

# **Bribie and District Woodcrafters Association Inc.**

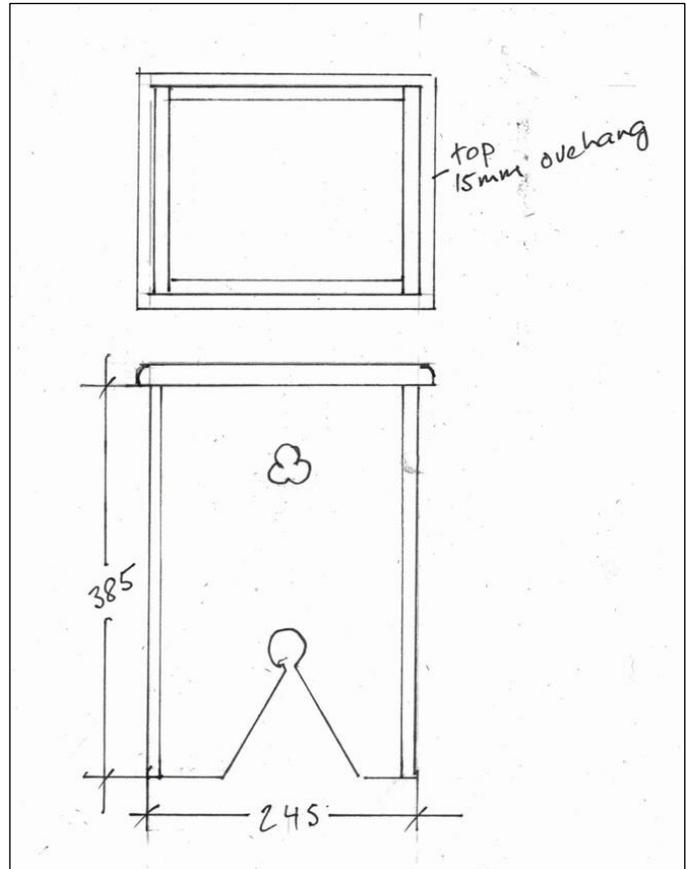
## **Projects For Beginners**

### **Project 1 Build a Stool**



## BUILD A STOOL

When you complete your accreditation, we have a simple project that will give you some further practice with machinery. If you are new to woodworking, don't be shy to ask for help. Practice each step on scrap material until you are happy with the result and then go on to your project.



Before you start, you will need to be accredited on the following equipment:

- Planer/surfacer/jointer
- Thicknesser
- Drill press
- Router (table)
- Biscuit joiner
- Table saw
- Drop saw
- Belt and orbital hand sanders
- Bobbin sander
- Linisher

First, have a look at the photo and the drawings to get an idea of the project. Remember the dimensions are suggestions only and you can change them to suit your requirements, (or your grandchild's requirements). The tile insertion is optional but will be hard on the bum.

## CUTTING LIST

This is a list of finished timber sizes, so when selecting your timber you will need to allow for machining and joining of timber. I suggest that you use Bribie pine for its ease of machining and also its features. Ask for assistance at the woodshed and keep a tally of what you use for payment.

**Sides:** 2/385x245x19, 2/385x207x19

**Top:** 1/275x275x19

## JOINING TIMBER

After you have machined the timber, examine the boards to be joined and arrange them with best face up and balance the grain and colour so that it looks good to your eye. Now draw a vee on the top face so that you can repeat the arrangement when gluing up *image 1*. Before you start gluing, set up the timber in the clamps. Glue up one board at a time by running a thin bead of glue on one edge and rub the two edges together to distribute the glue evenly. Repeat and tighten clamps ensuring that a thin bead of glue is extruded from each joint. Do not over tighten and starve the joint of glue. When the glue has plasticised, remove excess glue from the surface with a putty knife.

### Important

To avoid damage to blades and destruction of expensive sanding belts, all glue must be removed **before** the work is sanded or machined.

Image 1



## CLOVER LEAF DECORATION

The clover shape in the legs is made with 3 cuts with a 25mm forstner bit *image 2*. You may set it out with 3 equidistant points about 20mm apart or drill freehand. Practice drilling the pattern with a piece of scrap till you have it perfect. You will get a good cut if you drill slowly and right through on the one pass. To avoid break-out have the workpiece well supported underneath.

### LEGS

First drill a 25mm hole on the centre line. You can cut the legs on a table saw using the sliding angle guide to push the leg through the cut. Note that the corner is supported against the fence so that when you flip the workpiece, the cut on both legs is identical. Hold the workpiece firmly in place with two hands and have someone operate the sliding guide.



*Image 3* Cutting the legs



*Image 2* Note the missing fingers on the operators hand, **be careful when operating machinery**

If you prefer a shaped leg, then cut that on the bandsaw and clean the sawcut on the spindle sander. First cut a template so that you can duplicate the shape on all 4 sides.



## TOP

Join and cut the top to size. Fit a round over cutter in the router table and using a piece of scrap adjust the cutter height until you have a smooth round over profile. To avoid breakout, rout the end grain first and then the side grain. If you have burn marks on your test piece then your feed speed is too slow or the cutter is blunt. If needs be, take a light cut, gradually raising the cutter to the required profile.

If you decide to inlay a ceramic tile into the top, ask for help and use a hand-held router with straight cutter and guides to rebate the top



### **BASE ASSEMBLY**

The sides are assembled using a biscuit joiner. Put the sides together in order and mark each joint, AA, BB, that sort of thing. Now draw a line across the joint in three equidistant positions. *Fig 4.*



Fig 4 showing the biscuit joint marks.

Cut the biscuit housing in the sides, the overlapping side is cut with the workpiece in the bench vice, the other on the flat.



Glue up and clamp, then measure from corner to corner to check that the base is square. You can adjust this by slightly moving the clamp position.

### **FIT THE TOP**

Glue and screw a 19x19mm rail inside the top of the base and secure the top with screws through oversize holes in the rails. The oversize holes are to allow for expansion and contraction of the top.

### **FINISHING**

Prior to assembly, sand all surfaces down to 240 grit sandpaper and finish to your specification.

