

Woodworking

CRAFTS

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10 top tips
to perfect
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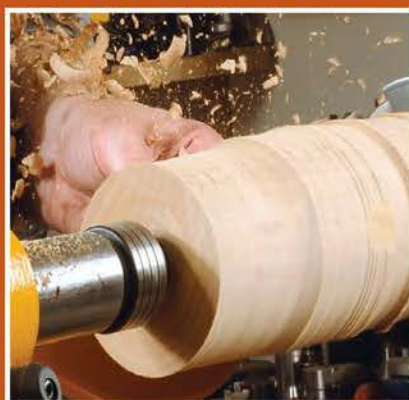
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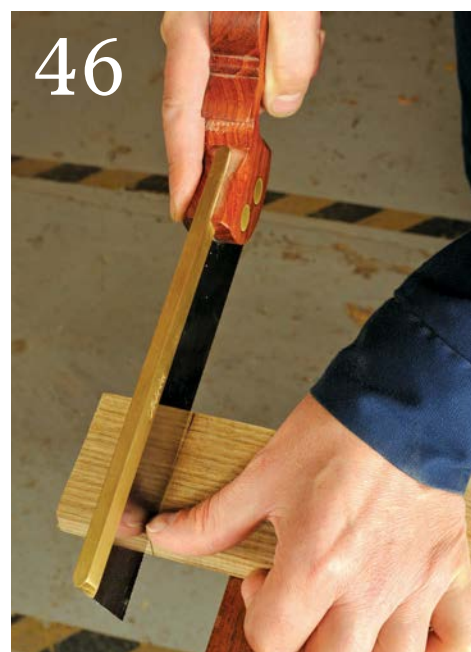
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Welcome

to the October issue
of *Woodworking Crafts*



The year is turning

Hello everyone and welcome to the October issue of *Woodworking Crafts*. When putting this issue together I realised that we seem to be cantering at a pace towards the end of 2016. The year just seems to go racing by as the seasons change. After working outside for the past few months, I think I'm going to retreat to the cosier environment of my workshop!

We have the usual mix of articles, covering all sorts of aspects of woodworking, which I hope you will enjoy. One thing I do want to bring to your attention to is our woodturning basics article and allied to that, the chance to win a complete woodturning starter kit, courtesy of our friends at Record Power. Many people fancy having a go at woodturning, but are unsure where to start. There are, of course, woodturning clubs where you will be made welcome and seek advice about choices of equipment and techniques to use. Fortunately, our very own Editor of *Woodturning* magazine, Mark Baker, is here to give you the lowdown on those first important steps needed to take up the craft. If you are a 'newbie' the prize giveaway is well worth having because you should start with a good quality compact setup, get used to using it and then add to it as you progress.

So I'd like to make an important announcement – if you don't enter the competition you won't win it. If you do decide to have a go, there is every chance it could be you...

Anthony Bailey, Editor

Email: anthonyb@thegmcgroup.com



12



28

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Walnut fire surround

PHOTOGRAPHS BY LOUISE BIGGS

Louise Biggs shows us how she made a fancy fire surround when there is no fire...

The projects for the next few months pick up on two pieces I made some years ago. Both pieces went into a very large room which, unfortunately for the timber, had an end wall constructed from glass. With strong light/sunlight coming in for most of the day, the black walnut (*Juglans nigra*) has bleached to a pale yellow/brown colour. The burl veneer on the other hand, surprisingly, has stayed true to colour.

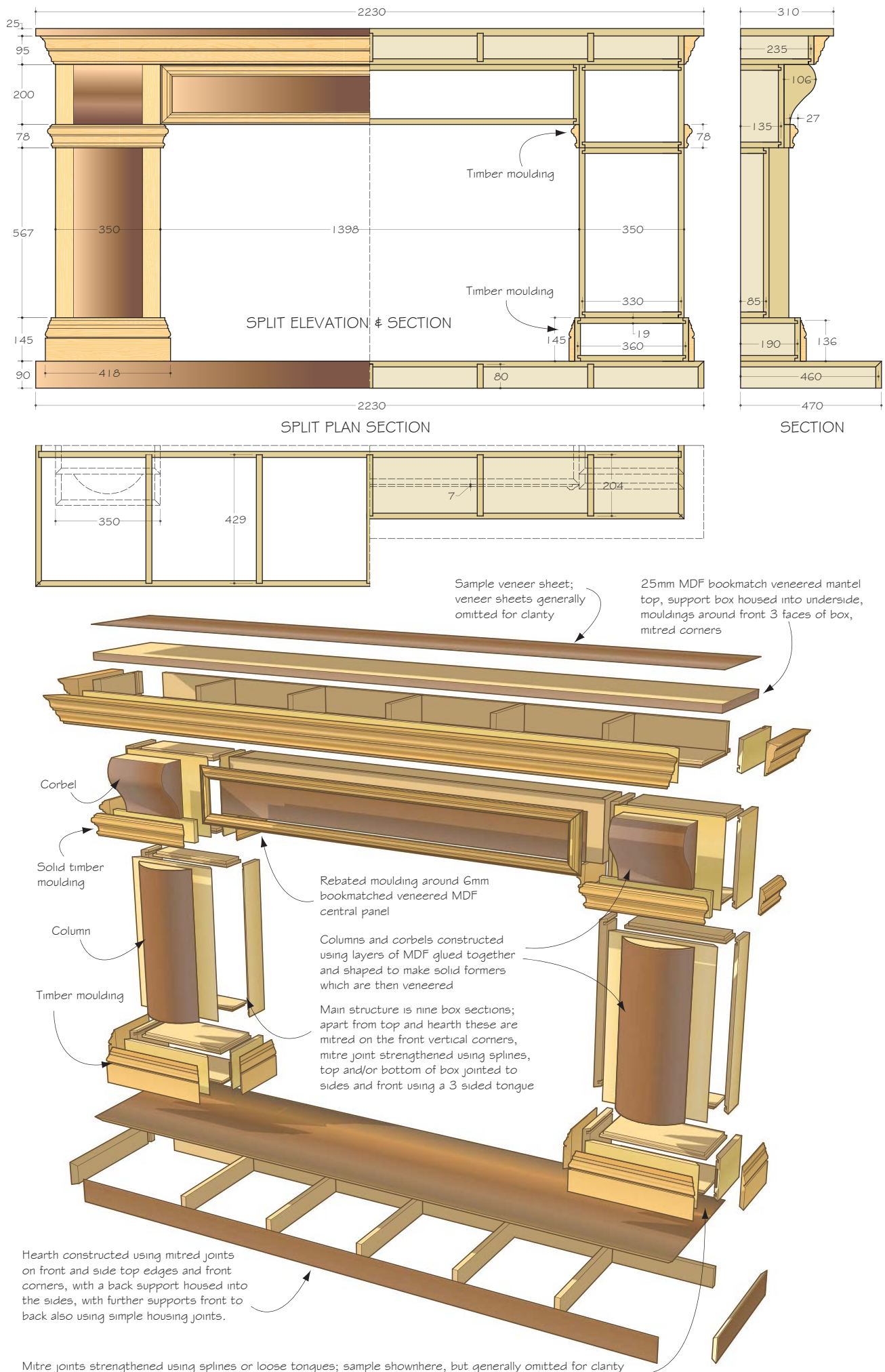
In the next few articles, I will show you the specific techniques involved in completing these pieces. In the case of the fire surround, the focus is on the shaped sections on the two side columns and how to construct the shapes before veneering them. ➤

Tools used

- Compass
- Flexi curve
- Utility knife
- Straight edge and veneer cutter
- Vacuum bag press
- Plane
- Spokeshave
- Router and router table
- Various router cutters
- Drill and drill bits, plus countersink
- Tablesaw or panel saw
- Bandsaw
- Sash cramps
- Nail gun and suitable nails
- Veneer tape
- Personal protection equipment

Wood

- Black walnut (*Juglans nigra*)



CONSTRUCTION

Veneer preparation

Before any veneering can take place, the burr veneers need to be flattened, so keeping the sheets in consecutive order, coat them with a thin solution of wallpaper paste and lay between newspapers and clamp between two stout pieces of board. Change the paper frequently to aid drying and prevent it sticking to the veneers.

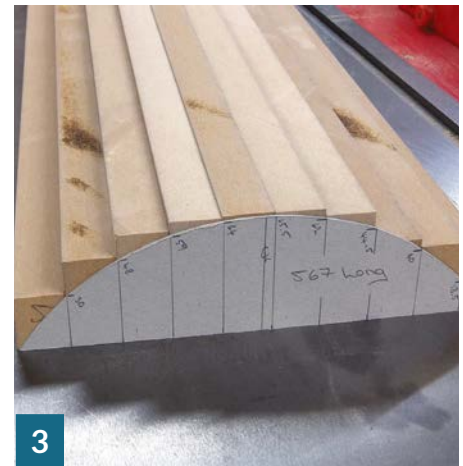
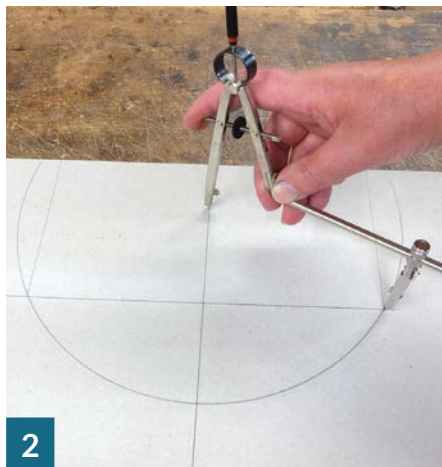
1 There are several ways to construct the columns depending on the equipment available. One way is to create a framework and use thin plywood to form the curve, then hand veneer with animal hide glue or contact adhesive. If weight is a factor this will be the lightest option. Alternatively use a male and female former to press the veneers between, but this leads to wasted material in the discarded half of the former and has to be very accurate with the fit between the two to obtain even pressure over the veneer to prevent air pockets and blisters forming.

I am fortunate to have a vacuum bag press in the workshop. Although it is not cheap to purchase these, in my professional workshop it has paid for itself several times over. The one thing I learnt at the beginning, and yes it was a costly mistake, was that any formers/components have to be made from a solid block, any air gaps, however small, will lead very quickly to a distorted former, or a component part, which does not return to shape once the vacuum is released, as the glue has already set.

2 The first stage is to work out the exact shape of the curve. From the drawing I knew how wide it had to be and how far the curve would protrude so I drew these measurements on a full size piece of card. Use a compass to find the centre point of a circle that will pass through the three key points.

3 With the shape established, cut the template out with a utility knife then mark the thickness of the MDF strips that will be used and mark the height measurements.

4 Next, cut the strips longer than required and align them so that the shape of the template can be drawn on both ends.



5 To limit the amount of shaping by hand as the MDF will very quickly blunt the tool edges, and having had an internal debate on the pros and cons of removing much of the waste before or after gluing the curved block together, I decided to use the tilt action on the tablesaw and, by adjusting the angle for each piece, cut off as much of the waste section on each strip as possible.

6 With the shape now difficult to clamp, but concluding that I had taken the safer route for removing the waste, I glued and pinned the sections ▶



together starting with the two centre pieces and work out to either side.

7 A word of caution, if you use a nail gun please make sure that when holding the sections in position your fingers are well out of the way. In the absence of a nail gun, standard pins, nails or screws can be used. Once the glue has set the final shape is achieved by planing away the remaining waste before being completed with a coarse abrasive.

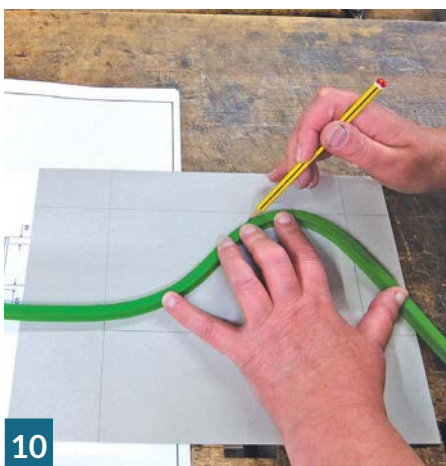
8 Coat the columns with thinned glue and leave to dry, as sealing the surface will prevent the next lot of glue being rapidly absorbed when it comes to veneering the columns. Veneer the columns with a neutral veneer and cut to size. Each column will have two pieces of burr veneer, cut and taped to form a book-match pattern.

9 Now, with the glue applied, press down by hand on the burr veneers before placing them in the bag. Seal the bag before extracting with the vacuum pump.

10 The former block for the corbels is approached in a slightly different way to those for the columns. Marking the overall sizes on a piece of card, use a flexi curve to form the concave/convex shape on the front.

11 With the template cut out, cut blocks of MDF to the required number to build up the width of the corbels. Mark out the template on each piece.

12 Now, using the resulting nine segments, cut out on the waste side of the line using a bandsaw to allow the block to be cleaned up to the final shape.



13 While gluing the corbel former sections together, insert a couple of nails to keep the sections in line working from the centre pieces outwards before clamping them and allowing them to dry.

14 Using a plane, true the convex shape. Use a spokeshave to complete the concave shape before finishing with a coarse abrasive on both square and shaped sanding blocks.

15 Using the same process as sealing the columns, glue a neutral veneer over the front shape. While this is drying in the bag press, cut out four matching pieces of veneer for the sides of the corbels. Glue both sides at the same time, and put the corbels back in the bag press.

16 Once they're dry, and you've trimmed the veneer edges, glue the main veneers and press in the bag as before, pressing down on the veneer by hand to position it.

17 Next, with the corbels and columns formed and veneered, the main structure of the fire surround can be made.

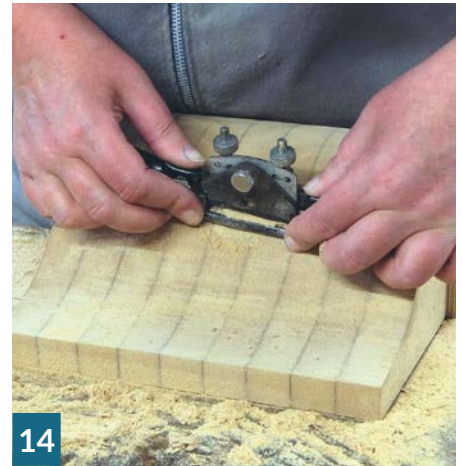
18 The surround is made up of nine separate box sections, which are joined together. Using pre-veneered MDF, ensure the box sections behind the corbels and columns are made to the correct size. If they extend past the shaped sections, mitre the front corners with the additional support of a loose tongue. Rebate and glue the tops and bottoms into the sides and fronts.

19 Book-match and tape the burr veneers before pressing onto an 18mm board for the hearth along with edge pieces 90mm high. Mitre the back edges of the board, along with the edge pieces, on a router. Rout a loose tongue across the mitre. Use softwood to support underneath, to support the weight of people standing on the hearth, this also allows the hearth to be levelled easily.

20 Use crown cut veneers on the underside of the central box panel spanning between two corbels. The moulding, which was to go around this section, should match the plaster panel mouldings on the walls and have a rebate on the inside edge. ➤



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Plant on the front of the box within the rebate of the moulding a 6mm MDF panel veneered with book-matching burrs. Create the 25mm mantel top using book-matching veneer in the bag press after veneering the edges. Form the rebates on the edge sections and grooves by cutting into the edges of the veneered bottom boards. Glue the internal support into housing joints in the top and bottom to keep them in position. Join the underframe with housing joints with the burr veneered top. Glue the whole unit together.

21 With the various box sections screwed together from behind within the boxes, cut and mitre the various mouldings to fit. Fit the corbels, and screw them into place from behind. Cut the curved columns to length and fit into place.



22

INSTALLATION

22 The assembled fire surround was fitted on site by the client's builders in front of the brickwork fireplace before being sealed with shellac sealer and waxed. Once the remaining building work had been carried out above the fire surround the wall was plastered up to the edges.

23 A temporary board was placed within the framework of the surround to protect the brickwork pending a decision on the type of fire. The result is a very grand fireplace indeed! ■

Louise Biggs

Having completed her City and Guilds, Louise trained for a further four years at the London College of Furniture. She joined a London firm working for the top antique dealers and interior designers in London, before starting her own business designing and making bespoke furniture and restoring furniture.

Web: www.anthemion-furniture.co.uk



23

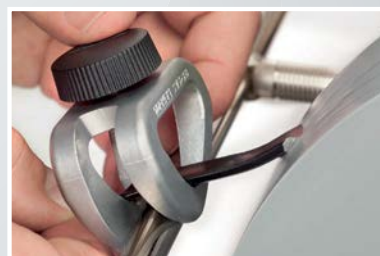
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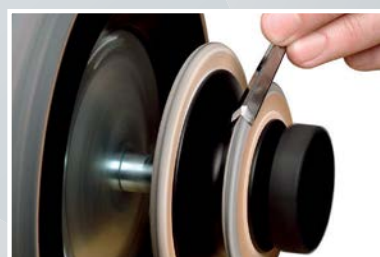
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PHOTOGRAPHS BY MICHAEL T COLLINS

Bathroom corner cabinet

Michael T Collins talks us through making this spacious corner cabinet



Bridle joint on an old medicine cabinet

THINGS YOU WILL NEED

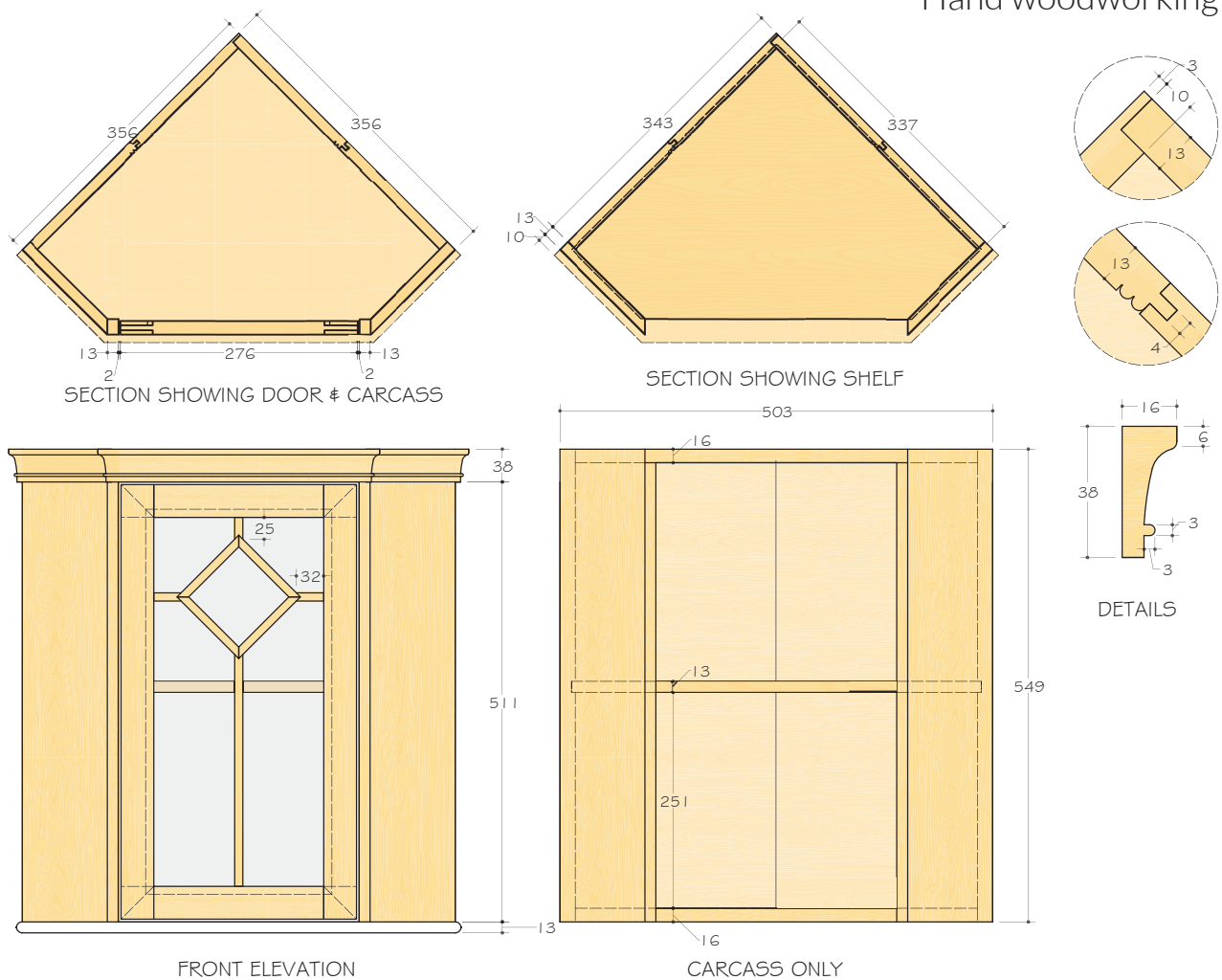
Tools:

- 13mm mortise chisel
- 19mm bevel-edge chisel
- Rip and tenon saw
- Brace and 10mm twist bit
- Jack, smoothing, block, router and combination plane with tongue and groove cutters
- 13mm round plane
- Mortise and cutting gauge
- Marking knife
- Homemade mitre box – see issue 7

For as long as I can remember there has been an old wooden cabinet in the corner of our bathroom in the family home. Readers of my previous articles may have been able to catch a glimpse of the cabinet in issue 4, when we looked at making bridle joints. In this article however, I'd like to revisit that cabinet and recreate it by upcycling an old 2400 x 38 x 255mm scaffolding plank.

