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Piece: Display cabinet on a stand

Subject: Planing the carcass after glue-up.

I glued the carcass together using a standard pva wood glue. I used a small paint brush to brush a small amount on the long grain sections of both the dovetails and the pins. The joinery was tight and I want to avoid unnecessary squeeze out so I am careful with how much I apply. You really do not need much.

Before I applied the glue I set the clamps up and had a practice assembly. This is important as gluing a carcass is a big job and you want to have everything organized and under control. You do not want any nasty surprises.

I left it over night and in the morning removed the carcass from the clamps. It is now ready for the outside surfaces to be planed. This will flush the joinery and prepare the outside surfaces for finishing. Planing the top and bottom of the carcass was very easy as the joinery was single lap dovetail, not through dovetail, so these surfaces were plain long grain.

Planing the sides is where we have to be careful. When we come off the end of the side we are planing, we are coming off the end grain of either the top or bottom of the carcass, not long grain. When planing off end grain there is always the danger of tearing the end. There are various ways you can prevent this from happening. Firstly, you must have a razor sharp blade in your plane that is set for a fine shaving. I like to clamp an extra piece along the end which supports the end grain. The plane runs along the side and across the end grain and this support piece. The end grain of the joinery cannot tear out as the support piece holds the fibres in place. If you want to avoid this clamping system you can put a small bevel along the edge of the top and side and this will also greatly reduce the chance of tearout. The photos below show the system I used and how I held the carcass firmly in place. The piece of pine used to support the carcass should ideally be a couple of millimeters less in width than the interior of the carcass so that it supports the entire piece. The series of photos below show how the carcass is firmly held in place to enable the outside faces to be planed.



Below: On the right a long sash clamp firmly holding the carcass to the bench. On the right, the two quick acting clamps are holding the support piece to the carcass to protect the end grain. I am planning from the left to the right.



Below: The support piece to protect the end grain. A wider clamp to also clamp the middle is advisable.



Below: On the right a have placed a piece of scrap to prevent the clamp from denting the carcass edge. The rags are to protect the interior 'finished' surfaces.



The photo below shows the carcass side planed flush. You can still see a faint marking gauge line on the left hand side so a fraction of a millimeter more will need to be taken off this side to remove that scribe line. Also note the spacing and size of the dovetails and pins. I do not like really narrow pins as I feel this greatly reduces the structural integrity of the carcass. Narrow pins are ok on small drawers but not on carcasses. Also note the size of the middle pin. It is much larger than the others. This is a detail of the joinery. If the top were to pull away from the sides it will happen at the outside edges. Therefore I have more dovetails on the outside edges and therefore more long grain gluing surfaces.



Another point to note is that you should plane the sides first, and then the top and bottom. If you do incur some tearout when planing the sides, you may lose it when you plane the top and bottom surfaces. Make sure you stop planing when you feel your blade getting blunt. If you continue you may get tearout and this is a headache. Take a break and sharpen your blades.

Planing the sides flush and exposing the joinery cleanly is very rewarding.

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