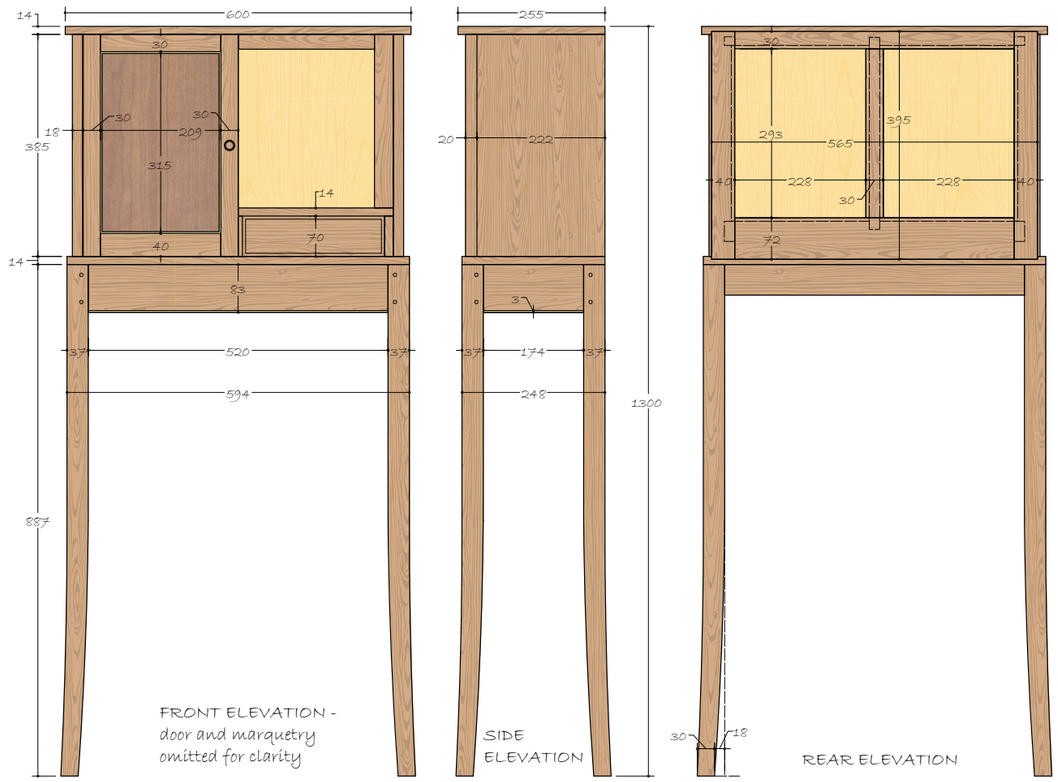
Make that a double

Using only hand tools Israel Martin makes an Ernest Gimson-inspired whisky cabinet that's full of surprises

The basic idea for this project was to create a small whisky cabinet that fused the styles of some the craftsmen I admire, but trying to focus on one of them, Ernest Gimson. The system for the carcass was influenced by the work of Garrett Hack and is a fundamental aspect of the design; as much for its simplicity and ease in creating the joinery as incorporating many of the stylistic details. The use of quartersawn timber throughout permitted the use of delicately dimensioned components to achieve an extremely light piece of furniture without compromising strength and stability. When designing furniture to be made with only hand tools, I always look for economy in both materials and the necessary manual labour to work them. I find there is a natural relationship between these two elements that results in a harmonious and well proportioned piece.