1 Cut the plank in half and prepare one for the panel and shelf to 13mm thick, the inner bottom and top are 20mm thick as is the door frame. All these sizes can be adapted for your needs. The parts for the door should be prepared 1–2mm longer for final planing to size. Plane one face flat and mark this as face side. Then, gauge the 13mm thickness from this face.

2 Now rip to thickness, with a good sharp rip saw – be prepared for a great upper body workout! Plane the two sawn surfaces and gauge the last piece and plane to thickness. Repeat the process for the other half of the



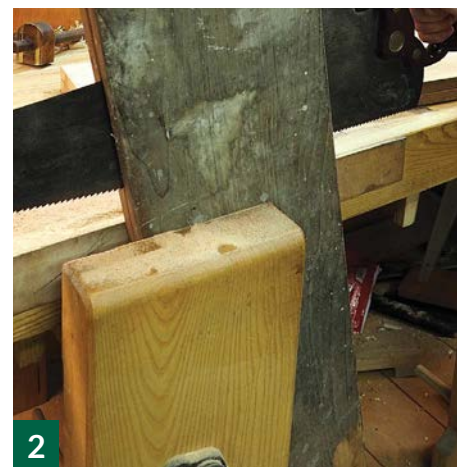
plank, but this time gauge it to 20mm for the door frame, inner top and bottom.

3 Select the boards for the side panels and keeping them full length, joint them using a combination plane with a tongue and groove cutter. Always plane with the plane's fence on the face side. There are a number of reasons for using this joint; it holds the panels tight together, needs no glue and, if spread slightly, it allows for seasonal movement.

4 You may choose to add a small bead to the tongue piece surface for visual appeal.

5 Using the combination plane, cut a rebate 13 x 10mm on the inside back edge of one of the pieces – this will allow the sides to be glued together at 90°.

6 The shelf is set slightly above the middle of the side panels. Use the width of the shelf to mark the dado and saw down 3mm and remove the bulk of the waste with a chisel. Clean up the housing with a router plane. ➤



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Inner top and bottom

7 The inner top and bottom pieces are 20mm and made by using a rubbed glue joint and cut to size. These boards will be butt fitted, glued and nailed inside the side panels. I opted to use cut nails to add a degree of oldness to the finished cabinet. Cut nails are tapered in one direction and parallel in the other – the important thing to remember is that they are driven home with the parallel sides running with the grain. Drill pilot holes and drive the nails home.



8 The interior shelf is made from 13mm board and is loose fitted in the 3mm dado on the side and front panels.

9 The face frame is made from 20mm stock and the sides are mitred together with the thin face frame – this gives a very clean joint that is almost imperceptible. Glue all the parts together and check for squareness. There is no need for nails as all these joints are long grain to long grain.



10 The outer top and bottom are slightly different. The bottom extends by 10mm on the visible edges, while the top is flush with all sides, this allows the crown moulding to be attached. Place the carcass on the outer bottom board with the back corners flush, trace around the base using a washer that gives 10mm overlap – alternatively scribe with a compass. Cut out and then plane a bullnose profile on the visible edges.



11 The measurements of the door are taken directly from the opening in the face frame. It's a good idea to place the hinges in the frame so that the true length of the rails can be found. Using a bridle joint means that the rails and the stiles are the exact length of the width and height of the opening. The rails and the stiles are 38 x 19mm.



12 The secret of this joint is in the precise layout – take time to practice on a mock-up. Layout the bridle joint as per image 13. Be sure to check that the rails and stiles are exactly the same width and thickness and ends are square.

13 Mark the face side and edges on all pieces. The mortise location on the stile, is simply the width of

the rail, plus 1mm for waste. Use the rail, pencil and try square to mark the location of the mortise. Set the mortise gauge using the width of your chisel – in my case 6mm. The tenon location is marked using the width of the stile. Gang the rails together and using the stile, try square and a pencil, scribe the location on all sides, and don't forget to add 1mm for waste.

14 Adjust the mortise gauge so the tenon is in the centre of the rail. Scribe the tenon from the face side.

Making the mortise

15 With the same mortise gauge setting you used to mark the tenon, mark the mortise on both ends. Drill a hole with a 10mm spiral bit at the base of the mortise with the stiles secured vertically in the vice and the mortise location facing towards you. Make sure you position the bit so it will bore a hole that touches the three marked lines and perpendicular to the edge. Drill through the bottom of the mortise until you can see the spur of the bit showing on the other side; turn the wood over and complete the hole.

16 Once the hole is drilled, saw the rest of the mortise in the same way that you sawed the tenon, remembering to saw on the waste side.

Rails

17 On the waste side of the shoulder line, cut a V groove using a chisel. This groove will give you a place for the saw to cut, allowing you to produce a very clean shoulder. Using a bench hook and a tenon saw, cut down to the tenon marks.

18 Rip down on the waste side to the ends of the scribe marks using a dovetail saw. Turn the wood over and saw at 45° using the kerf as your guide. Saw vertically down to the shoulder. On the inside, use a marking knife to score the diagonal and then saw using the same method and repeat for the other cheeks. Use your mortise chisel to clean up joint. Mark the diagonal and saw to the waste side – the sloping edge can be cleaned up with a block plane.

19 Once the bridle joints are done, plane the 10 x 10mm rebate on the inside. Ease all edges, glue and clamp the parts together, check for squareness. Plane off the 1mm waste. ➤



13

Bridle joint with a difference...

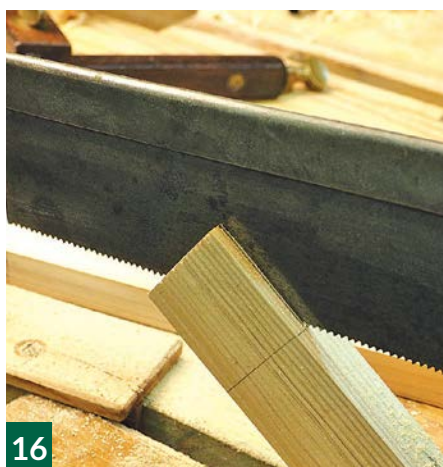
This door has a rebate to hold a glass pane, however planing a rebate in a traditional bridle joint would need some 'complex' joinery or a stopped rebate so that it's not seen on the ends. From the inside this modified bridle joint looks like a mitred joint, but from the outside looks like a traditional joint.



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20 Once the glue is dry, position the hinges and test fit. It's a good idea to chamfer the inside long edge opposite the hinges so the door clears the face frame when closing.

Crown moulding

21 The top edge has a handmade cove and bead moulding. Create the moulding by making two distinct profiles and gluing them together. Use the tongue cutter to create the 3mm profile and with a handmade scratch stock, round over the tongue creating a bead. A block plane would work also.

The cove

22 pick a piece of wood and scribe a quarter circle on the end.

23 Remove most of the waste with a chisel or spokeshave, then with a rounding plane, use your fingers as the fence to create the cove.

24 Glue the two profiles together to create a more complex one.

25 Once glued, mitre the moulding at $22\frac{1}{2}^\circ$. I've used a mitre saw, but a homemade mitre box will work. Clean up with a block plane.

Finishing

26 The door is held shut with 6mm rare magnets embedded in a hole in the inner bottom, a matching steel screw is aligned in the door. Give the whole cabinet a coat of Danish oil before installing the glass, which is held in place with an 3mm bead of wood glued in place.

27 I went with a simple door design made from some thin strips of leftover wood. The pieces are all butt jointed using CA glue. And there you have it – a classic corner pine cabinet that would look great in any setting. ■

Next month...

How square is your square...?'

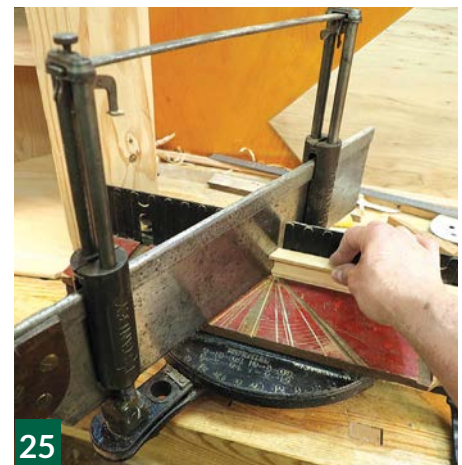
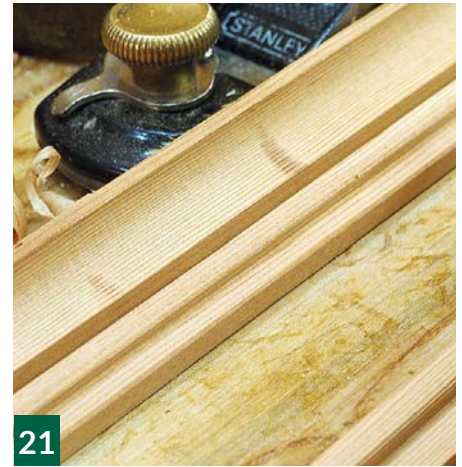
Michael T Collins

Michael has been working with wood for 40 years and over the years, has made bespoke furniture.

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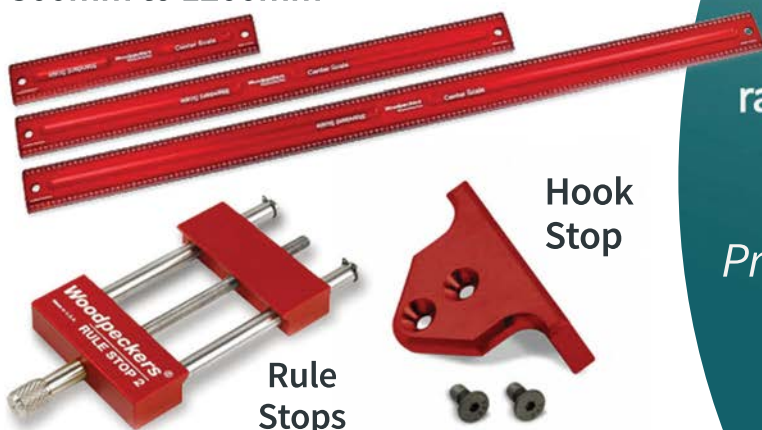
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Shave horse

Lee Stoffer saddles up and rides his newest project, a shave horse

My first proper green woodwork project was making a shave horse on a course run by Mike Abbott many years ago. A shave horse is basically a sit on vice that enables a workpiece, traditionally chair parts, to be held securely using pressure supplied by your legs, while being worked with a drawknife, which requires the use of both hands.

This particular incarnation was pioneered by the extremely talented American bowl carver, David Fisher, designed around his requirement to grip various sizes of bowl to work on them with a drawknife. My design is heavily based on David's portable version of his bowl horse with a couple of minor modifications.

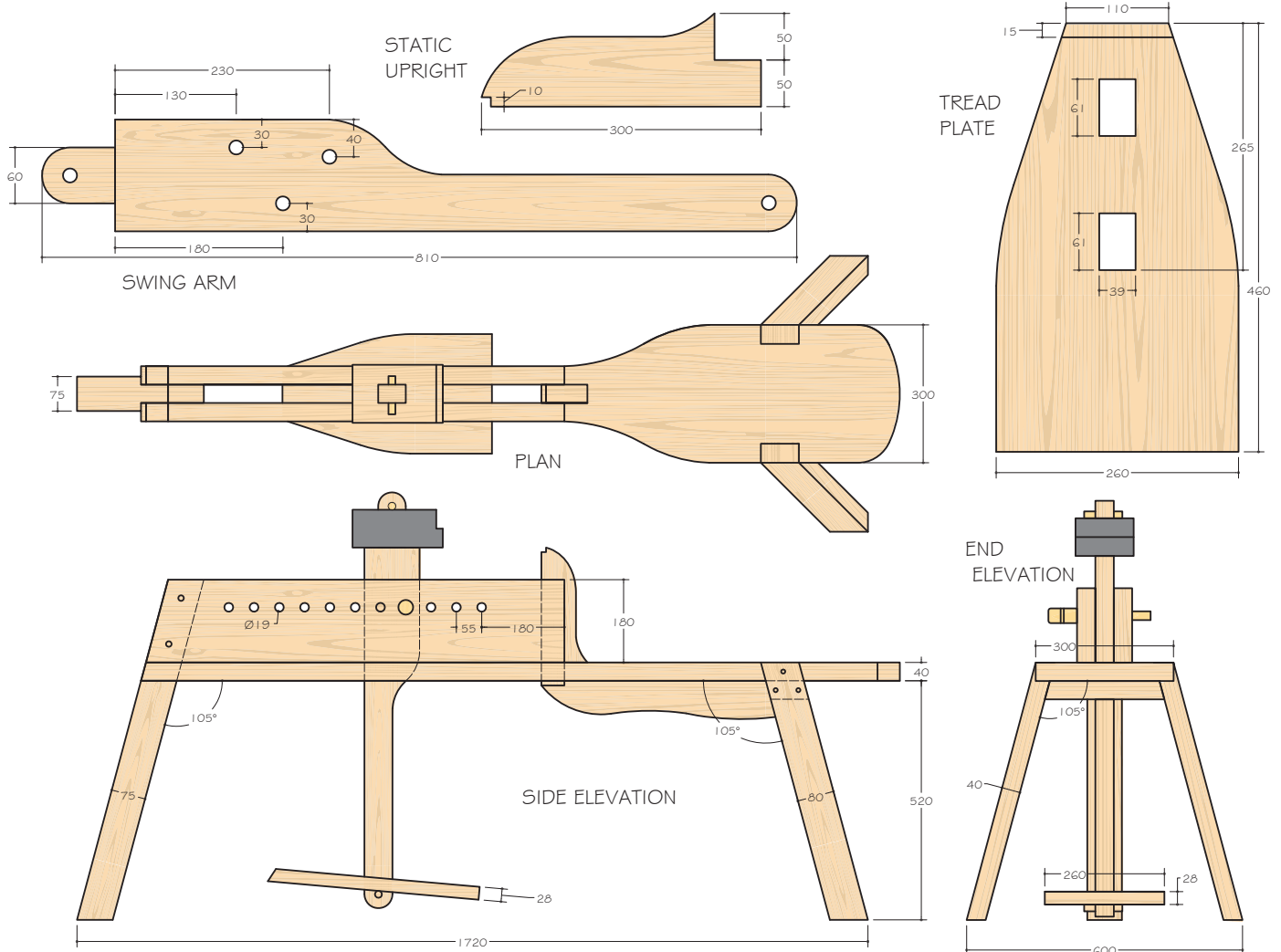
In future I hope to expand on this with some modular add-ons for more specific work-holding tasks. The main difference with this design, over more conventional shave horse designs, is the ability to clamp the work end-to-end giving full access to the entire length of the timber being shaped. The accuracy and tolerances required here are more easily achieved with seasoned wood so I used oak and ash that I harvested and chainsaw milled a few years ago.

Wood

- Oak (*Quercus robur*)
- Ash (*Fraxinus excelsior*)
- Pine (*Pinus sylvestris*)

Tools and equipment

- Circular saw
- Power plane
- Thicknesser
- Drill press
- Power drill/screwdriver
- Lathe and turning tools
- Jigsaw
- Bandsaw
- Jack plane
- Block plane
- Travisher
- Hand saws
- Lamps
- Level
- Digital protractor
- Mallet and chisels



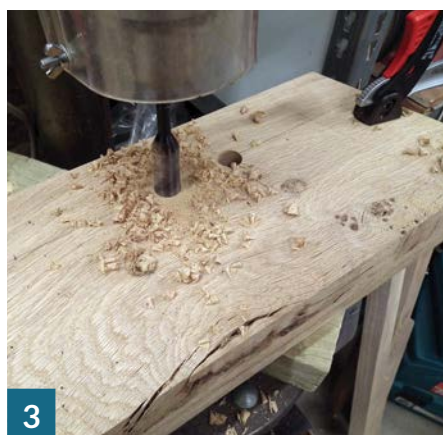
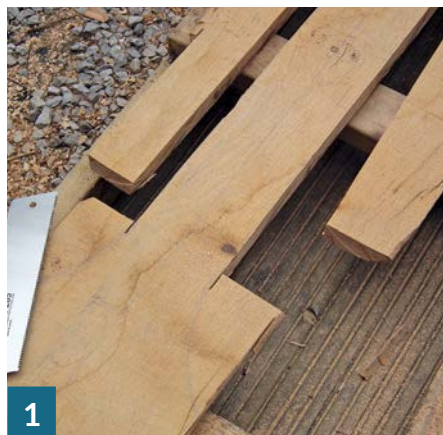
1 First I prepared the boards for the main body of the horse. The seat board was roughly shaped, retaining the offcuts for the rear legs before planning to the required thickness.

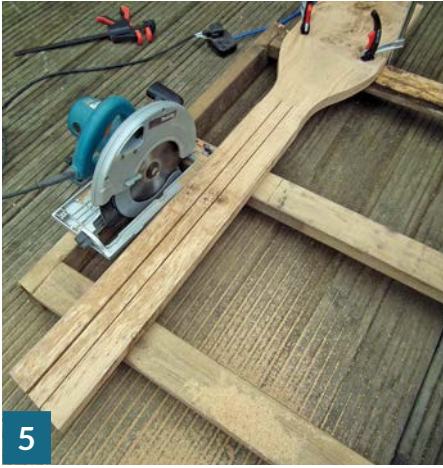
2 I cut a board in half at a 75° angle to create a pair of boards for the pivot bed. After correcting some warp and wind with a power plane I ran them through the thicknesser then clamped together and cleaned up as a pair with a hand plane.

3 While the boards were still clamped, I drilled a series of 19mm diameter holes for the pivot pin with 55mm between centres.

4 Then it was time to blend the bed section into the seat with some nice curves. I drew them freehand, used a jigsaw to remove the first side, and flipped the waste over to mark the second set of curves for symmetry.

5 I ripped down between the bed rails, made the release cut with a ➤





5

jigsaw and cleaned up the inside cut surface with a block plane on the skew.

6 A drawknife was used to chamfer the top edge of the board, then I cleaned up the outside of the bed rails with a jack plane.

7 Next I made the front leg, cutting a tenon 40mm wide to fit in between the bed rails in the seat board. The tenon was left long to be trimmed flush after assembly.

8 The front leg was clamped in place with the rear of the seat board propped so it sat level. Material was then prepared over length for a pair of rear legs.

9 The rear legs have a splay and rake angle of 15°. To create the rake angle I clamped the legs together and trimmed one end at 75° before offering them up to mark out the joints.

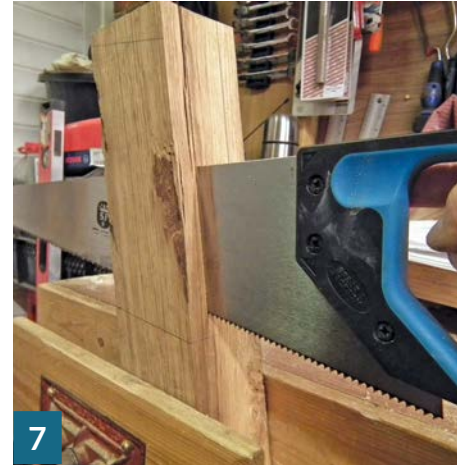
10 Each leg has a half lap joint with a tricky compound angle, but it looks good and adds stability.

11 The legs were offered up to mark out the rebate in the seat board to receive the half lap on the legs. I made stop cuts and knocked out the majority of the waste before paring to the correct angle for the splay and test fitted the legs securing them with a screw into the seat board.

12 I ripped the offcut from the front leg material in half to make a cross brace to fit between the legs. The brace was secured with two screws through each leg and a couple more through the seat board countersunk by at least 10mm to allow for hollowing later. Excess leg length was then trimmed flush.



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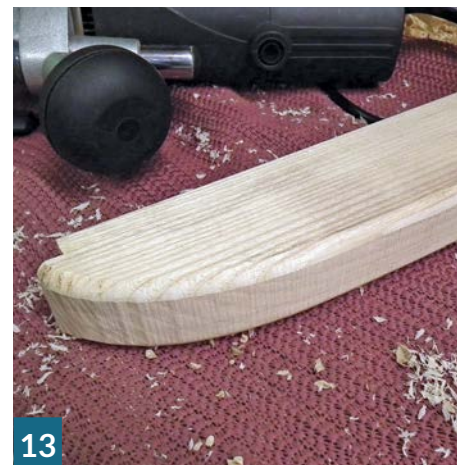
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13 The upright static clamping head was cut from ash to fit the slot in the bed with a 50mm post to drop down through the seat board and protrude by 10mm. The curve cuts were softened with a round over bit and the upright fixed in place with a screw through the underside of the seat board.

14 Clamping the bed side boards in place flush with the front leg, I used a couple of holdfasts to keep the pivot holes aligned. The seat board was fixed to the front leg with a screw from each side.

15 Accessing the bottom of the bed rails I added screw fixings every 100mm up into the side boards with a pair of coach bolts at either end of the bed to fix through the side boards, front leg and the ash upright.

16 I then cut another brace to fit between the rear leg cross brace and the protruding tenon of the ash upright. Screw fixings were made into the cross brace and the upright before securing through the seat board from above, in deeply countersunk holes.

17 I turned a dowel to the diameter of the countersink and plugged all the holes in the seat and trimmed the dowel flush. I used a travisher to slightly hollow and sculpt the seat to improve comfort (see Peter Wood's article, making a travisher, in issue 16).

