

# INSTRUCTIONS FOR THE CROWN RING TOOL

## DESCRIPTION

The ring tool is designed for end grain cutting in seasoned and wet woods and a very fine finish can be achieved if the tool is kept sharp. It has two cutting edges: an outside bevel for hollowing-out bowls and boxes and an inside bevel for facing off straight cuts.

## HONING & REGRINDING.

The tool needs to be honed first and this is done using a round slip stone for the inner surface and a flat stone for the outer edge. The ring tool will only need regrinding if the cutting edges become damaged. Small conical grind stones can be used in a drill or flexible drive for regrinding. Take care not to remove too much metal or to distort the ring shape. Beware the edges will be very sharp!

## HOLLOWING OUT END GRAIN USING THE OUTSIDE BEVEL EDGE

1. Set the lathe to 500 rpm. Mount the blank and turn to

the round and face off with conventional tools. Mount a drill chuck in the tailstock and drill a 6mm to 8mm diameter hole to a depth not exceeding the depth to be hollowed out.

2. Set the tool rest parallel to the surface of the blank at centre height and as near to the wood as possible without obstructing the movement of the ring. Aim to have the cutting edge trailing so that the tool handle is up and the cutting edge is down.

3. Check that the blank rotates freely, put on eye protection and start the lathe.

4. Think of the rotating wood as a clockface and present the outside bevel end of the ring to the hole with the cutting edge pointing towards the 9 o'clock position with the supporting bevel resting on the left hand side of the hole. Twist the handle slightly clockwise about 10° to 15° and bring the cutting edge of the tool into contact with the left hand edge of the drilled hole.

5. Remove the wood by swinging and pulling back the toolhandle so that the bevel always remains in contact with the wood and the cutting edge of the ring tool sweeps up the slope to the outer edge of the blank.

6. Avoid rotating the ring more than 15° from the vertical. Keep working within the 9 to 9.30 o'clock sector as illustrated in the diagram. Aim to keep the bevel close to the wood and take gentle, but fine, cuts.

## FACING CUTS IN END GRAIN WITH THE INSIDE BEVEL EDGE

Present the flat outer surface of the ring tool to the wood and sweep the tool across the surface so that the cutting edge produces a fine finish.

Avoid rotating the ring more than 15° from the vertical. Keep working within the 9 to 9.30 o'clock sector as illustrated in the diagram.

This form of cut is more difficult and needs practice.

