

"Bottle Neck" and "Baby Bottle"



In September 2018 I made several visits to 'Aspects of Kings Park' in Perth, Western Australia. This is a high class gallery displaying the art and culture of Australia.

While there, I took photos of some glassware being produced by Hamish Donaldson and marketed under the name 'Sloopy'. Hamish is blowing glass with his parents Eileen Gordon and Grant Donaldson of Gordon Studio Glassblowers. The forms produced by Hamish are free styled and elegant, and he is now making glass incorporating engraving.

Put simply, I was captivated by the pieces

on show, and vowed to reproduce some of their characteristics in wood when I was back in my own workshop.

My first attempt was horrible, and I am not prepared to show it. I have kept it however, it serves as a good reminder of what not to do. I am very pleased with my later attempts, some of which are shown here. I have decided to name them 'Bottle Neck'. The smaller pieces are simply named as 'Baby Bottle'.



Since my first attempts at making a bottle went on show, many people have asked how they are made. I have always said that in the fullness of time I would produce a set of project notes. So, better late than never, here they are, and if you have a go at making one, please, send me a picture, and DO NOT sell them under the name 'Sloopy', that is a trade name registered to Hamish Donaldson.



These instructions will guide you through the general process of making a small bottle using a wood blank measuring about 12" long by 2.25" square. Bigger bottles will require a 3" square blank, up to about 24" long.

A lot of people do not realise that this is a segmented form where the original piece is cut into segments and then fully re-assembled.

The very early stages are of course, mount the blank between centres and add a dovetail spigot ready for holding in your chuck.



Round off between centres.



The next stage is to hollow the free end, a bit like the bell end of a trumpet. On a small bottle you can do this by making very fine cuts with a spindle gouge after pulling the tail stock away.

Take care, if you try to cut too heavy you will soon pull the blank out of the chuck, and if it is spinning at 1000 rpm it is going to make a mess.



On a bigger bottle it is almost a pre-requisite that you use a steady rest to support the blank as shown here.



Mark where you are eventually going to part the piece off, about half an inch from the chuck. Also, mark where the shoulder of the bottle is going to be. I normally aim this to be about an inch below centre.



Cut the bottle to shape and sand it well. You need to get a fine smooth taper on the neck section. On big bottles aim for 3/4" tapering down to 1/2", and on smaller bottles aim for 5/8" tapering down to 3/8".



Put your first mark at the top, just below the bell section, then add extra marks all the way down the tapered neck. I have tried 10mm sections on a small bottle, and on bigger pieces, try starting at 10mm, and increase the width of each segment by 1mm as you make your way down the neck. Both work well, but keep them small on a small bottle.



Insert a dressmakers pin into the top ring, rotate the bottle about 1/2 or 3/4 of a turn, and insert a second pin.

Tie a cotton thread between the two pins, and mark the neck wherever the thread crosses a segment line. Make sure your marks are clear, both above and below each of the segment lines.



Part off at the base, having rounded off and sanded the bottom corner, just as you would see on a real bottle.

That is the end of the turning in this project.



Clamp a batten onto the bandsaw table. It needs to have a long slot in it where the blade will run.

A bit of scrap pine, about 1.5" wide is fine for this. Mount it firmly on its edge. It is to be used as a raised table to cut the bottle neck into sections.

Here, the first cut has been made.



All the remaining pieces have been cut, including the bell end.

Make sure you keep the pieces in the correct order, and the right way up.

As each piece is cut, put a mark on the top surface to show which is top and bottom.



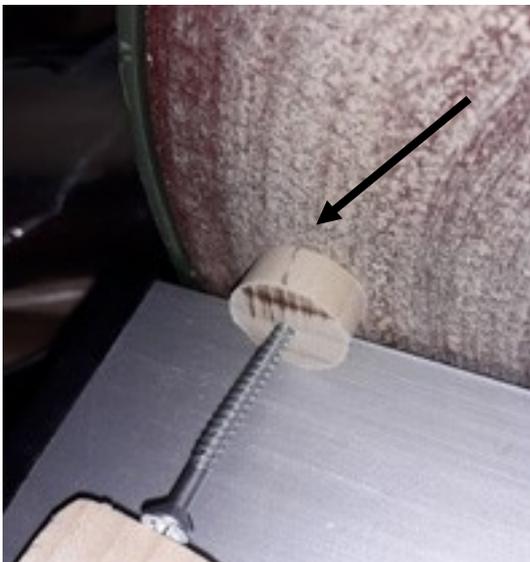
Each of the segments has had a small hole drilled through the centre. Find something to fit in the hole so that you can hold the piece while sanding.



Sand the top surface of the un-necked bottle. It needs to slope downward towards the edge mark.

Each of the segments needs to be sanded on both the top and the bottom into a tapered wedge. The taper slope will ALWAYS be towards the edge marks.

Start with the bottom surface of the first disc. Hold the piece so that the edge mark is top-centre (as indicated in the photo), use a sanding disc to taper the face towards the edge mark.



Turn the piece round ready to sand the top face. Again, with the edge mark at top-centre, sand the second face. When done, put your original mark back on that denotes which is the top surface.

This process produces a wedge shaped disc which is thin on the side where all the original marks were, and thicker at the back, thus inducing the curve in the finished bottle.



Having sanded the first disc, glue it to the top of the bottle. Use the original marks as an alignment guide, BUT, pay close attention to the grain patterns, it is most important that they align correctly.

As you glue up the pieces, make sure that glue goes well up inside the central hole. Aim to have a continuous central glue joint that runs up the full height of the neck.



Continue in the same vein, all the way up the neck to the trumpet head.

Allow the line to flow where your sanding has lead it, and remember, it is the grain that matters most, it **MUST** flow correctly.



Having assembled the piece, set it aside for a day or so, and then attack it with files and sandpaper. I find that round and half-round files work best. Work on it until you cannot feel any irregularity in either the line or the feel of the neck.

Only when you are convinced that you cannot improve it any more should you move on to sandpaper. Go through all the grits, and if at any stage you think "that bit could be better", MAKE IT SO.

All the pieces I have made so far have been completed with an oil finish.

Jon Simpson