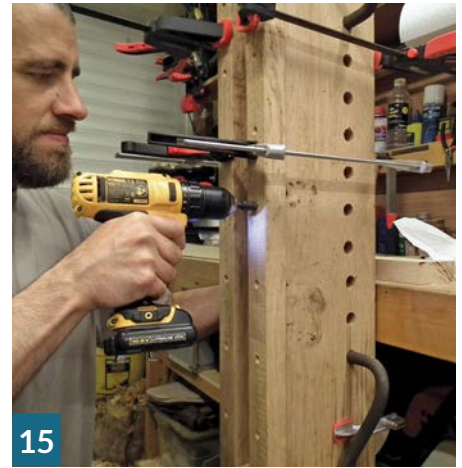
18 Time for some moving parts! The swing arm was cut from ash planed to fit in the slot of the bed. Pivot holes were drilled at 19mm and 15mm holes at either end to receive locating pegs. I cut a tenon on the top of the swing arm to allow for various clamping heads to be fitted securely fastened with a peg through the 15mm hole.

19 I used the waste from cutting the thinner end of the swing arm to turn a pivot pin. I burnt in some detail and planed flats onto the handle, then turned a couple of tapered pegs that bite half way through the 15mm top and bottom holes in the swing arm.

20 The clamping head was shaped to suit the work I wanted to hold and recessed to fit over the top of the shoulders on the swing arm tenon.



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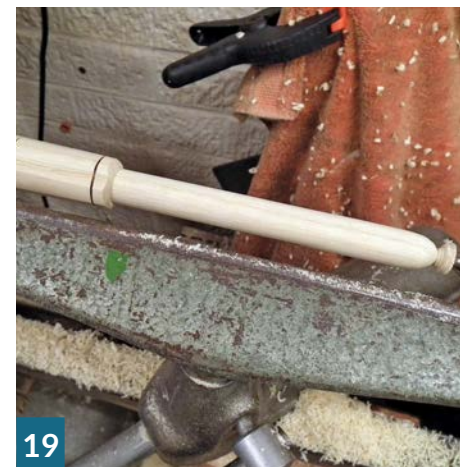
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I used some scrap pine and made my head reversible with a peg to locate in tang holes on tool handles with a general purpose concave surface on the opposite end.

21 I clad the clamping surfaces with leather for added grip, rubber could be used as an alternative fixed with contact adhesive.

22 Now all I needed was a tread plate. This was thinner rough sawn material. I used 28mm thick oak cut to shape then marked out ➤



20

the two mortises, which allows the tread plate to fix to the swing arm in different positions to increase adjustment potential.

23 The mortices were cleaned up to achieve a slightly 'baggy' fit on the swing arm. This allows the tread plate be slid up or down the shaft so it can be adjusted to comfortable height and distance dependant on which pivot holes are used. Friction holds it in a working position and the retaining peg prevents it sliding off the shaft during adjustment.

24 A quick test shaping a tool handle. A firm grip was achieved with very little effort while sitting in a comfortable working position, then a couple of coats of boiled linseed oil really bring out the beauty in the grain.

25 At maximum capacity 650mm long billets can be held, I based this on how far I could comfortably reach the full length of the workpiece. There will be more customisation later!

You can check out David's videos on how he uses his bowl horse on his youtube channel and he's also published plans in a blog post on his website, titled 'A Horse of a Different Sort' which is well worth a read. ■

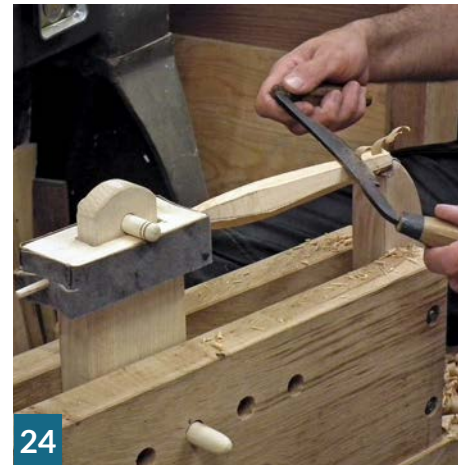
Lee Stoffer

Lee Stoffer has finally decided to turn his passion for green woodworking into a full-time occupation, making, teaching and demonstrating.

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CARDIFF	44-46 City Rd, CF24 3DN	029 2046 4422
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CHELTENHAM	64 Fairview Road, GL52 2EH	01242 514 402
CHESTER	43-45 St James Street, CH1 3EY	01244 311258
COLCHESTER	4 North Station Rd, CO1 1FE	01206 762831
COVENTRY	Bishop St, CV1 1HT	024 7622 4227
CROYDON	423-427 Brighton Rd, Sth Croydon, CR9 1AB	020 8763 0640
DARLINGTON	214 Northgate, DL1 1RB	01325 380 841
DEAL (KENT)	182-186 High St, CT14 6BQ	01304 373 434
DERBY	Derwent St, DE1 2ED	01332 290 931
DONCASTER	Wheatley Hall Road, DN1 1JL	01302 245 999
DUNDEE	24-26 Trades Lane, DD1 3ET	01382 225 140
EDINBURGH	163-171 Piersfield Terrace, EH1 1JF	0131 659 5919
EXETER	16 Trusham Rd, EX2 8QG	01392 256 744
GATESHEAD	50 Lobbey Hill Rd, NE8 4YJ	0191 493 2520
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HULL	8-10 Holderness Rd, HU9 1EG	01482 223161
ILFORD	746-748 Eastern Ave, IG2 7HU	0208 518 4286
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LEICESTER	69 Melton Rd, LE4 6PN	0116 261 0688
LINCOLN	Unit 5, The Pelham Centre, LN5 8HG	01522 543 036
LIVERPOOL	80-88 London Rd, L3 5NF	0151 709 4484
LONDON CATFORD	289/291 Southend Lane SE6 3RS	0208 695 5684
LONDON 6	Kendal Parade, Edmonton N18	020 8803 0861
LONDON 503-507	Lea Bridge Rd, Leyton, E10	020 8558 8284
LONDON 100	The Highway, Docklands, E14 3JF	020 7488 2129
LUTON	Unit 1, 326 Dunstable Rd, LU2 6JH	01582 728 063
MAIDSTONE	57 Upper Stone St, ME15 4EA	01622 769 572
MANCHESTER ALTRINCHAM	71 Manchester Rd, Altrincham, M17 1AB	0161 942 666
MANCHESTER CENTRAL	209 Bury New Road M8 8DU	0161 241 1851
MANCHESTER OPENSHAW	Unit 5, Tower Mill, Ashton Old Rd, M11 2BQ	0161 223 876
MANSFIELD	169 Chesterfield Rd, South, NG20 9JL	01623 622160
MIDDLESBROUGH	Mandale Triangle, Thornaby, TS17 6JL	01642 677881
NORWICH	282a Heigham St, NR2 4LZ	01603 766402
NOTTINGHAM	211 Lower Parliament St, NG1 6FJ	0115 956 1811
PETERBOROUGH	417 Lincoln Rd, Millfield, PE1 1JL	01733 311770
PLYMOUTH	58-64 Embankment Rd, PL4 9HY	01752 254050
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STOKE-ON-TRENT	382-396 Waterloo Rd, Hanley, ST6 2JL	01782 287321
SUNDERLAND	13-15 Ryhope Rd, Grangetown, SR11 2JL	0191 510 8773
SWANSEA	7 Samlet Rd, Llanisamlet, SA7 9AG	01792 792969
SWINDON	21 Victoria Rd, SN1 3AW	01793 491717
TWICKENHAM	83-85 Heath Rd, TW1 4AW	020 8892 9117
WARRINGTON	Unit 3, Hawley's Trade Pk, W9 9AU	01925 630 937
WILAN	2 Harrison Street, W9 9AU	01942 323 785
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NEWS & EVENTS

All the latest events and news from the world of woodworking...

Communities revitalising woods thanks to grant

Twelve community groups across the North of England are celebrating their award of a grant from the Woodland Trust and Nationwide Building Society and will use the grant to care for local woods, recruit more volunteers and encourage more visitors to their woods.

The Woodland Trust, established in 1972, is the UK's largest charity championing native woods and trees with over 500,000 supporters.

The Woodland Trust is offering start-up grants of £1000 to new groups in the pilot region, with established groups looking to take on some form of woodland ownership being eligible to apply for a grant of up to £10,000. Paul Mosley of the Woodland Trust said: "We're delighted with the response to our scheme as people have shown a real appetite for making use of their local woods." One group receiving a grant is the Experience Community CIC near



Above: Woodland Trust staff, Nationwide staff and the Friends of Springdale Wood

Right: Staff and participants from Experience Community CIC's 'Wheels into Woods' scheme



Huddlesfield and they will be using the grant to upgrade pathways through Tunnel End Woods to provide better access for visitors, including wheelchair users.

The Trust launched a pilot in the spring, as part of a £1.25 million partnership with Nationwide Building Society to provide funding for communities to either establish new groups or help existing groups undertake greater care and maintenance of their local woods.

Contact: The Woodland Trust

Email: communitywoodland@woodlandtrust.org.uk

Web: www.communitywoodland.org

Creating a resilient forest

As the National Forest is fast approaching its 25th anniversary, they are currently planting new woodland on Nanpantan Road, Leicestershire using a different kind of planting mix designed to be more resilient to climate change. The site features a selection of species, all recommended for their likely resilience in the longer term in relation to increasing climatic variation, such as silver fir (*Abies alba*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), Serbian spruce (*Picea omorika*) and deodar (*Cedrus deodara*).

Simon West, Head of Forestry for NFC, said: "In the future, we hope to use the site at Nanpantan Road as a demonstration of the use of alternative species for future woodland creation in the forest." Resilience is an increasing concern in forest creation and species choice within forestry across the country and the work taking place in the National Forest adds to the bank of knowledge and practical experience that the NFC can offer the industry.



Contact: National Forest

Web: www.nationalforest.org



IMAGES COURTESY OF IRWIN

Win a paid apprentice and £5000

IRWIN is on the lookout for trade professionals for their annual Nominate a Tradesperson competition – joiners, electricians, plumbers, metal workers and mechanics, to nominate themselves or colleagues and share their stories of when they have gone above and beyond to get a job done, no matter how big or small. The successful candidate will receive a year's paid apprentice for 2017, £5000 (£6440) to help build their business and a range of IRWIN products. IRWIN spokesperson,

Amber Popowicz explains: "We established Nominate a Tradesperson to find tradespeople who through their skills and dedication make a real difference."

The winner will be announced at the Build Show on the 18–19 October, 2016 at the NEC in Birmingham. To nominate yourself, a friend, a colleague or family member visit: www.irwin.co.uk/nominate

Contact: Irwin Tools
Web: www.irwin.co.uk

Wizardry in Wood 2016

At the 2016 Wizardry in Wood event, you will be able to take a look at the beautiful and amazing original works by over 70 of the world's greatest contemporary woodturners.

- Meet the craftsmen – learn more about their Art and Craft
- Admire the Beauty of works from one of the world's largest private collections
- Marvel at the Mystery of exhibits from the Royal Botanic Gardens, Kew
- Enjoy live demonstrations of the craft
- Take part in a short guided tour of the exhibition
- Collect, Give, Buy – many items will be for sale
- Be your own judge of the entries to the Turners' Company 2016 Competitions
- Delve into the displays of works by members of the Association of Wood Turners of Great Britain – Society of Ornamental Turners – Association of Polelathe Turners – Register of Professional Turners

When: 12–15 October, 2016
Where: Carpenters' Hall, Throgmorton Avenue, London EC2N 2JJ
Web: www.wizardryinwood.com

The Wood Awards 2016 shortlist

Nominations for the Wood Awards 2016 have been revealed, and include some of the UK's most high-quality, new examples of architecture and products in wood.

Twenty outstanding buildings have been selected for the Wood Awards 2016 shortlist. Led by architect Michael Morrison of Purcell, the judges reviewed applications in a variety of categories including: Commercial & Leisure, Education & Public Sector, Interiors, Private and Small Projects. The shortlist was on showcase at 100% Design

stand L620, 21–24 September at London Olympia.

The winners will be revealed by host Grant Gibson, Editor of *Crafts* magazine, at the 45th annual Wood Awards ceremony at Carpenters' Hall on 22 November, 2016.

Contact: The Wood Awards
Email: info@woodawards.com
Website: www.woodawards.com

FAIRS AND FESTIVALS

The Cranborne Chase Wood Fair

A variety of exhibitors and demonstrators from the wonderful world of wood will be displaying their products and skills at the Woodfair.

When: 3–4 October, 2016
Where: Breamore House, Hampshire
Web: www.woodfair.org.uk

Autumn Countryside Show

This popular show features traditional working demonstrations, including heavy horses and vintage tractors ploughing, steam-powered threshing, plus a Horticultural Show, woodland and rural craft demonstrations, displays and competitions.

When: 8–9 October, 2016
Where: Weald and Downland Museum, West Sussex
Web: www.wealddown.co.uk

Tweed Valley Forest Festival

This Forest Festival has been attracting over 5000 people each year to celebrate the connections with the area's Halloween customs and growing forest culture.

When: 21–30 October, 2016
Where: Tweed Valley, Scotland
Web: www.forest-festival.com

Lancing College Craft Show

Visitors have the opportunity to discover the very best contemporary, unique and original hand-crafted products direct from the makers and designers. Treat yourself to products not available on the high street.

When: 29–30 October, 2016
Where: Lancing College, West Sussex
Web: www.woodlandcrafts.co.uk



Simple keepsake boxes

Jason Townsend shows us the meaning of KISS (Keep It Simple Stupid) – with his simple keepsake boxes

Everybody loves a wooden box. The tactile nature of wood and the thought of what the box contains make the wooden box a perennial favourite project and possession alike. There are many complex designs for wooden boxes and entire books can be purchased on the art. This, however, is a simple wooden box; a box for the beginner, a box for the thrifty.

This box is simple, quick to produce and effective. There will be no danger of the lid not lining up. All you need is an offcut of wood. Neodymium alloy magnets are employed to retain the lid of this box. They are easily

available and cheap; I suggest browsing eBay for a pack of them. These magnets are very strong so please take care when using them.

Uses for this box can include a ring box, or a money box to enhance a gift of money to a child, or a box for tablets. To take this project further you could use chip carving to decorate the outside, use live-edge offcuts to create unusual boxes, or use compound sawing techniques to make fancier boxes. For those with medication or vitamins to take, you could cut seven holes to make a day-of-the-week tablet box.

Point to note

We are going to make two saw-cuts in the piece of wood, so you will lose wood to the width of two saw-cuts (about 2mm). If you are using a highly figured piece of wood, note the figure may not line up perfectly when the pieces are put back together. We are going to drill a large hole in the wood and some wood will burn easily – cherry (*Prunus avium*) for example – and may warp under heat.

Method

1 To start, you will need an offcut of wood; cut it square on a bandsaw or mitre saw. The offcut of wood I have chosen to use is a piece of jelutong (*Dyera costulata*) and measures 48 x 48 x 40mm.

2 Saw a slice off the top of your piece of wood using a bandsaw or mitre saw, in this example a 7mm slice. This slice will be the base of your box.

3 Mark out the position of the two holes that will be used to hold the magnets. We are marking the face of the middle part of the box that will be hidden when the base is glued back on, so make sure you use the correct face. Draw a diagonal line from one corner of the box to the other and then mark off 7mm from each corner, these will be the centre points for you to drill the magnet holes.

4 Drill the holes for the magnets. The lid of the box will be another 7mm slice off the top side of the box, but the holes for the magnets will be drilled first so the holes in the lid line up perfectly with those in the middle of the box. You will need to use a stop-collar on your drill or other mechanism to prevent the drill bit from penetrating too deep into the lid. We want the drill to create a hole about 2mm deep in the lid of the box, so to do this we need to work out how far the drill bit must penetrate. The middle of the box is currently 32mm high, less 7mm for the lid, less 1mm for the kerf of the saw blade, plus 1mm due to the lip and spur of the drill bit. This means we need to drill holes of 25mm depth.

5 Having drilled the holes for the magnets, we must now cut the lid of the box free from the middle. Take care to cut off the face of the box that doesn't have visible drill holes. ➤

Tools and equipment

- Bandsaw/mitre saw
- Drill press or a drill to make perpendicular holes
- Offcut of wood – up to 50 x 50 x 50mm
- Clamp – big enough to hold the offcut
- Carpenter's glue or PVA
- Polyurethane glue or equivalent – not superglue
- Combination square/ruler
- Pencil
- 3mm lip-and-spur drill bit
- Stop collar for the 3mm drill bit
- 30mm wood boring drill bit – or a Forstner bit
- 3 x 3mm neodymium alloy magnets (cylindrical)
- Abrasive paper – 120, 240 and 400 grit
- Danish oil
- Brush and cloth
- Creamed beeswax with cloths for application



1



2



3



4



5

Alternative designs



Blue cedar



Spalted holly



Orange agate



Zebrano



6



7



8



9

Having cut the lid free from the middle, you should now have three pieces of wood, the base with no holes, the middle with two holes right through it and the lid with two holes about 2mm deep.

6 The box now needs an interior, so you need to drill a large hole through the middle piece of the box. Drill the hole from what will be the top of the box, this way any breakout will be masked by the base when it is glued on. Mark the centre for the drill bit. The method I used to drill this hole was to put the middle piece of wood in a drill vice with an offset of wood the same width immediately below it in the vice, this should stop breakout of the drill bit. Use a wood boring bit, in this example I have used a 30mm TCT wood borer, or Forstner-type bit. Hopefully you should end up with a good clean hole in the middle of your box. Now sand down the horizontal faces of your box to get rid of any saw marks. You will particularly want to smooth the faces that will be between the base and middle and between the middle and lid so that it will be difficult to see the joins. Use a 120 grit abrasive paper, followed by 240 grit and then 400 grit.

7 Glue the base back on to the middle using carpenter's yellow glue or PVA. You want the grain to line up nicely on the finished box so make sure to marry up the base and the middle correctly. Clamp the base to the middle while the glue dries, I have used two offsets to go between the box and the jaws of the clamp so that the clamp doesn't mark the box in any way.

8 Glue the magnets into the lid of the box, one in each hole. The magnets should protrude from the lid by about 1.5mm. Use a dab of polyurethane glue on the bottom of each magnet before seating them in the holes in the lid. Take care using this glue and don't put too much on the magnet or it will bubble up and may push the magnet out of place.

9 Once the magnets have been put in the lid and the glue has dried, you need to insert the magnets into the middle section of the box. Make sure the polarity of those magnets in the lid matches that of those in the middle section of the box. Due to them being so strong, don't worry if the magnets



10

don't physically touch. Again, use a small dab of polyurethane glue on the bottom of each magnet and push the magnets into the middle section so that there is a 2–3mm gap above them for the magnets in the lid.

10 You should now be able to put the lid on the box. When the lid gets close to the middle of the box it should be drawn to it and make a reassuring 'clap' when it closes. With the box fully assembled, sand down the vertical faces of the box. This allows

you to sand away any blobs of glue or saw marks. Run the box along strips of abrasive paper, 120 grit first, followed by 240 grit and then 400 grit. When finished the grain on the box should line up nicely.

11 This box has been finished with Danish oil and given a light polish with creamed beeswax. Use a brush to apply some Danish oil to the box inside and out, leave it for five minutes and then remove the excess oil with a cotton cloth. Leave it to cure overnight and then using a cloth, apply some creamed beeswax to the wood before using another cloth to wipe off the excess wax and polish.



11

12 Here are some other examples of completed keepsake boxes. A delightful present for anyone to receive! ■

Jason Townsend

Jason has a background in computer science, but has been working with wood for around five years to indulge his more creative side. He has no formal training but considers himself to be on a journey of learning with regards to woodworking and doesn't expect it ever to end.

Email: jas@ant.uk.com



12

Veneer maintenance

Amber Bailey likes to make sure her veneers are in a respectable condition

As anyone knows, the further into a hobby or craft you get, the harder it becomes to store all your ever-accumulating materials and equipment. As a buyer of veneers, I find myself constantly rearranging my stock for more advantageous storage and access. Although it can be relatively easy to store timber, it isn't quite so straightforward for delicate veneers. There are a number of factors that really need to be taken into consideration to maintain longevity and usability within veneers.



Occasionally bargains are just too good to miss, the aftermath can be a bit of a problem!

PREPARATION AND CARE OF VENEERS

Rehydrating the wood

Over time and in less than humid conditions, veneers will naturally dry out and begin to crack if you aren't careful. If veneer leaves become in a very bad state and begin to warp it is advisable to rehydrate them slightly and certainly to do so before use. This can be done by applying a fine mist from a water spray gun or if necessary for very badly curled or thick veneers, leave to soak in water for a while. Always after dampening make sure the veneers are pressed flat as they dry out again.

Repairing damage

The thinner veneers that are cut, the more they are susceptible to splitting. When it comes to working with the veneers, these splits may be avoidable and worked around. Despite this, if there is a split in a piece of veneer it is never advisable to leave it until the day you actually use it. Any jostling that may occur while in storage is likely to



A spray gun can be picked up extremely cheaply from your local garden centre



I have made a very simple drying rack with mesh that allows the veneers to air dry flat

encourage the split to develop further as the wood will have a natural tear line down the length of its grain.

To temporarily hold the veneer in place, cut and wet a strip of veneer tape to cover the length of the split and a series of short horizontal strips to go across, binding the split together as tightly as possible. Once pressed into place, work over with a scrubbing brush to ensure there are no air bubbles under the tape.

