



Hiding Japanese technology in a Jacobean-style oak cabinet

John Lloyd's spirits dropped when he heard his client wanted him to make a Dalek-style TV cabinet. But they soon rose again with talk of Jacobean, oak, panelled doors and bracket feet

Screen test

PART 1

When the phone rang some months ago, and the person on the other end said that they would like me to make them a piece of furniture, my spirits rose! My main core business has always been furniture restoration but I love making furniture, and cabinetmaking projects always make a pleasant change from fighting with terminally ill chairs.

But as the voice on the end of the phone started to describe that the cabinet was to have a television perched on the top, and house various bits of electronic hardware, my heart started to sink again. And when they finished the description by saying that it should be mounted on wheels so that it could be hidden in an alcove behind curtains, I started to despair and I wondered whether it was going to be worth pursuing the conversation any further.

The voice then said that they had come up with a design and could they fax it through to me so that I could give them an idea of price? At this point my initial excitement had all but evaporated, and I was fairly convinced that there was little chance of this particular project ever getting off the ground. But the voice was a nice friendly one and sounded very sincere, and there's no harm in having a look at a fax is there?

■ Box on wheels

The drawing duly emerged from the depths of my fax machine and I found myself looking at a line drawing of what seemed to be a box on wheels with two shelves and a television perched on top. My worst fears had just been confirmed, and it was obviously time to put on my best haughty voice and inform the client that they were wasting both my time and theirs because I only made fine furniture. Their 'television, shelf, box, Dalek thing' really didn't come up to the required standard!

I picked up the phone to convey these sad tidings, but before I could get into my stride, the nice friendly voice assured me that the drawing should only be viewed as an outline of what was required in practical terms. Could I therefore come up with a rather more aesthetically pleasing version? It could hardly have looked less aesthetically pleasing, so for some bizarre reason I decided to have a bash.

A meeting was arranged so that I could gain an idea of what would best suit their house and get a feel for their taste in furniture. At this point I started to feel hopeful again; lovely old cottage filled with plenty

Left: **Cutting 6mm mortices centred on groove**



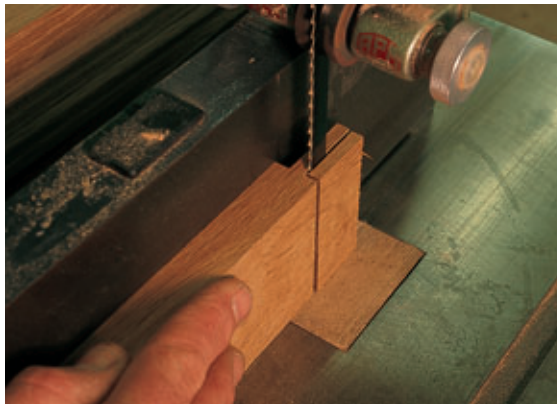
Below: **Stile and rail assembled, scalpel mark for point where mouldings intersect giving the start point for the mitre on the stile**



Right: **Cutting mitre using jig (top/bottom rail joint)**



Below: **Cutting cheeks for tenons on band saw**



Below: **Cutting shoulders for tenons on cross-cut saw**



Right: **Cutting mitre using jig (mid rail joint)**



of antiques, many of them in oak or elm. I also had the pleasure of meeting their existing TV cabinet, which mine would replace. A delightful mix of MDF and melamine with a smoked glass door on the front, it was nothing short of a design masterpiece, but I still thought I might be in with a chance!