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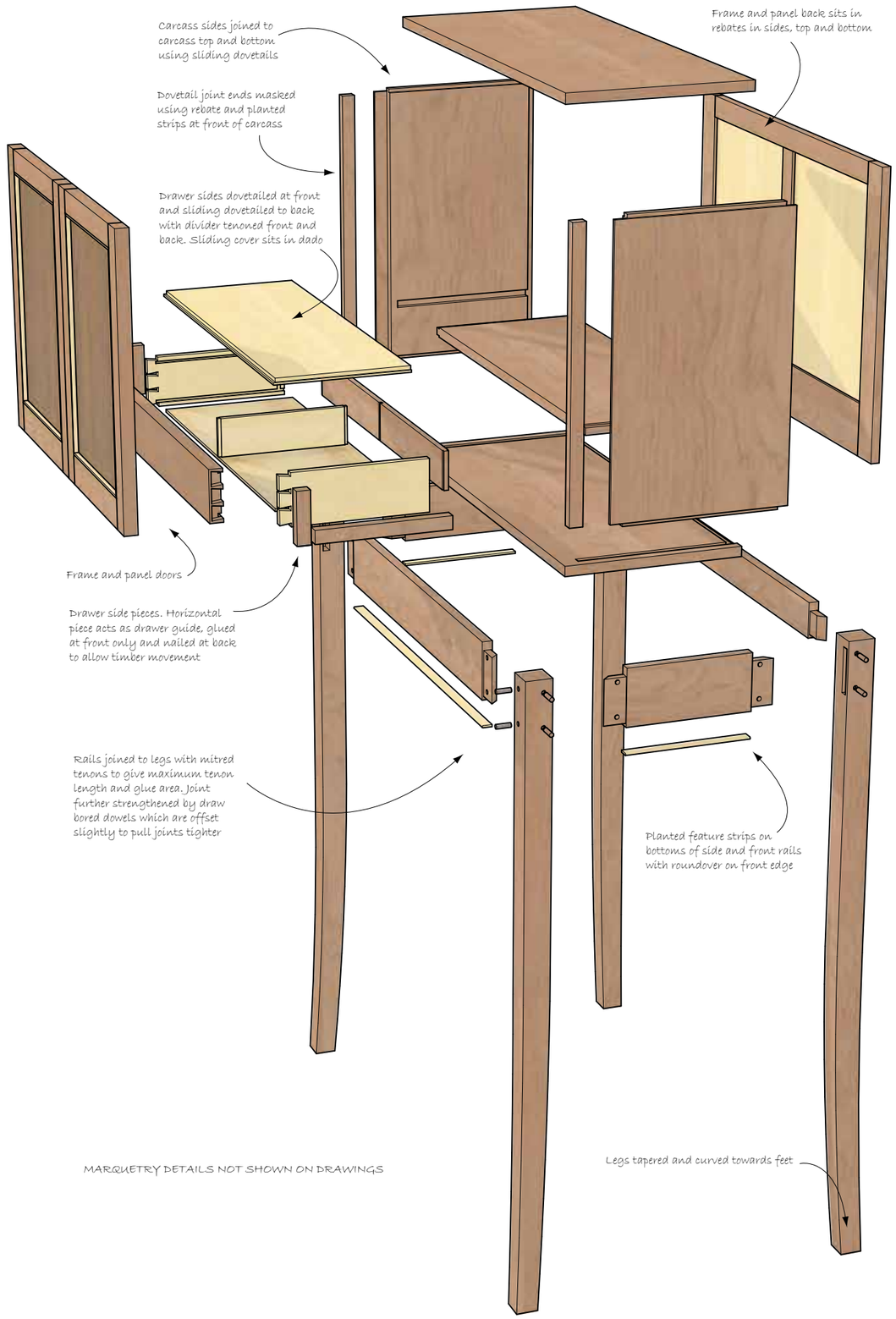


Adjusting top length with the mitre plane

The wood stock for the carcass

Dimensioning the wood

The challenge began with selecting the wood: quartersawn black walnut (*Juglans nigra*) boards for the carcass, quartersawn Indian rosewood (*Dalbergia latifolia*) for the door panels and tiger maple (*Acer pseudoplatanus*) for the back and the drawer sides. In Spain it is not easy to find quartersawn black walnut boards, so I spent a lot of time looking for them in the lumber yard. When I found what I needed, I then dimensioned the stock with my hand planes, using the kerfing plane and the frame saw to rip them prior to planing again.

I bought the Indian rosewood and the tiger maple boards from a wood store in Madrid. They were just 18mm and 20mm thick respectively and required some very precise re-sawing with a kerfing plane and then a frame saw.

When dimensioning by hand, if the boards are not too warped, I start with a jack plane fitted with a slightly cambered iron. As I progress to the smoothing plane the camber lessens; feathering out by a few strokes on the sharpening stone at the corners.

Fine adjustment of the rebate with the shoulder plane

Dry fit, front carcass detail with front rails added

Carcass construction

I use the same carcass construction for most of the cabinets that I make. This allows me to use thinner boards in the construction that will look thicker when finished. They also allow me to make through sliding dovetails or dadoes easily because they will be covered by front rails. For the main joinery, I use sliding dovetails to join the carcass sides with the top and bottom.

Cutting sliding dovetails by hand is a challenge at first but after a few, they become one of the most valuable joinery techniques you can master. I start by cutting the dados with a carcass saw and then remove the waist with a chisel followed by a router plane for a consistent depth. I trim to the knife line to create the walls using a wide chisel. The corresponding components are made using a dovetail plane.

The next part of the joinery was to make a rebate on the fronts and the back of the side boards, using the skew rabbet plane and then adjusting them with a shoulder plane to get the rebates at exactly 90°. The front rebates will be covered with a side rail and will cover the joinery. Depending on how you decided to attach the rails, you can leave a small rebate on the sides in the union between the side and the rail to add the edge inlays. If I just want to make a chamfered corner or a beading, I do not leave any rebate.

In order to keep things simple, I decided to add a drawer inside the cabinet instead of outside. The top of the drawer will be the place for the bottles and glasses. I used a thinner walnut board joined to the cabinet sides with stopped dadoes for this. The shelf is set back 10mm from the front to allow space for the knobs on the drawer when closing the doors.