When working with veneers it is always advisable to back them with newspaper or kraft paper, adhered with diluted protein glue (hide or fish glue – which is easy to remove later). This sort of preparation can easily pre-date the making of a project, particularly when you have veneers set aside for the task.



Paper is pressed on to glue covered veneer



Colour testing

When working with veneers it is always worthwhile remembering that natural veneer will always look different after it has been treated with a finish. To give you an idea of how your veneer will eventually look, dampen with water to reveal its true potential.

Above: Different finishes will drastically alter the colouring of wood



Once glued up, cut away the excess paper to keep the veneers neat and manageable

STORAGE SOLUTIONS

Hanging racks

For extremely long leaves of veneer, having them at ground or workbench level simply isn't practical. The best way to store these to keep them from damage is actually to create hanging storage. For me, this is simply made up of hooks and lengths of rope, a very cheap but extremely effective storage solution.

Workshops with the room and resources often go for a series of long wall storage or hanging drain piping for stringing and banding. It all depends on the surroundings that you are working in. Choose a darkened area without direct sunlight or artificial light that will cause bleaching of the colour.

Drawers

For easy access to small or waste veneers, having a system of drawers makes life incredibly easy. Boxes are



I often work with offcuts, so have plenty of small pieces of veneer to store

all well and good until you have to keep sifting through them to look for what you want. The best types of drawers are normally used by artists or architects to hold wide technical drawings. They are an expensive buy if not found secondhand but give ample allowance in veneer sizes. ➤



It can help to keep veneers or banding in bundles so they do not get mixed up

LABELLING SYSTEMS

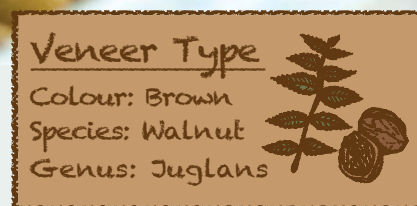
When your veneers are packed up in storage it is always a good idea to have clear labelling, this avoids unnecessary rummaging through to find what you need.

There are several ways that this is conventionally done, labelling by species works well if you have a large volume of a veneer species (although this can be quite space consuming if you only have small amounts of each veneer type). If you are a real wood identification buff you could even include the Latin family genus for each species.

The traditional labelling technique noted throughout history and often still used in workshops today is to label up by colour. In marquetry workshops, makers were looking to match colours for their designs; they weren't trying to follow a strict pattern of species. Even in restoration workshops today, replacing missing veneers you tend to look at matching the wood grain and colour up the wood afterwards for a closer match, this means you won't always use the correct original veneer type.

I prefer to keep my veneers divided up between coloured veneers: blonde wood, red woods, brown woods, decorative veneers and then species specific drawers where I have an exceptional amount of certain veneers (such as oak and walnut)

Right: This is my own personalised design, which I use for identification



Hazard proofing

Like with any workshop, materials are an investment and you want to do your best to keep them safe. Workshops are a naturally hazardous scene of electrical equipment, chemicals and flammable goods. The best way to protect certain materials is to make sure they are stored encased in metal rather than just left in the open air. Actual metal cabinets can be very expensive but filing cabinets can be picked second-hand extremely cheaply.



I use metal filing cabinets to store some materials and others for storing flammable goods. This helps to reduce the chance of a serious fire occurring

STORAGE CONDITIONS

Temperature and humidity

Like all wood, veneers are susceptible to the environmental climate, anything too dry or damp will cause the leaves to distort, try to maintain a steady environment where possible. Keep an eye for dramatic changes in temperature and humidity as this is where the problems will lie.

Integrated pest management

Always be aware of the outside getting in when it comes to your workshop, it is the perfect environment to harbour critters of all shapes and sizes. I might be horrified by the enormous spiders that can be found making home in my workshop but they are by far the least harmful to wood and veneer. Keep an eye out for the various forms of furniture munching beetles by monitoring activity with insect traps placed in prime positions around the workshop. Any immediate dangers need to be dealt with to avoid your veneers being left with a series of holes spread across them. ■

Suppliers

For veneers visit:
www.originalmarquetry.co.uk or
from your nearest veneer merchant.



A proper temperature and humidity monitor can be quite an expensive purchase, but a standard thermometer will do for keeping a general eye on the environment

Amber Bailey

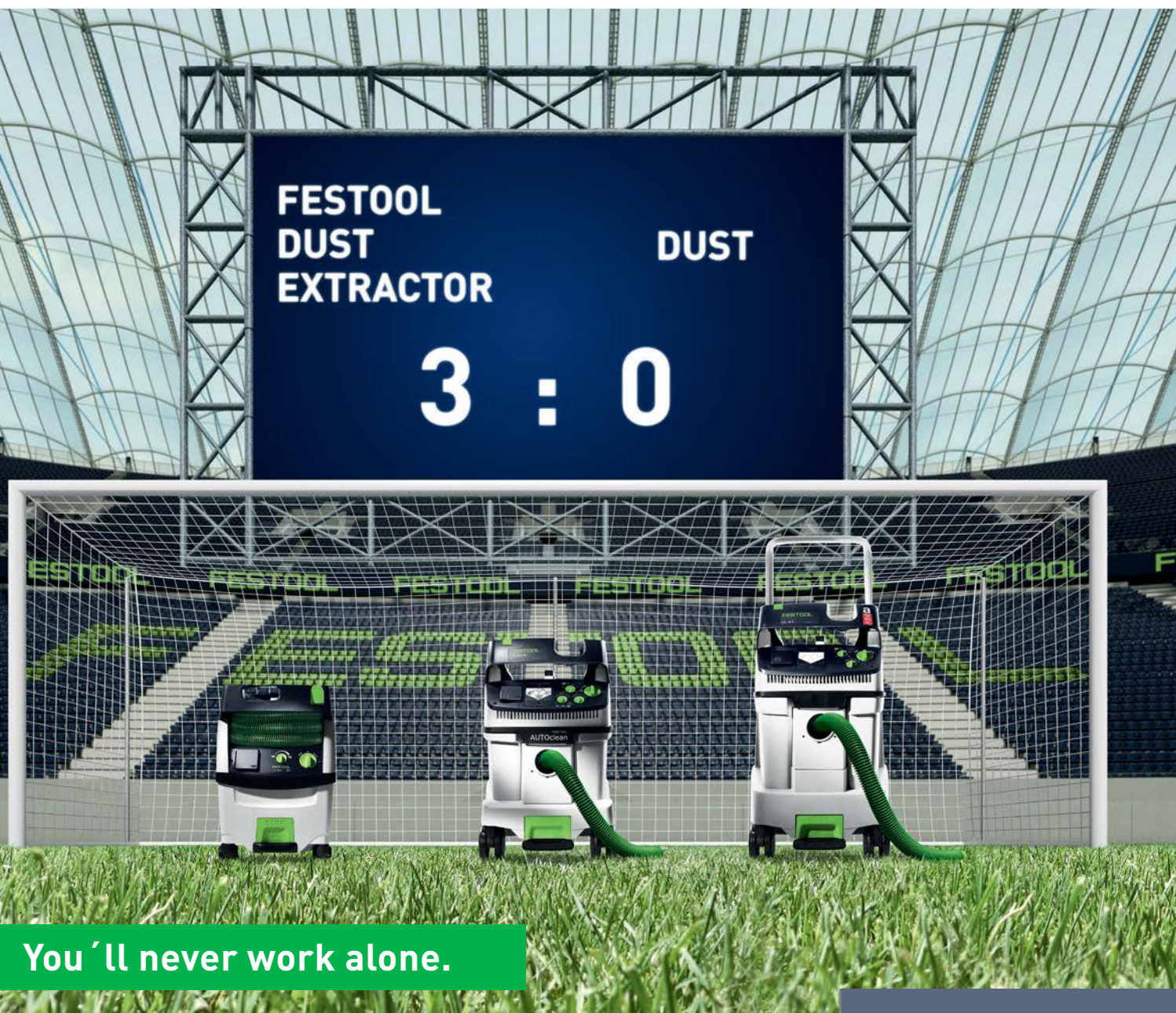
Amber is a skilled marquetarian and surface design artist who graduated from Bucks New Uni in 2014. She has recently completed her studies in the art of marquetry and Boulle metalwork in Paris, at the École Boulle.



Web: www.abmarquetry.com

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It's all good clean fun!

With the release of his new book *Good Clean Fun*, we caught up with author Nick Offerman to find out more...

If you've ever watched the award-winning American political sitcom *Parks and Recreation* you will have seen the deadpan, government-hating parks department boss, Ron Swanson, played by Nick Offerman. What many viewers may not know is that Nick is a multi-talented guy – actor, humourist, writer, musician and most importantly for us, he is a carpenter and boatbuilder to boot! He takes an offbeat swing at life and this shows in all his exploits, so we thought we would like to ask Nick a few fundamental questions ahead of the publication of his latest book *Good Clean Fun*.

Upon reading Good Clean Fun, it's immediately obvious woodworking is a passion within your family. How did you originally get into the craft?

I grew up learning the use of tools from my dad and uncles and grandfathers. My Mom's brothers and dad were farming field crops and pigs, so there was always plenty of fun to be had in the barns, corn crib and hog lots, mending fences, maintaining the buildings and equipment. That's the great thing about growing up on or around a healthy farm – if you're a kid who likes to make things, somebody is always ready to trade you some knowledge for your labor, and both parties think they're getting the better end of the bargain.

What is your favourite project/s featured in Good Clean Fun? And why?

That's a tough one. I really love the wooden kazoo that our Matt Micucci contributes, as it's a simple

and handsome project with a really fun result. Our 'shop manager Lee contributes a

beautiful knock-down bed in white oak for which she invented a really clever Japanese-inspired locking corner joint. But my favorite piece is the 3-legged stool chapter of my own. It involves a little bit of slab prep for the seat, freehand shaping on the curved legs, and wedged tenon joints, a fool (or 'Nick') -proof connection which I find incredibly satisfying.

What was your process in putting Good Clean Fun together? How did you decide which projects went in?

The book is an introduction to woodworking, detailing my own education and experience, my fascination with wood and tools, setting up a 'shop, and how to improve one's chances of success by working within a greater community of makers. Of course, there is also some good comedy sprinkled throughout so the reader doesn't nod off. The 13 projects are presented by myself, the woodworkers in my shop, and my dad and brother. They were chosen for their individual charisma and their degree of difficulty, so that the spectrum of projects spans the range from whisky coasters to a dining chair or a slab dining table.

Tell us about your workshop...

I created my Los Angeles shop in 2000, as a space in which I could manifest my obsession with woodworking.





I also wanted to create a place in the middle of LA's urban sprawl that felt like my upbringing in Illinois and my early education in the scenery shops of Chicago. This meant that not only did I shape the ideal configuration of benches and machines for crafting anything from tables to canoes to ukuleles, but I also built in a cozy kitchen/break area and space for storing slabs and finishing projects with oil and varnish, so that my friends and collaborators would want to spend time there with me. There is an excellent sound system, because my notion of the perfect maker space feels like a clean, level, well-maintained set of surfaces that seem to be housed by an old barn, with some great old tunes ringing out on the speakers. When the tools are put away for the day, there are cold beers in the fridge, for the storytelling hour.

What advice would you give to new woodworkers?

It's not dissimilar from learning a musical instrument. Just start with the fundamentals – in this case sharpening your steel and measuring and shaping wood accurately and squarely. As you practice these building block activities, you can further elaborate your projects, adding joinery and angled work and hardware and jigs. Just pick something simple, like a small box, or even a cutting board, and just begin to learn about how wood behaves, in general, but also in a conversation with you personally. Also, start with cheap wood, since you'll definitely make mistakes. Once you have succeeded in not ruining some raw materials, then step up to the good stuff. Finally, if you can find someone with experience to teach you, either a family member or a neighbour, or in a class or workshop, this will be invaluable. The times I've been coached by men and women who have made the same mistakes before me are gorgeous and satisfying, and they will save you hours of shouting bad words while you throw your tools at the wall.

Your character in Parks and Recreation is a keen woodworker and uses his skills at every opportunity, can we assume the inclusion of woodworking was down to your own passion for the craft? Or was it a great coincidence from the writers of the show? When we were first putting the show together, the writers mirth-antennae absolutely perked up at the existence of my woodworking habit as a source of comedy. I never would have imagined that this

quiet supplementary source of income that I so adored would one day become one of the trademarks of a popular comedy character, and that people would respond favorably. I was especially thrilled when we did an Indiana Furniture Society show and I was able to invite a couple of real-life heroes, namely Christian Becksvoort (featured in my new book!) and Asa Christiana, former editor of *Fine Woodworking* magazine. What a lucky sod I turned out to be.

Of course, Ron Swanson, as a fictional character, was a much more expedient craftsman than me because he was not working in the real world. This allowed him to do things like craft a lovely Irish Harp over one drunken evening, the inebriation being another luxury of a comedy 'shop. Everyone knows you want to be as sober as possible when you get into the 'shop, as there are countless ways therein to ruin your expensive mahogany boards, or your even more valuable fingers. Safety first.

In one episode we see Ron attempting to teach the Pawnee Rangers the importance of woodland crafts, what specific aspect of woodworking craft would you think most important to teach the young members of scout groups?

The first thing we would do is explore the available trees to see what woods and accessories we have at our disposal. If there is a paper-barked tree like the American birch, why by crikey we'll build a canoe. The birchbark canoes of native Americans are one of the most heroic artifacts ever crafted by human hands and they can be constructed entirely of woodland products, although these days I'd take a can of roofing tar to save us messing with the procurement of our own pitch. Perhaps I would task a few of the young men/women with setting some spring snares to glean us some lunch in the meantime. Building boats is hungry work! ■

Next month we bring you a three-legged stool project from *Good Clean Fun*, we hope you'll enjoy. We've already got our hands on the book and we love it!

Good Clean Fun by Nick Offerman (£25.00, Dutton) is out in November and available from www.thegmcgroup.com.



KITTED OUT

Take a look at the tools, gadgets and gizmos that we think you will enjoy using in your workshop

Axminster Trade Series extractor

For either mobile or static use, the CT-90HCK is a thoroughly modern design of dust extractor. The excellent performance comes from careful matching of the motor, impeller and housing, resulting in a quietly efficient machine able to extract chips and medium sized dust from all machinery found in a typical large trade workshop.

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Contact: Axminster Tools & Machinery
Tel: 0800 371 822
Web: www.axminster.co.uk



£899.96

Bora jigsaw guide

This guide slides directly along the T-Track of a Bora WTX Clamp Edge. The sliding side points and locking screw allow it to accommodate almost any size jigsaw and its adjustable pointer guide keeps cuts true. It's very unobtrusive as the saw rests easily and snugly without clamping the saw itself. These features allow for a quick change in moving from one type of cut to another. An additional feature allows the user to cut a 360° circle using a cut piece of wood that can be screwed to the jigsaw.



\$9 plus p+p

Contact: Bora Tools
Tel: (001) 866 588 0395
Web: www.boratool.com

Compact orbital sanders

New range of Bosch compact orbital sanders including brand new cordless model. Lightweight, compact models can be used with one hand. Exchangeable base plates give increased flexibility. Dust extraction system protects your health and the tool while in use. The corded orbital sanders are now available from specialist retailers, with the cordless tool following in the autumn. The models are offered in a cardboard box or L-Boxx with a different range of accessories included and start.



From £68

Contact: Bosch
Tel: 07114 0040 990
Web: www.bosch.com

MINI TEST



Triton T12 angle drill

Recently I had an impossible space between a door frame and shelf unit that needed twin fast screws driven in and my usual angle driving attachment for a cordless drill wasn't even short enough to fit. So I gave the Triton T12 a go and I was relieved to find it would not only fit in a tight gap but the long switch and rubberised covering meant handling and speed control were excellent plus an LED work light. I needed the least length to fit in the space and I found by dropping a Pozi 2 bit right into the chuck it just projected enough to drive the screws. Since then it's light weight and comfort to hold mean I've been using it for non-angled situations. The manual does warn that overload may cause it to cut out and after a lot of work it did just that, but recovered after a while. Very handy to carry around with a spare battery and charger in a zip case.

Chuck: 10mm keyless
Charging: 30 min fast/1 hour full
No load speed: 0–260rpm variable
Dimensions: 297 x 117 x 52mm
Weight: 2.64lbs
RRP: £89.91
Visit: www.tritontools.com



Snickers heavy duty working clothes

Snickers' RUFFWork working clothes are modern, heavy-duty garments that combine an amazing fit with reinforced features throughout. Packed with functionality, the trousers are specially designed for professional craftsmen who really rely on their gear in demanding on-site working conditions.

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Tel: 01484 854 788
Web: www.snickersworkwear.co.uk



Proxxon goes cordless

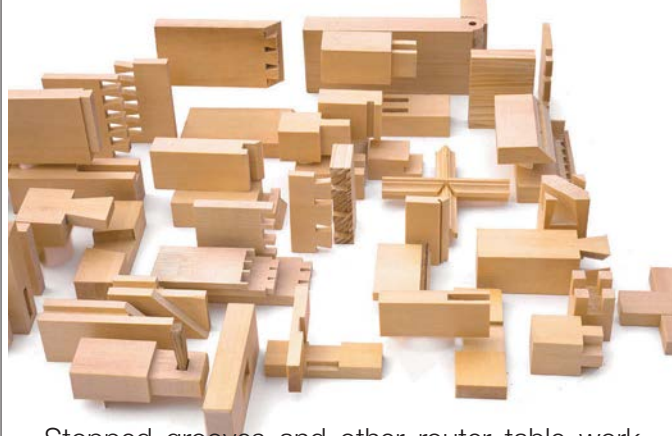
German tool manufacturer Proxxon has now introduced a range of cordless power tools. These are battery powered versions of MICROMOT tools and run on 10.8V batteries. With the 10.8V (2.6Ah) lithium-ion battery, the cordless model gives a performance equal to a PROXXON mains powered tool. The battery will charge in one hour, with at least 30 minutes run time in continuous use. The LG Battery Charger has an integrated temperature control and charge level function control. A simple LED display lets you know when charging is complete.



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Web: www.brimarc.com/proxxon

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READER GROUP TEST

Welcome to our **Reader Group Test** by members of our very own Woodworker's Institute Forum

PHOTOGRAPH COURTESY OF GENERAL FINISHES

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946ml (quart) £33.80
Also available in satin/semi-gloss/gloss

Price: From £21.50
Contact: General Finishes
Web: www.generalfinishes.co.uk



PHOTOGRAPH BY KEVIN JAMES

General Finishes produce a wide range of environmentally friendly paints, stains and finishing products mainly for hand application. The water based finish our testers have tried out, is claimed to be easy to apply and quick to dry.

Kevin James: I applied it as a diluted sanding seal then three neat coats to build the finish with a light sanding between coats. This resulted in a really nice finish with a soft sheen that seems to resist stains well. It has definitely changed my impression of water-based finishes.

William Scholtz: I have always used oil-based varnishes in the past. This product was very easy to use and the finish was of a very good quality and smooth. For the pot plant stands,

time will tell if it has produced a durable surface. Good value for money at £21.50.

Nick Murphy: It was easier to use than other types of varnish or lacquer. Oil based (Osmo) pulled tiny hairs from brush. Rustins (catalyst) left tiny bubble marks from pores in wood. Similar in use to Ronseal water based, but less visible brush marks after laying off.

Neil McCartney: It goes on really easily with the foam brush and has a white tinge until dry, allowing you to see where you had put it on a little thick! I will be changing to General Finishes from now on, I appreciated the quality and value for money.

Richard Taylor: I usually use an oil-based finish or a liquid wax so

How our testers rated the product

How would you rate the product performance?	8.5/10
How would you rate the product ease of use?	9.6/10
How would you rate the product overall?	9/10

I found this a very nice product to use especially using a foam brush as recommended. The finish was perfect for the paper tray as it will protect it from day to day.

Trevor Jones: This is a first for me. I was aware of water-based varnishes but never used them. I was pleasantly surprised just how easy it was to use compared to a polyurethane varnish, its low odour is a bonus. At £21.50 I thought was a little expensive. ■

Editor's comment:

The tin definitely states 'interior use', my experience is that in that context it is a very good finishing product. Imported goods are more pricey and the General Finishes range have a long and complicated journey to reach the UK!



PHOTOGRAPH BY NEIL MCCARTNEY



PHOTOGRAPH BY WILLIAM SCHOLTZ

William Scholtz liked the smooth finish



Neil found it to be good value for money

If you would like to be part of our panel of product testers, please go to our website www.woodworkersinsitute.com – and **SIGN UP NOW!**



PHOTOGRAPHS COURTESY OF STUART KING

Making dollhouse furniture

Stuart King talks us through how to make miniature furniture for any dolls house

Growing up in an era when it was usual for children to make things, and with Stuart King being a boy, this entailed creating model planes, boats, and items that would fit perfectly in his sister's dolls house. Most boys growing up were proficient with carving balsa wood and fret-sawing thin plywood into decorative objects and working models. If you were really fortunate, you might own a treadle fretsaw made by *Hobbies of Dereham*, this company also supplied weekly plans of things to make. Oh, happy days!

His childhood woodworking days were spent at a sunlit bench in his father's workshop, but in the winter, Stuart spent his time woodworking at the kitchen table often sharing space with his mother while she prepared the next family meal. He recalls: "in retrospect, this seems such a simple, but privileged situation yet in the 50s, it was quite the norm," but there were sometimes great rivalries between

his schoolmates and himself in making the most intricate pieces. Pieces from plans or from their own designs, or just seeing whose simple balsa plane would fly the furthest.

