



Scott Horsburgh
Designer and Maker of Fine Handcrafted Furniture

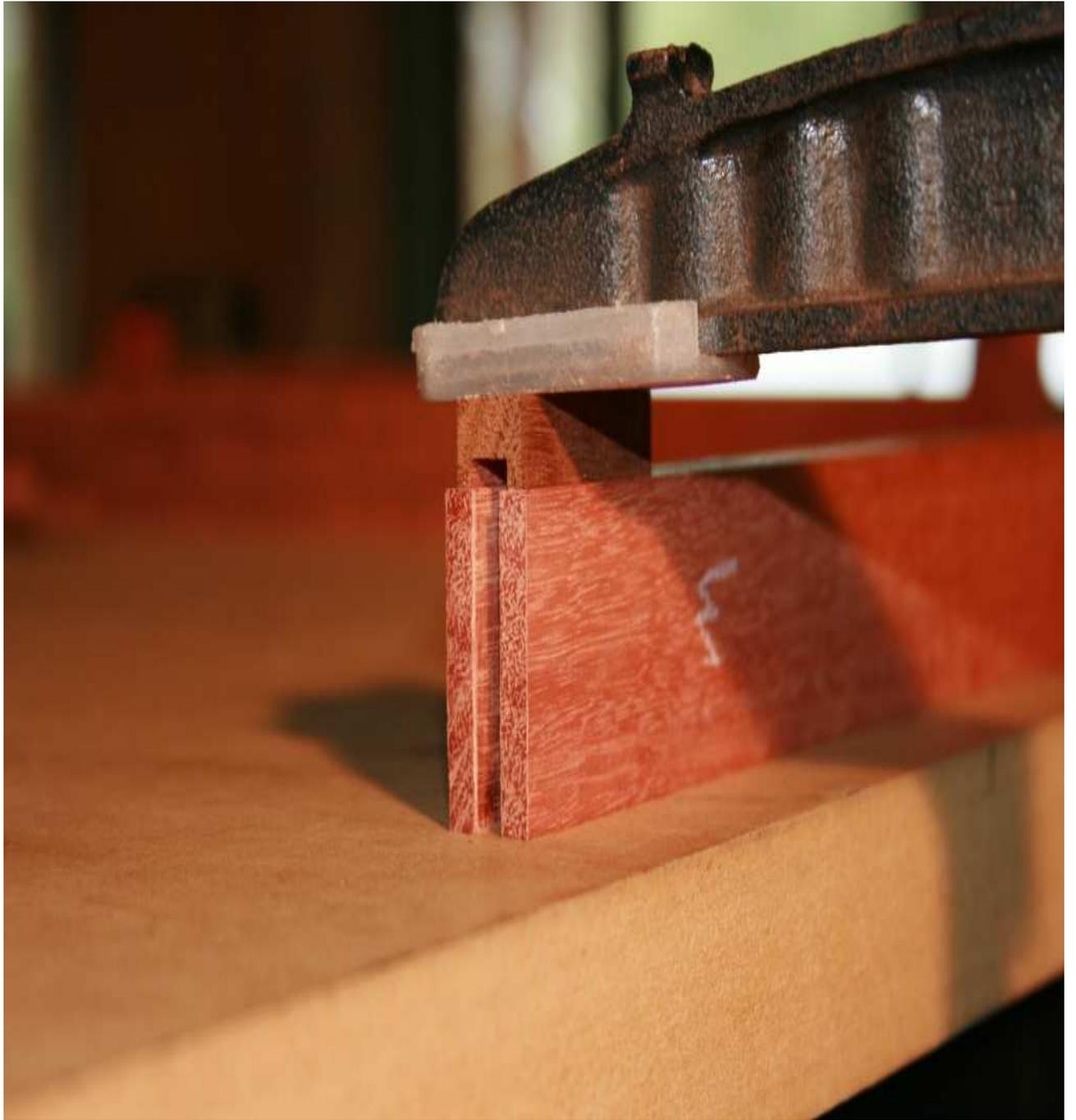
Article 5: 14th January 2008

Piece: Display cabinet on a stand

Subject: The glue-up of the back frame and panel.

