheap set from the internet for this job and they proved adequate, although I may invest in better ones for the future.

16 The initial cutting left a fairly rough finish and the occasional burn mark. This was partly due to the thickness of the rim at 4mm and undoubtedly partly due to my inexperience and the quality of the tools used. I used a finer straight-sided burr to improve the quality of finish of the recesses.

17 How much time you spend finishing off the recesses is down to how fine a finish you wish to achieve. I spent a little time with some rolled-up pieces of Abranet to sand each recess to 180 grit. You could leave them straight from the burr or go to finer grits if you wish.

18 After a final hand sanding to finish (and to remove any accidental marks from stray burrs) apply the finish of your choice. I use a hard wax oil (Osmo PolyX) designed for worktops to give a robust food-safe finish. ●