Training

Leaving school aged 15, and training as a marquetry cutter, a craft that requires certain dexterity, good hand eye coordination and a good judgement of line. Just like model making! He says: "although I hate being in a harsh [furniture] factory environment, what I learnt there was to be very useful throughout my working life," and living close to the 'furniture town' of High Wycombe, Stuart became interested in the history of the town's furniture heritage.



Above: The finishing touches on some miniature furniture that I started making during my school years



Robert Manwaring was an English 18th century furniture designer and cabinet maker whose great love was chairs



Completed cabriole leg



Fret-cutting a ¼ scale Windsor chair banister using my marquetry cutters 'donkey' c1982, making quarter scale miniature Windsor chairs was another mainstay of my work back then

While he was still a teenager, Stuart started to give talks to local groups such as the Women's Institute on the history of furniture. To illustrate his Windsor chair talk, Stuart has made a set of miniature chairs that he takes to venues in a suitcase, which turned out to be beginning of a lifetime of making things in wood. He starting with miniature furniture both ¼ scale, and the smaller 1/12th scales for dolls houses.

The doll's houses are quite popular among young children today, but they can be traced back around 400 years. Smaller doll's houses with more realistic exteriors appeared in Europe in the 18th century. Early doll's houses were all handmade, but following the Industrial Revolution, and WW2, they were then mass produced and became more affordable. The earliest known examples of the doll house, or miniature homes, were found in the Egyptian tombs of the Old Kingdom created nearly 5000 years ago, but researchers believe these were purely for religious purposes.

The earliest known European doll house was the baby house of the 18th century which were cabinet display cases made up of individual rooms. Smaller doll's houses such as the Tate house appeared in Europe in the 18th century. Doll houses also used to be present at the royal courts, ducal palaces, and manors of rich aristocracy in Germany, France, Italy and England. The possibly most famous doll house is a version of an English Queen Mary's house, took four years to complete and contained exact copies of real furniture, carpets, silver dishes and ivory decorations.

Although, doll houses are now known for being great children's toys, this was not their original intention. They were miniature pieces of art performing various functions; their major function was to be decorative and representative. The furniture within a dolls house is made with skill and precision, and Stuart King talks us through creating these miniature pieces of furniture. ➤

17th century chairs and joint form stool made in Japanese oak (*Quercus mongolica*), this was used because of it's fine grain



Chippendale chair and inlaid dining table



For the sophisticated household with a nice drawing room what's better than to have a folding marquetry games table to while away those dark winter evenings? Stuart made this in 1981



Just some of the variety of styles in my 1970/80's Windsor chair range





Chippendale style chairs. The back is the integral component and is made in two pieces starting with a strip of long grain glued to one end of the blank for the top rail

Tools

Still having the tools and templates he so often used, Stuart would like to share some of his techniques with the magazine. For every chair back, except Windsor chairs, he cut a template from formica, or 1/32 plywood. Mostly 18th century designs, mahogany (*Kbaya ivorensis*) was his material of choice, which was always reclaimed from broken antique furniture. For the chair backs, Stuart cut the material to about 6mm thick, and the grain of the back should run from top to bottom with a horizontal slip glued to the area where the cresting rail would be. This provides maximum strength.

With the chair backs pierced, Stuart is “taken back to his fret work days.” Stuart often used a marquetry cutters ‘donkey’, but a hand held fretsaw or a scroll saw would also work. The curve (rake) of the chair was sanded on the end of a belt sander. The seat of a ‘stuffed over’ upholstered chair was cut from 3mm thick mahogany and butt jointed using PVA glue as was the front legs, cut in one piece. Stuart does say: “unless the front legs were to be cabriole, these were glued separately underneath,” these legs, after being marked out via a template were fret cut out on two sides of a square then rounded with needle files, and fine single sided scrapers and sanded.

Decorative mouldings are a lovely detail for any furniture large or small, and his solution to the age-old feature was “to miniaturise a traditional chair makers tool, the scratchstock.” Consisting of a two part wooden stock or handle held together with two screws that were used to tighten the blade, Stuart made the blades from an old chair making scrapers that, in turn, were made from worn out saw blades. Needle files were used to create the required profile, but in reverse of course. Stuart used a ‘dummy run’ on a spare piece of wood running the integral fence against the wood to ensure a straight line was followed. Stuart found the scratch stock most useful, especially shaping the rounded surfaces such as cabriole legs. There was also a two part stock or handle, but as Stuart explains: “with this tool, it is a small scraper blade that is contained firmly between the central section. The thin blade was sharpened with a burr on a single edge like its full size chairmaking counter part.” ■

Before and after sanding the curved profile, the left hand piece is Cuban mahogany rescued from an 18th century table top, the other is Brazilian mahogany



A hand made boxwood miniature scratch stock with a selection of profiled blades



Three scratch stocks made in the early 1970s. It is always a pleasure to make ones own tools and then use them on a project

10 TIPS TO PERFECT SAW CUTS

PHOTOGRAPHS BY GMC/ANTHONY BAILEY, UNLESS STATED OTHERWISE
PHOTOGRAPH COURTESY OF SHUTTERSTOCK

If you need to improve your hand sawing technique, take a tip from **the Editor** and read on...

Two hard point saws (top), pullsaw (middle) and traditional backsaw (bottom)



Even in the modern world with every conceivable tool with a plug on it, some things still have to be done the old-fashioned way, using skill and 'grunt' to get things done. Sometimes this can seem a real burden but it doesn't have to be. Even if you don't have a natural aptitude for hand work you can learn and improve your skills and turn hard work into something much more satisfying!

1 There are two basic types of saw – the traditional kind with a steel blade that can blunt easily if you aren't careful and the modern hardpoint variety which can cut through a wider variety of materials, but is disposable when it does get blunt. Choose the former type for fine work such as cabinetmaking and the latter type for general carpentry.

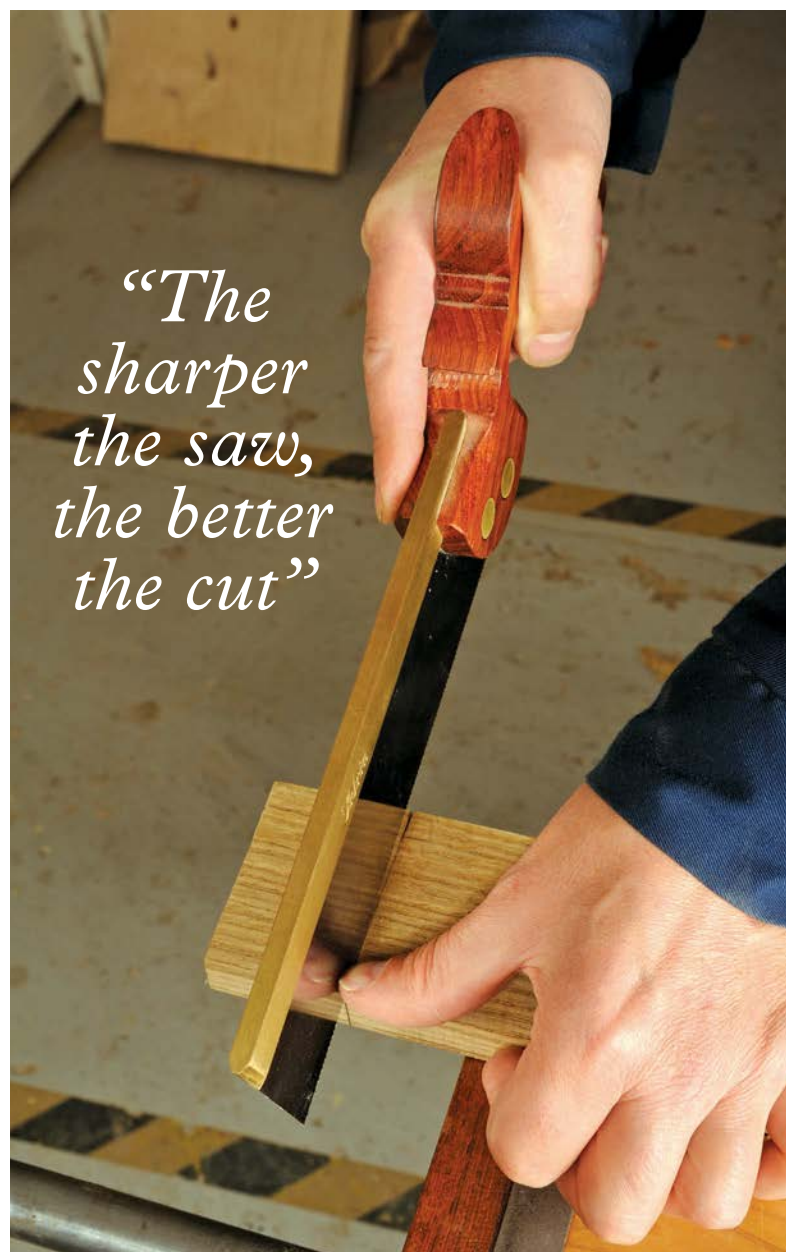
2 The more you pay, the better the tool. Really top quality traditional saws can be quite expensive so they deserve looking after. They come in two basic types – with a 'back' to stiffen the blade for joint cutting and larger handsaws without a back, designed for panel cutting. There are many variants though for very specific tasks.

3 Look after your saw or saws. The teeth in particular are vulnerable on traditional pattern saws, so keep them safely stowed in a toolbox or cabinet. Stop sawblades from rusting with a light wipe of oil.

4 You can't make accurate, neat cuts without marking out your cut lines correctly. A try square and marking knife or carpenter's pencil sharpened to a 'chisel edge' is the usual method, but an engineer's square is more accurate. Alternatively, a combination square is adjustable and very handy working on site.



Accurate marking out is essential



Sight down the saw and use your thumb as a guide



Accurate joints look good and function well

5 Use proper work supports at a suitable height and fix the workpiece so it cannot move while you are sawing. If it keeps slipping around it can be tiring and the finished result rather inaccurate. On a workbench, use a bench hook.

6 Use a sharp chisel to form a slant to your cut line, for the blade to sit in.

7 When sawing, place the blade on the waste side of the pencil line and draw the saw back to start the cut, then push forward and keep the back and forth motion going while sighting directly with your eyes down the sawn and marked line. Use your thumb or knuckle to keep the blade on track to start with, but don't get yourself cut!

8 Joints need to be precise to work properly when they lock together, such as a mortise and tenon for example. It is standard practice to start the cut from one side or face of a workpiece and then turn it around and cut from the other so the cuts follow the marked lines and when they meet, any inaccuracy is therefore halved.

9 If you aren't very experienced don't set to work on your prize project without first doing some trial cuts in waste wood so you can gain some valuable practice learning how to saw properly.

10 Remember force is not needed, let the weight of the saw carry it through the wood and guide it as carefully as possible using hand and eye coordination – a key requirement of woodworking by hand rather than machine. With practice maybe you can produce joints this good! ■

Coming next month in Woodworking CRAFTS

ISSUE 20
ON SALE
27 OCT

Learn how to set up a green woodworking area



■ Add metalwork to your woodworking projects

■ Make a walnut cabinet

■ Build a three-legged stool with Nick Offerman from TV's *Parks and Recreation*

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What you need to know to start turning – part 1

Mark Baker tells us about the essentials of woodturning

Turning is a fascinating and endlessly absorbing hobby for many people. But, it is, like many subjects and hobbies, one which has a lot of terminology that can confuse people, and also kit and tools that people might think they have to own to start with. This short series is prompted by the recent Record Power giveaway of an excellent turning starter kit valued at over £1000, featured in the last issue of *Woodworking Crafts* and its sister woodworking magazines. Our aim is to cut through the chaff and directly deal with what is really needed and why, focusing on what to buy to give you the maximum flexibility to tackle a wide variety of projects.



The Record Power starter kit giveaway from issue 18

IMAGE COURTESY OF RECORD POWER

TYPES OF TURNING

There are two fundamental types of plain turning. Plain turning means work done on a standard turning lathe, and ornamental turning is capable of allowing you to create numerous decorative effects which are not covered here, and they are faceplate turning and spindle turning.

Spindle turning

This type of turning has the grain of the timber running parallel with the axis of the lathe. Typical spindle work projects include:

- Chair legs
- Stair baluster and similar such spindles
- Honey dippers
- Boxes
- Vases
- Spatulas
- Light pulls
- Wine bottle stoppers
- Door stops
- Spinning tops
- Door knobs
- Drawer pulls
- Finials
- Candlesticks
- Tool handles
- Goblets
- Scoops
- Cups
- Pen bodies
- Wands
- Skittles
- And many more!

Some of the wide variety of turned work that can be produced on a lathe

Faceplate turning

The term 'faceplate projects' came from when a faceplate was the primary method of mounting this type of work on the lathe. We have more mounting options now of this type of work. This type of turning has the grain of the timber running at 90° to the axis of the lathe. Typical faceplate projects include:

- Bowls
- Platters
- Dishes
- Clock faces
- Lidded bowls
- Tealight holders



A spindle grain blank of wood mounted on the lathe



A faceplate grain bowl blank mounted on the lathe, ready for turning

LATHES

Lathes from different manufacturers vary a little but their primary purpose is always to provide a stable platform on which to hold the wood. The lathe is used to make the wood rotate in a controlled manner while you are working on it. Lathes have various speed options to give you control over how fast the work spins – large work needs lower speeds and smaller diameter work is turned at higher speeds. Most lathes have five or six fixed speed settings and some lathes have electronic variable speed as well. The electronic speed control is nice to have but increases the cost of lathes considerably. Lathes vary greatly in size and weight. Typically, the larger the lathe the heavier it is and the larger the size of work that can be done on

it. Having said that, most people rarely tackle projects larger than 300–350mm in diameter so this size range for the maximum diameter turning capacity is ideal for a lathe for many people. With spindle work, you need to hold pieces along the length of the lathe. Unless you need to turn stair spindles or table legs at about 1m in length, a lathe that can hold about 350–600mm between centres will suit most people not needing to turn stair spindle-length work.

Lathes can be bench top mounted, mounted on a purpose built stand or, come complete on their own integral stand. Bench mounted lathes suit many people well and start from about £250–300 in price. There are of course bigger and much more expensive lathes.

Key points

- You should be able to stand at the lathe and work at a comfortable height that does not cause you to hurt your back when turning.
- A quick way to find the position that is suitable for you is to stand at the headstock end of the lathe and then bend your arm at 90° to the spindle.
- The lathe should be at elbow height, give or take an inch or so.
- You can adjust it a little either way to suit your requirements, but this is a useful guide.



Left: DML305 midi lathe that has a 300mm diameter capacity

Mark Baker

Mark has always been fascinated by timber and loves exploring the different woods, shapes, surface enhancement and experimenting in his work. Mark is Group Editor of *Woodworking Crafts, Furniture and Cabinetmaking, Woodcarving and Woodturning*, at GMC Publications.



Right: Just a few projects (using a variety of timbers) that can be turned on a lathe. We will look at useful timbers and learn to turn in a later issue

In the next issue we will look at chucks and holding accessories and tools needed to turn with. ■



PLANS ⁴YOU

Log store

Simon Rodway makes a log store for winter

This project is dedicated to anyone who has tried repeatedly to light a much anticipated open fire on a winter evening, and found it near to impossible because the logs are just too damp. I've done it myself and I can safely say that having dry logs can make all the difference between a happy or rather frustrating end to your day.

Something you use to stack and dry firewood doesn't need to be that complicated to build, and this log store is no exception; there is really only one joint in the whole thing, where the cross brace at the top of the back posts is let into a housing. Everything else is just butt jointed and screwed together, or nailed in the case of the cladding and roof.

Starting with the back posts, cut to length and form 25° angles at the tops, and cut that housing about 50mm down, in the same place for all three post obviously. Cut the cross bracing pieces for the two end frames and screw the back and front posts to it, making sure the feet are level, but leave the front post slightly long at the top. Now add the angled piece or 'rafter', marking off and cutting the correct angle on the top of the front post at the same time. Use one of these side frames to cut the middle support posts to size.

Connect the two outer and middle frames together with the main cross joists, which are 100mm off ground level, screwed to the inner faces of the posts front and back, and add the top brace as well. Now just add all the vertical 50 x 50mm battens as shown, for the log platform and all the vertical cladding, and fix the feather edge between the posts at the sides and back. Add the cross pieces to the bottom platform.

Finally, make up a frame for the roof, 1900mm long, so that the ends can be screwed directly to the main posts, and nail feather edge to the frame, before placing it on top of the completed log store and fixing securely all round. ■

Simon Rodway

Simon Rodway also runs LineMine, a website with articles and online courses on drawing software. A new course, 'SketchUp for Woodworkers', is proving really popular. For details and to get discount coupons, see website details below.

Email: sjr@linemine.com

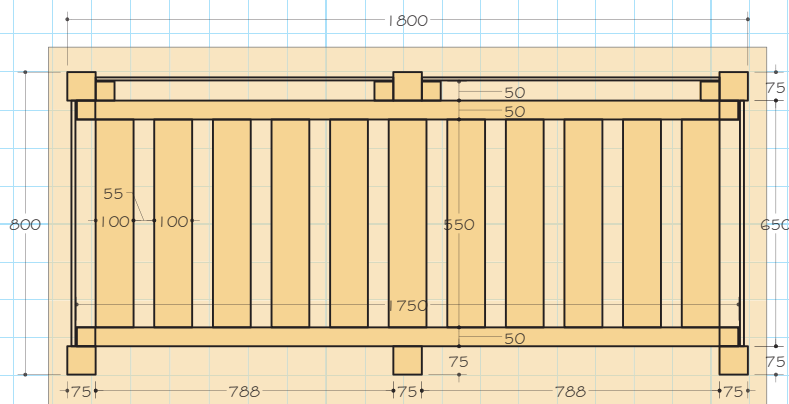
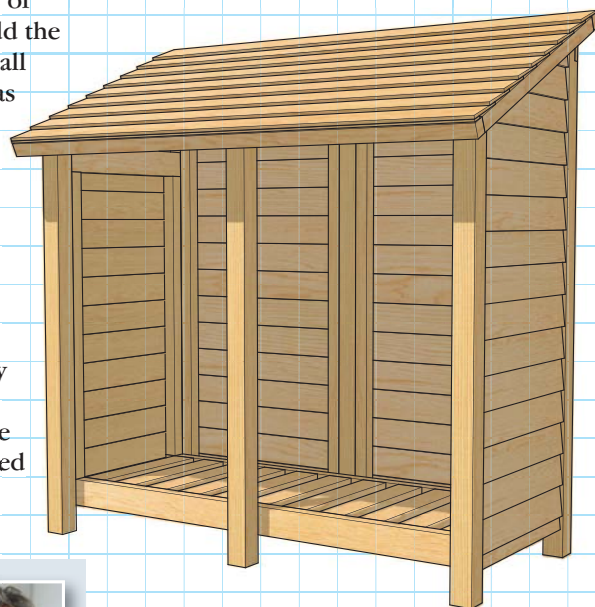
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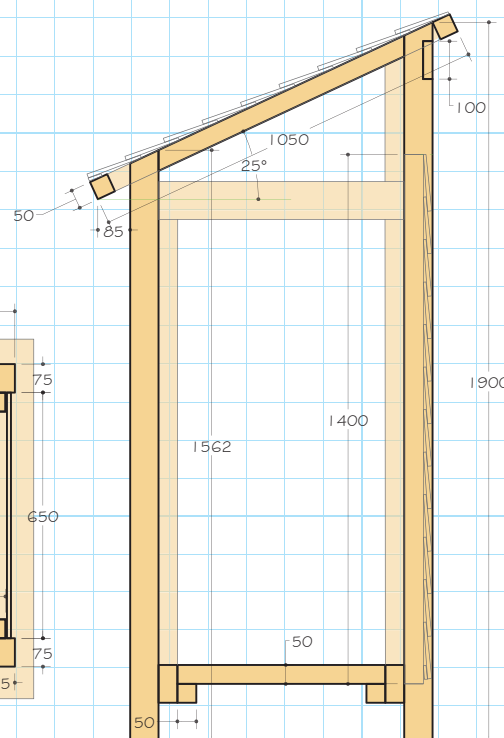
Cutting list

• Back posts	3 @ 1900 x 75 x 75
• Front posts	3 @ 1562 x 75 x 75
• Angles top braces	3 @ Ex 740 x 50 x 50
• Side braces	2 @ 650 x 100 x 50
• Back top brace	1 @ 1800 x 100 x 25
• Joists	2 @ 1750 x 100 x 50
• Joist battens	2 @ 1750 x 50 x 50
• Cross supports	11 @ 550 x 100 x 50
• Roof frame	2 @ 1900 x 50 x 50
• Roof frame	2 @ 950 x 50 x 50

Main structure only is shown, vertical battens and cladding for sides and roof cut to fit.



