Woodworking CRAFTS

HAND, POWER & GREEN WOODWORKING • DIY

Get organised
Build a micro shed

ON TEST
Makita drill driver
Triton belt sander

TECHNIQUES
Repair a bird table
Using a circular saw
Silver table restoration

FEATURE
Woodcarver, Sarah Goss

PROJECTS: Build a log store • Make a single bed
Turn a garden dibber • Kitchen chopping board

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AFLUX:E

BFLUX:I

CFLUX:I

CFLUX:E

PFLUX:I

PFLUX:E

ENGLAND

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LAGUNA AIR

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Community

Hello everyone and welcome to the April issue of Woodworking Crafts

Spring has finally sprung

Yay! It is that time of year at last when spring has shuffled off its winter coat and everything in nature starts to take off. It is also time for our Easter break – four days when garages and workshops get emptied out and 'life laundry' hopefully takes over. Decluttering is very much 'on trend' at the moment – why not join the movement and feel so much better for it?

It is also the time when DIY and gardening take hold. All those things, all those projects you have been promising yourself to do, now finally have to get started. A word of caution which I invariably make at this time of year – safety. The number of A&E admissions jumps due to over-enthusiastic DIYers climbing ladders, getting cut from powertools and back injuries due to over exertion without proper warm-ups or assessing lifting and carrying risk. So, before you start anything, plan how you are going to go about each task. I was self-employed for many years and often in the absence of any assistance I had to find ingenious ways to move, support and fit awkward installations but crucially, when I did need help, I made sure I got it organised in time instead of struggling.

I get digests of HSE (Health & Safety Executive) accident reports and they maks depressing reading because these industrial accidents tend to fall (pun intended) into predictable categories. Falls from height are a frequent culprit with tragic consequences. DIYers often engage in ladder work, so my message to you is to ensure you do work safely and minimise risk. Please follow the link below.

www.hse.gov.uk/work-at-height/using-ladders-safely.htm

Do have an enjoyable and safe break, whatever you happen to be doing.

Anthony Bailey, Editor
Email: anthonyb@thegmcgroup.com

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Performance Planing

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TPT 125

Offering the full 317mm cutting width, Triton's high performance planer / thicknesser delivers 17,500 cuts per minute for a high quality, consistently smooth finish to the workpiece.

Large infeed and outfeed tables provide added material support for the long workpieces and a capacity for timber from 3.2mm up to 150mm depth.

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Key Features

Provides a consistently smooth finish and precise depth of cut

Large infeed and outfeed tables provide support for longer workpieces

Offers a full 317mm cutting width

Delivers 17,500 cuts per minute

Max depth of cut in single pass: 2.4mm

Micro shed

Alan Holtham builds a small shed, perfect for storing garden tools

No matter what size garden you have, there never seems to be enough storage for all those essential maintenance tools and equipment. A shed is usually the answer, but even the smallest conventional shed is probably too big for a lot of small gardens. On the other hand, the mini versions you can buy are usually too small and flimsy to be of much use.

This micro shed is designed as a compromise, being roomy enough for a small lawnmower and a few tools, along with plenty of shelving for pots and buckets as well as containers of fertiliser, seeds and all the other gardening paraphernalia that seems to accumulate.

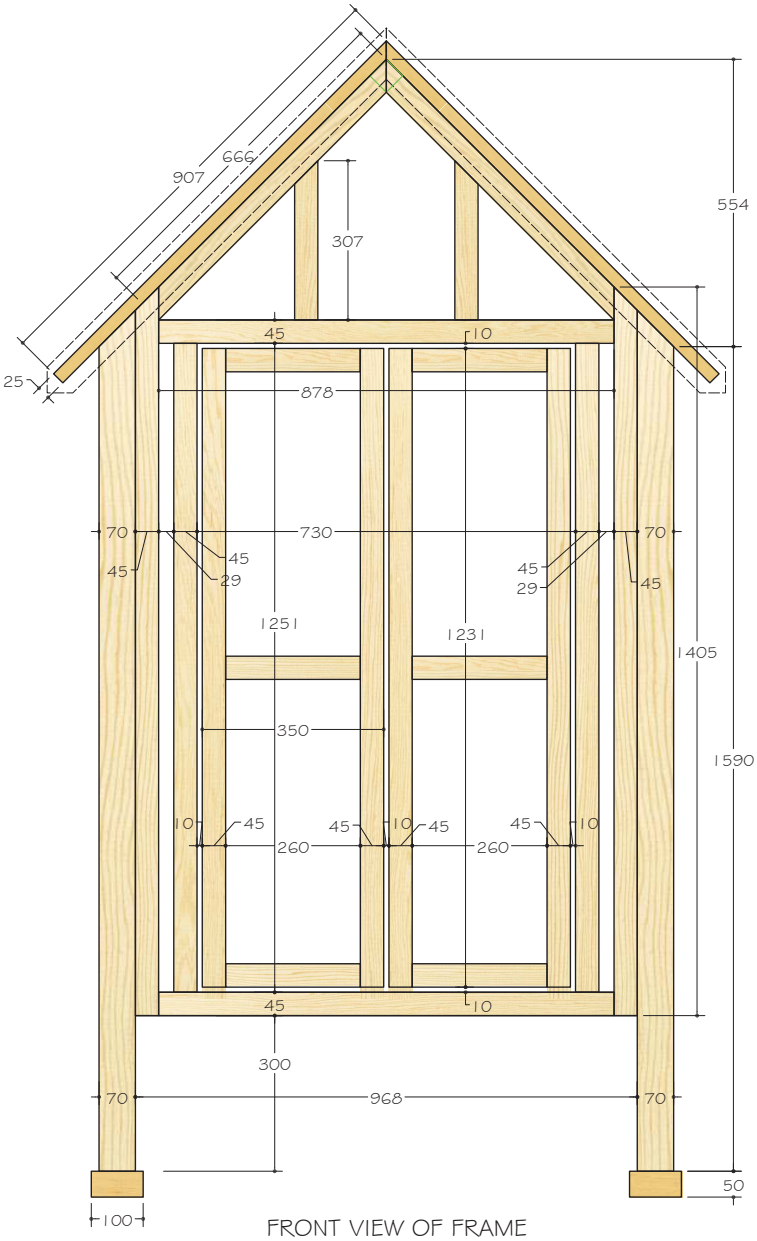
I like the idea of getting it up off the ground on the four legs. Not only does the gap underneath provide you with storage for those things that need to be under cover but don't necessarily need to be inside the shed, but, more importantly, it prevents the base sitting in the damp. This is always the first area to rot and unless you use top-quality timber it starts to deteriorate surprisingly quickly. With the shed on legs like this the air is free to circulate and only the bottom of the legs can rot – if they do you can just chop a few inches off. Yet another advantage is that it discourages vermin – every shed I have ever had has always had mice nesting underneath.

PHOTOGRAPHS BY ALAN HOLTHAM

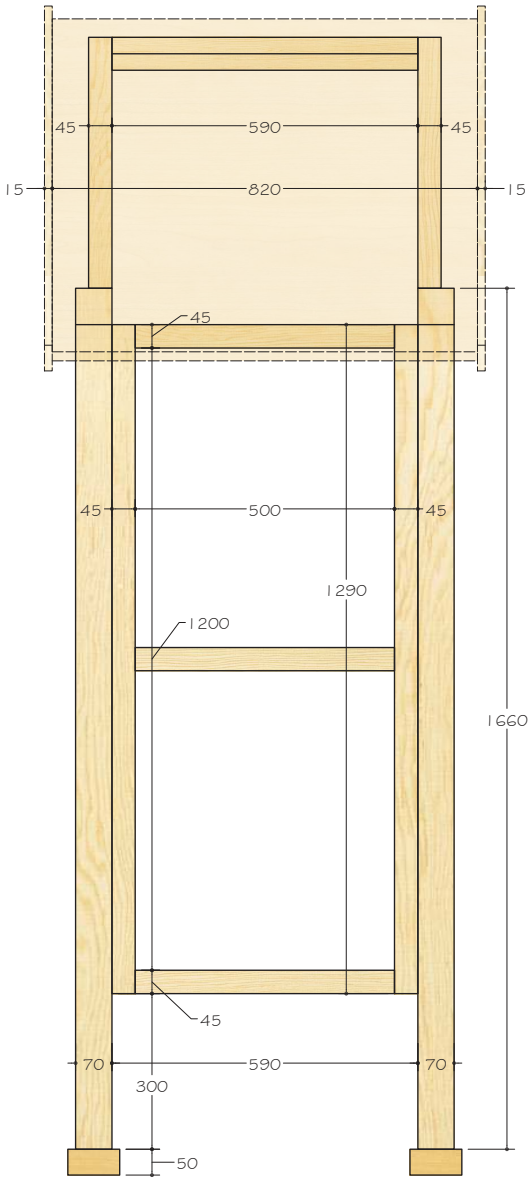
Cutting list

Posts	4 @ 1660 x 70 x 70mm
Roof	2 @ 910 x 820 x 25mm
Barge board	4 @ 960 x 70 x 15mm
Floor	1 @ 968 x 590 x 11mm
Floor frame	2 @ 968 x 45 x 32mm
Floor frame	2 @ 526 x 45 x 32mm
Front/back frame uprights	4 @ 405 x 45 x 45mm
Uprights	5 @ 1251 x 45 x 45mm
Uprights	4 @ 307 x 45 x 45mm
Roof supports	4 @ 666 x 45 x 45mm
Horizontals	4 @ 878 x 45 x 45mm
Ridge	1 @ 590 x 45 x 45mm
Side frame uprights	4 @ 1290 x 45 x 45mm
Horizontals	5 @ 500 x 45 x 45mm
Post feet	4 @ 100 x 100 x 50mm
Cladding to fit	

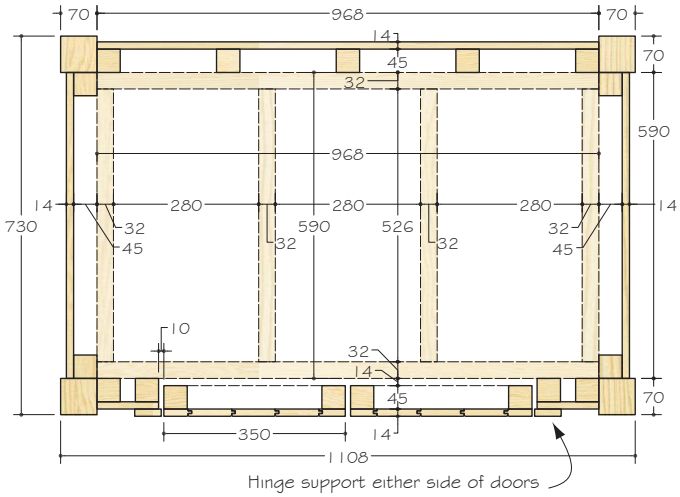
This design makes it very easy to build. It's just four panels screwed together on to the legs, and you can scale it bigger or smaller to suit your own location. Whatever the size, it is worth paying a bit extra for decent quality materials. I used PAR redwood, which is about 15% more than the whitewood equivalent, but is far less knotty and the pieces are much straighter and squarer, which makes the construction easier. ➤



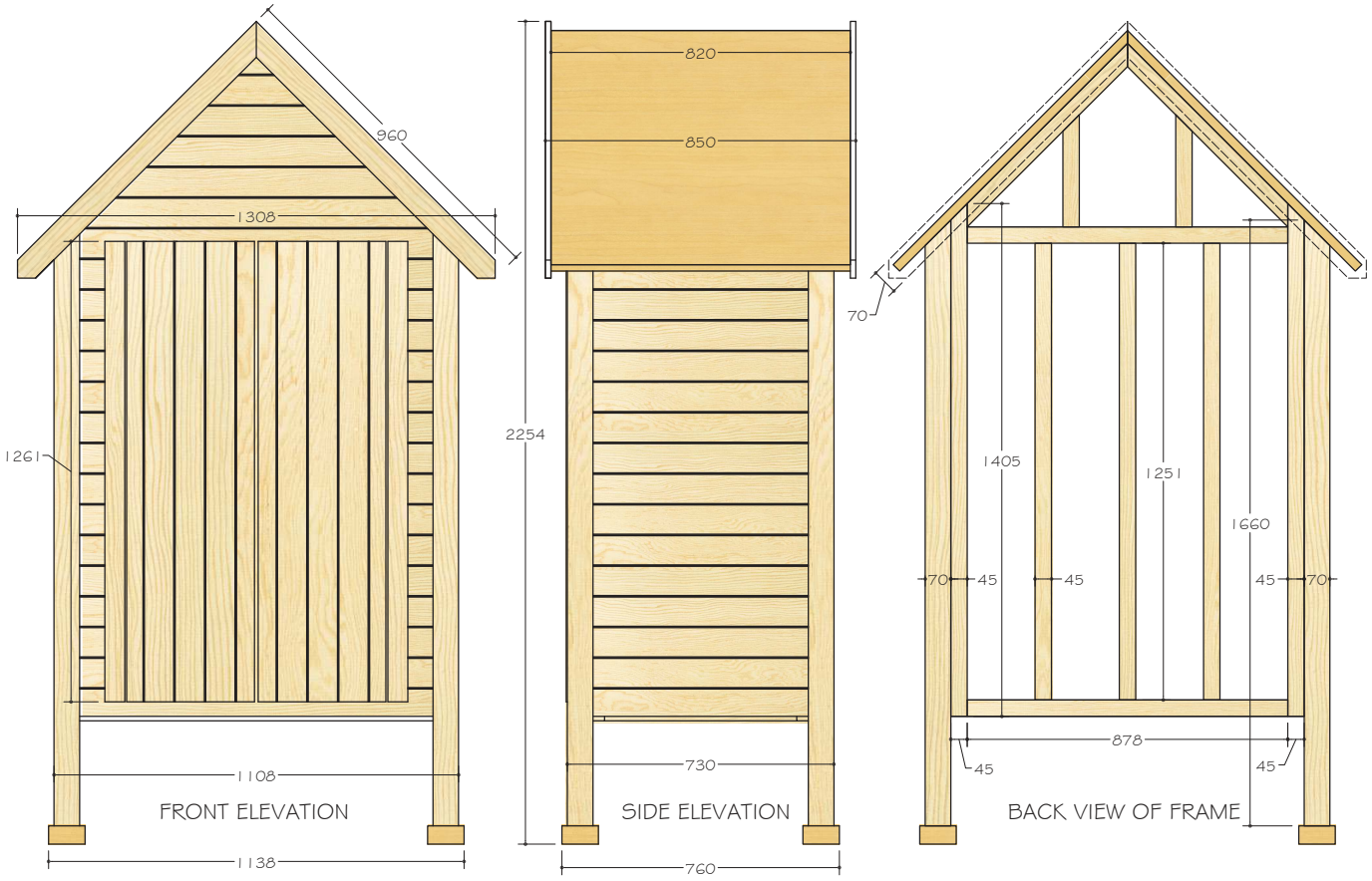
FRONT VIEW OF FRAME

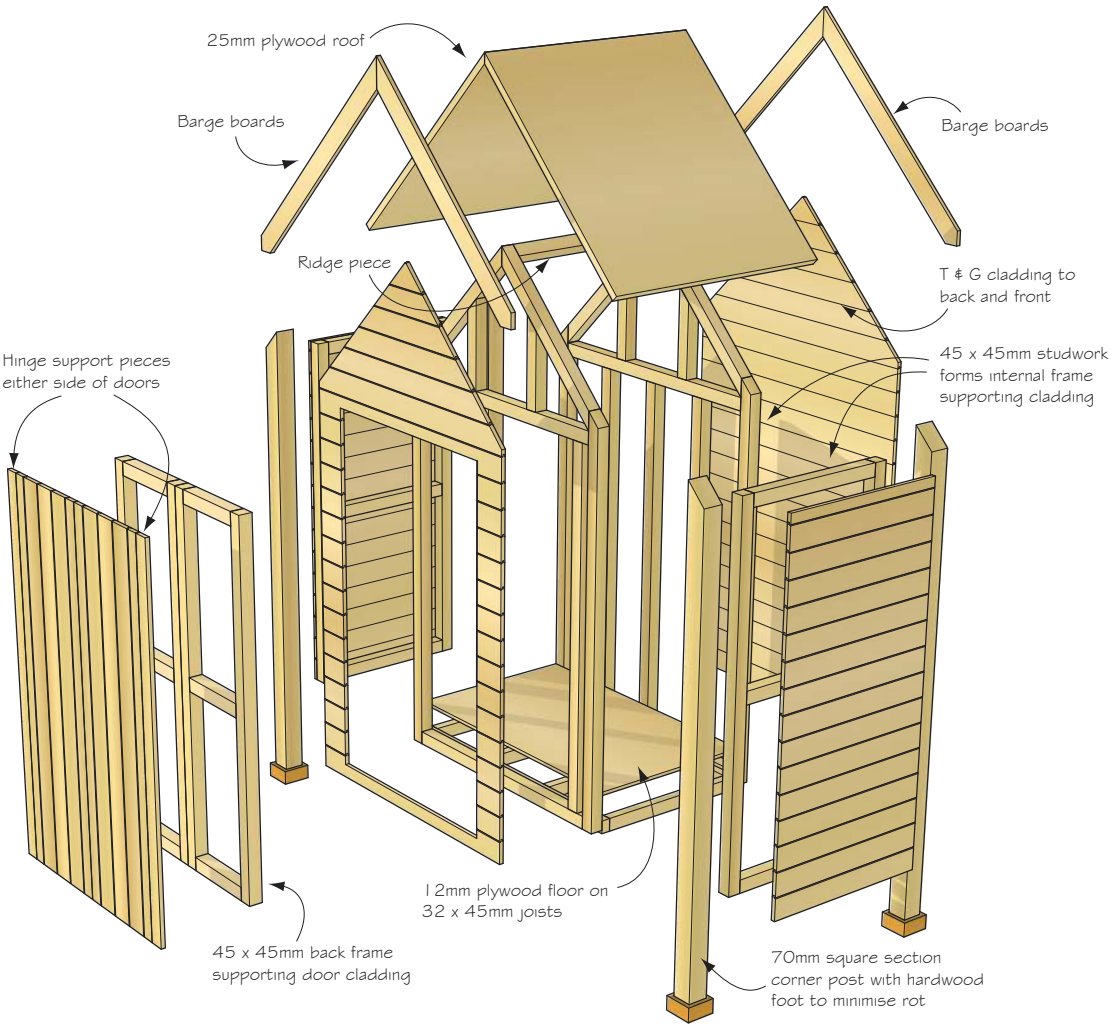


SIDE VIEW OF FRAME



PLAN / SECTION OF FRAME


960
1308
1261
1108
1138
FRONT ELEVATION
820
850
2254
730
760
SIDE ELEVATION
70
1405
1251
1660
70
45
45
45
70
878
45
45
BACK VIEW OF FRAME


25mm plywood roof
Barge boards
Barge boards
Ridge piece
T & G cladding to back and front
45 x 45mm studwork forms internal frame supporting cladding
Hinge support pieces either side of doors
12mm plywood floor on 32 x 45mm joists
45 x 45mm back frame supporting door cladding
70mm square section corner post with hardwood foot to minimise rot

1 All the material is standard, off-the-shelf sections: 70 x 70mm for the legs, 45 x 45mm and 45 x 32mm for the framing, and shiplap cladding. Larger sections often have splits and cracks on the ends, so check these carefully and cut back to sound material. This is particularly important for the legs as they will soon start to deteriorate if water can get in. Cut the first leg to size and use that as a template to mark out the others. You will need a 45° angle on one end of each leg.

Next, cut out all the pieces for the frames, cutting the longest lengths first then progressively smaller pieces from the remaining offcuts.

2 The frames are all screwed together and you can save yourself a lot of time by using a combined drill and countersink bit.

3 To assemble the joints accurately, work on a clean, flat surface and use clamps to hold everything flush if need be. This is particularly useful when you screw the ridge piece joint together as the two mitres tend to slide against each other as you tighten up the screws.

4 Cut a temporary spacer to save measuring for the position of each of the internal uprights.

5 One central upright should be enough on the back panel, but I added two more as fixing supports for the slotted shelving I want to use when I fit the shed out.

6 The roof apex screws into place between the ends of the side uprights.

7 The completed back frame with a couple of additional strengtheners in the ridge section.

8 The side frames are made up in exactly the same way. Again, use the first one as a template for the other to make sure they are identical.

9 For speed, cut the cladding in batches leaving it approximately 3mm overlength. Check it over carefully first and discard any with loose knots.

10 The bottom one must be aligned carefully as all the others will follow off it. Leave approximately 6mm overhang at the bottom to allow water to drip clear. Note the small amount of overhang at each end as well. Use plenty of nails to secure the bottom one, but then only one nail through the bottom of each piece of cladding for each subsequent one. Nailing this way will hold the top of the cladding in place but still allow the wood to move with changes in humidity. If you nail too tight the cladding will try to shrink and then split in the summer.

11 Mark the cladding up the ridge apex and cut roughly to size with a jigsaw.

12 Now you can run a bearing guided cutter around the outside of the frame to trim the overhanging cladding back. Remember to work anti-clockwise around the outside of a frame.

13 This should leave a perfect flush edge – so much easier than trying to cut and fix each piece individually.

14 Use up the short offcuts of cladding for the narrow sections either side of the doors. Trim these back with the router in the same way, but this time work clockwise around the internal opening. ➤

15 If you leave plenty of spare when you jigsaw out the cladding for the openings, the subsequent trimming cut with the router should produce a neat, rounded corner. Repeat the same procedure for the two side panels, but check the path of the router carefully to ensure that the cutter bearing can't drop into a screw hole or you will get a neatly cut-out radius in your nice, straight edge.