In Ezine 3 I discussed the making of the back panel. In Ezine 4 I discussed the making of the back frame. Now it is time to glue-up the back frame and panel. We have cut all of the joinery and routed the grooves in the frame members to hold the tongued edge of the panel and ensure it is a snug fit. We are almost ready for a dry clamped set-up to ensure everything is ok and ready to be glued.

With bridle joints you are seeing the joinery exposed at each end of each piece of the frame. When I mark out bridle joints I will have the joinery cut so that a fraction of a millimeter of the side will need to be planed off to flush the join. Before glueing up the frame and panel it is very advisable to make some special glue blocks as shown below to simplify the glue-up. There is a lot to consider and you do not want to be messing around with moving clamps trying to get joints to pull up tightly. Where the end grain of the tenon protrudes very slightly through the long grain of the mortise, the glue blocks will enable you to clamp at right angles to the join and therefore ensure you are able to pull the join up tightly. No mucking around with clamps. You are ready and the block is glued. You do not need to try and hold it in place when clamping.





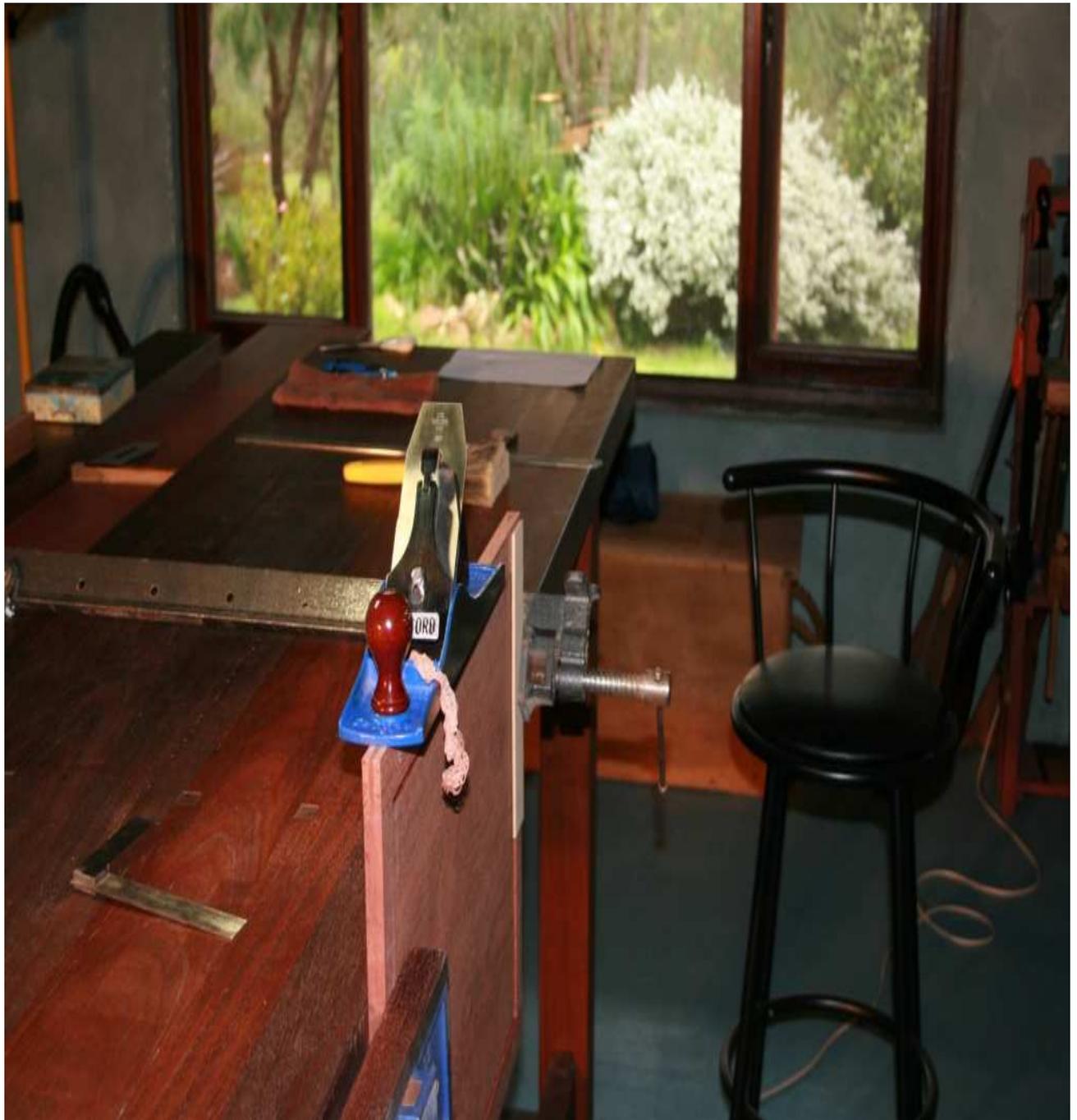
So with the glue blocks glued and dried as required you will be ready for a dry glue-up. I used four large sash clamps to pull the four frame pieces together tightly (the panel has been placed inside the frame). The sash clamps will pull the shoulders up tightly. When the frame is clamped with the sash clamps, place some cardboard strips as spacers between the frame and the panel to keep the gaps uniform. Two spacers each side would do the job. The panel is solid wood so has only been glued at its centre, top and bottom. I place a little glue on the tongue of the panel and a little on the inside edges of the rebate on the frame. About one inch wide is fine. Brush the glue with a small paint brush. This glue will hold the panel in place but still allow it to move across its grain. This is very important.