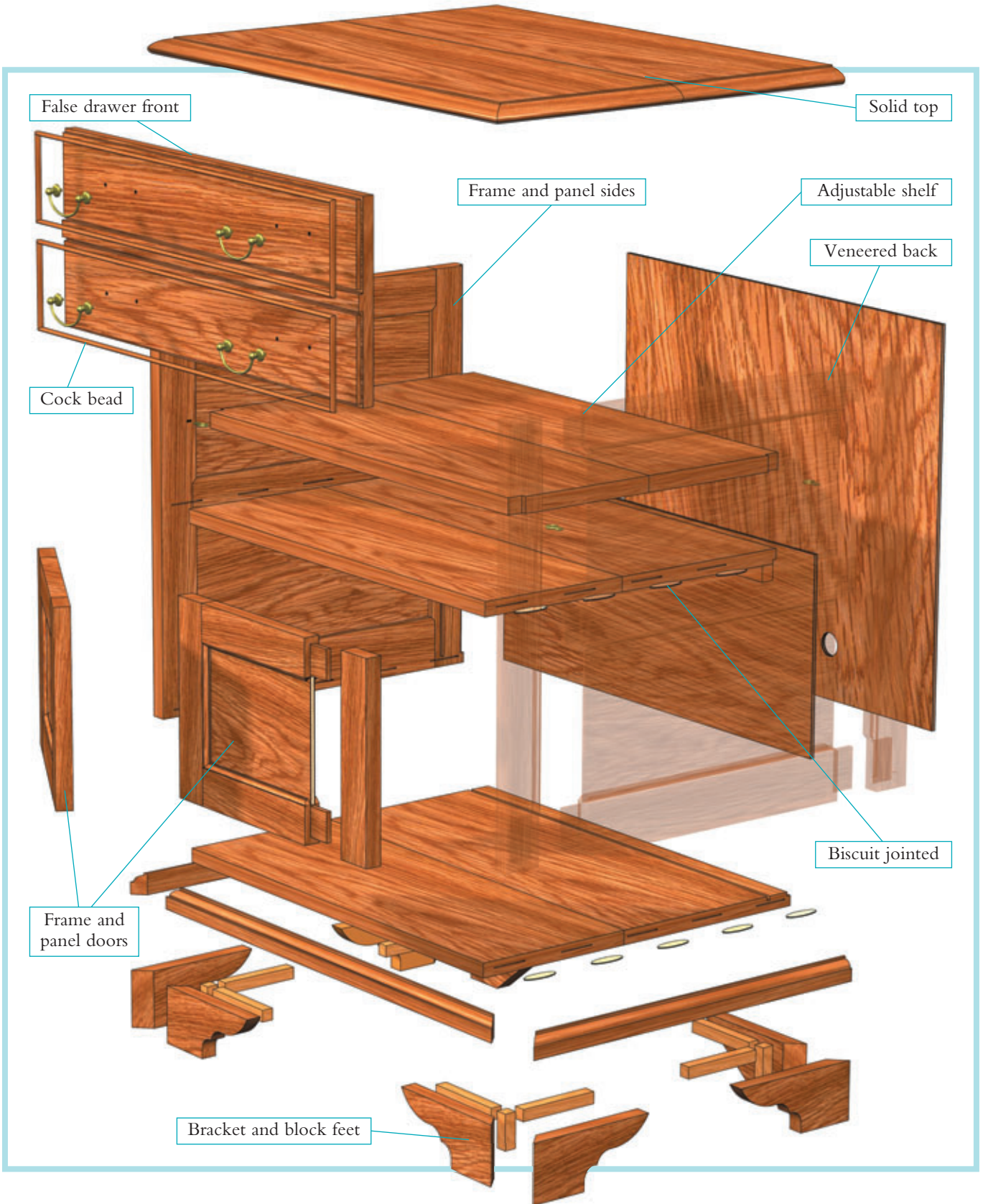
Choice of wood seemed to be pretty obvious. Oak was the predominant wood in the cottage and this was probably not the moment to introduce birds eye maple into the design scheme. As mentioned before, the function of the cabinet was to house a video player and a few cassettes. It had to be big enough for a largish television to sit on top.

My client's idea was to have the front open so that their various zappers could be used to control the electronic hardware without impediment. My idea was that lumps of Japanese plastic are not the prettiest of things and would be best hidden when not in use. So, how about a cabinet fitted with a dummy drawer front which would disappear during viewing times, and doors at the bottom to hide the videos which, if they behaved like my videos, would be in an unruly mess and would benefit from being hidden from view?

