

# Southern Turners Project Sheet

## Shawl Clamp



The inspiration for this project comes from Mike Peace. I think it is a relatively easy project although turning the pin can be a bit fiddly.

You will need; one piece of tight-grained timber 80mm long and 80mm square. In this example I used *Photinia*. The ring will be made from this and also be used to make a jam-chuck to finish the reverse side of it. For the pin you will need one piece of straight, close-grained timber preferably of some contrasting colour (for mine I used olive but I think it would be better if a little darker) 130mm long and ~30mm square. One end of this will be held in the chuck and so it needs to be of a suitable size to suit your chuck.

### The Ring

To start with, mark the centre on each of the end grain faces. Select the face from which you will turn the ring. This will be the tailstock end.

Mount the wood on your lathe using a spur drive and with a live centre in the tailstock.

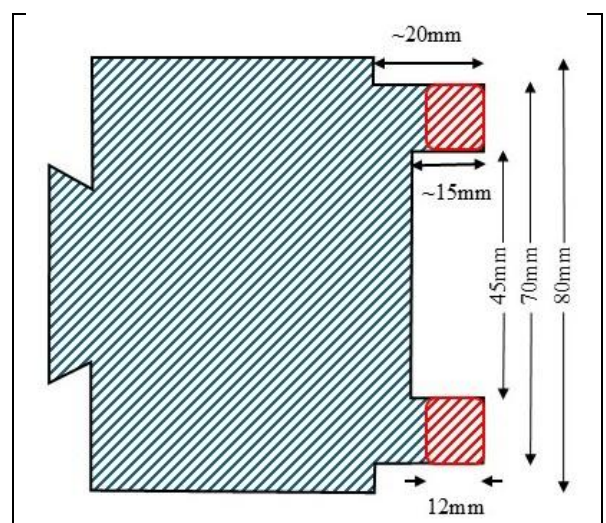
Using a parting tool, turn a tenon on the spur drive end to suit your chuck.

Transfer the wood to the chuck, remembering to make use of the tailstock & live centre to ensure good alignment.

Turn to round (80mm). Square off the tailstock end of the wood. Mark back from this end ~20mm and turn this end down to 70mm diameter.

Remove tailstock and on the end-face mark out a circle of 45mm diameter. Turn out this centre circle to a depth of about 15mm (always deeper than the intended thickness of the ring which is shown in red on the adjacent figure).

Now mark 12mm back from the end (the thickness of the ring) and mark around the wood. Your piece should look something like the cross-section in the adjacent figure (which is not to scale).



Now you need to think about how your ring will look in cross section. You could round the face or just round the corners slightly, you could groove the face with a couple fine concentric circles. There are many options. In my example I put a large radius on the front outer corner and put a deepish rounded groove on the face.

Once you've got things to how you want them to look then it's time to sand and then you can start to part off the ring. You can go straight in at 90° with the parting tool or as in my example I tapered the back inwards slightly. Remember to widen the cut to reduce friction and heat on the parting tool and timber.

Slow up as you get close to parting through.

Once the ring is removed, leave the wood in the chuck and face-off the end where it steps up to 80mm diameter. Now make a jam chuck to hold the face of the ring so that you can finish the back of it.

Measure the outer diameter of the ring and mark a circle of this diameter on the end of the wood in the chuck. Carefully remove the wood from inside this circle until your ring fits tightly into the hole but remember that it needs to bottom out in the jam chuck so that the faces remain parallel. Now you can carefully finish the back corners and surface.

## The Pin

On one end of the wood mark the centre. Mount the wood on your lathe using the chuck and with a live centre in the tailstock. Turn down to about 15mm diameter and examine the wood for potential features and flaws. Since the pin will be of quite a small diameter you don't want to have any weaknesses in it.

Decide which part of the wood will be used for the pin.

Mark off the total length (A-D) and points B and C as per the adjacent figure (not to scale) or you can come up with your own design.

You'll note that the shape between B and the raised rim at C roughly matches the cross-section of the ring in red below. This helps to hold the pin in position while in use, however the raised rim at C is not essential.

Now you can begin the fun bit of carefully turning the pin down to diameter. In my example it is about 6mm Ø.

Don't try to do the point yet.

I used a roughing gouge, detail gouge and a skew to make the pin. Make sure that they are sharp.

I turned the detail nearest the chuck last and then sanded.

Then with a sharp skew carefully shape the point making sure to support the wood with your hand whilst doing this.

The last thing to do is to part off the pin whilst supporting it with your hand and then hand sand the two ends to your satisfaction.

The example I made is finished with lacquer but you may wish to use another finish that you prefer.