16 Use a small radius cutter to round the three exposed edges of the legs. This looks neat and minimises the risk of chipping later.

17 Remember that these legs are 'handed', so mark the relevant ones before you start. The internal corner needs to be left square to butt the frames against.

18 The legs can now be screwed to the front and back frames. You will have to angle the screws slightly to clear the uprights.

19 The easiest way to assemble the shed is to lay the heavy back panel on the floor and attach the sides first.

20 Next, drop the lighter front panel on top and screw through from underneath.

21 Now you can stand it up as one piece, but make sure the legs can't slide away backwards as you lift. As I work on my own, I used some heavy weights as 'backstops'.

22 The doors use the same frame and cladding construction, so make up the two frames first in the same way as the other panels.

23 I changed my mind on these and decided to cover them with vertical tongues and grooves rather than shiplap. Hold the boards tight together with a clamp and nail on as before.

24 If you centralise the boards on the frame and then cut an even amount off either side it looks better than having one narrow piece on one side, but leave a good amount of overhang to ensure a weatherproof seal when the doors are closed.

25 I finished them off by running a 45° chamfer bit all round to leave an edge that matched the V-groove on the boards.

26 Yet another frame is needed for the base – put in a couple of cross bearers to support the plywood floor.

27 This frame is screwed into the base of the shed, but drop it down 12mm so that the ply base ends up flush with the top of the frame section. ➤

28 The easiest way to cut up ply sheets is to use a circular saw on a track. You should be able to get them to a perfect finished size in this way.

29 The base should then drop in place and you can either nail or screw it in place, depending on whether you ever anticipate dismantling the shed again to move it.

30 The front and back apexes are tied together with a piece of 50 x 50mm screwed through from either end.

31 I used 25mm exterior ply for the roof, which was really a bit too heavy – 18mm would probably suffice, but even that would still be awkward to hold, so use clamps as temporary supports.

32 Ideally, you should cut a 45° chamfer on the top edges so that they butt together on the apex and then screw the ply in place. This will be covered with felt shingles when the shed is reassembled on site.

33 Barge boards on the front are not essential, but they do leave a better finished appearance as they cover the exposed ply and the felt edges.

34 I prefer to use galvanised hinges, as they don't rust like the black japanned ones always seem to do.

36 A thin strip glued and pinned on to one of the doors covers the gap when they are shut. Leave a good gap here, something like 3mm, to make sure the doors don't bind during wet weather.

37 Small hardwood feet keep the ends of the softwood legs clear of the wet ground and will prolong their life considerably.

35 Because of the way the doors sit off the front of the shed you will need to fit a packing strip behind them the same thickness as that of the doors.

38 The finished shed with a strong bolt to keep the first door closed and a heavy-duty lockable hasp/bolt. Choose a suitable weatherproof finish and give the shed two coats for plenty of protection. When reassembled on site, add felt shingles to the roof. ■

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*Includes laser guide

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was £75.59 inc.VAT

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Bird table rebuild

Neil Lawton tweets his latest article from the back garden

After rebuilding the wheelbarrow planter that was featured in issue 43, I received another casualty of the outdoor kind that needed more than a little attention. It was a hanging birdhouse that had obviously come crashing to the floor on more than one occasion. I believe it was purchased from a slate mining museum in Germany, and it was very much all about the slate. The stained softwood construction really was no match for the weight of the roof. My brief was to copy the original design in something a little more robust, and convert to a freestanding bird table.

PHOTOGRAPHS BY NEIL LAWTON


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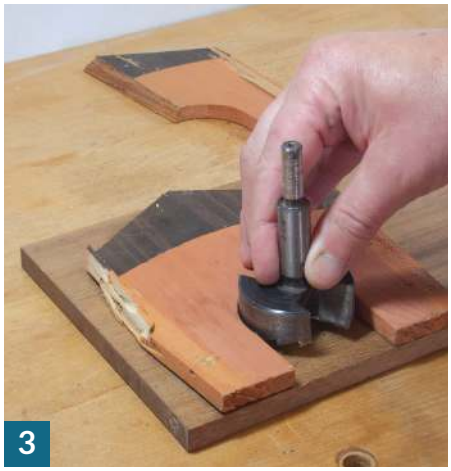
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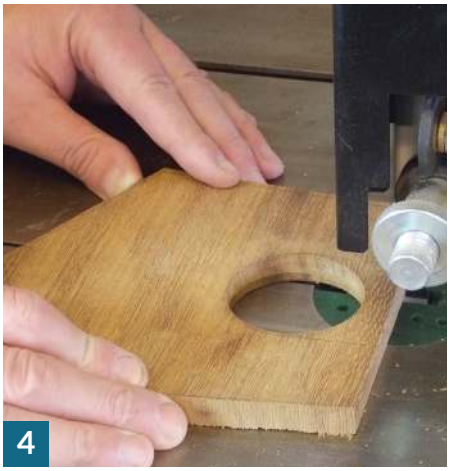
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5

1 The original was obviously a little the worse for wear and showed signs of previous repair.

2 After resawing and thicknessing, I had enough iroko to rebuild to the original design.

3 The best surviving pieces were used as templates by simply drawing around them and finding the best tooling to match.

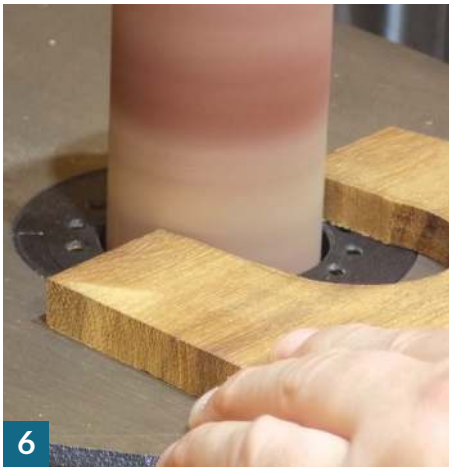
4 The end pieces were drilled through then cut out to the waste side of the lines.

5 A disc sander was used to size up to the outline…

6 … and a bobbin sander used to size the 'doorways'.

7 Original pieces were used to recreate the angles required. **Note:** the blade and guard were raised for clarity and lowered for the actual cut.

8 Driving pins in close to the edges could split the wood, so pilot holes were drilled to accommodate the brass pins. ➤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12


13

9 Not wanting to dismantle the whole roof construction, blocks were added to be able to screw it on from the inside.

10 The two sides of the roof had originally been joined by a layer of roofing felt so the top layer of slate had to be removed to replace it.

11 The roof was screwed on and an appropriate piece of felt fitted before replacing the top layer of slates.

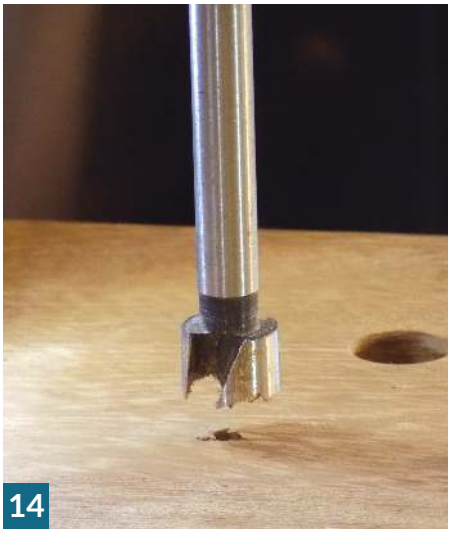
12 Iroko eaves were then pinned on to tidy up the ends.

13 An offcut of table top was used as the table. The construction was basically square, so marking corner to corner helped to centralise it.

14 After drilling the screw holes to attach the table it was flipped over and countersunk with a Forstner bit to allow shorter screws to be used.

15 Pieces were added to form the feed tray but with the corners kept clear to allow for drainage.

16 I decided to use reclaimed oak for the stand. I had a piece suitable for the main pole that had a few shakes in the grain but would be fine for this.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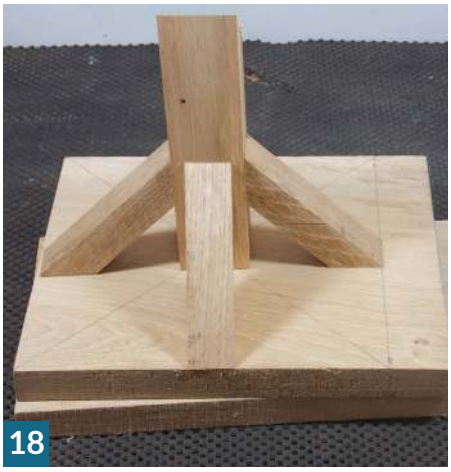
17 Oak stool legs would form the legs after the original joints were cut away.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18 The original piece I expected to use for the stop of the stand was too small, but luckily I found another.


19

19 A single screw was driven through the top into the main pole on centre then flipped and the supporting struts added. The holes were countersunk to allow wood plugs to be glued in over the screws.

20 I didn't have enough length of timber to stagger the legs and it had to be stable, so I decided on one dowel and one screw per leg. A couple of scraps of wood and a board in a vice helped with positioning.


20

21 A panel pin was driven into the leg then, with its head removed, pressed into place to mark the drilling points for the dowels.


21

22 Dowels were then fitted and glued into place.

23 The legs were screwed on and plugs glued in ready to pare down to the finished surface.


22

24 After applying a few coats of Danish oil we have the finished project. The slate does still make this a little top heavy but the very happy owners intend to bolt the legs to a paving slab or similar when it is sited. ■


23


24

Garden dibber for planting

Rick Rich shares this fun, quick turning project, making a garden dibber

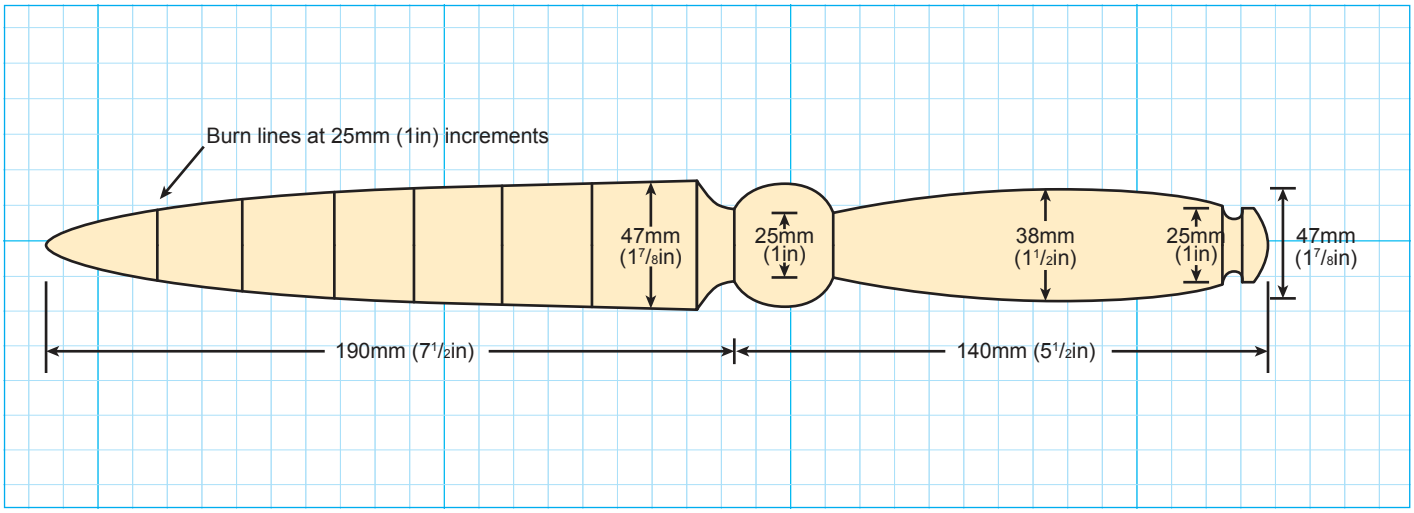
I know some pretty serious gardeners; my wife is one. After dinner while I am in the shop turning, she will frequently be in the garden planting and watering. This garden dibber can be made from firewood within an hour or so, making it a fun evening project and a nice gift for that pretty and serious gardener.

To some extent, any kind of wood could be used for these things. I suppose one could even use an old piece of Douglas fir (*Pseudotsuga menziesii*). Softer framing timber probably won't hold up so well as hardwood, but it would work for a while. My experience in similar items has shown that straight-grained hardwoods, such as oak (*Quercus* spp.), maple (*Acer saccharum*), cherry (*Prunus* spp.) or the like is just what the doctor ordered. If the wood is too pretty though, it will be set aside and the recipient will use it for decoration only. So I try to remember when I make these projects, they are for work, not display.

I made a similar project to this some years ago when I wanted to learn how to master the skew. I still haven't mastered the skew, but I have noticed a substantial reduction in catches. The design I use for this garden dibber has a bead. This provides exercise in turning a bead, which leads to less-clenched teeth and hopefully a more relaxed grip on the tool. It also incorporates one small cove, because I wanted to make one of those too.

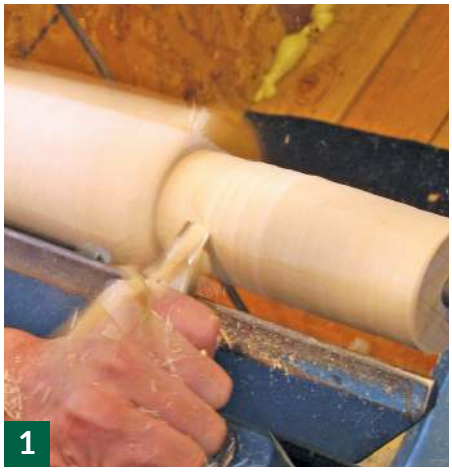
Handy hints

1. Make a 'story stick' from a small side slab of wood when cutting blanks square. A trick I learned is to use a small triangle file to cut a little pencil groove to indicate where you want the layout lines to go.
2. For the drive spur, I use a steb centre, which seems to slip easier than a standard four-spur centre if a cut gets too heavy.
3. A revolving centre with a point and cup at the tailstock keeps the wood from splitting.
4. Set the toolrest at centreline, or slightly above as I prefer, for use of the skew chisel.



PHOTOGRAPHS BY RICK RICH

1 Cut a blank about 355mm long by 50mm square. Mark the centres on both ends of the wood and place the blank on the lathe between centres. Revolve the workpiece by hand to make sure it clears the toolrest. With the skew chisel, peel cut the corners off to form a cylinder. The surface will be quite rough but this is normal. If you need to move the toolrest over to round the entire piece, it is safe practice to stop the lathe first.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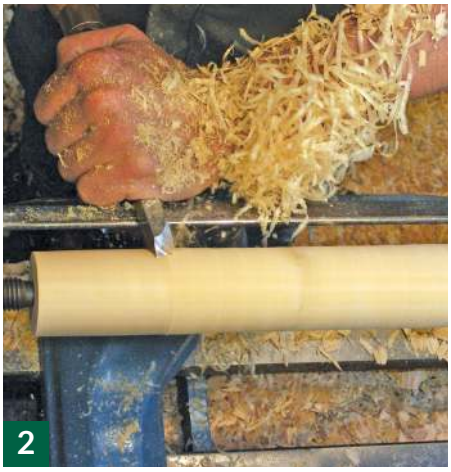
2 Now make planing, or smoothing, cuts with the skew. I enjoy practising both toe up and toe down cuts. The cylinder should now be smooth.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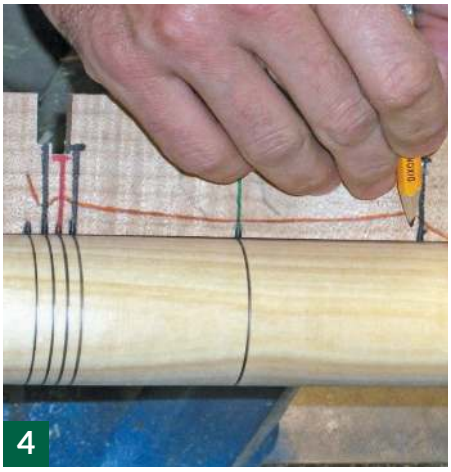
3 If it isn't smooth, practise some more and make it so. If the cylinder gets too small from practising planing cuts, grab another blank and begin again at step one.


3

4 Use a story stick (see panel) to make your dimensions repeatable and look professionally manufactured. A calliper-sizing chart on the story stick allows measurements of the diameters of the bead and the handle to be taken and transferred to the work. The largest size of the business end is usually 47-50mm, but I don't usually size it with callipers. Mark the bead, the middle of the handle and the bottom of the handle. The cove will go at the bottom of the handle and just above the bottom end. For ease of sizing, the bead bottom ends are the same as the handle ends (see drawing).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5 Size the bead, the middle of the handle and the bottom end with callipers and the parting tool first. This is so you can work the cuts from the tailstock end to the headstock. You don't want to make any cuts at the tip or headstock end of the blank just yet. It could cause unnecessary chatter.


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6-7 Make rough peeling cuts and then smoothing/planing cuts with the skew chisel to create a pleasing lower shape.


6

8 Make a small cove just above the bottom – not too big and not too small; you will have to be the judge of what looks right. When making the starting cut for the cove, be especially careful to present the tool correctly as it has a tendency to skate sideways. The cove is designed for a lanyard, if anyone asks. ➤


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9 After working the bottom of the handle, return to the top area of the handle and smooth it with plane cuts to what will be the bead bottom.

10 Now make a 12mm half cove above the bead with the spindle gouge. In addition to enhancing the design, this provides clearance for finish turning of the bead itself.

11 You could try cutting the bead with the skew chisel instead of the gouge: it's good practice and good fun. It may be helpful to use the parting tool mark in the middle of the bead area as a reference, or make a pencil mark, to keep track of the bead centre. I have had many beads end up quite small and misshapen as a result of overly aggressive cutting. Here, the skew is being used to create a clean intersection between the handle and bead.

12 Make peeling cuts to taper the cylinder into a dibber shape. You will have to decide what type of shape works best for the type of seed or bulb that it will be used for. Smooth the business end from the top of the cove to the tip. Downhill cuts with the skew will result in a uniform surface. Be careful at the tip – it should gently round, or bead, to a point. At this stage, clean up both ends, leaving a nub of 3mm or so, which you can cut off later with a handsaw. I like to use a V-cut with the skew on the handle end nub, to clean the end grain.

13 Make very shallow V-cuts at 25mm increments from the point.

14 Burn the cuts in with wire so they stay visible. Make sure the toolrest is removed from the toolpost, or set far aside for safety – it's really not worth squeezing a finger. Then sand the entire piece just enough to remove any tool marks. Now apply some oil at very low speed. High-speed applications of oil are self-correcting and messy. I have had oil along my wall and ceiling as a reminder to not go too fast during this step. Paper towels are appropriate here as they will easily tear if it grabs the wood. All that remains is for you to remove the dibber from the lathe, cut off the nubs with a small saw and sand the cut marks. ■


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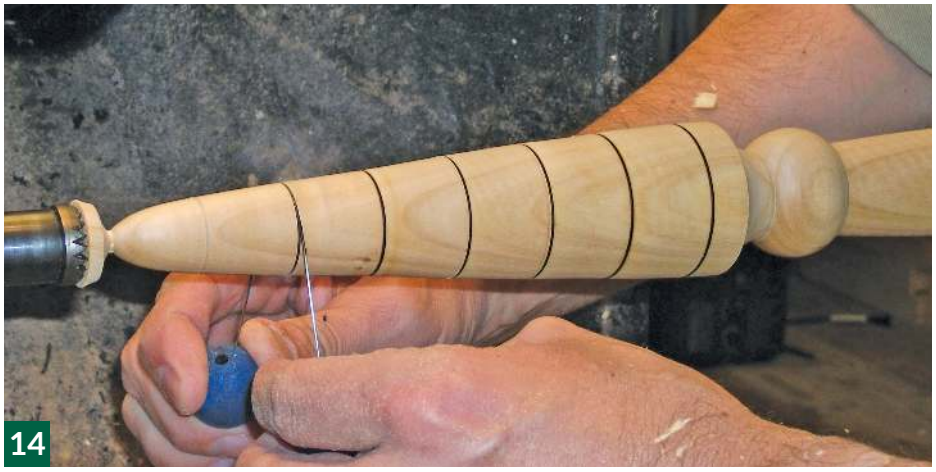
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Makita cordless hammer drill driver

One of many Makita pro products, does this one stand out?

The fast charger and 5.0Ah battery

The torque, drill and speed settings

Makita has a vast range of products and, as ever, cordless drills – especially in the 18V category – are a key part of that. Having to choose one out of 16 similar models with different characteristics is tricky, so we have picked just one which comes with higher speed settings and medium torque – basically what should be a good all rounder. The DHP484 is an LXT brushless combi drill. Translated that means is has a motor that does not need brushes, thus reducing drag and increasing torque and speed, and can drill, screw or hammer drill. It also has a metal gearbox and in cased, kit form comes with two 5.0Ah Li-ion batteries. Although not quite the shortest tip-to-tail, the compact 182mm length aids getting into tight spaces.

On test

Trying to beat a professional machine to its limits is frankly difficult, so I can only report how it behaved on the day. It is comfortable to use but not overly light, which I prefer and suggests a good, solid build. Drilling wood, metal and masonry didn't present any problems, plenty of power even using large bits. One slight quirk – the drill-hammer ring would not shift despite having two projections to push against. A quick check in the manual revealed that it might be necessary to run the drill for a couple of seconds and then switch over. This time it worked and I guess a degree of security is good – too loose a fit could cause unintended damage with the hammer setting.