PLAN & VERTICAL SECTIONS



Issue 19 October 2016

Woodworking CRAFTS

HAND, POWER & GREEN WOODWORKING • TURNING • RESTORATION • DIY

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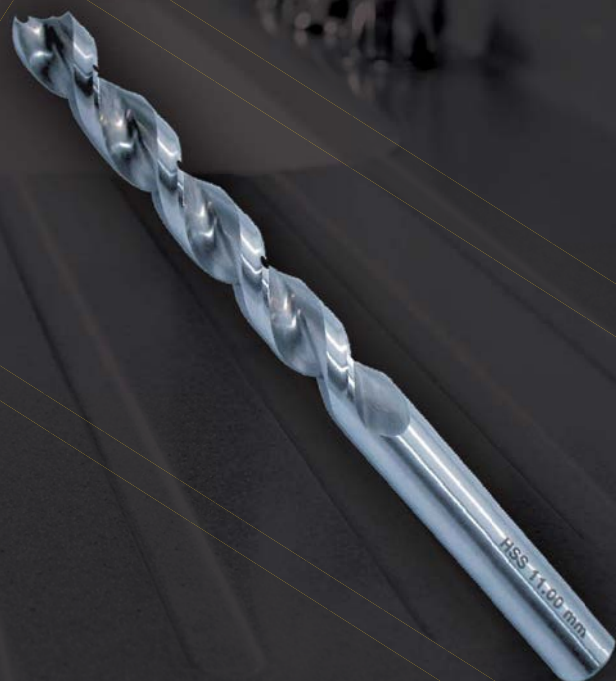
Colt Plastics Fast Cut Drills

The Colt Plastics Fast Cut drill is one of the most unique drills on the market. Its 5-point cutting head enables the operation of drilling plastics cleanly and more efficiently with a very clean exit hole without the risk of shattering or splitting the work.

Manufactured of high grade HSS-M2 Tool Steel these drills have a parabolic flute design enabling fast chip clearance. No risk of chip burn or jamming due to the combination of the unique cutting head and parabolic flute design.

These drills are ideally suited for drilling Corian Kitchen work tops, Acrylic material, Perspex & Composites.

Available in 23 diameters Imperial and metric in various lengths from 93mm to 150mm long plus 8 metric sizes 250mm long.



Colt Maxi-Cut Forstner Cutter

The Colt Maxi-Cut Forstner cutter is the ultimate in cutting experience and is considered the top end of the forstner market. Made of high grade M2-HSS alloy Tool steel these cutters will operate effortlessly and cleanly in any timbers to drill holes up to 100mm in diameter and, using a rota-stop™ extension bar, up 300mm deep.

1. Guarantees the fastest cutting performance compared to any other forstner bit.
2. The centre point is self-cutting and offers no resistance as it cuts through the wood ahead of the main cutters.
3. Asymmetrical chip breakers that cut swarf into chips rather than swirls which are easily removed.
4. Manufactured from the finest raw material permitting the ultimate sharpness and maximum tool.
5. Available in metric and Imperial sizes.



The effects of water

The Editor likes a drink,
he certainly needed it to
help him write this article...

Water is often seen as a benign,
essential substance, but of course
it can be very dangerous too.

Like wind or fire it has both its positive and
also its negative aspects. Too little and we
can die of thirst and crops fail, too much and
we can drown. It is a Jekyll & Hyde molecule
that we just can't do without. Bizarrely, it
is composed of two explosive gases, one of
which is breathable oxygen, and yet we can
drink it, wash our dirty hands in it and mix
up all sorts of compounds and even use it to
put out fires! So let's look at how it affects
wood and all things woodworking.

H₂O

ROT

Rot, which can be of either the wet or dry variety, is caused by bacteria living in wood or other organic materials and gradually eating away at it. The cell structure of the host material starts to collapse and although repairs are possible, eventually the decay will win.

Most, but not all rot occurs in exterior timbers. Fence posts and similar ground 'planted' timbers rot in the area from just above ground level to well below it. The deadly combination of air, water and thriving bacterial spores will destroy the wood in this zone. Strangely though, the bottom end of a post may be completely intact underground, especially if it is sitting in clay. Ways around the problem include treating the timber beforehand, opting for metal fixing instead or using a replacement concrete spur. Timber cladding on buildings needs regular treatment to protect it from the alternating effects of sun and rain. No piles of leaves or grass cuttings, etc. should be left against the cladding as damp will attack it.

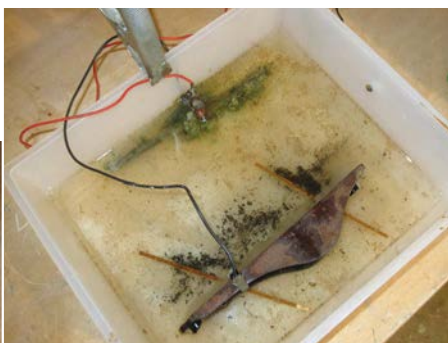


The rotted underside of a door sill soon becomes a home to a variety of organisms



An oak stub post has been used to extend the life of a softwood fence post

RUST



It looks messy but the miracle of electrolysis is removing loose rust and scale from the iron



This plane looks a wreck, but it can live again after treatment

Slow oxidation of those ferrous metals that we call rust are always a concern, while other metals such as copper and aluminium also oxidise in the wrong conditions. It can be distressing to see on decent handtools because once it starts you cannot put back missing metal, only restore it as best as possible. Iron is a bit more resistant than steel to oxidation, however there are various treatments that can be used to stave off further damage.

Firstly, you can remove rust using a chemical agent or by electrolysis. Then you can apply another agent to retard rusting and/or apply a metal primer or paint. You can prevent the rust problem in the first place by using an anti-rust compound in an enclosed space such as a toolbox or cabinet which will keep the atmosphere safe for tools. Oils and other lubricants also help maintain tools in good condition and make any moving parts work more easily. ➤

ATMOSPHERE

Various things can be ruined by the presence of even a small amount of atmospheric damp including metal as previously described. Beech (*Fagus sylvatica*) biscuits for jointing swell when wet, this is how they are designed to grip inside joints after applying water-based glue. Unfortunately, if they aren't stored completely dry, they will swell up and be hard to push into joints. Store them in polythene containers to prevent this. Glues or other compounds that need water added, can be spoilt by the presence of moisture. Although not so popular nowadays, Cascamite and Extramite powder glues should only be bought in quantities likely to be used in a reasonable space of time to avoid degradation from damp. If you do restoration work then be aware that animal hide glue can rot especially in a humid workshop and produce the most disgusting stink!



Consumables need to be stored in dry conditions to preserve them

SAFETY



Ensure eyewash solution is 'in date' and replace as necessary



Modern consumer units can shut off if earth leakage due to moisture is detected

Woodworking is potentially hazardous for a variety of reasons. Water is generally beneficial here because it can be used to wash off dangerous compounds like paint stripper, bleach, and for washing hands or even washing eyes if dust or dirt lands in the eye area. A note of caution though. Washing can cause splashes so be correctly protected with apron, chemical gloves and eye protection. Medical eye wash should be used, and only use clean water as an alternative. As we know, water and electricity don't mix so switches and sockets need to be away from the sink and hands should be dried before touching electrical appliances and switches.

LUBRICATION

Water is a form of lubricant because of the way the random molecules move out of the way of fixed objects, a boat in the water for example.

In theory they would be useful in the workshop but, of course, water causes rusting so if you use waterstones for sharpening blades you need to wipe them carefully dry and treat them with a light oil or rust preventative. Rust particles will clog and damage diamond plates, always use proper lapping fluid instead.



Always wipe tools over with a light oil to prevent rusting



Lapping fluid should always be used with diamond plates

INGREDIENT

Water is an essential component of a number of things. PVA (polyvinyl acrylate) glue, acrylic paint, water-based dyes and wood finishes being some of the obvious ones. The downside can include drying times and lack of resistance to frost when stored as the raw material. However, in warmish conditions drying times compare favourably to oil-based finishes which can be quite slow to dry. There is a tendency for grain-raising as the wood fibres swell up especially with wood dyes. This means rubbing down afterwards which can leave an uneven finish. Better to wet the surface first and rub down before adding dye in the hope of reducing grain-raising.

There are two adhesives that actually 'like' water – CA (cyanoacrylate) glue needs water for repairs to porous material like ceramic to block up the interstices (small spaces in between) while it cures. Likewise PU (polyurethane) glue which has expansion characteristics cures better in the presence of moisture and is the only glue that could potentially be used underwater.



Modern water-based glues are very efficient



Water-based wood dye can cause grain raising



CA glue on ceramic needs water because of porosity



PU glue works best on damp surfaces

HYGIENE

Hand washing as we know is important, but we seldom do it often or long enough and the use of workshop chemicals or handling rotten or dirty wood can be enough to cause a problem. It also helps prevent spreading diseases too. Expert recommendation is that you should take as long as it takes to sing one verse of 'Happy Birthday To You, etc.' (seriously) using soap and water and then dry your hands thoroughly on a disposable paper towel.



Take your time washing and stay clean



Lastly, this is where this 'germ' of an article (excuse the pun) started out. In the course of taking photographs for Gary Marshall's 'Woodland Ways' series, we visited his friends Robin and Diana who own what they call '40 Acre Wood'. They have an earth toilet inside a little clapboard shack. The thing is, it doesn't smell, the bacteria die and leave harmless compost material. The WC or water closet is costing them the earth because it makes massively inefficient use of water to get rid of bodily waste. A thing to remember, water dilutes germs, it doesn't kill them. ■



Rose demonstration

In an abridged extract taken from *Intarsia Woodworking Projects*, **Kathy Wise** makes this beautiful rose piece

This beginner rose is a good exercise to help you learn the fundamentals of cutting and shaping intarsia. This project is stack cut for simplicity. It is important to let the blade cut at its own speed; the harder the wood, the more likely you are to push too hard and bevel the cuts. I recommend a soft wood such as cedar. Always make sure your blade is square to the table before beginning to cut any pieces. When all the pieces are cut, mix and match them for two complete rose projects.

1 Select two pieces of $\frac{3}{8}$ -in-thick soft wood in contrasting colors. I use a light piece of poplar and a medium shade of cedar. Plane the wood, if

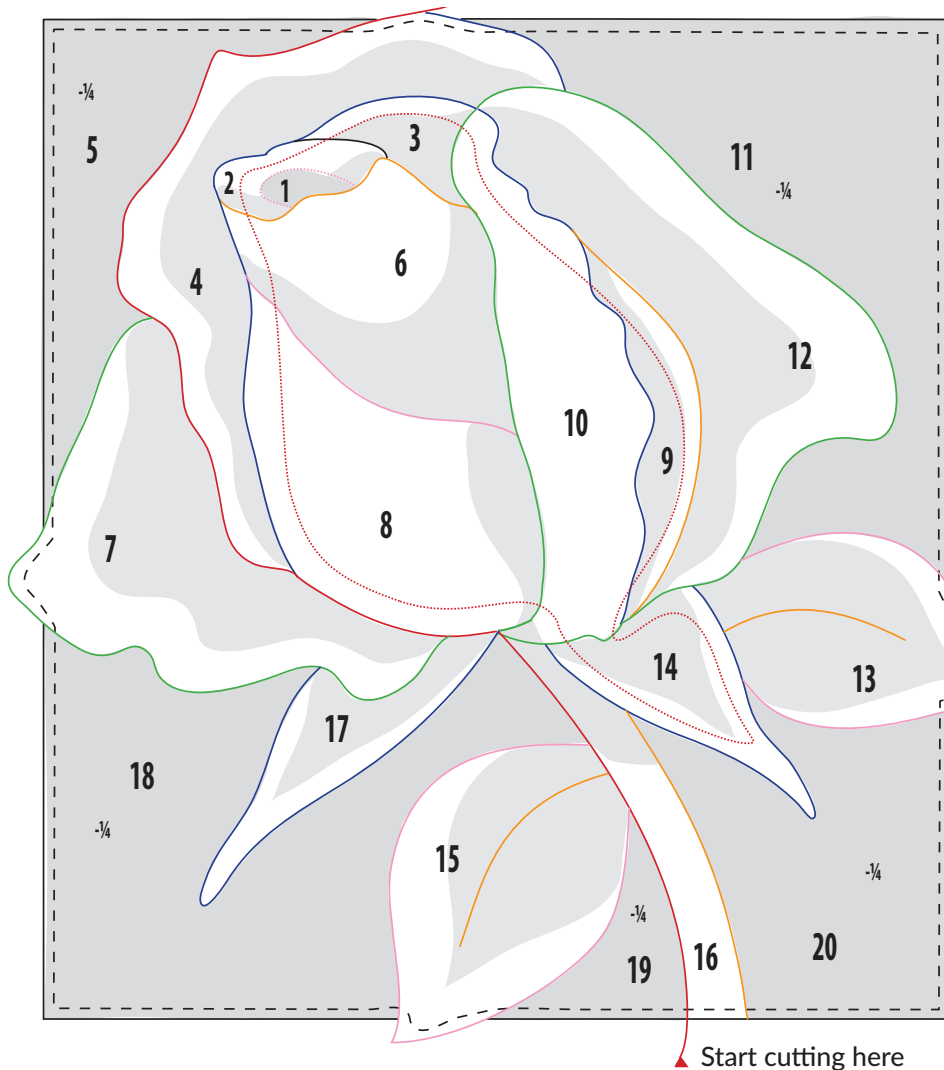
needed, to ensure they are the same thickness. Make a practice cut on two scrap pieces of the wood you are using. If it seems too difficult to cut, use thinner pieces. Thinner wood is easier to cut, but prevents you from achieving depth with your shaping. Tape the wood together. Use several pieces of double-sided tape. You can orient the grain of both pieces the same way, or rotate one piece 90°. Tape the edges together with masking tape if they are not tight. Select two pieces of luan plywood or masonite, and secure them with one strip of double-sided tape for the backing boards.

2 Make two copies of the color-coded pattern. If you cannot make color

copies, keep the book close as a reference when you cut out the pieces, or use markers to trace the colored lines onto the pattern. Apply spray adhesive to the back of the patterns. Adhere the patterns onto the shiny side of the contact paper.

Transfer the patterns to the wood stacks. Cut out each pattern piece, remove the backing paper, and stick them to the wood and backing boards. Alternatively, you can cover the stacks of wood with clear packaging tape and adhere the patterns directly to the tape. I prefer the contact paper method, because it enables me to reposition the pattern piece if needed.

Choose your blade. In addition to your personal preference, the blade



Wood

2 each $\frac{1}{2}$ in- $\frac{5}{8}$ in x 9in x 10in
contrasting-colored wood
2 each $\frac{1}{4}$ in- $\frac{1}{2}$ in x 9in x 10in lauan
plywood or masonite
 $\frac{1}{4}$ in-thick scrap plywood (riser)

Cut lines in this order

Red
Green
Blue
Orange
Pink
Black

2 pieces of softwood of contrasting
colours $\frac{1}{2}$ in or $\frac{5}{8}$ in x 10in

Start with $\frac{3}{8}$ in thick wood
 $\frac{1}{4}$Sand or plane down $\frac{1}{4}$ in

Shaping Guide

Cut red dotted line
for backer board

Cut pink dotted line only if you
feel comfortable holding the
small piece

you use depends on the type and thickness of the wood you are cutting. I use a #3 or #5 reverse-tooth blade to cut the backing boards. For thick or hard wood such as the stack for the rose, I use a Flying Dutchman #5 Polar Skip-Tooth blade. Make sure your blade is square to the table.

Cut the solid red line on the main stack. Cut slowly and let the blade do the work. If you push too fast, you will bend the blade and your bottom pieces will not fit well into your top pieces. If you stray off the line, don't make a sharp correction. Instead, ease back onto the line. Because you are stack cutting, precision cutting is not essential.

3 Cut the remaining pieces. Cut the green lines next. Then cut along the blue lines. As you cut the pieces, write the numbers on the back of each piece. Sand any burrs off of the bottoms. Continue to cut the pieces following the colored lines in the following order: orange, pink, and then black.

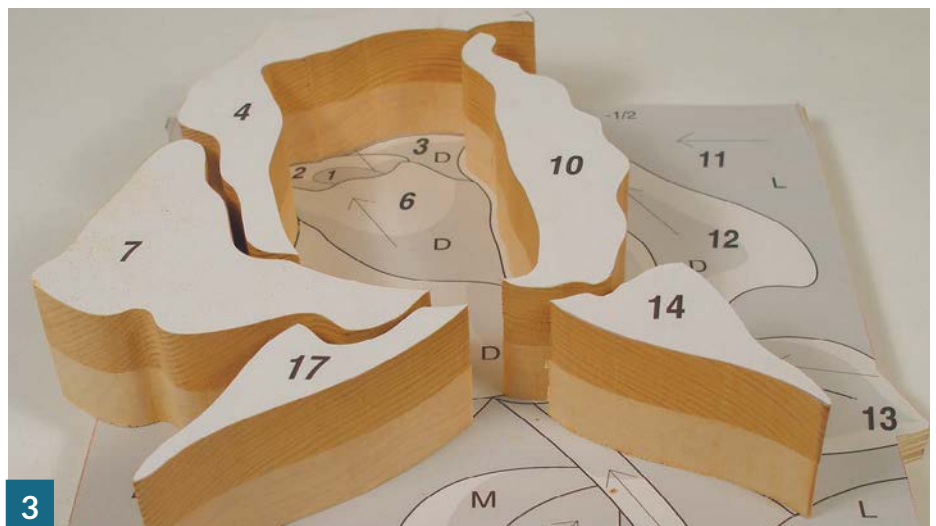
Cut the backing boards. Cut along the black dotted line on the pattern. ➤



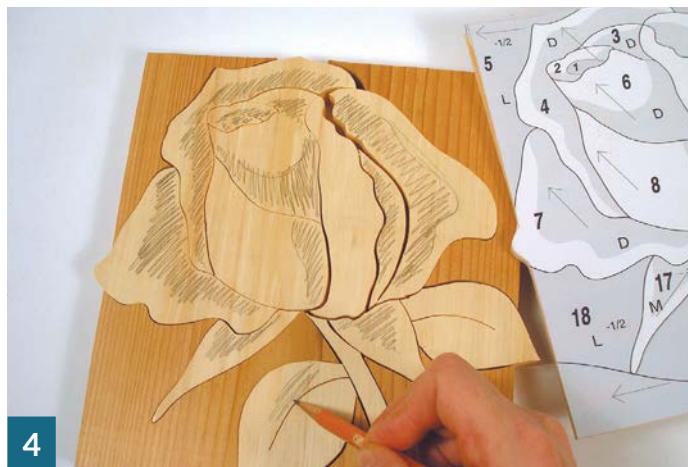
1



2



3



By cutting slightly inside the outer perimeter of the pattern line, you give support to the intarsia piece, but keep the backing board from being visible when the project is completed. Separate the stack, and sand the edges.

Dry assemble the intarsia. Place the cut pieces in position on the backing boards. Use the full pattern as a reference. Remove the paper pattern from the pieces and swap out the contrasting colors on the background pieces so you have one light rose on a dark background and a dark rose on a light background.

4 Mark the areas to sand and shape. Use a pencil to mark the areas on each piece. Refer to the shaded sanding guide on the pattern and transfer these areas to both sets of pieces. These shaded areas will be sanded down to give depth to the piece.

5 Cut a riser for the center of the rose. Sections 1, 2, 3, 6, 8, 9, 10, and 14 will be the highest areas. Use a full pattern to cut a $\frac{1}{4}$ -in-thick piece of plywood slightly inside the perimeter of the combined section of these pieces. Position the riser under these pieces in the center.

6 Mark the depth of the background pieces. Use a scrap piece of wood approximately $\frac{1}{4}$ in thick to mark around the perimeter of each background piece. You want to reduce the thickness of the background pieces to make the rose stand out. The pencil lines give you a consistent depth to sand all the background pieces to.

Sand the background pieces. I use a pneumatic drum sander, but you can use your method of choice. I use rubber fingertips to protect my fingers and tweezers or needle-nose pliers to hold the small pieces. Start by sanding the wood down to the lines on all four sides. Then sand the center flat to the lines on the outside.

Reposition the background pieces. Replace the pieces back onto the pattern and check the depth. Make sure you have reduced the thickness of all the contrasting background pieces before proceeding. All the background pieces should be level without any dips or valleys.

7 Shape the stem. Reduce the thickness of the stem and shape it where it meets the rose. Pencil a line indicating the depth you want. If you are unsure, take a little off, replace it

onto the pattern, remark and sand a little more off. Shaping is all about marking, sanding, replacing it to the pattern, and repeating the whole process again.

Shape the leaf. Mark the inside edge of the leaf where it meets the stem and sand down to that level. Maintain the height on the outside edges, rounding them only slightly. Remove wood in small increments. If you remove too much, you can make the piece appear higher by reducing the thickness of the adjoining pieces.

Contour the leaf. A 2in-diameter sanding drum makes a nice concave slope to the leaf. Round off the entire leaf and leave a smooth surface. Replace the piece next to the other pieces and determine if you have achieved the correct depth in relation to the pieces around it. Repeat the process to shape the other full leaf.

8 Shape the remaining pieces. Start with the areas farthest back first. This establishes the lowest level right away and you can build from there. Be careful not to expose the shim by sanding adjoining pieces too much. A handheld rotary tool shapes the smaller pieces.



9 Check your work. Replace the pieces to check your levels often. The highest pieces require only minimal rounding of the edges. Position the entire project on the backing board and double check that you are satisfied with the depths and overall look of the piece.

10 Polish the pieces. Give the pieces a final sanding by hand with fine sandpaper or with a sanding mop. If you are using soft wood, make sure your speed is low so you don't burn the wood. Be careful not to sand away the softer sections between the grain lines, which will give you a bumpy surface.

11 Tack the pieces together. Place the pieces on a flat surface. Place the inside riser section in position and work out from there. Put a few drops of 100% silicone glue between each piece and tack the sections together. Don't use too much glue; you do not want it to ooze up between the seams. Allow the silicone to dry overnight.