Another important thing to consider before placing the panel into the frame as it is being glued together is the possibility of any glue squeezing out in the inside corners of the frame. If glue squeezes out from the bridle joints and sticks to the panel it will not be able to move freely and it will crack as the humidity changes with the seasons. To prevent this from happening, wax all four corners of the panel prior to glue-up. The glue will not stick to the wax and the panel will be free to move. The wax need only go on the corner tongues of the panel. Not on the face sides as there will be no glue on the face sides. They are planed clean and have already been finished with wax on the inside and oil on the outside. I have finished them already as they are not flush with the frame; they are about 1mm shy. By finishing the face sides prior to glue-up you are able to have complete free access to really finish them well. There is no reason why they should be marked when you are planning the frame to fit. Be careful.

Once the large sash clamps have pulled the frame together nice and tightly, place four small G-clamps on the corners to tighten the joints together. Once the G-clamps are in place you can remove the sash clamps if you wish.

If the panel was veneered you would not be concerned about waxing the corners prior to glue-up as the panel would not move. You only need to wax the corners if the panel is solid.

The photo below shows the glued up frame and panel firmly held to my workbench to enable me to plane it to fit. Before I am ready to hand plane the outside faces on the frame I have used my bandsaw to remove the glue blocks as close to the frame as I dare. I probably had about half a millimeter to plane off before I cleaned the surface.



I have carefully planed the edges to ensure a snug fit into the rebate at the back of the carcass. The photo below the shows the paned frame and panel back in place. The outside panel is jarrah, as mentioned before, and the inside is the golden huon pine which greatly brightens the carcass interior.





I have waxed all of the interior surfaces and oiled the exterior surfaces.

Drop me an email if you have any questions. Happy woodworking.

On Friday my new bandsaw blade for resawing arrived from Perth. Its 4170mm long, 1 inch wide and has 1.5 teeth per inch. The blade is 1.5mm wide. I made a jig in the morning from MDF to help me cut accurate venners on the bandsaw. I have some beautiful pieces of curly jarrah with wonderful colours and grain that I am veneering to use for the doors on the sideboard I am making. The blade worked

beautifully. I was able to cut accurately 3mm veneers off a piece of jarrah that was 900mm long and 250 wide. I am very happy with that blade and the awesome old bandsaw.

When I walked back to the Steading, this beautiful creature, an Aussie Goanna, was sitting on the driveway. It would be not far shy of 1 metre long from head to tail. Very sharp, strong claws. It is a dangerous place this land. You have to have your wits about you at all times. There's dinosaurs everywhere.



Scotty Horsburgh
Yallingup Steading