Conclusion

This is not a cheap piece of kit but, like Makita tools in general, it is built to a standard good enough for the British Army, so I guess that says it all. However, do shop around as it can be had for a lot less than list price. ■

Masonry drilling is a doddle

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Tech spec

DHP484RTJ 18V Brushless Combi Drill Kit

No-load speed: 0-2,000/500rpm
Blows per minute: 0-30,000/500bpm
Max fastening torque: 30/54Nm
Drilling capacity: 13mm steel/38mm wood/13mm masonry
Chuck capacity: 1.5-13mm
Accessories: Kit case, fast charger,
2 x 5.0Ah Li-ion batteries
Net weight: 1.9kg
Typical price: Between £260-£300 in kit form

Building a log store

Many woodworking projects are born out of necessity – like our very own 'captain's log' store...

Finally, something had to be done. An awful lot of dried logs were cut and split ready for the woodburner, but getting wet because the old shallow, north-facing bunkering just wasn't working. Time to act. I had a week off and no excuses. I had to get on and build a proper new form of log storage. I had to make it out of whatever I had to hand. I don't pay for logs, so why pay for lots of new construction timber? That makes me sound terribly mean, but I wanted to save waste by using what I had in stock. Retrieved fence posts and panels, and lengths of old softwood plus a scaffolding board and other boards and panels were all dragged out to inspect and then to decide where to start. It would end up being just over 2.4m long by 1.8m high, 760mm deep and with a roof fall of 125mm from the back to the front.

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

1 All the wood from the old storage was piled up out in the open to let the air get to it while the old store was being ripped out. Some was dry, some was not.

2 All the softwood posts and 75 x 50mm boards would be butt-jointed with nothing more than heavy-duty screws – three per joint – offset to each other. I chose a box of these Forgefix 100 x 6mm construction screws with Torx heads, which would avoid 'cam-out', and a combined drill-and-screw thread for real 'bite'.

3 A key part of the simple design was to rest the store on bricks, avoiding damp ground contact, with a piece of damp course on top to separate the wood even more. The garden paving sloped so the store had to be levelled carefully.

4 The lower shelf being screwed in place leaving ventilation gaps. It was made mostly from cut-up scaffold board and didn't reach the edges all round, thus avoiding undue contact with the store cladding if it got damp.

5 Recycled lap fence panels were cut and fitted to make the back, using Pozi head screws, before the store was finally positioned on the bricks. The roof would be felted so it didn't matter that I used all sorts of boarding. There is even an old mahogany drawer front.

6 I had enough fence panel left to do the left-hand end, but not the right-hand. I had faith I would find something before the rain set in. Note how the paving slopes down and the amount of brick and paving slab needed to level it. Slater's felt and mineral-coated felt have been added to the roof, but the downward-facing join was not yet stuck down.

7 To keep the logs away from the fence panels, reducing any damp transmission, I used some redundant cage wire stapled to the uprights. That should give a bit of ventilation around the logs as well.

8 Detail of the lower shelf, damp course and piece of paving under the frame and cage wire around the back. I was feeling good because this was clearing so much of my old stock in the workshop. Now there was room to breathe. ➤


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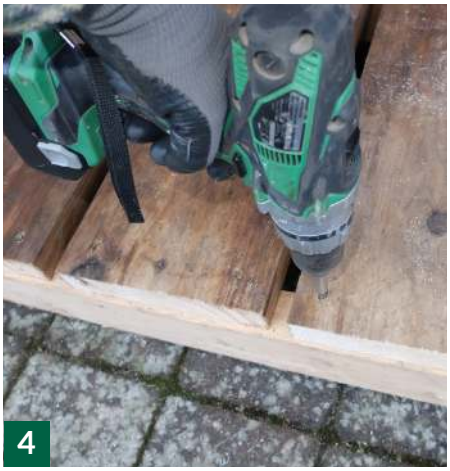
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9 In lieu of another piece of fence panel at the right-hand end, I fitted a brace to make it more rigid while construction continued.

10 All the newer cut logs and damp logs were loaded on to the lower shelf and a piece of 75 x 50mm PAR softwood screwed into the corner posts, level across the back of the store, without much space above the logs to thus maximise space on the upper shelf.

11 The 25mm-thick recycled boards in place to make the upper shelf, ready to be screwed down after the final level was checked.

12 Our children's godmother has a smallholding and stables in which some newish lap panels were stored. After driving them back home carefully on my roof rack, the right-hand end panel was cut to fit and framed neatly. Bone-dry Scots pine was already being loaded on the upper shelf.

13 Making the removable front panel meant carefully cutting the panel frame to the correct position on each face and removing the upper section.

14 The rail on one side runs full length, the other side is within the frame. These and the capping piece would need prising off to reuse.

15 It proved difficult to take the components off the waste piece without damage as the panels are held with ring nails, which are designed to grip tenaciously.

16 The panel top was remade at a height that would fit under the sloping front of the log store and two pressed-steel grip handles were screwed on the front for fitting and removing it. A wooden block screwed to the underside of the roof would stop the panel flopping forward.


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17 Now to the slightly mucky job of applying roofing felt adhesive after running a chalk line to show where to stop when trowelling it on. A line of bricks was placed to weight the joint close while the adhesive set.


17

18 The ends were pegged to keep them together. The corners are just folded and left hanging, rather like a stiff version of a tablecloth – no cuts and joints required. Note the adhesive sealing over every galvanised roofing nail, as they could otherwise become leak points.


18

19 Fully loaded – more than I was anticipating. Dry Scots pine on the upper shelf, half-dry cedar and other logs on the lower one. Note the fixed panel at the right-hand end as the distance is longer than a standard fence panel.

20 The log store closed against the elements – especially rain. On a dry day the panel is set aside to aid further drying. A load of odd-shaped apple tree offcuts waits at the side in the open air, until space in the store becomes available.

21 A check on the Scots pine confirms it is dry enough to burn. A small, relatively cheap moisture meter is a really useful way to keep a check on the status of the log supply.

22 Split logs dry much quicker but are often still too big for a small woodstove, so a froe and a club, or 'beetle', is useful for further splitting down, as with this load of silver birch. Enclosed woodburners are not fussy about what type of wood you use – unlike an open fire. ■


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PHOTOGRAPH COURTESY OF SHUTTERSTOCK

Celebrating British Craft at the Oxo Gallery

PHOTOGRAPH BY GMC

PHOTOGRAPH BY GMC

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

Visit the Oxo Gallery and be inspired by an engaging and interactive exhibition demonstrating traditional woodworking skills and innovative approaches – provided by an ever-changing technological landscape

Come and celebrate with The Guild of Master Craftsmen to promote and support British craft and its future. The exhibition will showcase quality and expertise across a range of traditional and contemporary crafts, including winning entries from the British Woodturner of the Year competition (see p33 for entry details).

Join leading figures in British woodcraft industries who will present interactive activities for all ages. Check the website (www.guildmc.com) for our workshop and speaker programme.

Celebrating British Craft is intended to raise awareness of the importance of preserving the best of British craft for future generations. We hope to inspire young people to pursue a career in these trades and to understand their relevance for the future. The high quality of British craft is respected throughout the world. The Guild of Master Craftsmen hopes this exhibition will encourage a creative and innovative approach, combining traditional skills with modernisation provided by an ever-changing technological landscape. This approach, we believe, will ensure a bright future for British craft.

The exhibition runs from Wednesday, 8 May to Sunday, 19 May inclusive.

Woodworking blog

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

We are pleased to present our latest recruit to the magazine, enthusiastic woodworker Krishan Vara, with the first of his monthly blogs

Hello woodcrafters, my name is Krishan – a husband, a dog owner and an aspiring woodworker. I have lived in Coventry all my life, was schooled here and in 1998 I embarked on a technical apprenticeship with Land Rover at just 16 years old. I am a project manager by 'trade' but last year I took a slightly different direction into market research and I'm really enjoying it. From a very young age I have loved making things or taking things apart and reassembling them. My neighbour, William, and I would make go-karts with scraps of wood and old pram wheels for fun. I am a keen DIYer and love the challenge of doing something hands on, a nice balance with being a daytime keyboard warrior. Over more recent years where DIY has developed into a labour of love I wanted to find myself a hobby expanding on my skills and dexterity; to challenge myself and learn something new. I love mountain hikes and snowboarding but I felt the need for something regular and closer to home. Working with wood is something I have always enjoyed and so actively sought out evening classes early last year at Royal Leamington Spa College. At this stage of my learning curve I am experiencing different disciplines of woodcrafts to find my happy place. At the moment I feel it sits between green wood work and traditional furniture making for plenty of adventures ahead until I settle, if that is ever possible. ■

Instagram @krishanvarache
Leamington Spa College
https://wcg.ac.uk/page/93/royal-leamington-spa-college

PHOTOGRAPHS COURTESY KRISHAN VARA

Above: The traditional heavy woodworking machines at the college

Right: Krishan giving the finishing touches to the tenons on his coffee table

The bench shop is right next door to the machine shop

Blow this for a lark!

Have fun making a wind instrument called a kazoo

The kazoo is an amusing noise-maker which uses the principle of a vibrating 'reed' to generate a buzzing noise over whatever you say, sing or hum through it. A version of this device is also used to make a sound like a rabbit in distress to attract larger predator animals such as foxes or coyotes into view. I prefer to use the kazoo as a musical instrument in a woodland samba band or just as a comic voice distortion device. With several of these in the hands of a group of children it's possible to make perhaps the most annoying noise in the world. Be warned.

You will need

- A 6-8in (15–20cm) length of straight, knot-free branch, about 1-1½in (3-4cm) in diameter – choose a wood species such as sycamore or ash, which is likely to split cleanly through the pith
- Sharp knife (or hacksaw for younger children)
- Pen or pencil
- String or elastic bands
- Material for the reed – this can be paper, birch bark or a long, flat, thin leaf from a plant, such as water reed, sedge or palm tree. A hacksaw can be better for younger children to use when making the stop cuts instead of using the knife.

1 Split the branch in half lengthways by batoning (see panel – right) with the knife.

2 Use the pen or pencil to shade in a space about 3in (8cm) long on the flat surface in the middle of each half of the branch. These should match exactly when the two halves are put together again.

3 Make a 1/16in (2mm) deep stop cut at each end of this space using the hacksaw or vertical push cuts with the knife. Repeat for the other side of the split branch.

4 Carve from the middle of the space towards a stop cut to remove the wood from the shaded space. Turn the wood and carve towards the other stop cut. Repeat for the other half of the branch. ➤

Batoning or cleaving

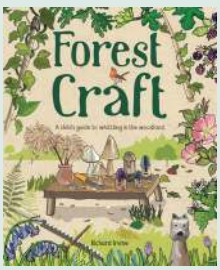
This is not so much a cut as a way of splitting the wood fibres apart. It is also the first of only two methods that involve pushing the knife into the end grain of a piece of wood. Always split on to another piece of wood and not the ground, stone, brick or concrete. Stand the round section of wood up on your stump and place the knife across the end section, making sure that it goes through the pith. Tap the back (spine) of the knife with a spare piece of wood (never metal on metal) to start a split, then more firmly to split the section in two. Always line the knife up parallel with your body and think about where the arc of the knife will travel if it carries on through the wood and keeps moving. This technique can be hard on your knife, especially if you hit a knot in the wood. The choice of tool is important here. I never use a folding knife or the laminated steel sloyd knife for batoning, I always prefer the more robust (and cheaper) general-purpose companion.

5 When put back together, this will make a narrow rectangular window through the wood.

6 Place the reed between the two halves of wood and fasten together tightly at one end with string or elastic bands.

7 Pull the other end of the reed tight and clamp it in position between the two halves of wood before fastening this end tightly, as in step 6. Alternatively, leave the reed overlong and make the second fastening quite loose. You can then pull on the reed to vary the tension as you blow and make more varied noises. Experiment with noises by pulling on the reed. ■

Why not try using a leaf as a reed? You could experiment with whatever you find in the woodland. You could even use part of your hat.



BRITISH WOODTURNER OF THE YEAR 2019 COMPETITION

In association with AXMINSTER Tools & Machinery

Open to all woodturners regardless of age or ability, enter now for the chance to win great prizes and exhibit your work at the Oxo Gallery!

PHOTOGRAPH BY MARK BAKER/GMC PUBLICATIONS

Submit your pictures to one of these categories by 14 April 2019:

● Young turners ● Amateur turners ● Professional turners

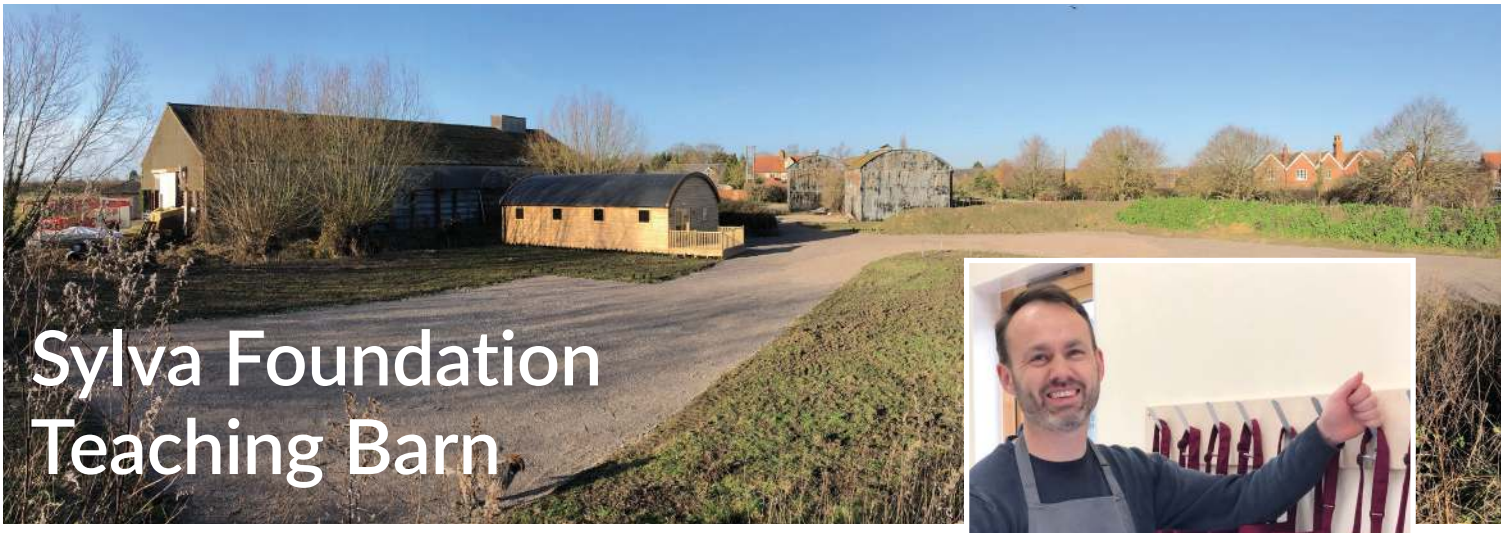
Each winner in each category will receive an Axminster Craft or Trade lathe to the value of £500, or a voucher to that value.

Axminster Tools & Machinery, No 1 for woodturning tools, accessories and machinery, are supplying the prizes for all categories in the Woodturner of the Year competition. With over 45 years of woodturning experience and the widest range, Axminster offers unequalled advice and guidance for all skill levels.

Visit www.woodworkersinstitute.com/BWOTY for more information

NEWS & EVENTS

All the latest events and news from the world of woodworking



Sylva Foundation Teaching Barn

This new woodwork teaching facility in Long Wittenham, Oxfordshire, is now open to anyone thinking of taking up a career in woodworking or simply wanting to enjoy working with wood.

To quote Sylva: 'In January we opened the doors of our brand new Teaching Barn to promote the vision for the Sylva Wood School.

'We enjoyed showing our trustees, funders, collaborators and friends from industry around our well-equipped teaching venue and explaining future planned developments for the Wood Centre. Some of the creative businesses we host also opened up their workshops, highlighting the incredible community that has rapidly developed over the past three years – it was clear to see the potential for any students coming on to the site to learn from such a diverse range of experts.

'The feedback from the launch evening was overwhelmingly positive. It was wonderful to see the furniture industry well-represented by Dids Macdonald and Tony Smart of the Furniture Makers Company, designer-makers Richard Williams and Philip Koomen, as well as representatives of heavyweights such as William Hands and Ercol. We look forward to further strengthening our relationship with the sector to teach and guide people into the industry.'

The Wood Centre presentation evening

Joseph Bray, head of Wood School, shared his thoughts on the future of education in the wood sector, focusing on the opportunities to deliver excellence in education and business enterprise.

'Schools have changed from woodwork to much broader D&T and over the past 10 years the decline in entries to GCSE has reduced by well over 50% The emphasis of these courses has significantly moved away from making. Colleges offering vocational furniture training can almost be counted on one hand and university level craft programmes have declined significantly, some closing workshops and some closing all together. Often graduates are pushed out into the world with varying levels of support and guidance.

'An exception to the rule is our close neighbour Rycotewood in Oxford. We hope to enhance our relationship, continuing to work closely with staff, students and graduates.

'The future can feel bleak, however we exist outside the formal education system and, as a creative and flexible organisation, we are able to offer a range of programmes that will plug some of the gaps. We plan to build a schools programme for those unable to access making on the school curriculum. We will provide workshops and skills training to students who cannot access this at college or university and we will continue the excellent work already started in providing support for graduates within the community of creative enterprises that make up our site.'

Joe Bray showing off the new school aprons

PHOTOGRAPHS COURTESY OF THE SYLVA FOUNDATION

Joseph is midway through an inspiring Churchill Fellowship, travelling to world-renowned institutions delivering furniture craft education in the US and Europe.

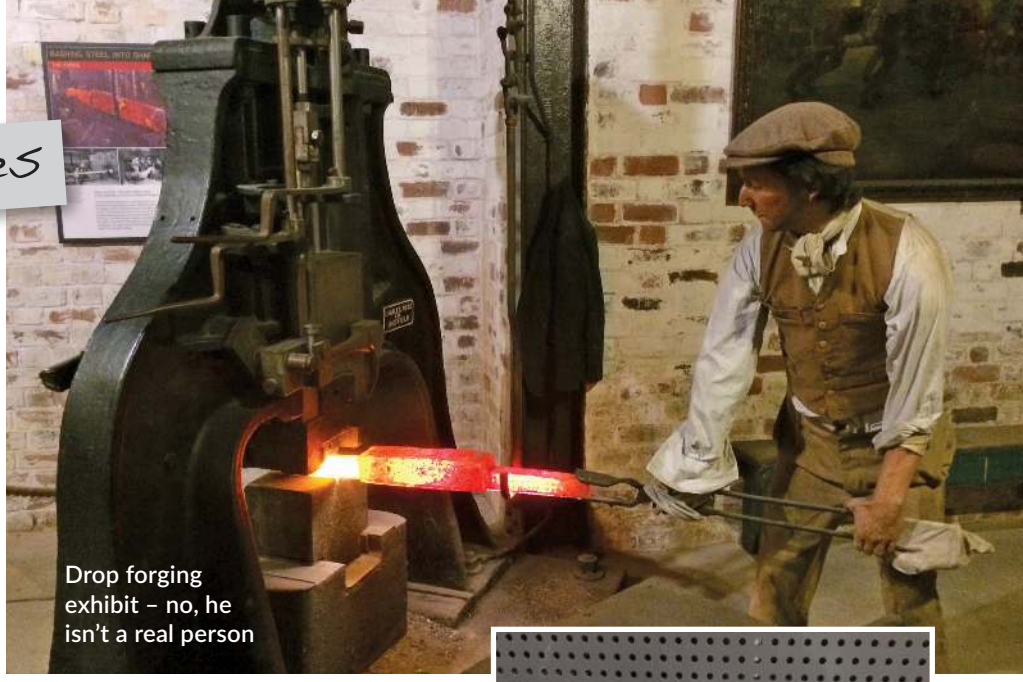
Sylva is currently delivering a programme of weekend courses using some excellent external tutors as it builds up to the launch of a range of courses in the summer and beyond – watch this space for some exciting opportunities.

To find out more visit:
https://sylva.org.uk

Interesting Places

Kelham Island Museum

I recently found myself in Sheffield – rather a lot of tower blocks of differing vintages and red-brick terraced workers' houses, plus a definite hipster trend towards things such as craft beer shops and retro emporiums. The jewel for me, though, was Kelham Island. I'm a fan of 'toolology' – woodworking is absolutely nothing without tools and this museum has it literally 'in spades', chisels, gouges, planes and all sorts. From the Bessemer converter standing outside to the working lives of 'buffer girls' and 'little mesters' working in grimy conditions producing anything from cutlery to field artillery, atom bomb cases and giant shiny 'show tools', the whole of Sheffield's massive influence on our civilised world through the medium of metal is depicted here. Do not miss the mighty River Don Engine, which is fired up once or twice a day. This once powered a rolling mill for thick armour plate and Calder Hall nuclear reactor shield. It seems like a pussycat when it first starts, but stand by for full power – it usually gets a round of applause for its controlled violence. Er, there's a very good café and pub on site too. Visit: **www.simt.co.uk/kelham-island-museum**



Drop forging exhibit – no, he isn't a real person

A giant Bessemer converter

Ooh! That's a big hammer

Web links for you

Facebook

@pathcarvers

You may remember we featured woodcarver JoJo Wood in issue 48. Well, it seems her Pathcarvers enterprise, helping people with problems through the medium of carving is going great guns, as is her shop of goodies, so do take a look.

Instagram

@abdollah_nafisi

If you have been following the Victorian Arts & Crafts House series on BBC4, you will recognise one half of this duo making the furniture for the house by hand. In their words 'British-Persian duo safeguarding traditional handcrafted joinery in Sussex'.