12 Glue the pieces to the backing board. Spread wood glue evenly, but not too thickly, on the backing



board. Place the tacked-together outside section and the riser onto the backer board. Then apply glue to the surface of the riser and place the tacked-together middle section of rose onto the riser. Clean up any excess glue with a wet cotton swab.

Clamp the pieces until the glue dries. Use sandbags or clamp the pieces in place and let the glue dry overnight. Trim any place where the backing board overhangs the pieces and straighten up the outside edges if needed. Spray several coats of varnish on your projects. Attach the saw-tooth hangers to the backs to complete the projects. ■

BOOK OFFER

Intarsia Woodworking Projects

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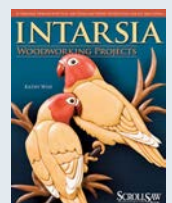
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Router table sub-fences

The Editor explains how to make and use them

Any dedicated router user has probably got a router table or aspirations to own one. I maintain you can make a better one than you can buy, because it can be customised to suit you. A manufactured table will invariably be deficient in one way or another, the straight fence often being the culprit. The biggest area of concern is how the workpiece runs across the cutter and in the majority of cases it will be against the fence, but that may not be enough. Here's why...

Height

Most table fences aren't really high enough for my liking. I like plenty of work support, which if you are machining vertical components, can be problematic if they don't

lie truly flat against the fence as only the bottom area is supported.

Usually the fence opening can be altered by sliding the facings in or out and then locking them in position. However, they cannot give continuous support as the workpiece runs across the cutter.

Adjustments

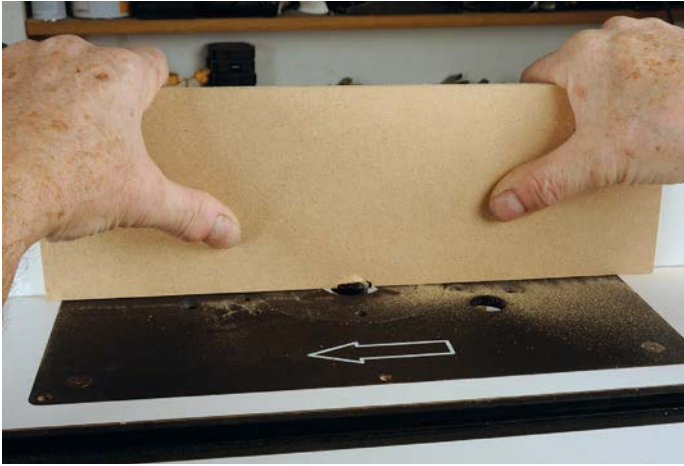
This is where a sub-fence comes into its own. So long as you can attach it securely to the fence behind, it gives a continuous running surface and extra height support.

If a cutter has a bearing you need to cut a slot to accommodate it. Screw or clip the sub-fence to the main fence making sure it is in front of the cutter. Switch the router on and slowly push the fence assembly back so the running

cutter can break through the sub-fence. A key time to do this is when making scribing cuts. With a fence opening the component can get pushed into it as it moves forward



You can fix a sub-fence with double-sided carpet tape if you don't want to spoil the fence surfaces



Push the fence backwards on to the revolving cutter until the right amount is projecting, switch off and lock the fence



If you need ultimate control, clamp a board on top and in front of the sub-fence to form a tunnel



Making the grooves in this solitaire board would not be possible without a sub-fence



A continuous sub-fence and a square push piece make scribing and tenoning cuts easy

damaging the end and giving the operator a fright.

Advantages

Another advantage is that any slight difference between the infeed and outfeed fence facings disappears when the sub-fence smooths over the gap effectively.

Big or tall cutters can be rather scary to use, having half the cutter hidden behind the sub-fence is more reassuring to work with and less danger of a 'catch'. Panel raising normally requires a large diameter expensive cutter but a vertical type is smaller and cheaper. However, unless it is used with a sub-fence the edge or the raise will splinter and breakout. ■



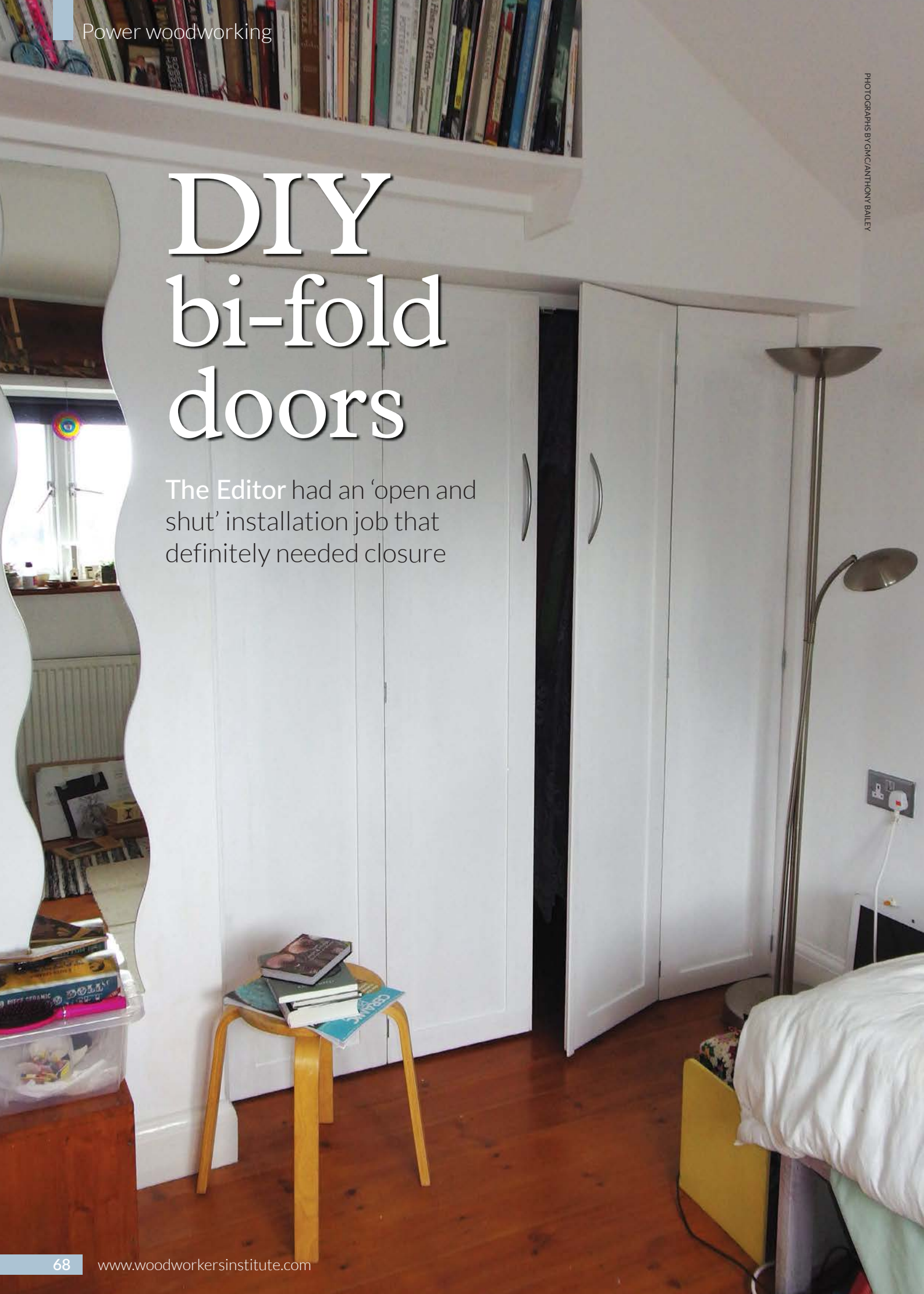
My own router table has a high fence to start with, so I can machine vertical workpieces



Another example where a fence opening would make this task impossible

DIY bi-fold doors

The Editor had an 'open and shut' installation job that definitely needed closure



The space in question was a small Victorian cottage bedroom to which a sympathetic modern extension had been added. The low ceiling original part needed to be divided off as a walk-through hanging space from the new, larger vaulted roof bedroom area. It had to be done quickly and cheaply, this was my solution.

Fitting the frame

1 This is the opening that needed closing, so the dressing room area with its hanging space could be separated from the larger bedroom.

2 I had some surplus 75 x 50mm PAR softwood with 'eased edges' that I could re-use for this job. The opening was measured and checked for verticality of the walls. I made a template from the skirting, so the frame sections could be cut to fit over the skirtings.

3 The cutting was done on a bandsaw which did a neater job than a jigsaw, although the curved shape had to be 'nibbled out' as the blade was too wide, and swinging the long timbers around would not have been possible.

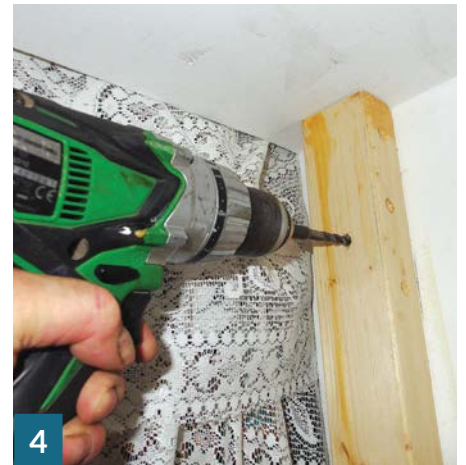
4 The first step to fixing the frame was drilling through the wood and leaving an impression in the plasterwork after marking the vertical positioning on the wall. I was going to use 'knock-through' frame fixings.

5 Next, the masonry drilling was done using the marks on the wall as a guide. I used a domestic vacuum cleaner with a special drilling vacuum head to remove the messy brick and plaster dust.

Making the doors

6 I chose some decent quality 75 x 25mm PAR softwood for the door frames and 6mm MDF for the panels to fit in them. I needed four doors without and overlapping rebates which would need more time and effort to get right. I did some calculations that took account of the tongue-and-groove frame joints.

7 First, the rail scribing joints were done to create a tongue that would match the grooves in the stiles. These were centred in the ends of each rail but were still marked so the surfaces would be flush when assembled.



8 The matching groove cutter was set up in the router table and the height carefully adjusted to align with the scribed tongues. Once the test cut was done, a board sitting over the extraction opening was lowered down to act as a hold down on the workpieces.



9 The panels were cut to width at my local timberyard on their vertical panel saw (for no extra charge). I just had to cut them to length. I figured that because there was no shrinkage involved with MDF I could glue the frame all round so the panels would be set solid.



10 Four panel assemblies later, check for length and squareness and surplus glue removed. Once the glue was dry the 'horns' were cut off the panel ends.



11 A bevel profile foam sanding block was ideal for sanding internal edges. I used a random orbital sander for all the main surfaces and to 'break' the arrises slightly.



12 There was just one resin pocket and it had to go, to stop it leaking in the future. It was carefully chiselled out and wood filler used to fill the hole.



13 A new clean paintbrush was ideal for removing dust that was adhered to the internal frame edges.



14 The frames were painted before the panels, using a silk brilliant white emulsion. This was applied in three coats and is remarkably dirt resistant and tough compared to matte emulsion.



Fitting the doors

15 Before the doors could go in I needed to install a door stop across the top of the opening. This was screwed to the vertical pieces after applying builder's mastic along the top edge so it would bond to the boxed in I-beam above. While that was setting overnight it was pressed firmly in place by a couple of battens.



Door Weight

The weight and stability of doors needs to suit the situation but a room door or a house door obviously need to be of much heavier construction.

16 Two facing pieces were cut and shaped to fit over the skirting, using the original template. They would act as a door stop like the overhead section.

17 It became obvious that the wall frames weren't quite vertical so a bit of judicious cardboard packing was needed to start the run of doors from each side as vertical as possible.

18 The two outer doors would normally be bolted shut at top and bottom, so only the inner doors would be used. Unfortunately the bolts came right near the edge of the overhead batten.

19 To drill without breakout I clamped a piece of wood alongside making drilling accurate and no danger of spoiling the wood.

20 The brass plates were screwed in place for secure locking.

21 I tried two opening options, first where the two doors both slide back together as seen here. Note two hinges at the top for strength under load. I settled on the second option where the inner door folds outwards and lies back against the facing wall as the outer door sections needed to stay closed most of the time.

22 The inner doors were held shut with strong magnetic catches fitted only at the top.

23 On the bedroom side I fitted long pattern solid aluminium handles so the doors pull shut.

24 The doors were fitted, checked and a cover strip pinned on one of the doors to close the gap. ■



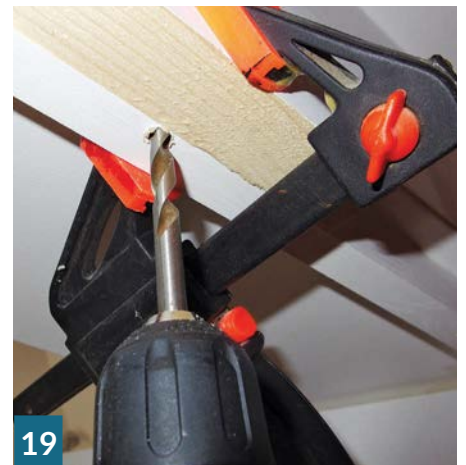
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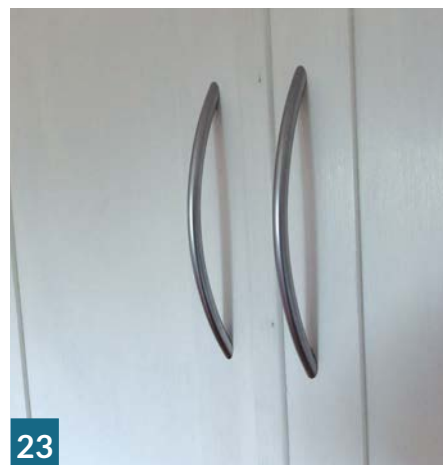
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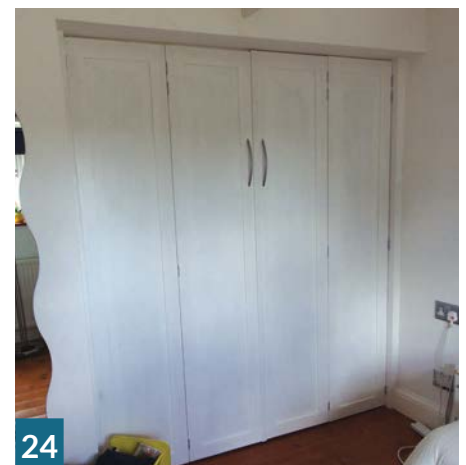
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BOOK OFFERS

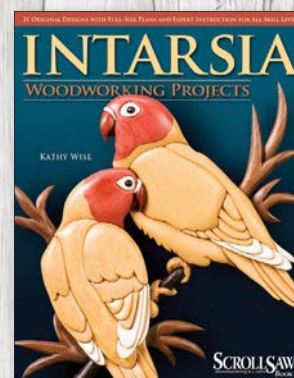
This month, Briony Darnley and Tamara Birch review three books for your enjoyment

Intarsia: Woodworking Projects

by Kathy Wise

From Fox Chapel publishing, author Kathy Wise talks through a number of woodworking projects for people of all levels of skill from getting started to expert level. With the skills levels organised from start to finish, it's easy to start at the beginning and work your way up. The 'getting started' chapter highlights the equipment you'll need, and the general dos and don'ts of the technique. Each piece comes equipped with pictures of the final product, and an image highlighting the different sizes of each piece. Each chapter goes into a good amount of detail about each project, the tools you'll need for each project, handy hints and projects for all occasions such as a bell for a new Christmas decoration.

Projects include: ornaments, a fox, lovebirds, a lighthouse, sailboat, rattlesnake and many more. This is an intriguing book for any animal lover in particular, this book is essential for any future woodworking intarsia projects.



ISBN: 9781565233393

Price: £11.99

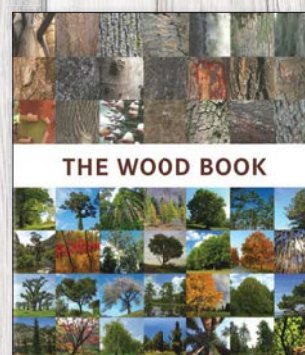
Web: www.thegmcgroup.com

The Wood Book

by LOFT publications

From LOFT Publications, *The Wood Book*, from front to back page, is full of technical and practical information of over 100 tree and bush species from around the world. The guide includes the species' utility as a renewable source, their strengths, weaknesses, versatility and through plenty of high quality photos, their beauty. Styled in both German and English to start with, it's tricky to get your head around, but simple enough to follow.

Each chapter is organised through Latin name, and without an English glossary for reference, certain species could be tricky to find, but should you know your Latin names the trees and bushes are easy to find. Each species also has a German translation of description. Each species has a section highlighting its common uses such as *Pinus patula* know as Patula Pink can be made into crates, and particle boards. These chapters are filled with various useful information including the machinability, and the species physical properties.



ISBN: 9788499369723

Price: £29.99

Web: www.amazon.com

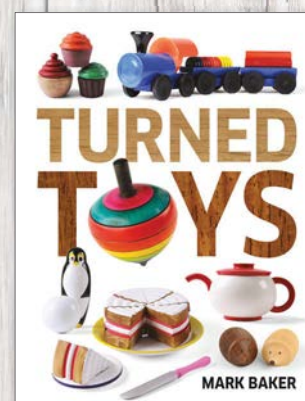
Turned Toys

by Mark Baker

Turned Toys is a fun-filled book of simple projects for children's toys, from *Woodturning* and *Woodcarving* Editor, Mark Baker. There are 20 charming projects, including spinning tops, a postbox money box, snowman quoits, pull-along train, tea party set and more! To start off with Mark includes a detailed chapter on turning basics, finishes, lathe control, etc.

Each project opens with a bright and fun photograph of the finished project, and the following images clearly show the process to follow to make these great pieces. Each project also includes a detailed illustration with both imperial and metric measurements to go by.

These toys can be made to celebrate any time of the year such as the Snowman Quoits for Christmas or the disappearing ball trick would be great for entertaining youngsters at that yearly summer BBQ. Simple, but effective designs that are great for the developing woodturner.



ISBN: 9781784940652

Price: £16.99

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DOOR LETDOWN

“ I recently laid a laminated floor in a bedroom in my house, which is Victorian in age. The floors aren't completely flat, but it seemed like it would be perfectly alright to lay this new flooring over the top of the existing floorboards. It all seemed okay until I tried closing the door, it won't close properly so the floor must be slightly higher near the doorway. The door is quite heavy and the hinges heavily painted over so I'm not keen to try taking it off to trim the bottom edge. Is there a way to trim it off in situ? ”

Gerry Walmsley

Anthony replies: Time and again I have learnt and relearnt the hard lesson that the short way is often the long way to a solution. Ideally demounting the door after first picking paint out of the hinge screws and knifing around the hinges to avoid damaging the paint layers is the best way to deal with this problem. However, failing that, it is possible to trim the bottom with it still hanging, this is something I have done quite often using various means from a biscuit jointer to a



Using a pull action saw, with a bit of persistence the bottom edge will trim off cleanly

hand saw to the version shown here, using a Japanese flush cut pullsaw.

Here is the method I use. Pull the door as closed as it wants to go and working from the 'high' side i.e. the door frame side, rest the saw on a thin piece of wood or a strip of hardboard at the outer end of the door and start cutting. The pull action makes it quicker and its ability to flex gives a reasonably level cut. By resting the saw on the board you should get an even cut line and avoid damaging your nice new floor. The stile being end grain will cut fairly quickly and

the fibres break up easily. The rail next to it is long grain so the cut rate will be slower cutting with the grain. Beware however, there can occasionally be a nail or screw embedded in the underside, which will damage the blade. Once the door is trimmed try pulling the door shut, it should close further but still possibly not clear the floor completely. Repeat the cutting operation and this time it should be fine. Use abrasive paper to rub the door bottom edges to get rid of the roughness off the saw.

AT YOUR FINGERTIPS

“ I'm thinking of buying a disc sander, but it seems the width I can use is limited by the metal cover over the right-hand side, they all seem to have that. There doesn't seem much point if you can't use the whole disc diameter. Why do they do that? ”

Mick Gorshon

Anthony replies: The answer is very simple, older machines didn't have the cover, but it is now a safety

requirement that the 'upward' side of the disc rotation be covered so the user cannot get hurt by flying workpieces. The other side is running downwards so the workpiece will press on the sanding table and therefore much safer. Since you will be sanding smaller flat faces or doing convex shaping the cover shouldn't be a problem. At disc change time the cover needs to be unscrewed. Just remember to refit it afterwards.

Right: Modern disc sanders come with a safety guard as standard



EVER DECREASING CIRCLES

“ I’ve just bought my first ever ‘proper’ machine – a bandsaw, medium size – and it seems quite well made and it runs nicely. It came with one blade, and it is now struggling in solid wood, but it still feels sharp. I also need to cut tight curves and it is too wide for that. How do I choose alternative blades? Our local tool shop aren’t much help and don’t stock my size of blade anyway.”

Anton Phillips

Anthony replies: This is a regular query from anyone not familiar with using a bandsaw. The blade is everything, without the right blade, which must be sharp, you won’t get very far at all. First off, your blade, if it cuts slowly and the cut wanders off course – is blunt. It may look sharp, but if you get a magnifier and examine the static blade carefully you will see each blade tip looks slightly rounded over. It doesn’t take very much for a blade to ‘go off’ i.e. lose its sharpness. You will need to consult the manual that came with the machine to determine how to remove

and replace the blade. Be careful not to get cut though, even a blunt one is still sharp enough to wound! For thin stock and tight curves I would generally recommend a 6mm wide regular 10 tooth blade, but for deeper cutting a 12mm six skip tooth blade is the right sort of option for most jobs. If you need to do really deep cuts or saw green wood there are other blade options. It is easier buying blades online, try Hamilton Beverstock or Tuffsaws, just Google their names. In a future issue I will be giving tips for setting up and using bandsaws, so keep reading...