■ Period look

Framed and panelled sides and doors would make the flat surfaces a bit more exciting and would be in keeping with their other furniture, and standing it all on bracket feet would complete the period look. You might correctly think that bracket feet would give the cabinet rather less mobility than castors, but then the cabinet was going to look so good that they wouldn't possibly want to hide it all behind a curtain! And anyway if castors did prove to be a necessity, they could easily be hidden behind the brackets at a later date. This all went down very well with the client, a price for the work was agreed, the oak was ordered and we were away!

The secret to success when creating framed and panelled work, as with all cabinetmaking, is a combination of creating face sides and edges to work from at all times, and precise marking out and cutting. The layout of the stiles and rails uses the basic principal of the rule of thirds to split the 18mm ($\frac{23}{32}$ in) thickness into three. A 6mm ($\frac{1}{4}$ in) groove for the panel is run along the centre line, a 6mm moulding run on one edge of the outside face, and



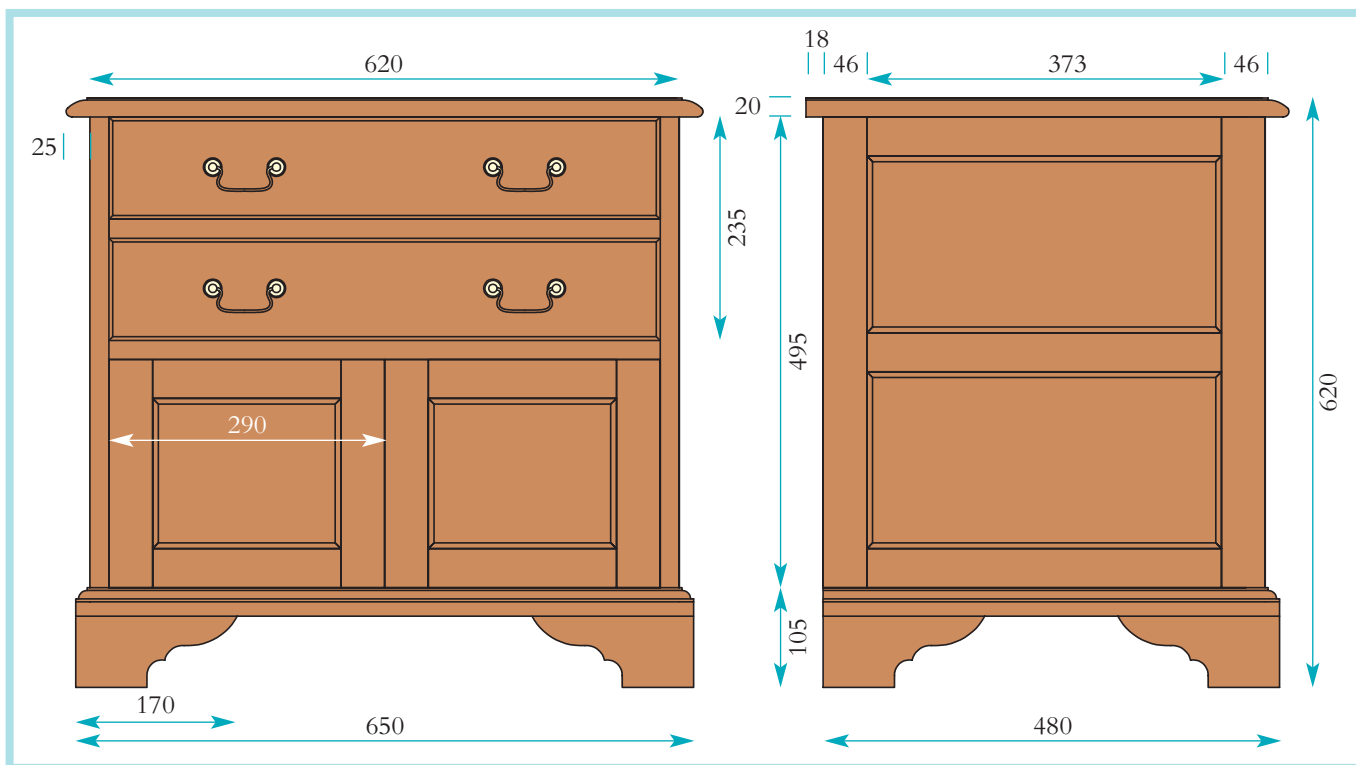
the remaining 6mm left square. The stiles and rails could feasibly be joined together with biscuits, but to my mind a traditional frame and panel construction needs mortice and tenon joints, and after all biscuit jointing gives little joy, apart from the joy of saving time. Again, using the principle of splitting the thickness into thirds, the mortices and tenons need to be 6mm and cut in the centre of the thickness, which means that they line up with the 6mm groove, all very neat and tidy so far!