YouTube

Blacksmithing – Making a ball peen hammer

I love seeing metal being worked like this. No mass production here, just a beautiful tool ready for work.

Events

The Midlands Woodworking and Powertool Show

22-23 March 2019, Newark Showground, Notts, NG24 2NY

www.nelton.co.uk/midlands-woodworking-power-tool-show.html

Woodland ways

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

Tree pathology and senescence

(tree diseases, old age and death)

As living organisms, trees don't just grow, they get sick and die. With often remarkable longevity, they have much to endure during their lifespans. By Gary Marshall

Senescence

Most trees have a natural vigour and prime – although many succumb early. In a woodland environment trees may be: shaded out; trampled; eaten or uprooted. Some trees lives are extended – by coppicing, pollarding, layering, suckering or other events.

Given good conditions and a charmed life, trees have a natural senescence – that is: the time when they lose their vigour and enter old age or begin to die. Hybrid poplars (*Popular* spp.) can reach maturity in just 40 years. Birches live fast and usually die young, from 60 to 80 years. Trees such as open-grown sweet chestnuts (*Castanea sativa*) and olives (*Olea europaea*) live more than 1000 years – showing signs of great age but still growing.

Epidemics

One sick tree can lead to another – but not always. Chronic oak decline (*Phytophthora cinnamomi*), a fungal disease in southern Europe, is attacking evergreen oaks such as the holm oak (*Quercus ilex*). In the UK country 'oak decline' or 'oak dieback' is spreading. In my area, West Sussex is particularly affected. It is, to quote Forest Research: 'A condition in which a number of damaging agents interact with one another to weaken trees and bring about their deterioration, sometimes resulting in premature death. These damaging agents can include insects, diseases and extreme weather conditions.' Healthy trees can resist stressful onslaughts but many native oaks (*Quercus robur*) succumb, altering the landscape and the ecosystem.

PHOTOGRAPHS BY GARY MARSHALL UNLESS OTHERWISE STATED

Olive – 1000 years old and still going strong

Many sweet chestnut woodlands in England are in poor shape. I've been noticing a decline in overstood and damaged sweet chestnut for many years – much of this due to neglect, poor management and damage caused during and since the Great Storm of October 1987.

A greater threat may be sweet chestnut blight (*Cryphonectria parasitica*), a fungal disease. It's confined in England to specific restricted zones at present, mainly in Devon and Dorset. The disease is fatal. In the eastern US some 3.5 billion trees

A completely lifeless tree

Birch already dead with birch bracket fungus

Fungal growth on already dead branch

have been affected – the disease was accidentally imported there from Asia.

Global problems

Some diseases are of global significance. In the US and Canada the lodgepole pine (*Pinus contorta)* is under attack from the mountain pine beetle (*Dendroctonus ponderosae*). Some 4 million acres have been affected. The beetle bores into the tree, which is then colonised by a fungus. The fungus is food for the larvae, but cuts off resin supplies on which the trees depend. What with this and wildfire outbreaks, the whole nature of large swathes of northern boreal habitats are under threat.

Care for our woods and trees

Neglect and poor management lead to sickly ancient woods, with no understorey and a lack of natural and managed regeneration.

Burrs on trees are non-fatal, leading to character features that a woodturner might appreciate. Lichens and ivy in themselves are non-fatal and wildlife friendly.

This article wouldn't be complete without mentioning other tree diseases:

Dutch elm disease is endemic in the UK – suckering hedgerows live on but gone are the landscapes of Constable's paintings. Horse chestnut (*Aesculus hippocastanum*) is under attack from bleeding canker (fatal) and the horse chestnut leaf miner – disfiguring but rarely fatal. Alders (*Alnus glutinosa*) are attacked by a specific phytoptera fungus.

Ash dieback will be covered in later articles.

There's much more – I could go on and on. The better we look after our trees and woodlands, the healthier they are – for us and beneficial wildlife and biodiversity.

Import timber with diligence, use home-grown wherever possible and always use FSC-sourced timber. ■

Non-fatal growth on cherry

Oak showing growing and dead wood

Dutch elm disease either side of a healthy elm

Reclaimed rustic cupboard

Michael T Collins designs and makes 'on the fly'

I don't know about you, but I am loath to turn down an offer of wood and over the years I have acquire quite a collection from friends and colleagues this way. The wood on offer is sometimes good, sometimes bad and sometimes just plain ugly – I tend to find it hard to pass up any type of grain, whatever the state it's in. Generally, the wood that is left for me to peruse is wood that has been well picked over, the original owner perhaps couldn't see the potential in it, or it just looked so awful that they didn't even want to touch it.

This year is no exception to my adoption of unwanted wood. In fact, I acquired some very nice walnut boards from a dear friend who emailed saying: 'Michael, I have a load of old wood in the basement – any interest?' So I borrowed a truck and loaded what my wife and I could haul.

Among the pile were two very nice, almost book-matched, rough-sawn walnut boards about 100cm x 25cm.

PHOTOGRAPHS BY MICHAEL T COLLINS

Dealing with old wood

The first thing to do when making anything from wood that has being laying around for several years is to carefully clean off all the crud, always while wearing eye protection, gloves and respirator. There's no telling if rodents and other disease-carrying critters have inhabited the wood, so it's best to not take any chances.

First hoover off all the dust. I do this in the open air and well away from the house and shop. A wire brush helps to loosen all the old rotten wood and brings out more of the grain structure so you can see what you're really working with.

Once the wood is free from detritus, clean it with a solution of bleach and water or disinfectant, rinse and allow to thoroughly dry.

The design

Most of my freethinking pieces start as a rough sketch – after that they are dictated by the size of the pieces available. When I first saw these boards, I immediately thought they'd make the sides of a wall cabinet or a small desktop book case, perhaps with a door and a shelf, maybe a drawer.

I decided that a wall cupboard with door and a drawer would give the most pleasing look.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1 Once I had these particular boards planed they were gorgeous.

Carcass

2 The first step was to rip the edge that would be against the wall and then all dimensions and layout would be made from this edge. The front would be a live edge.

3 Once the wall-facing edge was ripped, I jointed the edges and checked for squareness.

4 After cutting the sides to length I laid out the housings for the top and bottom of the cupboard. I always lay out shelves in pairs so that the positions are a perfect match and I am not relying on measuring.

5 Using a marking gauge, I marked the depth of the housing – mine are approximately ⅓ the thickness of the boards.

6 With a panel gauge, the length of the housing was also marked from the back edge. ➤

7


8


9

7 With a router and a 19mm flat-bottomed bit, the housing was routed up to the gauge line.

8 I also created a rebate at the back of the cupboard and cleaned up the curved ends with a chisel.

The shelves

I planed the shelves and squared them to final dimension. Again these were two short, rough boards.

9 Because the side boards were about 25mm thick, I needed to measure the shelf tenons directly from the housings. I used a knife to indicate the amount to remove.


10


11

10 You can remove the shoulders using your preferred method, I used my new cross-cut sled (see issue 50 for details).

11 The tenon shoulders can be cleaned up with a chisel or a shoulder plane, bringing them to final size. Be careful to remove waste equally from both sides.

12 The front ends of the tenons were rounded so they fitted the curved portion of the housing. It is much quicker to do this than to try to chop the end of the housing square and it gives a much cleaner finish.

I added a 45° chamfer on front bottom and top of the two shelves.

13 I glued the top and bottom of the cupboard with hide glue and squared the case.


12


13


14


15

The door

14 I had some walnut left over from the vanity I made in issue 41 (page 41) – it is, in fact, the section that was removed for the sink. The only issue was that it has cupped a little, so I ripped and jointed it again along the glue lines then used dominoes to align the boards. The original dominoes, that are visible, were removed when the door was cut to final length.

15 Once the glue had dried, I cleaned up the squeeze-out and, with my plane iron ground to a 250mm arc, I set to work on planing the inside – I left the 'scalloped' surface on the inside. The outside was planed smooth. I added a 5° bevel to the leading edge of the door so that it would close nicely.

16 The door was cut to length on the cross-cut sled.


16


17

The hinge

17 I wanted a hidden hinge, so the first thing to do was lay out the location.


18

18 A 9mm hole was drilled in the top and bottom of the door for the hinge pivots.


19

19 Accurate measurement was required to line up the door pivot points with the shelf holes. I used a block cut and drilled exactly to act as a guide and keep the drill vertical.


20

20 The door fit was checked using temporary 9mm steel dowels and the door disassembled to tweak the fit and chamfer the edges. ➤

Dovetail drawer

21 All parts of the drawer were measured directly from the cupboard and cut to length.

22 I always cut tails first and once laid out I ganged them together sawing the tails on the waste side.

23 I removed the waste with the largest chisel that fitted without damaging the tails.

24 The tails were then brought down to the scribe lines with a chisel.

25 The tails were used to lay out the half-blind dovetails – it is important to make sure that the pieces are perpendicular to each other.

26 The waste was chopped out and the corners cleaned up and test fitted. The back of the drawer had through dovetails. (For an in-depth introduction to making dovetails refer to issue 27, page 68).

27 A 6mm groove was planed in all four sides of the drawer at a height so that the groove was hidden within the lower dovetail. I used a piece of 6mm ply, and although expansion was not a concern, I did make the ply fit loosely in the groove.

28 The drawer was glued up and then the joint planed to create a perfect fit.


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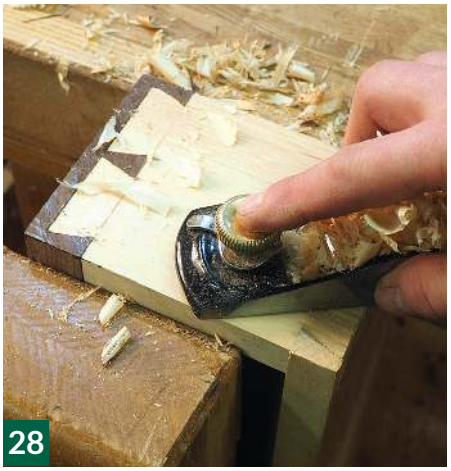
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29 A sheet of very old 6mm poplar ply was used for the back of the cupboard and glued and pin nailed into place.

Shelf fit

As is the nature of working on the fly, I changed my mind as to how the drawer would slide in and out. Originally, I had envisioned having 'rails' on the cupboard sides that slid in hidden housings on the drawer sides. However, at this point I decided to add another shelf and have the drawer slide on that – much simpler.

30 I ripped a piece of walnut to the thickness of the cupboard shelf and measured the location using the drawer for size. Then, using some shims, I positioned the drawer shelf into the correct location.

31 This after-thought shelf needed to be secured and it was at this point I decided to add an additional design touch by drilling counter-bored holes and screwing the sides into all the cross boards. The holes were then covered with walnut plugs. I can't tell you how many times I have used these plug cutters – they are an indispensable tool. Just remember to make and insert your plugs with the same grain direction.

32 The plugs were pared and then planed flush.

Fitting and finishing

33 To give the right spacing of the door from the frame I used a stainless steel washer.

34 I wanted the locking mechanism to be unique and so routed a 25mm slot into the face of the door then drilled a hole parallel to this slot through the edge of the door. The bolt mechanism was then inserted and secured in place.

All that was then needed was to put some chalk on the end of the bolt, close the door and push the bolt closed, leaving a chalk mark on the wall of the cabinet. It was then a simple matter to drill a hole in the side of the cabinet that lined up with the bolt.

I gave the whole piece a final hand sanding with 220 grit.

The piece was then given a generous coat of Danish oil and allowed to dry for about 15 minutes, after which the excess oil was wiped off.


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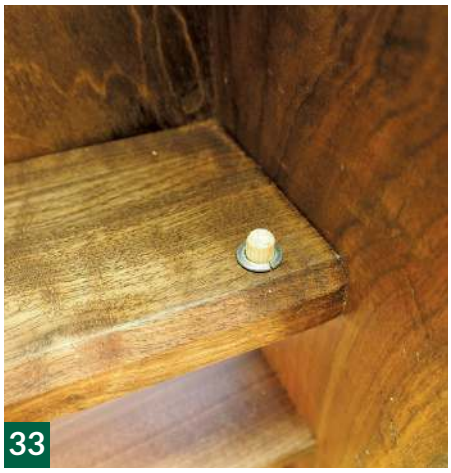
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34

For the handle of the drawer I used an old brass drawer pull.

35 And there you have it – a beautiful rustic walnut cabinet made on the fly, from wood that would otherwise have been destined for the winter fire stack.

Just remember, even the ugliest wood has character. Salvaged wood has a history of its own, you'll be able to add it to your own family history, and future generations can also benefit from it. ■


35

Classical & Contemporary

Anthony Bailey talks to Sarah Goss, who is carving out a promising career with traditional hand skills

Tucked away in the West Sussex countryside, just beyond the town of Midhurst and not many miles from the Hampshire border, is the workshop space of Sarah Goss. I knew that Sarah was a 'traditional' carver – e.g. scrolls, acanthus leaves, egg and dart moulding etc. – but, not having met her before, it was a pleasant surprise to find that, although her interests are very much 'old school' she is a young woodcarver. That is to say, not a time-served, apprenticed carver but new blood, with a real thirst for learning. Considering that her learning journey has been in the more modern mode – university, then various stints with experienced craftsmen, plus other funded apprentice learning (more of that later) – Sarah has already developed a real depth of understanding, skill and execution of these styles of a bygone era.

Written in stone

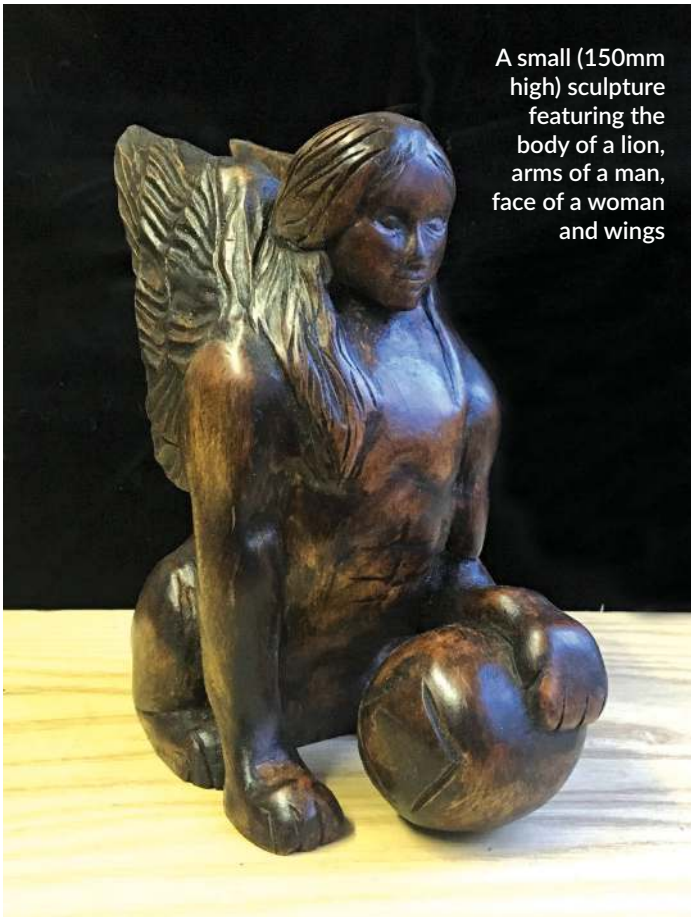
Sarah spent her childhood going around historic homes. 'It sounds as if I didn't have any friends,' she laughs. In fact, her interest was really sparked while studying A Level art and history at the ancient and venerable Royal Latin School, Buckinghamshire. Clearly this was to be a destiny written in stone – and wood, both materials she loves to work with.

Next she went to Portsmouth University for the Restoration & Decorative Studies course. There were opportunities to hone her skills in woodcarving and plasterwork, including the basics of faux finishing, gilding and scagliola. Projects included making three-coat lime plaster and researching freehand stucco work, creating and experimenting with her own designs and recipes, including those used in the restoration of the severely fire-damaged National Trust property Uppark House. ➤

PHOTOGRAPH COURTESY OF SARAH GOSS

A pierced vine pattern 'tray' approx 400mm diameter, a replacement copy of damaged original (right)

PHOTOGRAPH COURTESY OF SARAH GOSS



A small (150mm high) sculpture featuring the body of a lion, arms of a man, face of a woman and wings

PHOTOGRAPH COURTESY OF SARAH GOSS

Lime acanthus panel, a copy of a design found at The Vyne, Hampshire

The door of the doocot (Scottish), dovecote (English) on the Dumfries Estate from 2014

Sarah graduated with a first class honours degree. It was to be the last of this particular course, which finished in 2008 – typical of the sad decline in arts and crafts education in the UK.

Earning and learning

Sarah moved to Shropshire to work for a heritage company, learning project management skills and the structural nature of timber-framed buildings. However, she really wanted to be back among the sawdust and plaster of her own workshop, so it was a move back down south again. As any craftsman will tell you, earning a living by self employment isn't easy and working in the cramped space of the family garage was far from ideal – and, of course, she wanted to have a better-equipped workshop in any case. Sarah wanted a chance to carry on training but there needed to be some relief from the pressure of earning in order to do it. She was definitely at the point of seeking more help.

Happily, after some fruitless efforts contacting heritage charities, a friend suggested the Prince's Foundation, set up by HRH Prince of Wales. The chance to join a short-term apprentice scheme and be paid to do it was too good an opportunity to miss.

On offer was a Building Craft apprenticeship course lasting eight months. It started with an initial larger group at a summer school in Shoreditch, London, then a team of 12 would-be apprentices, including Sarah, went north to Edinburgh and one of the Prince's properties, Dumfries House, where between them they built a large, square, stone dovecote. Sarah's major contributions were the carving work on the oak door and on the sides of all the beams as well as stone carving, a particular interest of hers.

PHOTOGRAPH COURTESY OF SARAH GOSS

Sapele corbel brackets (800mm long) to support the porch over the front door, part of the restoration of Clinton Lodge, E.Sussex

PHOTOGRAPH COURTESY OF SARAH GOSS

A Green Man carved in oak

PHOTOGRAPH COURTESY OF SARAH GOSS

Left to right: Friezes for a church Winchester way; Acanthus style detail carved into solid oak newel posts; Sample pieces by Sarah

It was an unusual project with some unique contributions from a closely-knit team – and all paid for, so the financial pressure was off for a while. The Prince's Foundation was responsible for organising everyone's work placements, apart from Sarah's. She organised all but two of her placements as they never had a woodcarver on the scheme before.

Moving on

A series of placements then followed – six weeks with master carver Charlie Oldham in Frome, who Sarah still keeps in touch with, more so than any other work placement. Then three weeks at Wormington Grange working with the Landmark Trust, the resident carpenters making space in the workshop for her to get on with her work, followed by another three-week placement, this time at W Thomas's, London, copying carved sections from frames – 'I hated the noise of the city' – and finally two weeks at Houghtons of York.

Commissioning confidence

This stream of different working experiences has moved Sarah up to a new level of skill and given her the confidence to take on more complicated commissions. So much so that, even working a six and sometimes seven-day week or working into the evenings on designs, templates, quotes and replying to emails, she can at least pick and choose what jobs to take on. 'I don't like carving small, fussy sculptures. I don't want to come across as too stand-offish as to what I carve – ornament on the whole is fine, it's just the twee, small things you get on mantelpieces that I don't like. Currently I'm working on a pair of pine capitals that you can see in the picture to the right, then it's on to bees carved in lime. I'm pretty busy at the moment. I also have a number of standard pieces which I sell online, such as a rustic breadboard, which is very popular.' ➤

Early carving stages of two Ionic pine column capitals

Working for the future

Sarah has a website with an active blog and it has, by the magic of the internet, moved up the Google rankings, so it is easy to find for potential customers looking for a woodcarver. She has links with the Heritage Crafts Association, the Prince's Foundation, of course, and exhibited at the Georgian Group Splendour exhibition and two workshops at the Prince's Foundation during London Craft Week last year.

Coming away from Sarah's workshop I was left with a strong impression of her enthusiasm and keenness to learn and also to pass on her already considerable knowledge and skill – perhaps underestimating just how capable she is already. Things look very bright indeed for Sarah Goss.

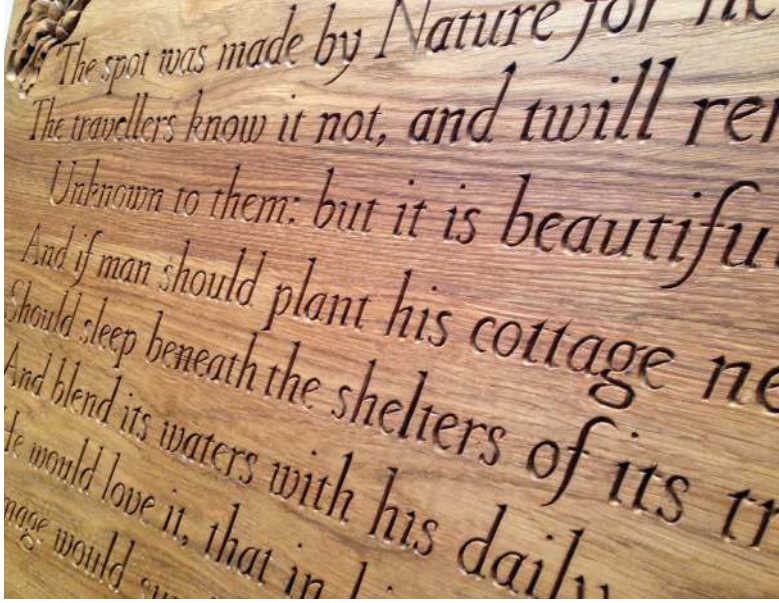
Update

Sarah says: 'I've moved workshop just across from my old one and I now have natural light, which is lovely. I'm now providing private one-to-one tuition for letter carving, which is quite popular, and this year I'm taking over several woodcarving courses at The Weald & Downland Museum as well as a couple of demonstration days.