It is important to learn from experience when a blade has become blunt

HANG THOSE WINDOWS!

“ I’ve moved into an older terraced property and found several windows are painted shut and look as if they are missing some rope as the mechanism isn’t complete. I really need to be able to open them, do they need to be ripped out and replaced?”

Wendy Bell

Anthony replies: I can say with some certainty that your windows should be repairable if you choose to do that, as most sash windows can be dealt with effectively. Replacement is expensive and planning permission may be needed if it could affect the character of the property, so consult your local planning office should you decide to take that route.



This sash window has seen better days but it can be put right again

What I can tell you from the photo is that the window has lost its sash cord and been painted shut with many coats of paint. The whole frame needs to be stripped back to the wood, carefully avoiding damaging the glass when using a heatgun. Once that is done,

the sashes (vertical moving windows) will rattle and be loose. It is possible to fix that and replace the ropes, but it is quite a big job, best done by a professional (unless you have the skills). This is another article for another day, it’s added to my list....

QUICK Q&A

“ I’ve just chopped down a big bay tree, are the logs any good for my woodburner?”

Barry Nield

Anthony replies:

Sorry Barry, I couldn’t tell you, bay logs are a rarity, but split it and leave it a year and it will burn as well as anything else will in a woodburning stove.



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Insight

Ben's bubble cabinet

Peter Sefton talks about his student's latest creation, Ben's 'bubble' cabinet

My youngest student on this year's long course came up with a refreshing design; his 'bubble' cabinet. Benjamin designed the piece of furniture as a storage unit with four push-to-open doors, concealing an internal drawer. The two end doors give access to magazine storage, behind the turned ash and padauk columns. One of the main features of the design is the ash turned 'bubbles'.

Benjamin had to turn 28 domes in seven different sizes to form a design featuring a circle of 'bubbles' for the doors of his cabinet; they also needed to be attached to the doors accurately to keep the bubble looking balanced.

Method

A plan was required to achieve this in order to keep the uniformity of size while holding them on the lathe, and positioning each 'bubble' on the doors. We decided to machine long square sections off the ash and then cut them off at 10mm long on the tablesaw. We then drilled and glued in brass-threaded inserts to form a centre fixing point, for both attaching to the faceplate and also to the doors. Each 'bubble' was cut on the bandsaw and spun on the disc sander to the desired diameter; we used a MicroJig Zero Play guide bar in a slot to form a sliding centre on the disc sander. The discs were then mounted on the faceplate



PHOTOGRAPHS BY PETER SEFTON

Wood

- Ash (*Fraxinus excelsior*)
- Padauk (*Andama padauk*)

and turned using an Easy Wood Tools Easy Finisher, before sanding the end grain with Abranet on an extracted hand block.

When all the 'bubbles' were turned and sanded, the doors were laid out and the centre points marked and drilled with 4mm holes, in readiness for threaded locating dowels. The 'bubbles' were all glued in place with Titebond III in the vacuum press, this was great and pulled all the discs down tightly; even in the middle of the door – G-cramps wouldn't have reached or may have cracked the delicate end grain if not placed absolutely centrally. As the discs were positioned all the 'bubbles' were lined up so the end grain pattern formed the circle, before the vacuum bag held them as the glue cured.

Once the doors were fitted and the cabinet then finished, the full effect of the 'bubbles' could be seen and brought the piece to life. ■



Disc sanding to the required diameter



Threaded inserts to form centre fixings



Each bubble was turned on a faceplate



Beautiful end grain ash bubble cookies

Editor's note:

This is Peter Sefton's last Insight article for the time being, but we very much hope Peter will impart more of his skills and knowledge at some point in the not too distant future!

Peter Sefton

Peter Sefton is a well-known furniture maker who runs courses in fine woodworking, teaching and mentoring students at the Peter Sefton Furniture School. He also owns Wood Workers Workshop and he is a Liveryman of the Worshipful Company of Furniture Makers.

Web: www.peterseftonfurniture.school.com



Corner joints *variations*

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Deciding which joint to use in cabinet and box construction relies on a number of different factors. **Colin Sullivan** tackles the problem and comes up with five variations that don't require machining

Nothing is more critical than good preparation. The joint is likely to fail if the material is not square and true in the first place. The majority of corner joints require a lap of some sort. Even a lap dovetail joint must have a perfectly square edge on the pins. Without exception all of the joints mentioned in this article have a structural integrity that is not completely dependant on other carcass components for their strength.

These joints will allow you to finish your sides flush or create a stepped shoulder to suit and incorporate decorative features like chamfers and mouldings. Simple they may be, but each one is a real test of your hand tool skills requiring clean lines and square faces.

THE RIGHT KIT

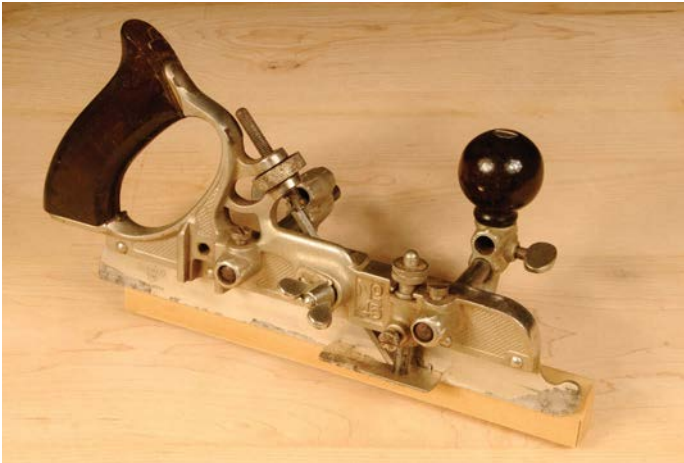
The following traditional joints can all be made with a rebate plane and a grooving plane and therefore avoids the need for a biscuit joiner, Domino or router. Like all hand tools the

sharper the better. In which case you may want to have a shoulder plane on standby if this is your first foray into using a rebate plane. For rebates on

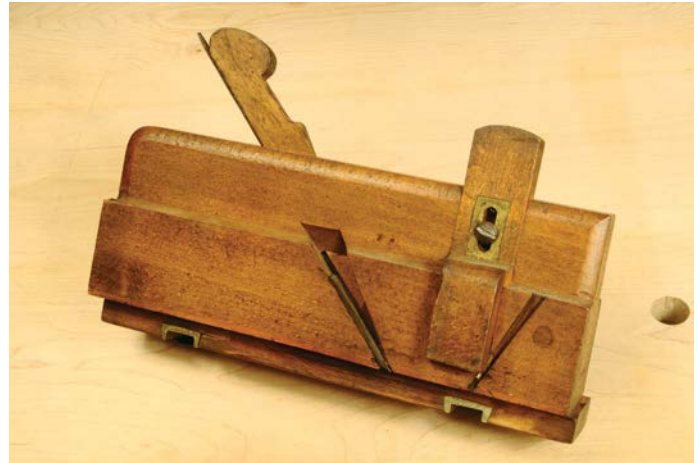
display a skew blade is recommended especially when working across the grain, Veritas produce such a plane but it is very expensive.



The Stanley No.78 is still available and would make a great addition to your plane collection. Alternatively, why not pick up an old one for around £30



The Stanley No.45 takes a variety of cutters for grooving, moulding and rebating. It isn't half as complicated to use as it looks



Testament to their popularity, examples of this type of plane are rarely found in a condition where they perform satisfactorily



State of the art in their day and beautifully crafted fillisters like this rarely pass muster when compared to the metal equivalents



Veritas skew blade rebate plane will produce a fine finish on display rebates

PHOTOGRAPHS BY LEE VALLEY

LOOSE TONGUE AND GROOVE JOINTS

These are a simple, but very effective way of jointing a corner. Once the grooving plane has been set so that the cutter is in the centre of the board there's no need for further adjustment. Always work from the finished face of the boards so that they are flush when assembled. This makes things easier for clamping and reduces the amount of cleaning up required after gluing up. Plywood is the most convenient material to use for the tongue as it is stable in both directions.

Good for

- Small drawers and boxes

Pros

- One setting required on the grooving plane
- Achieves good alignment on assembly

Cons

- Displays large expanse of end-grain
- Tight fitting tongue can pop the end-grain shoulder on glue-up



CORNER BLOCK TONGUE-AND-GROOVE



This is a much stronger corner joint made by using a solid square block of wood tongue-and-grooved into the ends of two boards. These ends effectively become shoulders where they meet the face of the corner post. On solid wood construction this may cause a problem with shrinkage if the grain is aligned with the corner post. Quartersawn timber is dimensionally more stable but can display two types of grain pattern on the visible edges. A contrasting piece of timber could be used here as a detail. The corner piece has to be large enough to take two grooves and avoid them meeting in the middle. ➤

Good for

- Carcass work with extending legs
- Small tool chests

Pros

- One setting required on the grooving plane
- Achieves good alignment on assembly
- Scope for adding detail to external corner

Cons

- Large tongues can weaken the joint
- Tricky to glue up a complete carcass in one go



CORNER BLOCK GROOVED AND REBATED

This is another very strong joint, but it does require a slightly larger piece of wood for the corner post. Working from the face, the groove is set in line with the thickness of the board leaving a good shoulder on the board for stability. The inside corner can be chamfered or given a radius but overworking could have the effect of weakening the joint. However, there's a generous amount of wood on the outer corner to take any shaping or detailing without significantly reducing strength. The use of a cutting gauge to mark out the rebates on end-grain makes it easier to achieve accurate results.



Good for

- Large scale carcass work
- Wardrobes
- Chests of drawers
- Desks
- Fitted furniture
- Use as middle leg for long carcasses

Pros

- Will accept shaping to the internal and external corners
- Allows for generous shoulders
- Good alignment on assembly and easy to clamp

Cons

- Stub tenons can fracture the corner post under extreme conditions

SIMPLE REBATED CORNER JOINTS



This is a useful joint in cabinet construction. Once again easy to mark out as the thickness of the boards used dictate the position of the groove. Try over-setting the groove a millimetre or so to leave a small overhang to plane or sand off when the joint is assembled. If external dimensions are critical to your construction it can sometimes be beneficial to use the internal face of the carcass as your datum as the wall thickness will not change significantly. The material left behind at the edge of the board after creating the groove is fragile, so care needs to be taken when assembling or testing for a good fit. This type of joint is common on old furniture where the external faces might be veneered to conceal the end-grain.

Good for

- Small drawers
- Boxes
- Veneered carcasses

Pros

- Easy to mark out
- Attractive at the edges
- Good alignment on assembly
- Easy to clamp

Cons

- Displays large expanse of end-grain
- Easy to fracture female component if fit too tight

DOUBLE REBATED CORNER JOINTS

In terms of set-up this has to be the easiest of all the joints so far. Both rebates can be cut from the same setting on the plane. The rebate is exactly half the thickness of the board and equal in both directions. Equal amounts of end-grain are in contact with face material in both directions so the joint is structurally well balanced. This simplicity can quickly become a disadvantage, however, as the boards can be assembled incorrectly with little inkling of anything untoward until it's too late.



Good for

- Small drawers
- Small boxes

Pros

- One setting on the plane
- Attractive from any angle
- Can be pinned in both directions if necessary

Cons

- Easily mis-matched on assembly

MACHINE ALTERNATIVE

This is one that I produced on the spindle moulder using multiply. It requires some precise setting up as both glue lines are visible after assembly. I use it frequently on carcass construction where the back of the piece will be visible. Cutting the components from the same board and positioning them in the carcass as they have been cut results in seamless corner joints. Over-set the rebate to create the external lap by a few millimetres and you have the joy of scraping or planing flush to look forward to.



Good for

- All manner of carcass work

Pros

- Seamless corners

Cons

- Large carcasses may require additional bracing to achieve overall carcass strength ■

MULTIPLY



Multiply is a great material for carcass work where a generous veneer helps to mask the joint



Hats off to Nina

Nina Still is a 23-year-old Grimbarian* with a great love of wearing accessories that others might find a little unusual – and one of her favourite accessories is the bowler hat.

So it was perfectly natural for Nina, from Grimsby, Lincolnshire, to make a bowler hat as a carving project at the Chippendale International School of Furniture, from where she has just graduated.

The hat is made from layered blocks of lime wood, that she then spent many hours shaping by hand using only carving chisels, before sanding and finishing with white wax.

"The shape itself, although seemingly simple, created a lot of challenges – the largest being to ensure that my wooden version was as close to the timeless hat design as possible, including being wearable," says Nina.

"However, I am extremely satisfied with the end result and look forward to doing more quirky carvings in the future – perhaps, a top hat!"

Nina came to the award-winning furniture school from the University of Lincoln where she completed a degree in product design.

She combines a love of furniture design with the visual arts, and Nina's paintings have been exhibited at Lincoln cathedral and Lincoln library.

She has now set up Maria V Design from workshop space in Grimsby to design and make beautiful bespoke furniture – and, maybe, the occasional hat.

**someone from Grimsby*



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Woodland ways

Artificial otter holts, hibernacula and habitat piles



This is how a typical 'Holt' can look. The staked logs have a covering of finer material for a roof to enclose it.

This month, **Gary Marshall** makes an artificial otter holt

Years ago my small-scale conservation company, Countryside Matters, was asked by the Environment Agency and other parties involved, to build an artificial otter holt on the River Ouse in East Sussex, a few miles from its source.

On a rather inaccessible wooded loop in the river were some large outgrown coppiced alder (*Alnus glutinosa*) trees

around 380–460mm in girth. As part of a Countryside Stewardship scheme the landowner wanted to rejuvenate the alders, let some light into the corner of a nearby field and enhance wildlife prospects, while using the felled trees in as unobtrusive away as possible. He was fascinated about the prospect of providing possible living accommodation-come-refuge for otters. At that time they were just making a comeback on many Sussex rivers.

as front and back low level and high level entrances. Diagonal members were used between storeys to add strength. It took us around two and a half days to build. When we'd finished we walked down with the owner, who had difficulty spotting it! A wren and a robin showed early interest in its nesting prospects.

Since then, I've created dozens of hibernacula (for snakes, lizards, hedgehogs and all manner of invertebrates) and habitat piles, from rotting log piles to heaps of grass and everything in between. I place them with varying aspects, so they catch the sun at different times of day.

MY ADVICE: don't be too tidy in your woods, wild spaces and garden corners. One load of vegetation and waste can give a home to: insects, fungi, toads, lizards, adders and grass snakes, birds, hedgehogs and yes, maybe even a roaming otter!

Gary Marshall

Gary has had a life-long interest in woodlands and the countryside. He trained in countryside management and subsequently ran a company working with the local County Councils and Unitary Authority and their Countryside and Rights of Way Teams, as well as a wide range of conservation organisations.



The holt

The holt we built was a solid affair, underneath a large brash pile. All the logs poles and brash were from felled material on site with leftover logs stacked as habitat piles nearby. We felled around 11 mature alder trees and processed them into 2m to 3.5m lengths. We had to allow for varying seasonal heights in the river, so we built a 'second storey' as well

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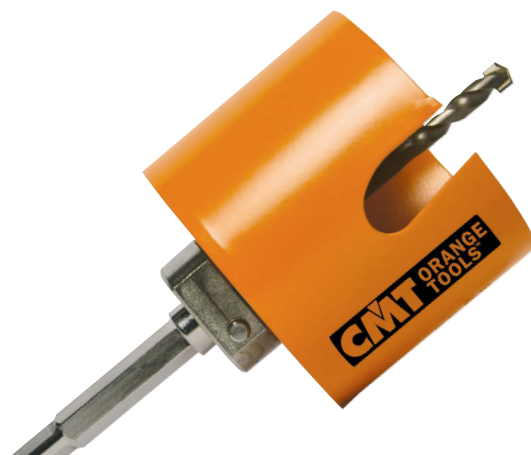
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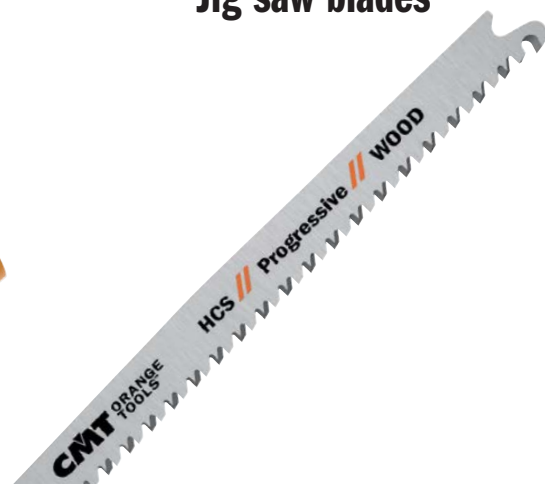
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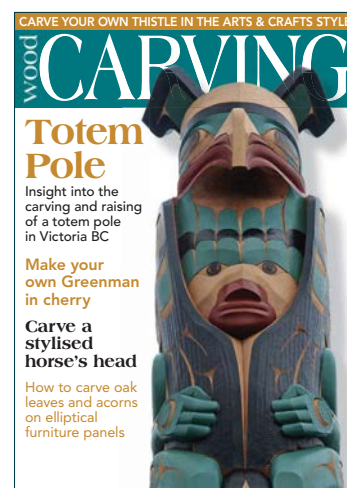
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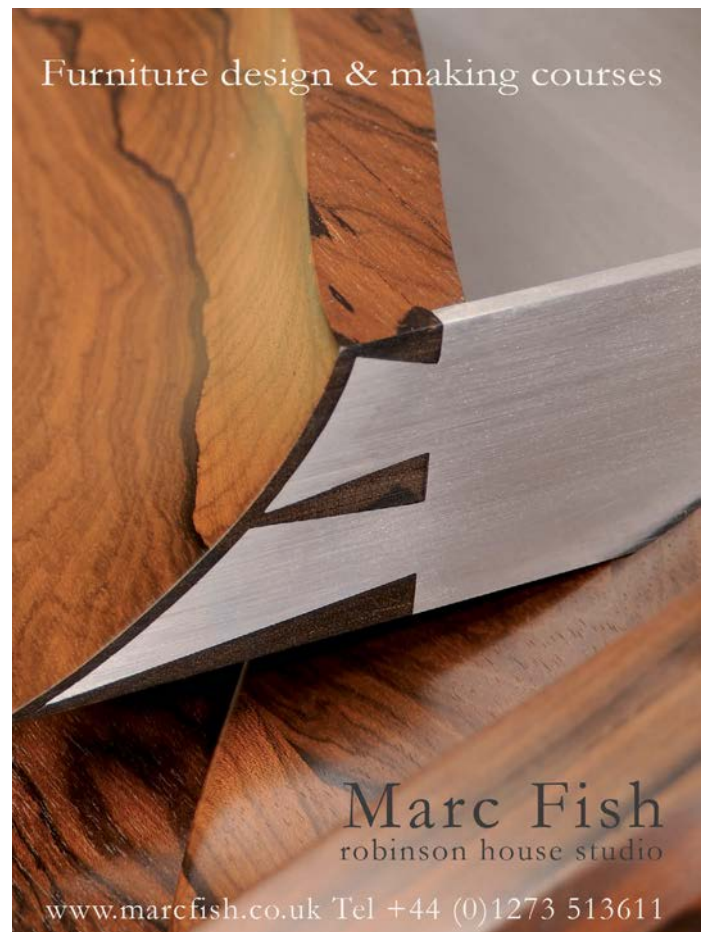
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THE MODELMAKER'S YEARBOOK

Focus on... SCORCHING

Danny Maddock shares his technique for scorching your timbers

One of the elements of woodwork that appeals to us all, makers and clients alike, is the use of beautiful timbers in our creations. Timber choice can make or break a piece of furniture. It is then only inevitable that over time these timbers will become sought after, expensive, and ultimately endangered. Ebony (*Diospyros* spp.) is one timber that has fascinated us and has been utilised in fine furniture for hundreds of years – there is no other timber like it, an extremely strong and durable hardwood, with a deep, natural black colour. It is the colour of ebony that has made it so popular over the years and its association with luxury goods has driven up the demand and, therefore, the price. Some close grained hardwoods are a great alternative to ebony in terms of their structural properties but nothing really says ebony quite like the real thing. There are, however, many ways of ‘ebonising’ other species to create the

desired effect for a fraction of the cost.

Scorching is perhaps the most fun method of ebonising. Who doesn’t enjoy taking a blowtorch to a piece of wood? But there is some skill involved as to whether you achieve a finish that is black or just chargrilled. At ‘Robinson House Studio’, we use a small blowtorch intended for chefs making crème brûlée. The trick is to not let the timber get too hot and to take your time. Work your way slowly around, ensuring that the timber doesn’t catch

a flame. This way of ebonising works very well if you are after a textured grain effect. After scorching, you can use a wire brush to remove any excess, but the secret in getting the colour is to apply the aforementioned acetic acid approach after scorching. I have found that after brushing, the timber becomes a more consistent colour but is dark brown rather than black. Acetic acid will darken the whole piece as well as colour any deep grain that the blowtorch can’t reach. ■



A brass wire brush is great for getting rid of excess and creating a texture



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