Having machined up all the stiles and rails to size and marked face sides and edges, the mouldings

and grooves are run on the router table. The significance of the face side and edge, when machining, is that if the face side and edge are consistently held against the fences/tables, the adjacent faces and mouldings stand a chance of all lining up and being in register when the various parts are assembled. If, when machining, any face side/edge markings are visible, it's telling you that it's upside down or the wrong way round. So the question that you have to ask yourself before any cutters make contact is 'can I see my face side/edge marks?' If the answer is yes, do something about it to



Far left: Completed bottom rail/stile joint
 Middle: Completed mid rail/stile joint
 Left: Finished mitre joint (mid rail/stile)



avoid having to order more wood!

Having run the mouldings and grooves, the mortices are marked out on the stiles and the 6mm morticer bit will fit snugly in the 6mm groove. This is where you might be found out if the grooves were run using different faces and it's not quite central. The shoulders for the tenons can be cut on the rails using an accurately set up cross-cut saw, if you have such a thing, and the cheeks of the tenons on the bandsaw, with the groove once again being used to establish the position of the tenon's faces.

■ Sandwich

The next bit is where the mitres are cut at the points where the rails and stiles meet, to allow the moulded edges to go round the internal corners. This is relatively simple, but a jig is needed to establish an accurate 45° chisel cut for the mitre. The jig just consists of three bits of MDF in a sort of sandwich. The central piece is exactly the same thickness as the rails/stiles, and the two outer pieces form a sort of saddle to accurately position the jig on the edge of the rail/stile. An accurately cut 45° angle worked on one face will guide the chisel.

The accuracy of this jig will determine how good a mitre joint is ultimately achieved. To establish the exact position of the mitre, the mortice and tenon joint can be assembled so that the shoulder of the rail hits

the edge of the stile. The point where the two mouldings hit each other is the point where the mitre starts on the stile, so this point is marked on the stile with a scalpel, and the joint dismantled again. The bulk of the unwanted wood that extends from the mitre to the end of the stile can then be removed using an accurately set up router table with a nice sharp, flat bit. This must be very precise as this routed face will be the face that the rail butts up against, the depth of cut lining up exactly with the bottom shoulder of the moulding. It's handy to have a scrap piece of stile to use to get the settings exactly right before doing it for real.

Having removed the waste almost up to the mitre, the last bit of actually cutting the mitre is done using the jig and a wide, razor-sharp chisel. The jig is just slotted over the stile with the bottom edge of the jig's mitre slope lining up exactly with the scalpel cut on the edge of the moulding. The whole lot is then put in the vice to stop anything moving, and the back of the wide chisel is held against the 45° slope while it cuts the mitre. Completing the joint simply requires a mitre to be cut on the rail. There is very little waste to be removed, and this time the jig just has to be positioned so that the mitre terminates at the bottom shoulder of the moulding. The two halves of the joint can then be assembled and the perfect mitred joint admired. Only another 19 to do!

Next month:
 bracket feet,
 cock-beading,
 diamond
 escutcheons,
 lock, hinges . . .