'I will also be running some letter-carving courses with the Prince's Foundation for London Craft Week again for the third year, this time at a new venue at Trinity Buoy Wharf.'

So, apart from all that, any interesting commissions? 'I'm still busy with my commission work. At the moment I have two large oak door panels, which are having a relief bullrush design carved, a couple of large oak beam carvings, a Rolls Royce money box, a lion passant sculpture, a coat of arms and some carvings for a traditional gypsy wagon, among other things.' ■

Visit Sarah's website: www.sarahgoss.co.uk

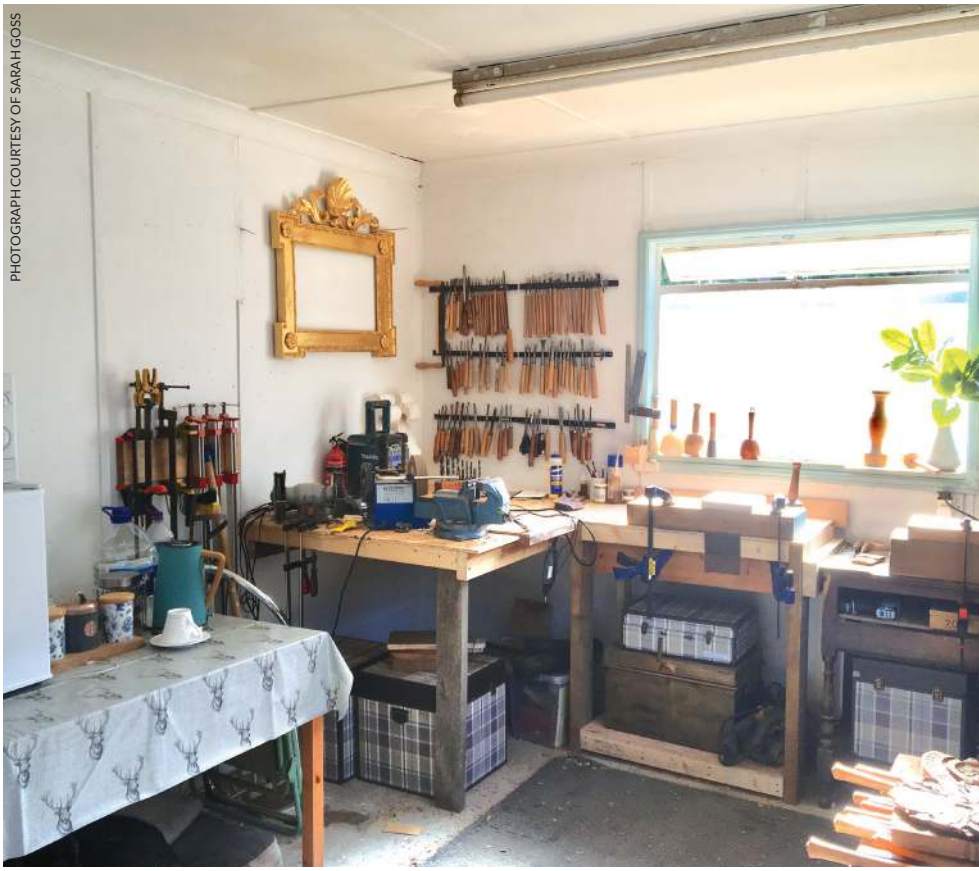


A memorial plaque featuring a Wordsworth poem

PHOTOGRAPH COURTESY OF SARAH GOSS

Designed by Sarah, this pair of walnut wall brackets (400mm long) features gilded egg & dart together with traditional acanthus elements

Sarah with one of her dogs, Billy

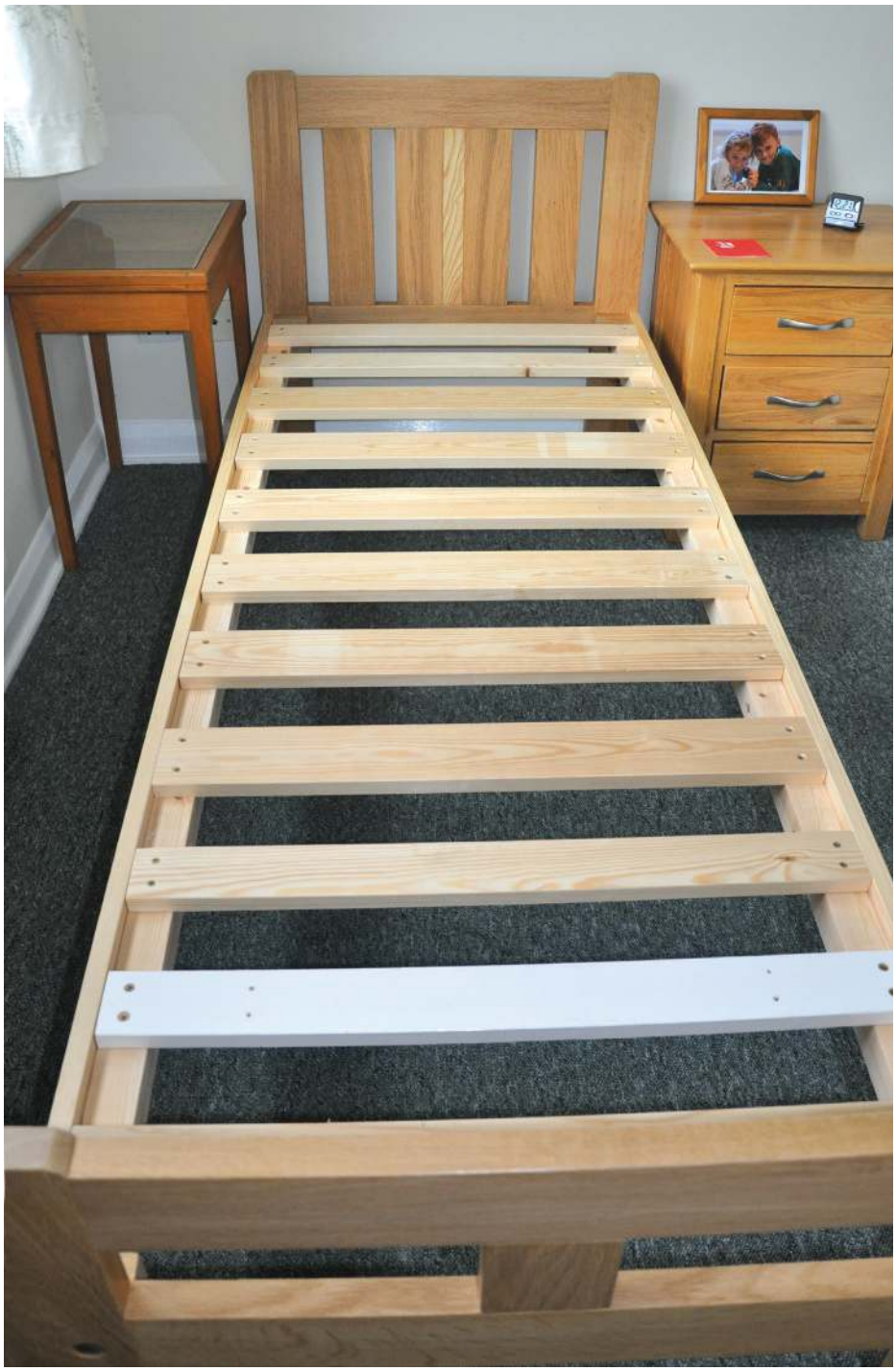


PHOTOGRAPH COURTESY OF SARAH GOSS

The new, neatly laid out workshop. Note the homely tea-making facilities

Small single bedstead

And so to make a bed... James Hatter's latest creation



Many houses have one bedroom with small dimensions, and fitting a bedstead into one can be restrictive. If this bedroom is used for a child, or as a guest one, then a small single bedstead, might be the answer. If the bed is for a child, the design of the headboard may need to be modified to suit their age.

This project looks at constructing a bedstead to accommodate a small single mattress measuring 76cm x 190cm (2ft 6in x 6ft 3in), although guidance is given to make a standard single or a double if space is not a problem. The overall frame size of the bedstead is 76cm x 198cm.

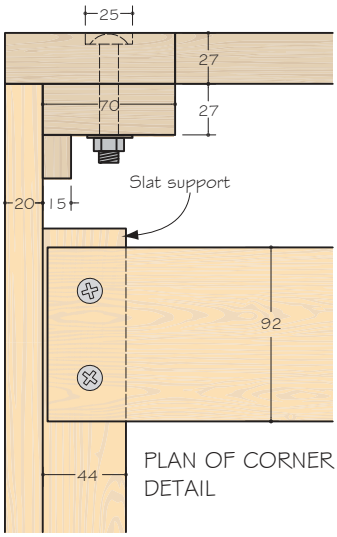
Oak is used for the headboard, with a small contrasting piece of ash. The footboard uses all oak. The side rails and mattress-supporting slats use European redwood, although the design would allow a choice of timber. The author's choice was mainly due to available timber, left over from previous projects. Jointing biscuits and adhesive are used to join the various pieces together. The head and footboards are joined to the side rails using M10 coach bolts. These allow easy assembly and disassembly, should the bed need to be relocated. The slats are attached between the slat-supporting attaching rails, using 4mm x 40mm screws. ➤

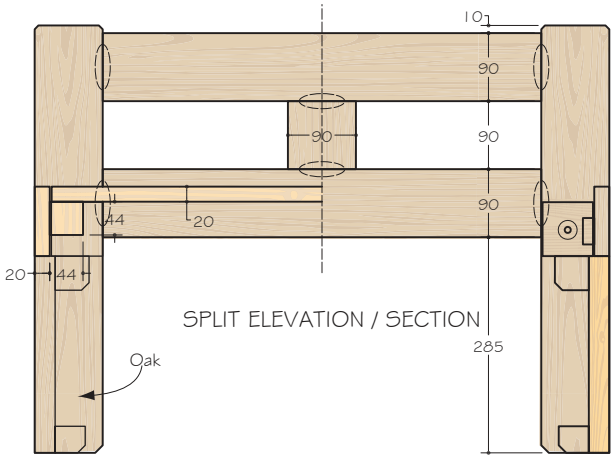
Right: Details of side rail to head and end board attachment. The coach bolt was cut to length after initial test fit

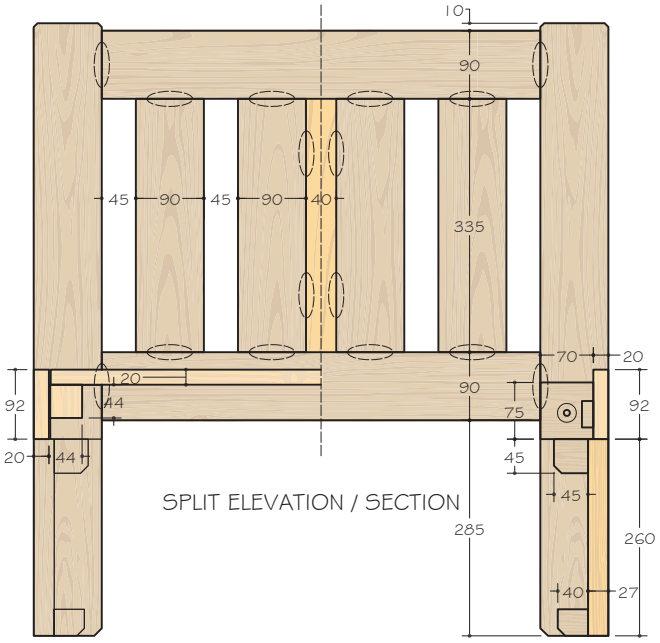
CUTTING LIST

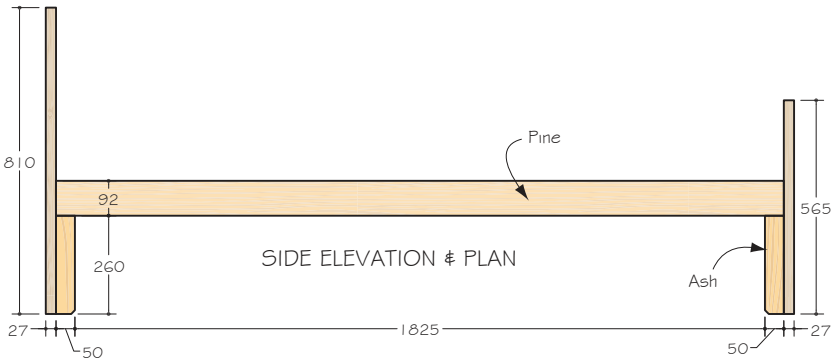
Part	Qty	Material	Length	Width	Thickness
A Headboard legs	2	Oak	810mm	90mm	7mm
B Footboard legs	2	Oak	565mm	90mm	27mm
C Head and footboard leg attachments	4	Ash	260mm	40mm	27mm
D Head and footboard rails	4	Oak	580mm	90mm	27mm
E Headboard infill pieces	4	Oak	344mm	90mm	27mm
F Headboard central infill piece	1	Ash	344mm	40mm	27mm
G Footboard infill	1	Oak	90mm	90mm	27mm
H Side rail end support	4	Oak	45mm	45mm	27mm
I Foot inserts	4	Oak	40mm	35mm	27mm
J Side rails	2	Pine	1925mm	92mm	20mm
K Side rail end attachments	4	Oak	70mm	75mm	27mm
L Side rail to end attachment support	4	Oak	35mm	25mm	15mm
M Side rail slat supports	2	Pine	1800mm	44mm	44mm
N Slats	11	Pine	715mm	92mm	20mm

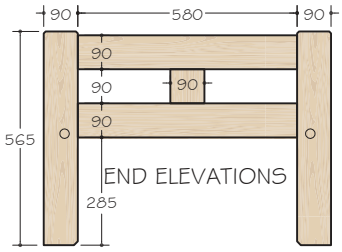
4 - M10 x 75mm coach bolts, nuts and washers; size 20 jointing biscuits;

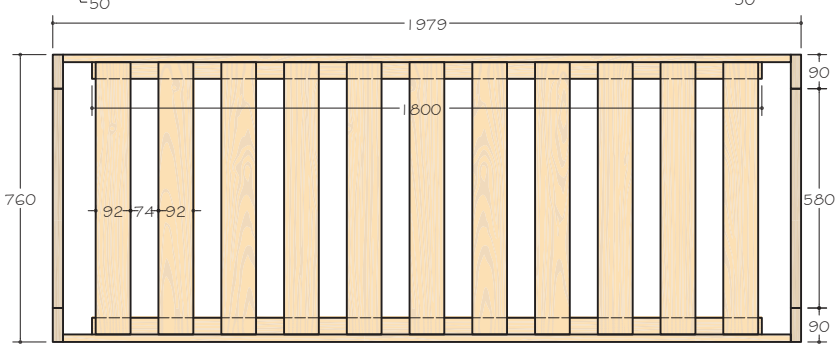


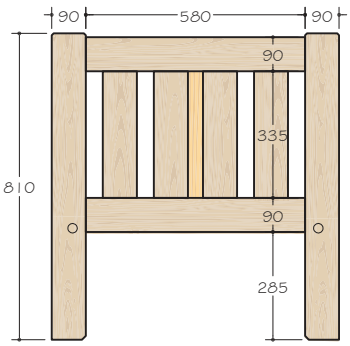












Preparation

The oak used had been prepared to give a PAR size of 27mm x 90mm. The side rails and cross slats use 20mm x 92mm European redwood. Additionally, the slat support rails use 44mm x 44mm, European redwood. A 27mm x 40mm piece of ash, provides the headboard centre, contrasting piece.

Cut the headboard and end board timbers to size, and other components. The use of an end stop when cutting identical lengths aids consistency. It is advised to leave cutting the slats until the frame is completed, for best fit.

Mark matching jointing biscuit slot positions. Cut slots and dry-fit to check

Apply adhesive to the biscuits and join the pieces together. Ensure that the edges are accurately lined up and cramp to set

Headboard construction

The headboard consists of a central infill made of edge joining two pieces of oak sandwiching a strip of ash. Spaced either side of the central infill are oak pieces. Mark two matching jointing biscuit positions along each length and cut size 20 slots. Assemble the central infill first. Mark matching biscuit positions to attach the top and bottom rails, and cut size 20 slots. Add the top and bottom rails, then attach the legs. Add the leg attachments. The end board is much simpler, as it is mainly hidden. ➤

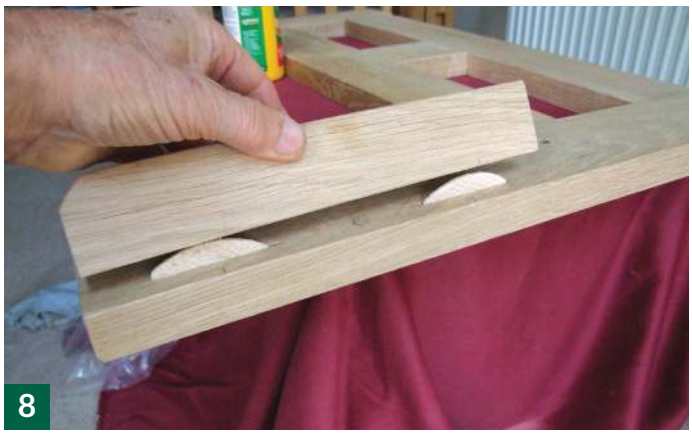
Mark and cut matching biscuit slots to join the top and bottom rails to the infill pieces and to the legs. Dry-fit to check

Using adhesive and size 20 biscuits, join the top rail to the infill pieces. Repeat with the bottom rail

Cramp the assembly ensuring that the ends of the rails line up

Before attaching the legs, use a 25mm Forstner bit to bore a recess to take the coach bolt head. Drill an 11mm hole centrally to take the coach bolt shaft. Do this to each leg. The recesses are in the outer-facing surfaces in both head and end boards

Attach the legs with size 20 biscuits and adhesive and cramp to set

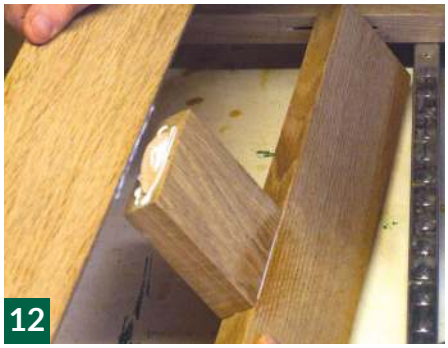


Attach the leg attachments to each leg

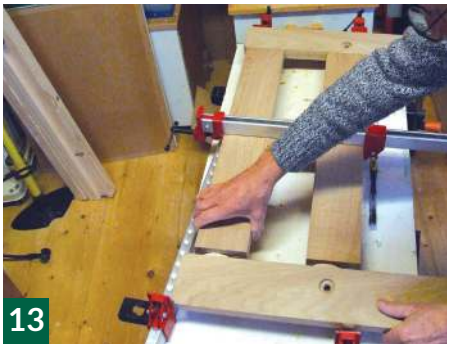
Attach a side rail support at the top of each leg attachment

Attach a block to the bottom of each leg. This will help to distribute the weight of the bed on the floor surface

Check-fit the end board pieces



Use jointing biscuits and adhesive to join the centre infill to the top and bottom rails



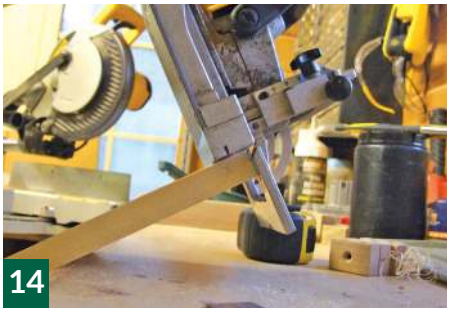
Join the legs and cramp to set. Add the side attachments and the supporting blocks

Side rails

Cut two side rails to length. Also cut the end pieces, which are used to attach the side rails to the head and end boards, via a coach bolt. The end pieces are attached to each end using a size 20 jointing biscuit. As pine has been used for the side rails, the end pieces are hardwood for strength. Also a small reinforcing block is added. If using hardwood rails the added block can be omitted.

To attach the side rails to the head and end boards, position each side rail on to the top of the leg attachment, clamp in position, and use a 4mm x 40mm screw to hold. To drill the hole for the coach bolt. Use an 11mm bit in a drill, and use the hole previously drilled in the leg, to guide through to side rail end pieces. Identify each position so reassembly is straightforward.

Attach slat-supporting rails to the inside of each side rail. Use a scrap of the slat to give the recess depth.



Cut the side rails to length. Cut the side rail attaching piece. Mark a matching biscuit position on each and cut a size 20 biscuit slot in each

Cut the side rails to length. Cut the side rail attaching piece. Mark a matching biscuit position on each and cut a size 20 biscuit slot in each

Attach to the end of the side rail using a size 20 jointing biscuit and adhesive. Repeat for other ends


17

Rest the end of the side rail on to the leg attachment, clamp in place, and attach to the end board using a 4mm screw


18

Drill an 11mm diameter hole through the leg for the coach bolt. Repeat for all four legs


19

Attach the slats support to the inside of each side rail. Use a scrap of slat to ensure correct depth for slat. The slat-support timbers give added strength to the side rail


20

Reattach the side rails using a 10M coach bolt, washer and nut


21

Add the 4mm screw


22

Ensure the frame is square


23

Cut slats to length and check suitable spacing. Attach using 4mm x 40mm countersunk screws. Grandchildren Kieran and Amelia took on the task of the attachment

Finishing

The bed frame components received three coats of a clear matt quick-drying acrylic varnish, this being applied using an artificial bristle brush, with a light sanding with 400 grit sandpaper between coats.