The back is made of a frame and panel structure, and in order to add light to the cabinet interior, I used tiger maple for the panels. The back was attached to the carcass in a continuous rebate with brass screws; a feature that adds strength to the cabinet.

Making the stand

Being a tall piece and with most of the weight at the top I worked on improving the stability of the structure by off-setting the legs from the perimeter of the carcass. This creates a pleasing break at the waist and adds visual weight to the base. Splaying the legs outwards towards the bottom further increases this effect and improves stability.

After making a template for the legs I set about selecting a board of walnut with grain suitable for the pattern. The pieces were 45 x 40mm and were to be off-set 5mm at the front and 15mm at the sides.

First I removed most of the wood with the saw and then I worked the shape of the legs with spokeshaves and planes. I again used quartersawn walnut for the aprons, using a bookmatched piece to which I added a tiger maple strip of about 2mm glued into a rebate around the bottom. This was finished with a small beading applied with a scratch stock.

The joinery between the legs and aprons are mortises and tenons that meet in the centre at 45°. Two draw bore pins made of rosewood were used to reinforce the joints. The cabinet is attached to the stand with brass screws. The back apron is thicker and wider than the other three in order to make some slotted holes for the brass screws to allow wood movement. Before gluing everything together I applied a few coats of shellac. Further coats were applied when the piece was finished.

Side view

Grain pattern for the legs

Adding a sliding tray to a drawer

For convenience a whisky cabinet should have a place to pour the whisky into the glasses so I made the drawer double up as a work surface by adding a sliding tray. The only challenge was to adjust the tray to the grooves on the drawer sides with almost no gap and to make the groove so that when the sliding tray is in its place it is just about 1 or 1.5mm down from the top of the drawer sides. This can also be used in other furniture to add more interest and increase the use of the piece.

The sliding tray open. Notice the groove place

The sliding tray closed. Notice the distance between the tray and the drawer side top

Details: edge inlays and drawer marquetry pattern

Edge inlays are very common in Gimson furniture as well as in Garrett Hack's work. They add interest to this piece and make the side rails' joint invisible so the cabinet sides look like just one piece.

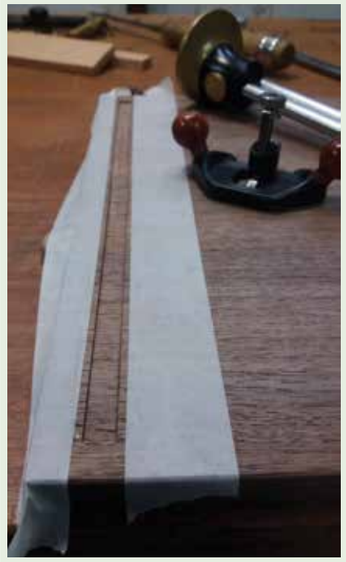
I made holly (*Ilex* spp.) and ebony (*Diospyros* spp.) strips with two sides at a perfect 90°. A nice tip for holding the pieces is to use double-sided tape on the bench with the strip on it. I then cut them to the desired length and glue them to the side rebate, holding them with tape. After the glue is dry, just plane them flat with a block plane and then with the smoother to finish the panel. Because the sides are slightly inset from the bottom board I had to do this before gluing the carcass together.

The drawer marquetry pattern appears as you open the cabinet and that is what I was looking for, simplicity outside that reveals something interesting inside. I made a jig to cut the 2mm-thick strips of walnut and maple to make diamonds and adjusted them with another jig added to my shooting board. When I had the desired number I put them on tape (over the visible side of the pieces) to hold them together before gluing them on to a 0.6mm thick piece of ash veneer to hold them together. I added a band of walnut around the perimeter and a break in the middle to create the illusion of two drawers, enhancing the effect with a thin strip of ebony.

Detail view of edge inlays and drawer pattern

Using the router plane

In order to get a nice dado or a sliding dovetail female with the router plane, I always make the dado slightly bigger than the router plane blade dimension and remove the excess to the knife line with a wide chisel. I also use tape on the board so I do not scratch the board surface with every pass of the router plane.



Detail of the sliding dovetail joint

Sawing to get the first two sides of the diamonds

Adjusting the sides before the next cut

Making the diamond pattern

Diamond pattern in the drawer front

Frame and panel doors and back

Understanding seasonal wood movement is one of the most important things when working with solid wood. Frame and panel construction is one of the simplest solutions to manage that movement. In this case I used quartersawn walnut for the door and back frames. As I wanted to add quartersawn rosewood panels for the doors, I added a thin strip of chestnut to make a colour transition between the walnut and the rosewood. For the back, the solution to wood movement was to add a middle stile between the two maple panels. F&C

Adding chestnut strips to the door

Detail of the door inside and outside

The finished cabinet