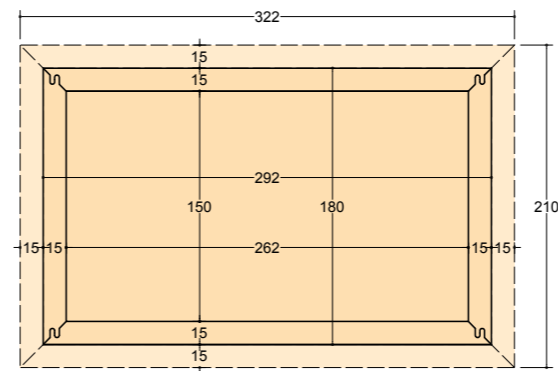




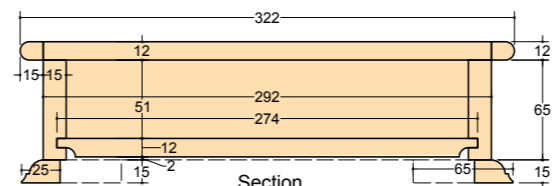
RouterCentric Jewellery box

The Editor brings you a nice simple project that would make a perfect present for that lady in your life to put her sparklers in

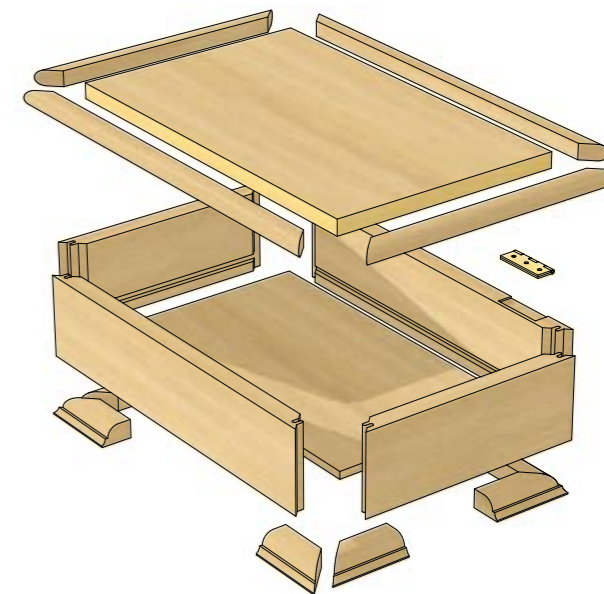
The timber I decided to use for this is meranti (*Sorea spp.*) which is a little soft but fairly stable and easy to work. The lid has a roundover moulding around the edge to hold it flat at the ends and ensures no end grain is visible. I chose a lock mitre joint for the box corners but you could do finger joints, dovetails or contrast veneer slips in kerfs – saw cuts – across the corners.



Plan/Section Scale 1 to 4



Section Scale 1 to 4



1 Cut all the parts out oversize and prepare to thickness. The base will need to be thinner than the other components.

2 The lock mitre cutter is installed in the router and 'breakthrough' fence clamped to the main fence and pulled backwards onto the cutter until it projects the correct amount for the first pass.

"A sub-table surface is needed for the corner joints"

3 The cutter doesn't fill the insert ring opening so a sub-table surface is needed for the corner joints that will be pushed through on end. A thin piece of 1.5mm birch ply means enough of the cutter will still project. Push it up to the cutter to make a neat recess then pull away and switch off.



1 A mahogany-type wood seems most suitable but the choice is yours



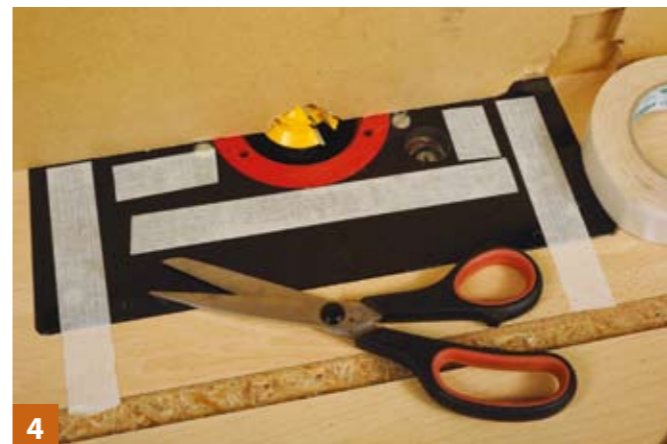
2 The lock mitre cutter gives a strong but very discreet joint

4 Special Trend fabric-based double-sided tape is used to stick the thin sub-table sheet down. Use enough so the work area will stay flat. Stick the thin ply back in position.

5 A carefully squared pushblock is used to machine the workpieces accurately. The end grain contact edge can have its contact friction reduced by using a hardening wax.



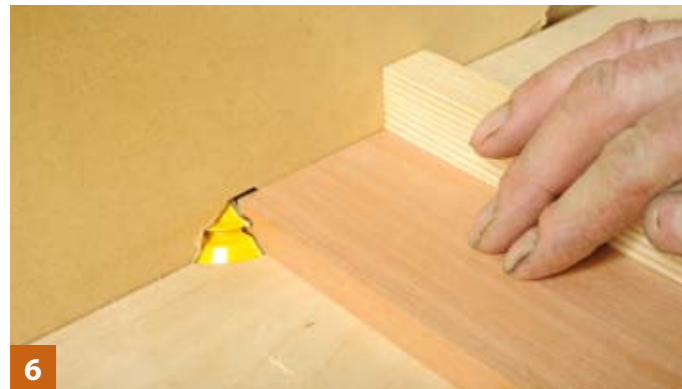
3 Sub-tables are often used with spindle moulders but they also work with router tables



4 Standard double-sided tape won't work but you can use carpet tape to stick the sub-table sheet down



5 Unlike a mitre protractor a pushblock can be used with the fence in any position



6 Maintain a careful forward motion, do not allow it to slide backwards or it will shoot away

6 The fence is set to take most of the wood away but leave enough for a second pass to final depth. This is important because the finger-like lock mitres can break away easily. A series of test cuts are vital if you are to achieve really neat accurate joints.