The foot insert fitted increases the area of the foot, as well as increasing the area in contact with the floor. It also acts to support any additional plastic or polished wood feet pads to aid mobility. ■

Guidance for other size mattresses

A standard single mattress is 90cm x 190cm (3ft x 6ft 3in), whereas a small double is 120cm x 190cm (4ft x 6ft 3in), and a standard double is 135cm x 190cm (4ft 6in x 6ft 3in). For doubles, extra central support in the design should be incorporated. For king – 150cm x 200cm (5ft x 6ft 6in), and super-king sizes – 180cm x 200cm (6ft x 6ft 6in), you could use two singles pushed together with two single mattresses, to give good strength. So for a king, two small singles could be used, and for super-king two standard singles. The length would be 100mm shorter. A disadvantage of this is that two single mattresses are more expensive than one double, however having two mattresses allows easier handling and less disturbance for the occupants. Adjust the lengths of the top and bottom rails in the head and end boards to give the mattress width plus 40mm. Increase the number of infills to complete the head and end boards.


24

The finished frame ready to take the mattress

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Silver tea table

Louise Biggs revisits a piece of furniture from her college days

More than 30 years ago I was studying at the London College of Furniture and in the final year we had to make a Simulation Piece, the final project. The brief was to find an item of furniture we would like to simulate. The construction and techniques used would need to be the same as the original (barring concessions made by the senior lecturers). Ideally it should display as many techniques as possible that we had learned over the two-year course.

I chose to simulate a silver tea table made from Brazilian mahogany in the Chinese Chippendale Rococo style c.1750-75. The original table is in Christchurch Mansion, Ipswich, Suffolk. Silver/tea tables were used to display small silver items and/or to serve afternoon tea.

Having discussed the project with my senior lecturers and due to the prohibitive cost of finding a piece of mahogany wide enough for the top, they agreed the top could be made of board material with timber edging and then two sides veneered.

The table had gained a few knocks over the years but survived the attentions of both small children and dogs with wagging tails – until now, when yours truly caught her foot on the bottom of one leg and heard an ominous cracking noise. But not my foot. ➤

PHOTOGRAPHS BY LOUISE BIGGS

Detail of one corner showing the frieze, apron and corner brackets

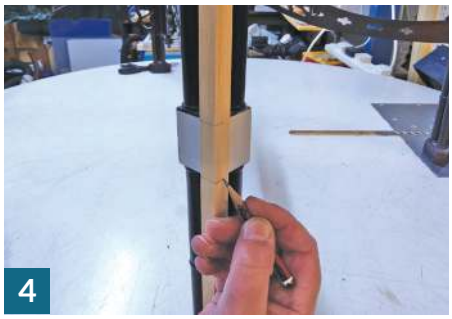
Description from the Illustrated Guide – Christchurch Mansion c.1985
Extremes of piercing and paring down in mahogany. The legs are cut from solid blocks of timber to imitate clustered bamboo, the gallery round the top is pierced in a design of interlocking Gothic arches, while the apron has a pierced running floral design. The intersecting stretchers are fretted with Chinese motifs. Close to a design published by Thomas Chippendale in his *Gentleman and Cabinet Makers Directory*, it mingles Chinese and Gothic elements in typical Rococo extravagance.

Detail of the cross stretchers with finial top and bottom

Upside down showing the split bracket and indicating the break in the leg column

Steps to restoration

Having transported the table carefully to the workshop, it was found when the table was turned on its top that not one but all four legs had cracked at either the top or bottom of the top cluster of turnings. Half of the corner brackets had been split along the grain, as well as separating from the leg block and rail.



1 First the brackets had to be carefully removed so as not to cause any more damage. The edge of a sharp chisel was lined up at the joint and a swift tap with a mallet prised the bracket clear. The same procedure was used against the first leg block. All the brackets were removed, numbered and laid out to keep the broken sections together.

2 The broken leg sections were carefully prised apart. At each corner there are three turnings jointed into a solid block above and below. Some of the turnings were held fast in the top, some in the bottom. The leg construction was jointed the same as the original table with a short stub of turning then a smaller peg in the middle.

3 As the joints holding the stretcher rails were still sound, once the legs had been prised apart the remaining leg sections with stretcher rails were lifted clear. The old glue on the joints was removed using a small chisel. The opposite ends of each turning were checked and, if slightly loose, they were prised out and cleaned up, their positions and direction of placement marked with small pieces of tape.

4 Re-gluing the table legs was now going to present a problem. The table is lightweight and the construction quite fragile. When made, each leg was glued up against a right-angled jig the length of the leg, clamps held the blocks against the jig to keep them square and straight and a sash cramp was used to clamp the leg lengthways. The rails and stretchers were then glued up in two stages. The weight of the clamps was going to be too heavy to glue the legs in the same way. With the longest section of the leg still together, right-angled sections of timber were prepared and thin card was used to pack out the blocks level with the turned beads on the column. The position of the leg blocks were then marked on the angled section.

5 Masking tape was used to tightly strap the right-angled section to the leg blocks. To prevent the tape tearing at the corners, the sharp edges were removed with a chisel. With the help of a second pair of hands the top

leg turnings were re-glued and sash cramps used to pull the length of the leg together with enough pressure to pull the joints together but not enough to bow the legs out of shape. The legs were checked for square and excess glue cleaned off.

6 Attention turned to the four split brackets. The breaks were clean and, when placed together, they fitted tightly. They were glued up and held with thin strips of tape until set as, due to the shaping, clamps were not an option.

7 The only serious casualty was one bracket where the corner point was missing. It had split at the corner when the leg broke and, when removing it, the piece had disappeared across the workshop. Holding the bracket in position with a piece of card behind, the key points were marked out on the card as well as the shape of the bracket.

8 With the card flat on the bench the bracket was positioned over the top. The curve was then carried through from the shape of the bracket and extended to the marked points to recreate the broken corner.

9 The required shape was cut from the card. A small section of old mahogany was cut and the edge for a butt joint prepared with a chisel. Leaving a little bigger the required shape was then cut from the small section using a coping saw. Removing the bulk of the waste prior to gluing to put less stress on the bracket when cleaning up the shape.

10 Using animal/hide glue the small section was then rub-jointed to the bracket, held flat on a waxed piece of card and left to dry.

11 To re-fit the bracket a chisel was used to size and true up the two square sides. A small amount was trimmed off and the fit checked before repeating until a tight fit was achieved. With the bracket fitted the curves were double-checked against the table leg and rail.

12 Holding the bracket firmly in a small vice with padded jaws, needle files were used to shape in the replacement part, working with the grain and from both sides to prevent the grain tearing out at the edges.


6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13 With the brackets repaired they were glued into position using the animal/hide glue, rub jointing as much as possible. But for added security to keep them in line at the back edge, thin strips of tape were used to hold them until the glue had set.

14 The small repair was stained and polished to match and the whole table was given a coat of wax. Round, short-bristled brushes were used to wax the fretwork. ■


14

Meet the contributors...

We put all of this month's professional and reader contributors here, so you know exactly who they are and what they do

Neil Lawton

Neil is a woodworker/turner who specialises in the use of reclaimed and recycled materials in his projects and seasons native timbers for his turning work. He works from his home workshop in York, North Yorkshire, and works part time in the Design Technology department of the local school.
Web: **workerinwood.co.uk**

James Hatter

James' main interests include design and construction of a wide range of wood-based projects and DIY, mainly for home and family use. Ash and oak are favourite timbers and are included whenever possible in appropriate projects. He enjoys teaching, and working with his seven-year-old grandson Kieran, who often makes really good suggestions in design. James makes good use of woodworking machinery for enjoyment, and sometimes to overcome a lack of skill with hand tools.

Amber Bailey

Amber Bailey is a marquetarian and surface design artist with a background in furniture restoration. She has trained in prestigious decorative art schools on both sides of the English Channel, then working at a furniture company using laser-cut marquetry. She has now moved back to her native Sussex for a break to consider the next step in her creative journey.

Louise Biggs

Having completed her City & 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**

Michael T Collins

British-born Michael has been working with wood off and on for 40 years. He moved to New York in 1996 and over the years has made bespoke furniture, including clocks, inlay work, Adam fireplaces, bookcases and reproduction furniture.
Web: **www.sawdustandwoodchips.com**

Gary Marshall

Gary has had a lifelong 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.

Simon Rodway

Simon has been an illustrator for our magazine since 'the dawn of time' itself, drawing on his experience in the field of architecture. He also runs LineMine, a website with articles and online courses on drawing software. His course, SketchUp for Woodworkers, is proving really popular.
Web: **www.linemine.com/courses**

Your face and details could appear here in our 'rogues' gallery' if you write an article for the magazine, and you could be rewarded for your efforts too.

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Woodworking CRAFTS

ISSUE 52 ON SALE 11 APRIL

PHOTOGRAPHS BY BRENDAN DEVITT-SPOONER

Dining table and chairs in oak, ash and sapele

Restoration of a small chest of drawers

PHOTOGRAPH BY GMC/ANTHONY BAILEY

NEW SERIES Woodworking joints

PHOTOGRAPH BY GMC/ANTHONY BAILEY

Carve a running hare

PHOTOGRAPH BY DUANE CARTWRIGHT

PLUS: *Workshop extraction • Ask the Experts • News & Events Kitted Out • Tricks of the Trade*

Triton 76mm belt sander test

Another of the Editor's gritty product reviews...

I'm used to a big, 100mm-wide belt sander, heavy and capable of sanding newly veneered board without resort to a sanding frame. How would I get on with a narrow belt sander instead? There was only one way to find out.

At 1200W, longish and fairly heavy, the Triton TA 1200BS is already a meaty bit of kit when you pick it up. It has the enclosed grip and lock-on switch at the rear and a large adjustable angle frame handle at the front. 76mm wide isn't so good for big panel areas but is fine for smaller boards and frames. The variable speed control ensures you don't fly away or dig a rut before you even know it. There are four grit grades to suit all needs and the optional sanding frame gives control over depth of sanding and avoids dig-ins. Belt tracking is easy to do. Inverted using the two supplied clamps it becomes a really useful static machine with a small cross-wise fence giving safe, accurate control. The dustbag is big enough for a reasonable session of sanding although extraction is best.

Conclusion

This machine handles well and suits tasks where a bigger machine can be more of a hazard to your work; door framing being a good example. The sanding frame has a fine adjuster and, with care, adjusting from zero attack to a fine setting you can get it to sand just right without taking off more than you need. Choosing the correct aluminium oxide abrasive grade plays a part. Do keep a chunk of belt cleaner handy, especially if you are sanding old paintwork.

Verdict

If you need a meaty machine that is neither too big nor too expensive then this could well be the one for you. ■

Tech spec

TA 1200BS Belt Sander
Input power: 1200W
No load speed: 200-450rpm
Belt size: 76 x 533mm
Weight: 4.8kg
Price: TA 1200BS £154.85
Sanding Frame: £14.94
Sanding Belts: 40, 60, 80 grits price range £3.99-£4.34
Visit: www.tritontools.com

The sanding frame depth adjuster

Static inverted sanding

The range of abrasive belts

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

KITTED OUT

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

NEW Axminster Craft machines

Axminster Tools & Machinery has recently launched its new range of Craft machines after months of research and development.

The new range replaces Axminster's Hobby Series, which the company felt was being copied by retailers who are not tool and machinery specialists. Therefore, the range is aimed at the discerning home user and those dedicated, creative souls who literally spend hours trying to perfect their craft. Crucially, these machines are affordable with enhanced features not normally found on machines at this level.

Within the range, you will find new lathes, bandsaws, scrollsaws, a tablesaw, sanders and grinders as well as some of the existing Hobby machines which have transitioned into the Craft range.

Examples within the Craft range include four new bandsaws which are designed to give you more control, accuracy and capacity and have features not found on this level of machinery before, giving you the ability to craft your project the way you want to. These bandsaws are ultra-smooth and rock solid with wide trunnions, a ground, cast iron table, extraction ports and new mitre fence. Furthermore, good blade tension ensures smooth cuts.

The AC355WL lathe is regarded as the finest addition to the woodturning range for some time. As with all the lathes in the Craft range, this one is precision ground and has a powerful motor, variable speed and three belt settings with indexing. To add to that, the RPM counter is a useful feature, especially for beginners.

As an added incentive for anyone contemplating taking up the hobby of woodturning, Axminster is offering a free three-hour introduction to woodturning at any of its stores when buying a new Craft lathe. Alternatively, purchasers can upgrade to 25% discount off a teo-day course at either Axminster or Sittingbourne Skill Centre.

So confident is Axminster about the build quality and manufacture of these machines that they all come with a three-year warranty covering parts and labour.

For more information about the products in the Axminster Craft range, visit **axminster.co.uk/axminster-craft** or go to one of the eight Axminster stores. There are also videos on the website taking you through some of the new machines and their unique features.

NEW Mini pocket spirit levels from Hultafors Tools

Now available in the UK with a modern design and clear-focus vials for levelling work in tight spaces.

The ergonomic design includes a crush-proof vial with a +60% magnifying effect and luminescent effect for easy reading in light or dark conditions. They come with a strong protective casing and the magnetic version is ideal for accurate vertical measuring.

Magnetic Mini Level RRP £20.90 – **OFFER PRICE £12.54 inc VAT.** Non-magnetic Mini Level RRP £15.87– **OFFER PRICE £9.53 inc VAT.** Both current offer prices. Call the Hultafors Helpline on **01484 854788** or visit **www.hultafors.co.uk** and download a digital catalogue.

Record Power dust extractor

The CGV336 has a 55l capacity while also being very compact. It filters down to 0.5 microns with an airflow of 54 litres per second. In addition to wood dust and chippings, it can tackle workshop debris, nails, and many other types of waste with ease and features the CamVac triple filtration system for effective treatment of fine particles. The cyclonic neutral vane theory technology draws the waste into the drum with great force and directs it around the outside edge, keeping the filters cleaner and allowing the waste to fall to the bottom of the drum.

The lid features an acoustic outlet for the motor. When the optional hose is fitted, the sound of the motor can be directed away from the machine, greatly reducing noise in the workshop.

It has a 100mm hose inlet for which you can buy and fit on to the hose length of your choice.

Price £229.99

Contact: Record Power **www.recordpower.co.uk**

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MINI TEST

Spear & Jackson Predator 10in tenon saw

Like everyone today I use a large hardpoint saw for ripping and panel cutting but I have an aversion to using a hardpoint saw for cutting joints. The reason is simply that the hardpoint teeth and the 'set' which produces the kerf or slot is too coarse for critical work. So I wasn't expecting a miracle when I picked up a Predator, which, incidentally, comes in a 12in version as well.

The fairest test, I felt, was to try it against a traditional Spear & Jackson Professional tenon saw and see how different it might be. I was a little surprised at the result. I tried cutting a piece of ash – typically the Predator would probably get used in softwood. It was a little hard to get going as the teeth weren't ready to bury themselves in the wood, however with a 'back start' grazing the wood it did cut and on comparison with the traditional model produced a better cut finish, which I think you can see from the photos.

Conclusion

Would I use one day-to-day? For bog-standard carpentry joints yes. Anything finer I would swap to the rather expensive model I keep stowed away in a tool cabinet. So, that's a qualified yes – not a bad saw when precision isn't critical and it needs to take some wear and tear.

Expect to pay around £10 for 10in and £12 for 12in versions.

www.spear-and-jackson.com

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

CIRCULAR SAWS

The Editor shows how you can get the most from the power tools in your workshop

The circular saw is sometimes referred to as the portable saw, which distinguishes it from all the other powered saw variants – the mitre saw or tablesaw being just two examples. We take using them for granted but there are more and better ways to exploit their potential for work and project building.

A good-quality DIY saw

Types of circular saw

Portable saws are not all the same. First, they come in different blade sizes and motor powers. A DIY circular saw will often be smaller in both departments and may not be rated for continuous working all day long. A professional tool of any type should be heavier built, have more power, often have larger blade sizes and usually have an extended warranty so the extra cost is offset by greater capability and better service arrangements.

CHOOSING A SAW

Basic sawing

I have found DIY circular saws really good for smaller work as they are light, portable and easy to set up for use. However, when put under a heavy load cutting thick timber, my experience is that the motor can start to overheat. This is given away by the smell of the motor windings getting hot. If absolute precision is not required then a cheaper tool will do the job. You can do panel cutting using a clamp guide, or a strip of MDF as a guide clamped to the workpiece. The downside is that it must be straight and you have to mark the blade-to-fence offset each time, which carries the risk of being inaccurate.

Guide rail saws

A system saw that works with a guide rail has to be seen to be believed. ➤

A small, dedicated guide rail saw

A circular saw fitted in the Triton 2000 work centre

The simplicity and accuracy of cutting becomes apparent immediately. Since the saw sits on the track it cannot deviate and the rubber track edge is where you line up directly on your cutting marks. The first time the track is used, the blade cuts the rubber, giving a very precise marking line you can rely on. No errors creep in and panel cuts become very quick to do. If you do lots of panel work without the benefit of a professional panel cutting saw unit, it is worth having a smaller circular saw with a guide rail for manufactured board and a larger circular saw with a rip blade for cutting solid timber.

For lighter work away from mains, cordless saws are perfect

Table mounting

Another consideration is table mounting. This might seem a bit daft when you can buy a dedicated tablesaw, however, if space and cost are an issue then you may want to mount a portable saw in a work centre, such as the Triton 2000. For all saw blades in all types of saw unit, whether freehand or table mounted, you can roughly only use one-third of the diameter of the blade at 90°. So a 165mm-diameter blade can cut 55mm-thick material, while a 250mm-diameter blade can manage 83mm material. The other important thing is that, in the UK, without exception, a riving knife and crown guard must be present. This entails removing the existing riving knife before table installation and fitting the table's own special knife and guard assembly.

A plunge saw with a quick-release plunge lever

Plunge saws

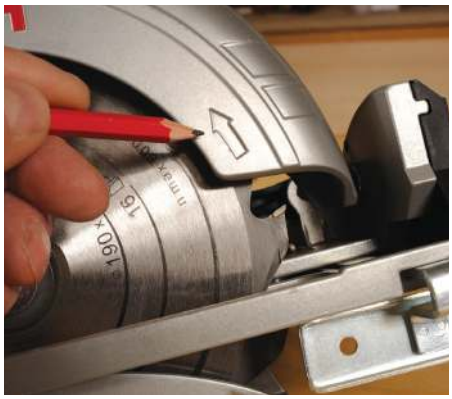
To enable plunge cutting, these saws lack a riving knife which would otherwise prevent plunging properly. However, simply removing the riving knife from a standard machine is not safe because the saw has not been rated for such work and will almost certainly lack a plunge lock lever in the correct position where it can be easily accessed. So, if you think plunge cutting suits your work then choose a dedicated machine. These can be more expensive but have been tested so they will work safely. Such machines have an easily accessible control for plunging, which can be done with either a swing-down action or special columns, which give a smooth descent. They are extremely useful for refurbishment work or for creating special cutouts.

Trimming saws

Some circular saws have flat side casing designed to allow the saw to be run along a floor or other surface. Usually this is of benefit when working on site, creating a 'carpet gap' at the bottom of installed skirting board so carpet can tuck neatly under it, or for door trimming in situ or 'shadow' cuts where surfaces meet.

Cordless saws

Cordless circular saws have been around for some years but now there is more choice than ever. Good for shorter runs or lighter work but they cannot substitute bigger corded machines. These are very handy when working away from the mains and making quick trimming cuts.



The arrow indicates tooth and cut direction

Safe blade storage for easy selection

WORKING TIPS

1 Use a suitable means of work support, such as a sawhorse or Workmate. If you cut panels, remember you will need support for the section being cut off. This could be a third sawhorse, or try clamping a batten and block at the correct height as a support leg that falls away once the cut is complete, but ensure the board has a soft landing.

2 Set the blade depth to suit the material and situation. For solid timber, the full blade projection should allow maximum torque at the blade edge and help to push chippings clear of the workpiece. Use a rip blade to assist with cut speed and chip clearance.

3 When cutting manufactured board, allow the teeth to just break through so half the height of each tooth is cutting through the surface. This should ensure minimal or no spelching – breakout – on the underside of veneered or melamine-faced board. Arrange cuts so any spelch on the top face can be hidden in the project construction. Use only a fine-tooth blade suitable for crosscutting or board cutting.

If the cut is too rough then clean up with a router afterwards

A homemade T-square makes cross-cuts easy

4 Store spare blades correctly. The easiest method is a large dowel or dowels on a wallboard that the blades can be slid on to for safe storage and easy selection.

5 For crosscutting solids or man-made board you can make up one or more MDF and softwood T-squares that are clamped on to make accurate quick cuts.

6 If you cannot get a good finish on board edges, then cut slightly oversize and use a router and guide rail to do the final cleaning up. ■

SAFE WORKING

Keep the lead and trail hose out of the way

The support leg falls away when the cut is finished

Wear PPE and stand to the side of the saw

Always use a fence or guide rail

The teeth should just project when cutting faced board

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PRODUCT TEST

Unicorn SPiT Gel Stain & Glaze

Amber Bailey experiments with adding a little sparkle to a wood finish using a product with a slightly disgusting name...

