

Easy shutter



Not traditional, but **Phil Thane's** joinery keeps out the rain... and intruders

Almost anywhere in Europe south of Calais, the windows have shutters. They keep out the sun when it's hot and the cold when it's not. They are more secure than glass and if like me you're putting French windows in an office full of computers, they stop opportunist thieves seeing what's inside. I wanted a traditional look without aping any particular style. After all, there isn't a traditional style shutter in North Wales, and I wanted something solid and long lasting – I hate replacing anything I've made. So, I decided on a framed construction with tongue and groove softwood for the panels.

Conventional frame and panel doors require mortise and tenon joints and a plough plane or router to make grooves into which the panels fit. Very nice if you have the kit, but I don't. However, it's possible to laminate simple sections of wood to achieve something equally strong, a technique I used years ago to build a timber conservatory.

Layers not joints

The essence of my shutter design is three layers, a frame on either side and tongue and grooved (T&G) planks in the middle. At the top and bottom, rails are fitted in the middle layer to seal the ends of the T&G and to strengthen the butt jointed frames. Double doors and shutters are usually made with rebated edges

FOR BEGINNERS

Experienced woodworkers have a workshop where there's room to lay everything out. It doesn't work like that here. The only equipment used was a Workmate, a jigsaw for the curves, a general purpose saw for everything else, a jack plane and a hammer. Oh, and a large piece of chipboard to serve as a jig.

► Pic.1 Shutters can conceal expensive office equipment



TIP

Unless you're blessed with plenty of sash cramps, lay the narrow pieces on newspaper on your chipboard working area. Hold in place with blocks nailed to the base and use wedges to tighten the joints up.

so that securing the overlapping door secures both. My design achieves this simply by making the inner and outer frames different widths. The T&G boards are designed to meet on the centre line, the side members of the frame are 35 and 45mm wide, set so that the wider shutter overlaps the centre and the narrower one falls 5mm short. I used a standard 36in wide door frame which will accept a pair of 'pattern 70' French doors. The frame is approx 39 1/2in wide, and so are my shutters.

Materials

A standard wooden door is usually 42mm thick and I certainly didn't want to exceed that. I decided that the easiest way of getting the right thickness without buying lots of different sections was to buy 14mm thick matchboarding and to rip the T&G off where I didn't want it. The T&G, once ripped and planed, finished at 75x14mm. The frame sides are 75mm wide the rails are 150mm.



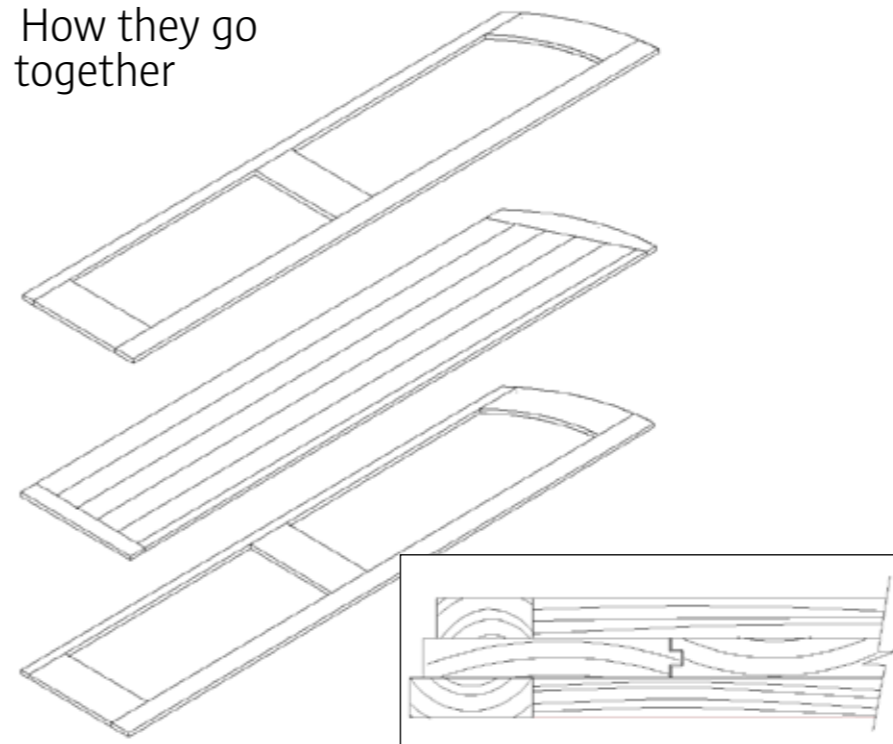
▲ Pic.2 A sheet of old chipboard serves to keep everything aligned

1 Making it fit

The doorway was a recent DIY project itself, and I still had the MDF former, very useful when it came to drawing the curved shutter tops. The chipboard really comes into its own at this point, as you need to draw the opening full size accurately. Start with the wide boards that have to be made up from two or three narrower pieces. Cut them a little over size and glue them

Shutters

How they go together



Screwing down the clamps keeps the parts flush as the glue dries



▲ Pic.4 Phil used DIY store strap hinges onto mortared frames to fit the shutters

There isn't a traditional shutter in North Wales, and I wanted something solid and lasting

together, see Tip. To minimise the warping, alternate the direction of the growth rings.

2 Cutting and assembly

Cut and plane the side pieces for both the inner and outer layers, leave them over-length until you've finished. Fix blocks to your full-size drawing on the chipboard to hold the inner pieces in the correct position. Don't forget that in order to create the rebate, the inside edge piece should be 5mm past the centre line of the pair. Cover the board in newspaper to avoid gluing your shutter to it.

When the wide boards are dried, trim to size, planing the ends to make a snug fit between the frame sides. Glue them in place. I'm aware that gluing endgrain is bad practice, but every little helps and the glue will seal the grain and act as a gap filler to some extent.

Glue and pin the top and bottom sections of the middle layer in place. Remember the end of these pieces should be on the centre line. Cut the boarding to fit from top to bottom, removing the tongue and groove from the outside pieces. Conventional wisdom says that T&G should be left unglued so it can move, but in this situation, glue it.

Glue and pin the outer layer side piece, 5mm in from the edge of the middle layer, i.e. 10mm from the inner layer. Fit the horizontal boards and finally the outer hinge side piece. Leave the whole 'sandwich' to dry.

Pre-finishing

I always intended to paint my shutters, hence the liberal use of pins. If you want to varnish them, pin the middle layer to the inner, but fit the outer frame with glue only. Soak with preservative and prime.



▲ Pic.3 The three layer lamination can be seen here, before the horns are trimmed