7 The ends of the box are done vertically to create the matching interlocking other half of the joint. The short grain is particularly vulnerable to breakout. Since the joints are completely hidden you can afford to feed the workpieces slowly over the cutter as any burning of the surface will be hidden. You must have a vertical pushblock behind as well as a safety pushblock against the side.

8 Move the fence back to the final position to make the second pass. The gap revealed between the sub-table and fence does not matter at all.

9 An end piece showing the complete and undamaged joint. The edges can be lightly abraded to de-fluff them. The joint must go right to the outer edge, thus creating a sharp corner.



11 The tongue does not have to be 6mm but it is a good size for rigidity



7 Ensure to keep the workpiece tight against the rear pushblock so it stays vertical



8 Making the second pass. A sub-table serves to maintain support right up to the cutter itself



9 With care you will get perfect joints but any minor breakout won't show if it does occur

10 A lock mitre joint slightly parted to emphasise the precision of the cut edges. With glue added it will create a very solid reliable joint.

11 The bottom needs to fit into a slot all around the box. Set the cutter, in this case a 6mm groover, slightly higher than the thickness of the bottom panel.

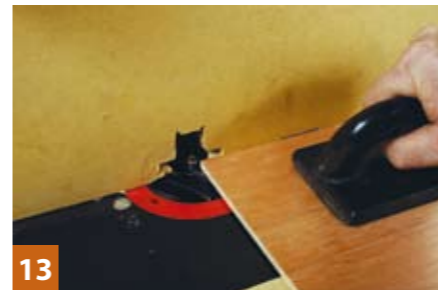
12 When you come to the end of each groove, slow the cut down to avoid ripping out surrounding wood. Now cut the bottom panel to the right size to fit the grooves when the box has been dry assembled.



10 A neat discreet joint done with just one cutter



12 Again care is needed as you reach the end of the cut as the cutting edges pass through the joint



13 If you don't have a panel raiser you could choose another cutter profile as it won't be seen



14 I did the vertical cuts on the ends but you could do them on the long sides; just don't get the cuts mixed up!



15 The box is now very rigid but needs the feet added



16 A 'semi tunnel' hold down

13 Mount a plain bevel panel raiser in the table with a sub-fence as usual for better support. Machine the raise in several passes until the resulting tongue is just slightly thinner than the groove.

14 Because of the way the joints interlock, when gluing up just two clamps are needed to pull the components together.

15 The completed box ready for the next stages. The interior surfaces do not need sanding if you are going to line it.

16 The feet are made from a narrow strip of prepared timber using a 'classical' profile on a large combination cutter. I used my pushblock to act as a hold down with a standard pushstick at the side when feeding the piece through. The fence needs to be moved across after the first pass until the correct shape has been formed.

17 Now cut and glue the feet sections together. A mitre saw is best but with care you can hand saw the joints. An aliphatic resin glue is best because it has 'grab' and is fairly quick to dry.



17 Make sure the joints will close properly and sit at 90°

18 The feet are glued and aligned in place and a weight placed on top until the glue has set. Make sure the feet stay in position once the weight has been placed on top. Now cut the lid to the size of the box.

19 The solid edge for the lid is again formed on the router table, but as it is even smaller than the foot section I decided using an old sub-fence from the side would be good as a hold down clamped carefully in place.



18 I positioned the feet by eye but you can mark them so you have lines to work to



19 Although I have often shown pressure fingers in use I actually prefer continuous flat support as the sections to be machined are the same size



20

It doesn't matter if a section gets fed through again as a 'push piece' will run through without any damage occurring

20 One length of wood is used to push another one through. This is safe and efficient and the hold downs form a 'virtual tunnel' thus preventing the workpiece from chattering and getting damaged.

21 The lid now has its edgings mitred and glued in place using masking tape to hold the pieces in place. Keep the top faces flush to simplify sanding and finishing.

22 The hinge recesses are carefully sliced out of the surface broken with only the very lightest mallet blows before paring the wood away.

23 A Georgian mahogany spirit dye was applied first and allowed to dry. Over this a brown aerosol dye was then sprayed in several light coats to give a much richer and even finish to the light pink meranti.

24 A small jewellery box lock was cut into the rear of the box front. The screws were part driven, then removed and the ends nipped off to avoid breakthrough.

25 A silk-type lining is carefully spray mounted to standard A4 paper cut to the various sizes of the faces inside the box. The box exterior is masked and also spray mount coated inside.

26 Cutters shown are, from left to right: small lock mitre, 6mm groover and large multi-profile. ■



21

Wipe away surplus glue to make sanding easier



22

Note the MDF pad clamped behind to prevent breakout



23

The dye is run slightly over the inner edge so no bare wood will show with the lining in place



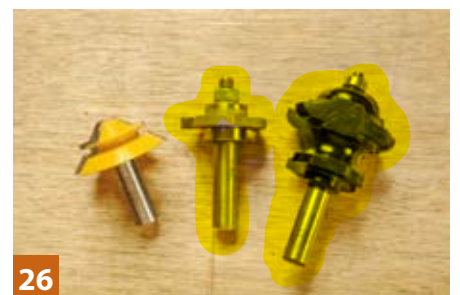
24

Knife around the lock case to give the exact position and measure and mark the keyway from the front



25

Don't let dye or dust contaminate the material



26

Left to right – small lock mitre, 6mm groover and large multi-profile