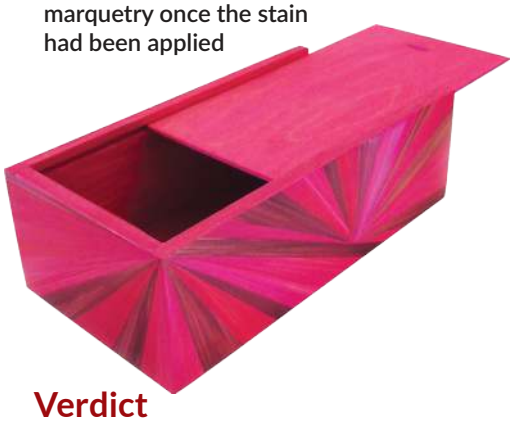
Forever seeking a vibrant and colourful wood stain to accompany my marquetry, a long internet search had me stumble across an American stain not highly publicised in the UK. Unicorn SPiT gel stains and glazes come in a variety of colours, promising to work on numerous surfaces, including wood, glass, metal, fabric and concrete. The product is designed to be used as a stain, a glaze or as paint. This is a lot to ask from one bottle and it is safe to say I was sceptical.

On the realisation that Unicorn SPiT held a line of sparkling stains for a shimmering finish, I couldn't resist. If there is one thing I am, it's a sucker for glitter, especially when it's pink.

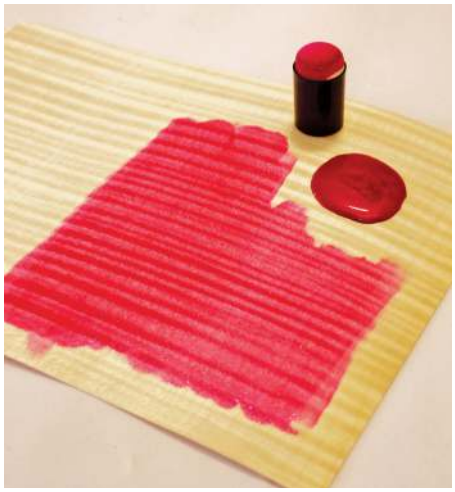
Test

On receiving the bottle, I was struck by the intensity of the colour as conventional coloured wood stains are often a slightly dull tone. This was most certainly sparkling, and, even more bizarrely, lemongrass scented. It is a rare thing to not be overcome by overpowering and unpleasant fumes when staining.

The liquid appeared to most certainly be thick and I could see its advantages as a glaze, but I wondered how successfully it would sit on wood. I had the perfect project to test it on. About to make a straw marquetry tissue box, I needed to colour the underside of the box carcass.



The inside of the tissue box looked in keeping with the marquetry once the stain had been applied



PHOTOGRAPHS BY AMBER BAILEY

Even a small finger sponge worked well to rapidly spread the finish

Verdict

Although the instructions advise against using a foam applicator, I found this the easiest way to produce an even coat without streaks, covering a large area. Despite looking thick, it was surprisingly easy to spread out into a thin layer without having to dilute at all.

The colour remained strong and, yes, sparkly. It proved the ideal coverage for the tissue box carcass. Once I had finished my marquetry I decided to paint over the entire box with the stain to ensure all gaps and crevasses were filled. My intention had been to then wipe away the excess stain.

On doing this I found that a light shimmering layer remained on the straw, leaving it sparkling. This I loved. It is almost impossible to attach any sort of finish other than wax to straw but Unicorn SPiT managed it, not drastically altering the colour but rather accentuating the shimmer of the straw.

This product worked out far better than I could have hoped for. To own the whole colour range is something of a financial investment but I have every intention of experimenting with more colours. ■

Any cracks or edges in the straw were made shimmery after a coat of Unicorn SPiT

Unicorn SPiT came into existence in 2015 as a result of founder Michelle Nicole seeking to create a safe and stimulating colour finish range that could be used in art therapy sessions.

Unicorn SPiT Sparkling Stain & Glaze – Starling Sasha
Price: £15.99 for 118ml bottle

Suppliers

The Unicorn SPiT range can be found at:
unicornspit-com.myshopify.com

All the stains are available in measurements of 118ml or 236ml

Ask the experts

ANTHONY BAILEY
Editor,
Woodworking Crafts magazine

Another batch of awkward questions for the Editor to answer

A slat with rot which has been hidden for years by the thick exterior coating

Pliers and a wide blade screwdriver might work, otherwise use a hacksaw

ON THE BENCH

STAR QUESTION

A neighbour was going to throw an old garden bench away so I asked if I could have it. It has cast iron ends but the wood is rotten. I've since found you can buy a new one as a self-assembly kit which isn't too expensive. Is it worth me trying to save this one by fitting new slats and how easy is it to do?

Amelie Walker

Anthony replies: I hate waste as I suspect you do, so although the cast iron might not have much value, repairing it makes for one less new product being sold. We really need to slow our rate of consumption of new goods, plus it is satisfying to 'do up' something and make it good again. Decent timber will cost money, you need to weigh up whether you want to spend to fix it. It may be that a decent timberyard may stock a standard hardwood section that will fit. I would suggest teak, which is the natural choice for a hardwearing outdoor timber. Oak will stain easily although it is tough.

The difficulty with any restoration or repair job isn't fitting new parts, it is taking the old stuff apart. First make a note of the slat size and position of the bolt holes. You need to undo or hacksaw the bolts that hold the slats. They may not want to cooperate as they will be rusted and they may turn freely in the rotted wood without coming undone. If necessary saw through the slats close to the casting and use a chisel to split remaining wood to get access for hacksawing any resistant bolts.

Once that is done, wirebrush any flaking paint and dirt ready to paint anew with Hammerite or a similar exterior paint finish. Carefully mark all the new bolt holes on the new slats, laying each slat against the first one, and mark across so the drilling positions match, thus avoiding any errors. Use new galvanised bolts to refit the slats. Once two or three are fitted the bench becomes more stable while assembling. Apply a generous coating of teak oil to the wood and the job is done.

PHOTOGRAPHS BY GMC/ANTHONY BAILEY EXCEPT WHERE OTHERWISE STATED

Use an existing slat to mark the bolt hole positions so they all match

Shallow drill for the bolt head first, then drill right through for the bolt hole

Finally apply a suitable exterior finish such as Sadolin. For teak use teak oil

JUSTIFIED AND ANCIENT?

Recently I visited an antique shop without any serious intention of buying, I just wanted to look around as there were some interesting pieces of furniture on display. A Georgian side table had a high price on it. The dealer said it was Virginia walnut and therefore quite rare because the American War of Independence stopped imports of the timber. I've never heard of that – was it just a bit of a selling gimmick? It was quite a dark wood that almost looked like mahogany, a similar colour anyway.

Nigel Benbow

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

American black walnut can sometimes look similar to mahogany at first glance

Anthony replies: The short answer is no and yes. There is indeed Virginia walnut by name but it is in fact native black walnut (*Juglans nigra*) that just happens to come from the state of Virginia in the US. It still possible to buy this species today but obviously having a good selling name like rosewood or satinwood – and in this instance 'Virginia' – always makes it sound more special, even if that state is blessed with a preponderance of the tree.

In fact, ever since the British colonised and traded with that continent, walnut was exported to Great Britain in huge quantities and as natural stocks became depleted and duties were increased so the supply started to diminish, the War of Independence merely finished the trade off entirely. Fashion followed and mahogany became the mainstream 'posh' cabinet timber as a result. During my time as an antique restorer I only ever came across one acknowledged piece made from Virginia walnut – a very large, circular dropleaf table with typical unadorned Georgian design details in foot and leg etc. At first glance it looked like mahogany but on close inspection it clearly wasn't, just very brown. No doubt such rare pieces are expensive as a result.

A rider to my comments is this – a species growing in a particular location may differ from the same species grown in a different location due to gradual mutation caused by climate, disease, soil type, tree density etc, so Virginia walnut may well be slightly different to those growing in other eastern US states.

By Email

COMING UNSTUCK

Hi Anthony, I've subscribed to Woodworking Crafts since it started and have never felt the need to ask a question of the expert knowledge available until now. I was presented with a large quantity of hot-melt glue and have since purchased a gun with the intention of using it on some of my woodworking projects, but found it to be no good as the glue is almost set before I'm finished applying it, let alone positioning the two pieces together for clamping. What am I doing wrong?

Stewart Gray

This wood broke because the hot-melt glue was very hot when first applied

Anthony replies: Hi Stewart. Thank you for subscribing to the magazine, I do appreciate the loyalty of our readers. We try to create articles to suit as many interests as possible.

Regarding your glue gun query, it rather depends on the model of glue gun and whether it is reaching and staying at the right temperature. Hot-melt glue should be scaldingly hot when it leaves the nozzle. If it is hard to get it to exude it may indicate it isn't quite hot enough for working with. If your workshop is quite cool that would obviously then cool the glue down quickly. You certainly need to be dexterous in getting the components together quickly. It does find favour with woodturners for attaching part-turned items for re-turning but, despite having tried it successfully in a recent glue gun test, I wouldn't use it for the main run of work where I feel conventional water-based glues are more predictable. Hopefully my answer may suggest possible reasons.
Regards, Anthony

Stewart replies: Hi Anthony. You have hit the nail on the head. My workshop is rarely above 5°C so that will be the main cause as the glue itself seems liquid enough, e.g. runny, leaving the gun. I'll have to move to warmer climes from Scotland.
Thank you, Stewart

STAR QUESTION PRIZE

The Tool Marketing Company, or TOMACO, as it is known, which sells a variety of tool brands, including COLT, Sharp Edge and Narex Tools, is pleased to be sponsoring the Ask the Experts section in collaboration with GMC Publications. Each issue's Star Question prize-winner will receive a Narex six-piece chisel set worth £79.95 and all other published questions will receive a 20mm half-round fine cut Narex rasp worth £20.95. For more information see www.tomaco.co.uk

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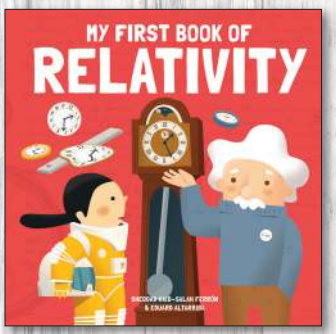
N.B. If you do need help or advice you can email me: anthonyb@thegmcgroup.com or visit: www.woodworkersinstitute.com where there are lots of useful articles, either way the service is free!

BOOK REVIEWS

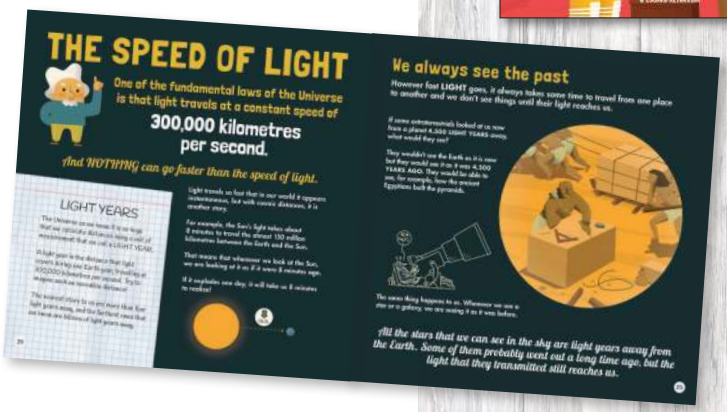
The Editor is definitely no Einstein so we planted a couple of books on his desk in the hope he might grow smarter...

My First Book of Relativity

Sheddad Kaid-Salah Ferrón & Eduard Altarriba



Talk about a complicated subject for kids – hard enough as an adult. But this book, which is beautifully illustrated in a cartoon style, addresses all those awkward questions young folk might have about space, time and relativity. These aren't 'just scientific principles' but philosophical ones too. Statements such as 'we always see the past' are pretty obvious but throw up questions about whether we can ever truly see into the future. Einstein's Theory of Special Relativity has three implications – time dilates, length contracts and mass increases. These are tricky concepts to get your head around but it is all clearly explained here. We can then see if we really could journey into the future, but the catch is that since nothing can go faster than the speed of light, we will travel more slowly and, to make things even more complicated, as things go faster they gain mass – i.e. they get heavier… will we ever get there? This isn't just for young learners, us grown-ups will also find this book of paradoxes fascinating.



ISBN: 978-1-78708-032-4
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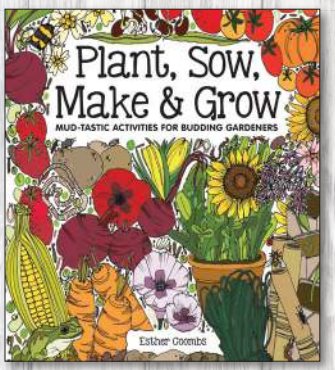
Plant, Sow, Make & Grow – mud-tastic activities for budding gardeners

Ester Coombs



Another lovely book for kids which adult uninitiated gardeners can learn from too. Delightfully illustrated and divided by the four major seasons – spring, summer, autumn and winter – the emphasis is on growing fruit and vegetables. The payoff for all the preparation and sowing of seeds is being able to harvest the food later on. Salad leaves, potatoes, beetroot, peas, strawberries and, yes, some flowers too.

Plenty to learn about and have fun – bees, water conservation, making a watering can, leaf artwork and a summer festival. Harvesting the fruits of your labours in the autumn, composting, making a bug house. In the winter, keeping seeds for the next year, making a sunflower head bird feeder, frost and cold-weather gardening and turning popcorn into garlands. The lovely, colourful illustrations in this very comprehensive book will have your little'uns itching to have a go in the garden.

ISBN: 978-1-78708-024-9
PRICE: £12.99
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Both books are available from:
www.gmcbooks.com
01273 488005

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Make a maple chopping board

The **Editor** thought he'd get stuck into a nice, simple project for a change and finally got the chop

I often think the simplest projects give me the greatest pleasure because they don't generally take long to do, and leading a busy life my time is always a bit short. It's good to use up those odd bits and pieces that oh-so-nearly end up in the woodburner in my front room. A nice chopping board goes down well in the kitchen too, or is perfect as a present, always well received.

1 Choose a food-friendly offcut. In this case it happened to be maple but beech or other light-coloured, tight-grained hardwoods should be suitable. Cut it oversize and run it down to thickness, in this case using the Pocket Workshop's thicknessing unit, which is perfect for work like this. Make sure both faces are smooth and flat with no snipe – dipped cut – at the ends.

2 Hand plane the board to width, checking the edges are square. A jack plane is the correct length for this work. ➤

1

Cut the wood oversize and run it down to thickness, making sure both faces are smooth and flat with no snipe

2

Hand plane the board to width, checking the edges are square

3 Mark the board ends across with a try square and pencil the board to length.

4 To cut to length there are two options. The first is to handsaw it slightly over length using a good, sharp blade.

5 Method one – use a router, straight cutter and T-square to trim neatly to the marked lines, allowing for the cutter to base offset distance.

6 Method two – use a circular saw and the T-square to do a cut to the marked lines. Remember the blade to baseplate edge offset. If the cut finish is known from experience to be a bit rough, leave a bit of extra length and use the router to trim.

7 You should now have a nice, neat rectangular board shape. The corners need to be rounded off so find a suitable shape to draw around but leave the board square for the moment to make fenced routing more accurate.

8 Before the corners are shaped we need to make finger-grip slots in the sides to lift the chopping board up by. Make up an L-jig for the router – simply two boards screwed together with a bracket underneath to keep it rigid. Pre-drill to avoid the board puffing or splitting open.

9 Fix an L-jig in the vice and clamp the board to it flush with the top of the jig, mark the slot length about 50mm short of each end and use the router, fence and a small corebox bit to machine the slots. Note the L-jig is wider than the chopping board so the router has support at the start and end of each cut.


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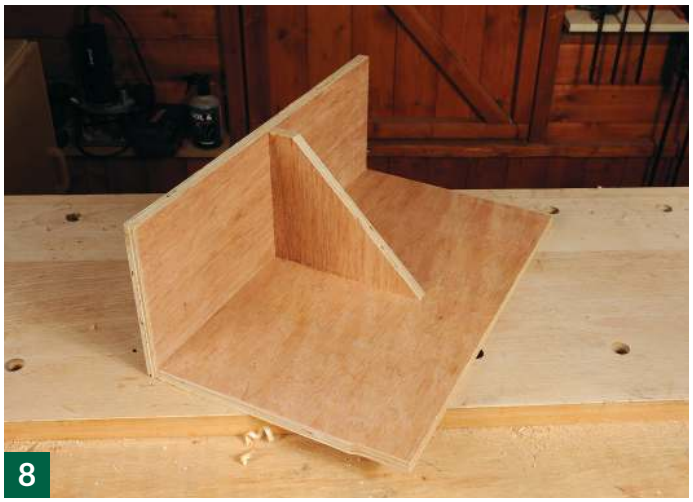
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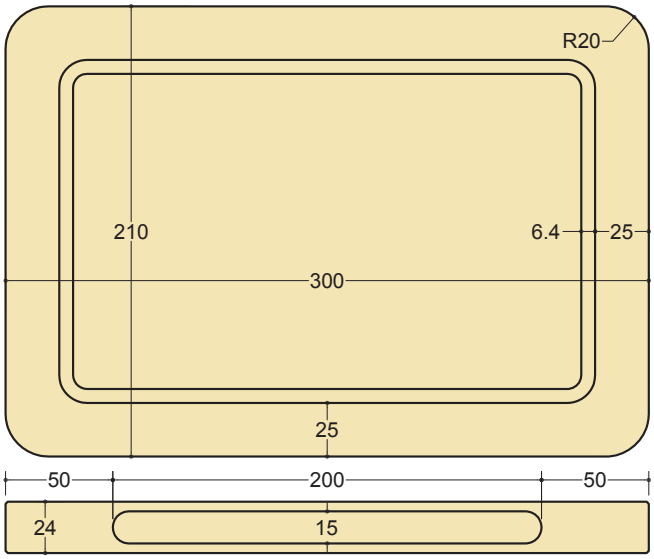

10 So long as you control the router by pressing the fence carefully against the jig, you should end up with a nice, neat stopped finger recess.

11 On one side of the board we need a slot to contain meat juices, while the other side is plain for vegetable preparation. To make the slot use a tiny corebox cutter in the router and use with the straight fence. The board is sitting on Trend Loc Blocks so the fence facing can hang down below the board's edge.

12 Bandsaw off the corners of the board working close to the line, then use a wood file and abrasives to smooth the shape.

13 The chopping board edges need a tiny bevel to finish them properly. Make sure the bearing on your bevel cutter doesn't sit too far down or it will run into the finger recesses and ruin the job. All edges now need a small roundover, I like using a 3.2mm cutter for a very neat profile. Make sure the cutter isn't set down too low or the slight step left behind will be hard to remove.


11


12

14 Sand fully all over, finishing with fine abrasive. To sand the edges put the board in the vice before using the sander.

15 Use a suitable food-safe finish – the simplest being vegetable oil – and let it soak in. Your board is now ready for the next meal. ■


13

14


15

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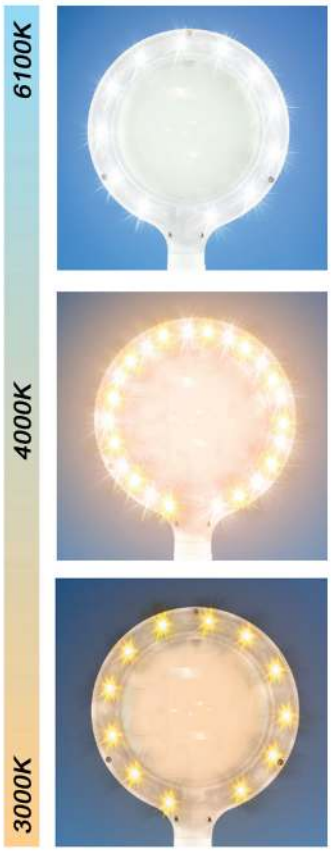

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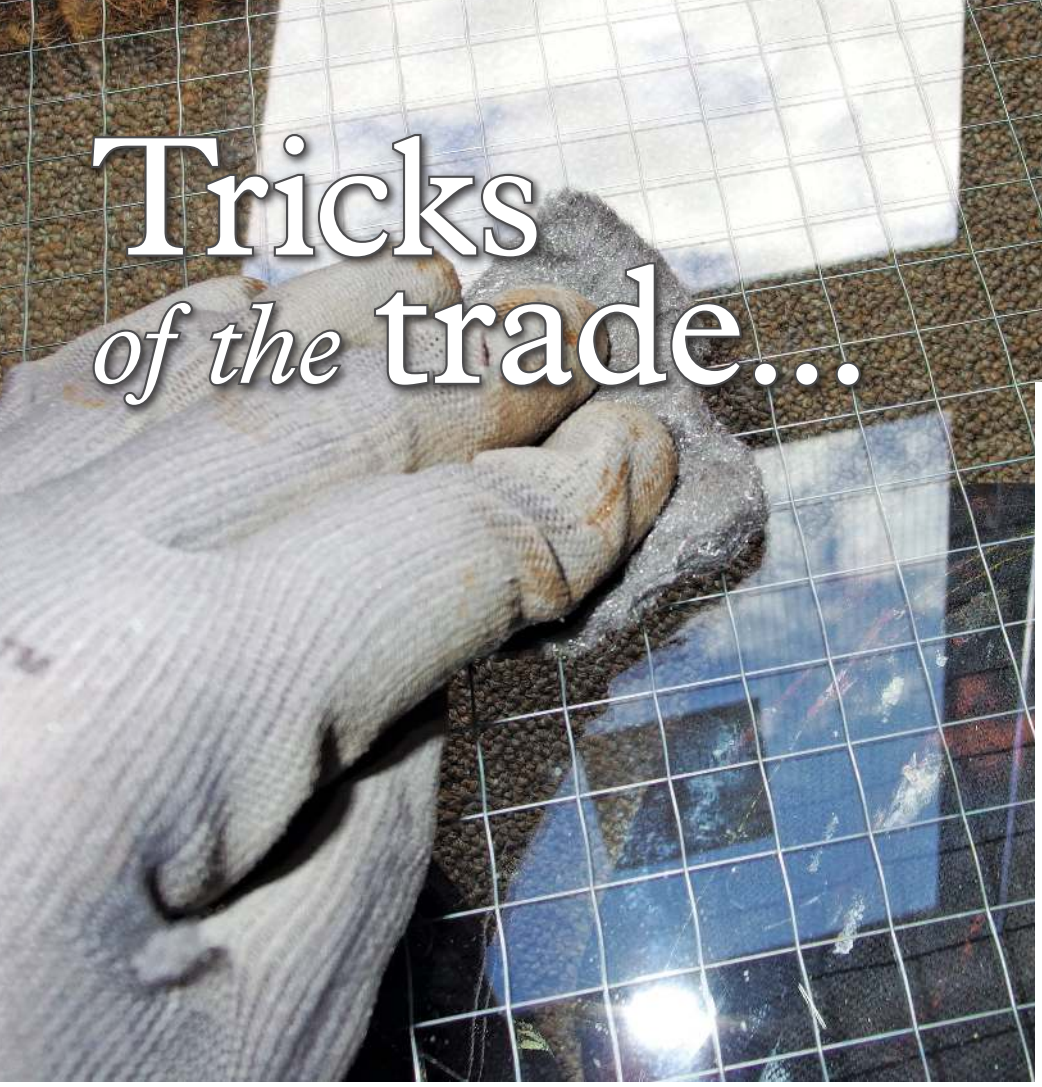
Tricks *of the* trade...



PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Smoothing new silicone around the glass has left a fine string of surplus material to be removed when cured

The side of the chisel being used to scrape the edge of a wired glass pane. Note the protective glove

A slightly 'off sharp' chisel being used to scrape off all major surface accretions

And finally, '0000' wire wool rubbed on the glass to thoroughly remove all traces, including finger grease marks

...cleaning window glass

Glass doors and windows can easily get spattered with paint, varnish and allsorts. How do you get the stuff off and have really shiny glass?

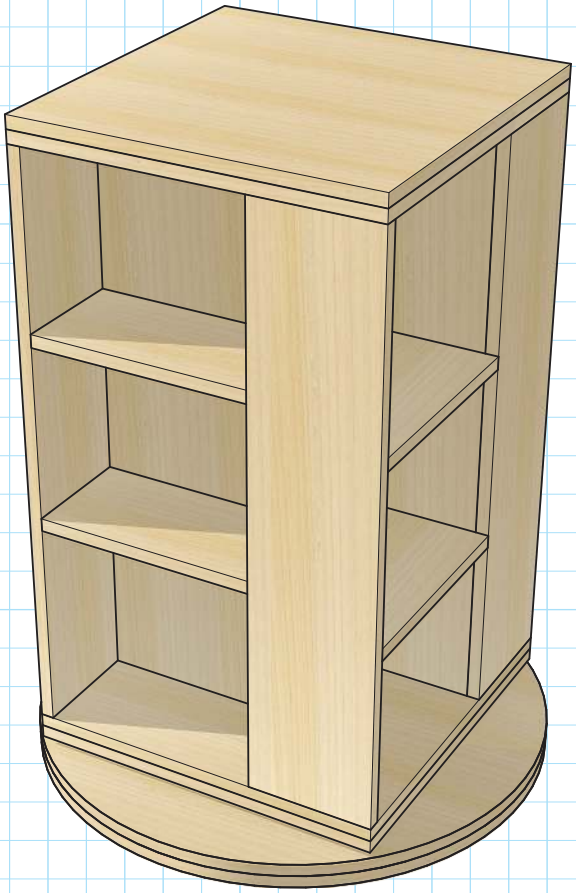
You've installed glass in a door and applied a wood finish, but, oh no! It's found its way on to the glass pretty much all the way round, running off the moulding because of close contact with the glass. Fortunately, glass is normally smooth and also impervious to fluids so the problem is superficial but not very neat. In fact, if you look carefully at glass that has been in situ for some time, the chances are there will be a surface film and splashes from paint, dirt and fly mess. A standard window cleaning spray with acetic acid and a detergent will do most of the work but the primary marks will still be left. Nowadays another annoyance is the line of old silicone left from mounting glass in silicone mastic rather than putty, but in need of removal if the woodwork needs treatment before refitting the glass. Silicone is even more difficult to remove fully although you can buy a special product designed to soften it.

My answer, learned long ago, is to take a 'second best' wide chisel without any burr or hook that could damage the glass and use it to lift most of the lumps, bumps and silicone lines. You can also use a proper window scraper that takes replaceable blades. Follow that with '0000' wire wool, the finest grade available. I use Liberon wire wool, which is really good quality and, at such a fine grade, does not scratch glass. What it does do is remove all last traces of surface contamination and is, in fact, used to prepare newly made furniture which has glazed doors. Now you really can see clearly. ■

PLANS 4 YOU

Rotating bookcase

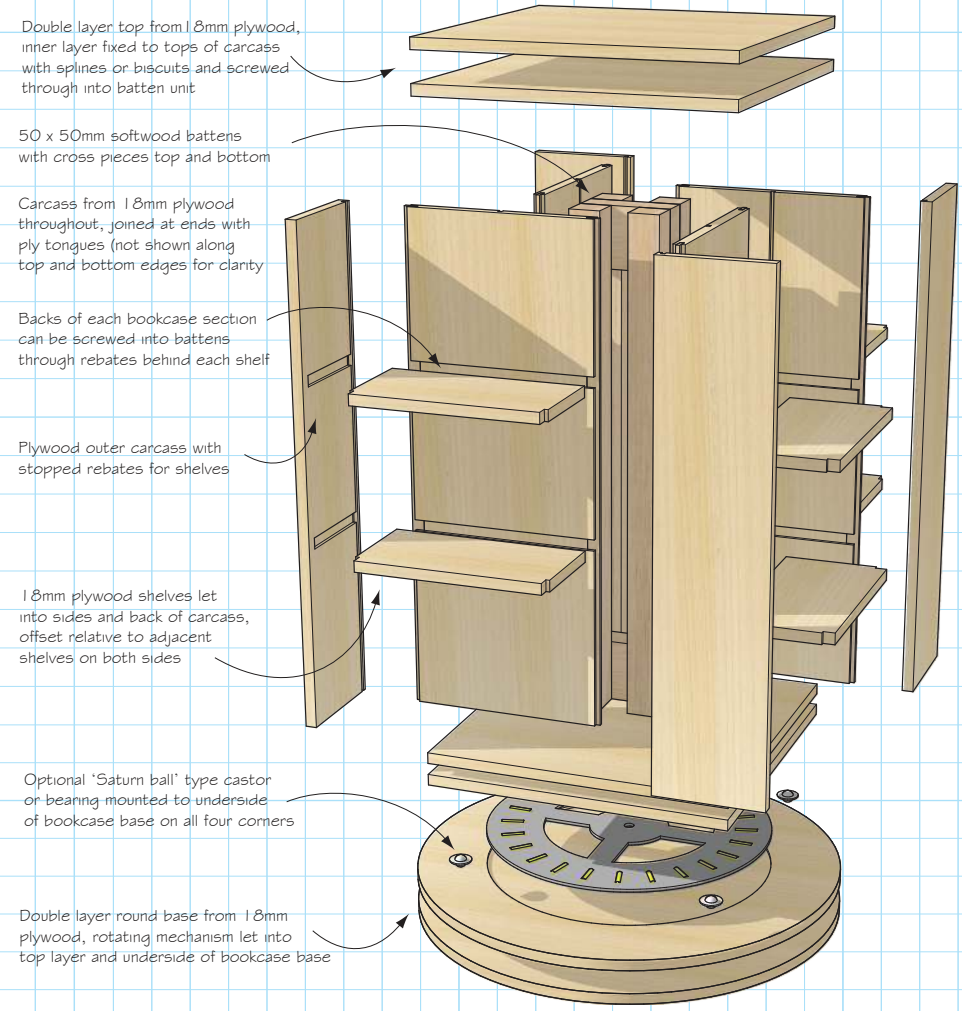
Simon Rodway threatens to throw the book at us with his latest spinning creation



Cutting list

Top/bottom	4 @ 495 x 495 x 18
Round base	2 @ 700 x 700 x 18
Backs	4 @ 806 x 302 x 18
Sides	4 @ 806 x 175 x 18
Shelves	8 @ 314 x 163 x 18
Battens	4 @ 804 x 50 x 50
Cross battens	2 @ 145 x 150 x 45

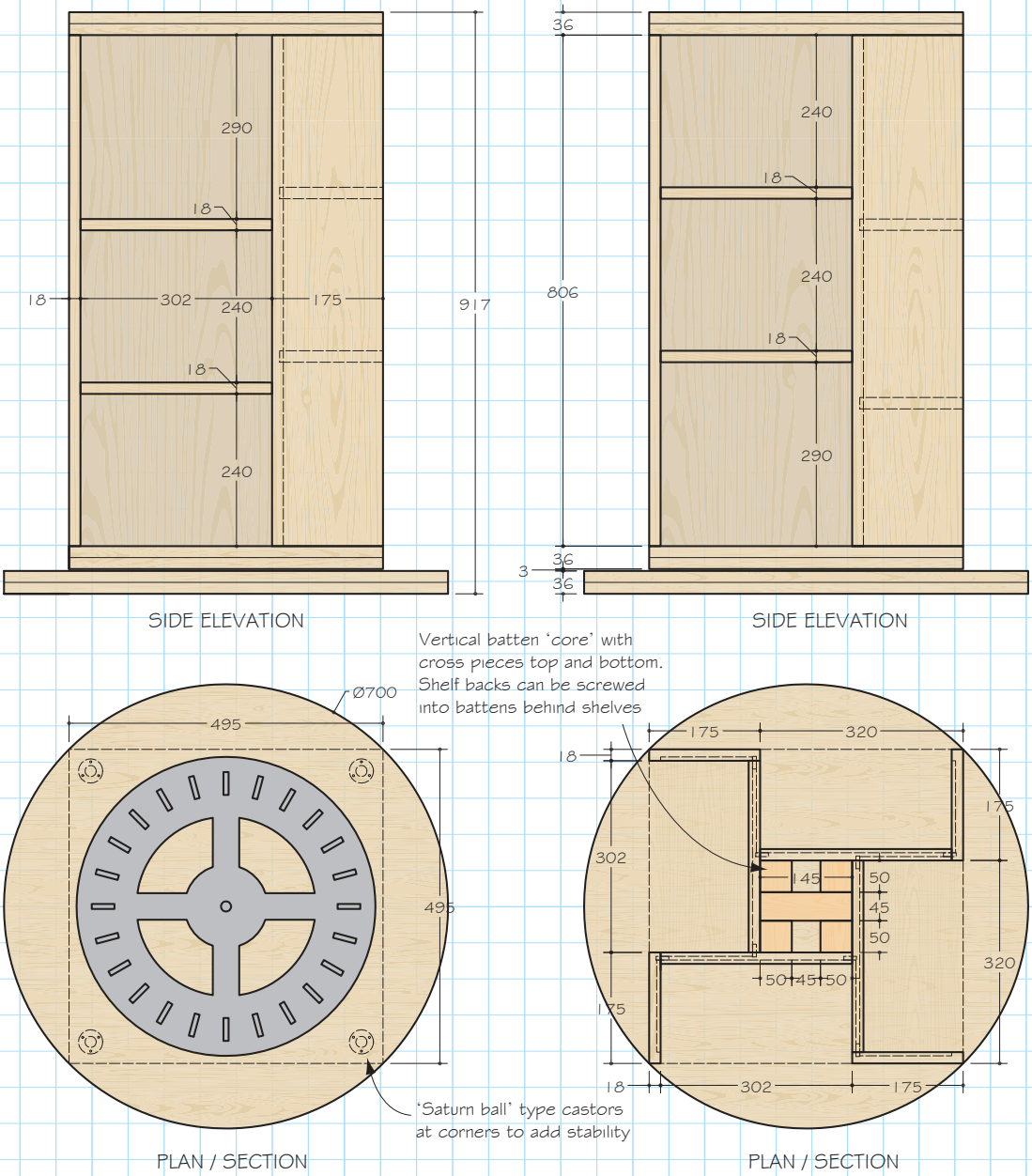
(Ply splines to fit)



Conventional bookcases come in all shapes and sizes, but usually they have one thing in common – they are intended to be placed against a wall, displaying the spines of books towards the room. This is fine if you have enough wall space, but what if it is in short supply? One possible answer comes in the form of the project for this issue – a revolving bookcase which stores books on all four sides.

Before moving on to the build, it would probably be a good idea to source the rotating mechanism. The central one I have shown is there just to illustrate the principle, but the 'Saturn ball'-type castors can be bought readily on the internet. In fact, adding extra ones inside the four mounted at the corners of the carcass base would do the job perfectly well, as long as they were combined with a middle spindle to locate the bookcase centrally above the disc-shaped base.

The main carcass, base and shelves are all made from 18mm plywood,



and can easily be cut from two full-size sheets. The layout on plan makes lipping the ends of each part a bit tricky, although not impossible, so if you are not keen on the look of exposed ply end grain, then painting the whole bookcase is the best option. A fair number of grooves and rebates are required to make this, so the router will be an essential part of the build. The main uprights, backs and sides of the carcass are joined using ply splines or loose tongues, and these can also be used to join the vertical pieces to the top and bottom.

The structure is stengthened by the use of four vertical battens in the middle, which are joined together top and bottom with cross pieces to form a unit. Since the top and bottom of the carcass are double layers of plywood, the inside layers can easily be screwed through into the batten unit with any fixings hidden once the outer layers are in place. Additional strength can be added by screwing into the battens through the inner ply back uprights, but only where there are grooves for shelves so that the screws will be hidden behind them.

One further feature of the layout is the offset of adjacent rows of shelves. This is important as the back of one set of shelves doubles up as the side of the next set or bay and, without this offset, the uprights would have matching grooves on both sides, resulting in a real weakening of these components. In any case, it adds a bit of variety and alternative book storage possibilities as the bookcase is rotated.

The circular base is designed to correspond to the diameter of the bookcase as it is rotated, so it can be freely placed adjacent to other items without fear of knocking into anything as the upper part is turned. Cutting the two discs can be tricky, even with a trammel, so you could always revise these to octagons for a slightly different look. ■

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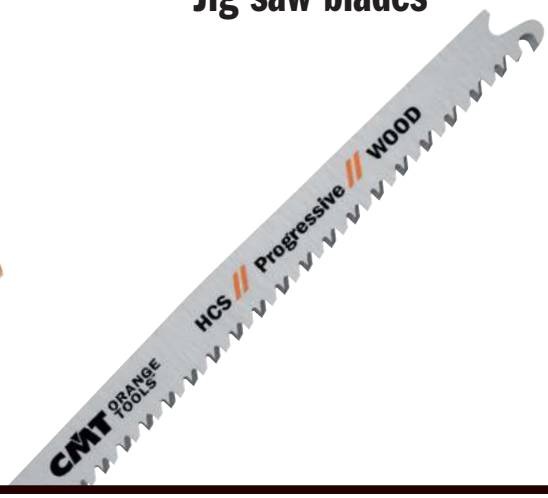

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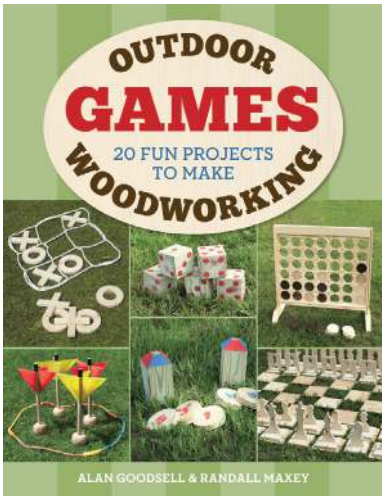

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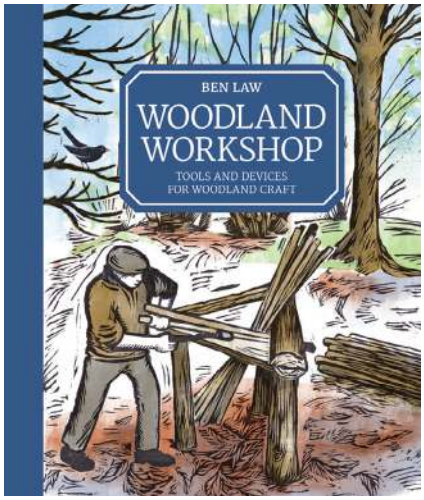

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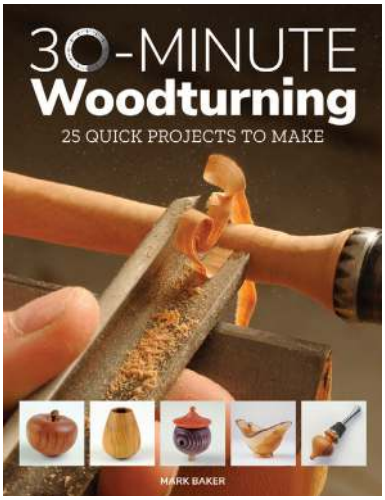

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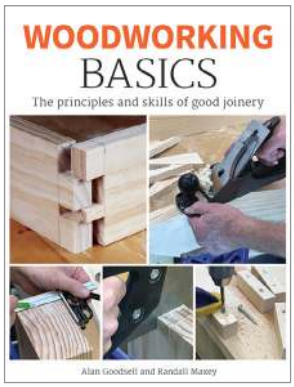

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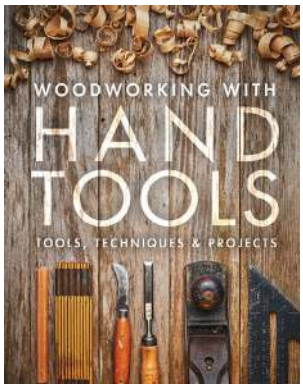

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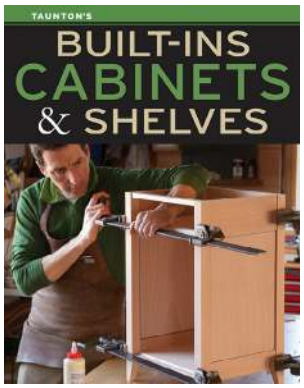

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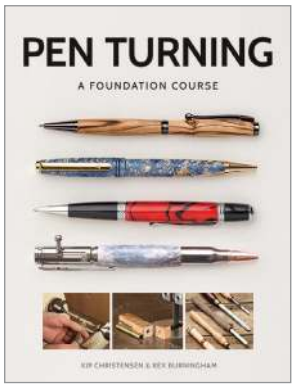

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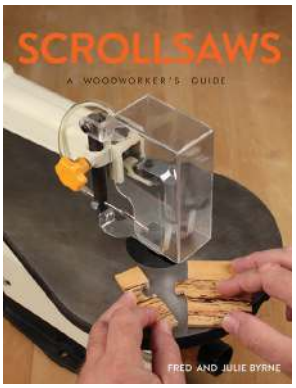

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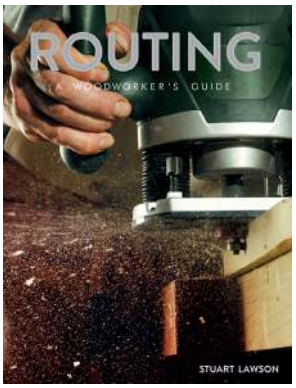

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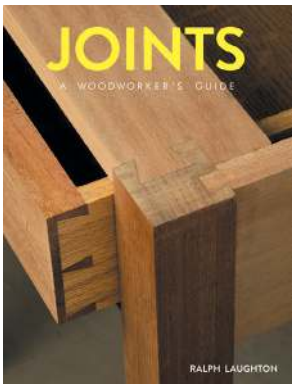

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Focus on…

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Venice

A city that is truly nothing without wood…

Venice is a truly unique city. Magnificent, overblown architecture a monument to its riches as a once-major trading port, yet fragile and vulnerable to the very thing that keeps this tourist destination afloat – water.

A UNESCO World Heritage Centre, Venice was founded in the fifth century and is made up of 118 islands and 150 canals with 400 bridges. You can only travel around it by foot and on water. Everything – from shops to restaurants and hotels – is reached in this way. Even the police travel by boat and effluent is removed on barges travelling the same narrow waterways as used by tourist gondolas.

You probably know by now that Venice is built on densely packed wooden piles. These were fashioned from alder tree trunks – a timber noted for its water resistance – more than 500 years ago. Every monumentally huge, heavy stone building and even the 16th century Rialto Bridge over the Grand Canal is piled in this way. The system obviously works because rot is kept at bay thanks to a lack of oxygen in the salt water and mud which would have needed to be present for biological decay to set in.

Minerals in the water harden the piles, which have become petrified over time. The tops of the piles were cut level and horizontal timbers laid over them before the buildings could be laid by brick, stone or timber above. Many buildings have doors right on the water's edge so the wealthy owners could step straight in and out of their watery transport.

Venice has problems. Water extraction, rising sea levels and visits by huge passenger liners with their wave disturbance all threaten to undermine the city. Lagoon flood barriers are being constructed at vast cost with a completion date of 2022, but no one knows for sure if these will really work as intended.

It would be a dreadful shame if this amazing city with all its history and fine architecture were eventually to submit to the very water it is built on.

In the meantime, Venetians simply shrug their shoulders as they are used to regular floodings in the streets and premises, which make daily life more difficult.

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