Issue 8 December 2015

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In the December issue...

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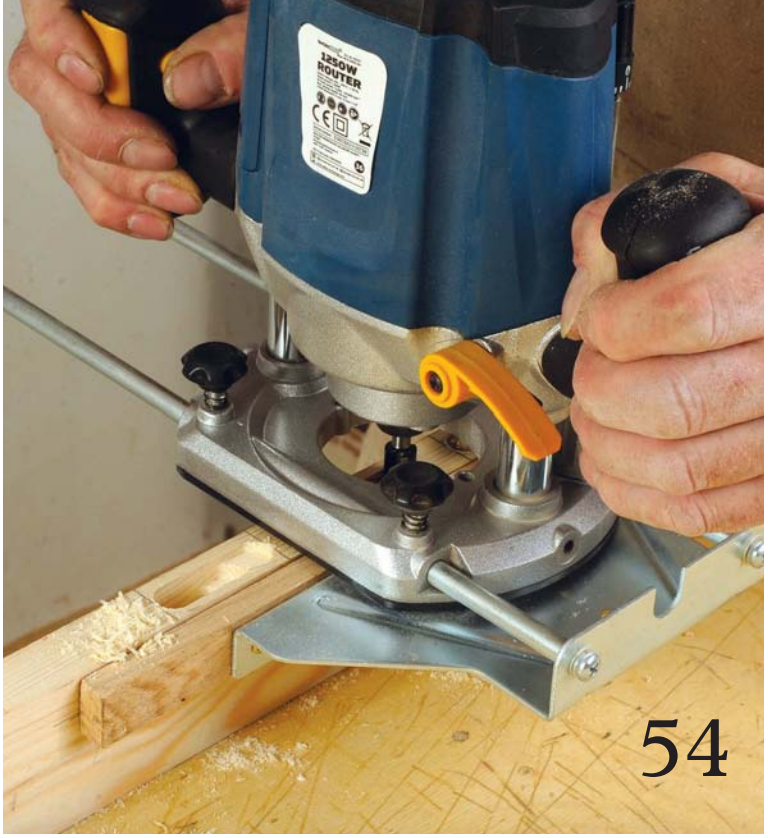

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Welcome

to the December issue of *Woodworking Crafts*

Hello everyone and a warm welcome to our December issue of *Woodworking Crafts*. It is surprising how quickly the year goes, especially as this magazine is still quite new, but we have already reached issue eight. This is the time of year when workshops and sheds tend to be cold uninviting places, so 'armchair woodworking' seems a lot more attractive. To this end we have pulled together a selection of books you may like and some possible woody gift ideas so you can drop a few carefully aimed hints! As always we try to bring you a potpourri of ideas, techniques and projects, but we are always open to suggestions for things you would like to see in the magazine. It just remains for me, and the rest of the team, Briony, Jan, Oliver and Mark, to wish you all a peaceful and pleasant break over the festive period and a happy and productive New Year!

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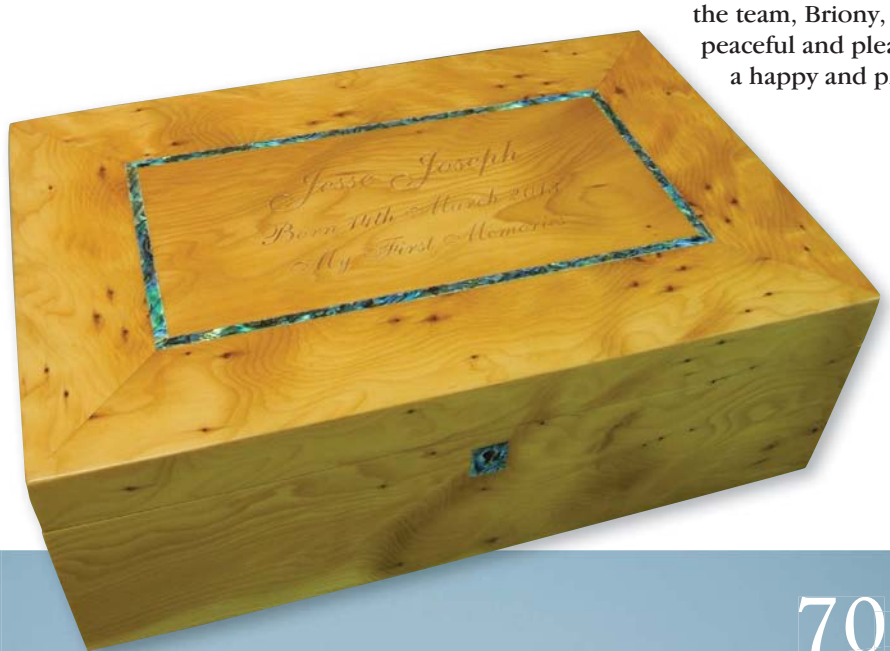

Anthony Bailey, Editor
Email: anthonyb@thegmcgroup.com

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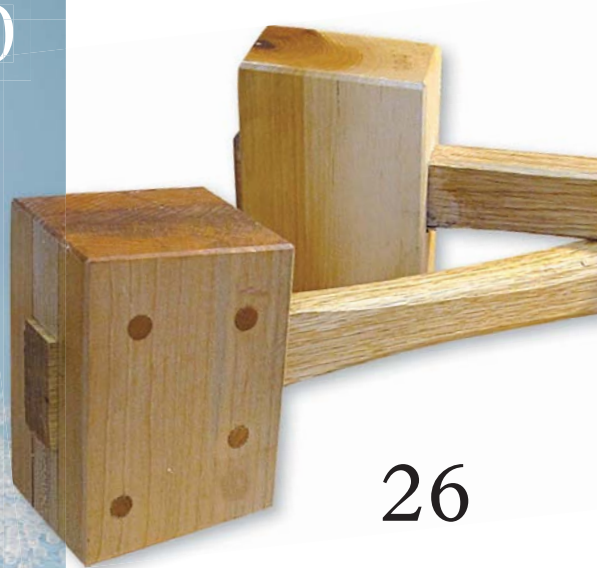

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hand tools and wood chisels specialist

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The very simple country look with a definite Shaker influence and a soft blue milk paint finish

The worn and worn-out early-20th century office look with brass pull handles can help create a mood

Design Inspiration

The humble cupboard is the essential of every home, but that doesn't have to mean dull and boring. Here are some examples to get you thinking about what could look good in your home

Above: A darker Victorian style with raised panels and a top cornice-like moulding

Left: Glazed doors with or without curtaining creates an intriguing appearance

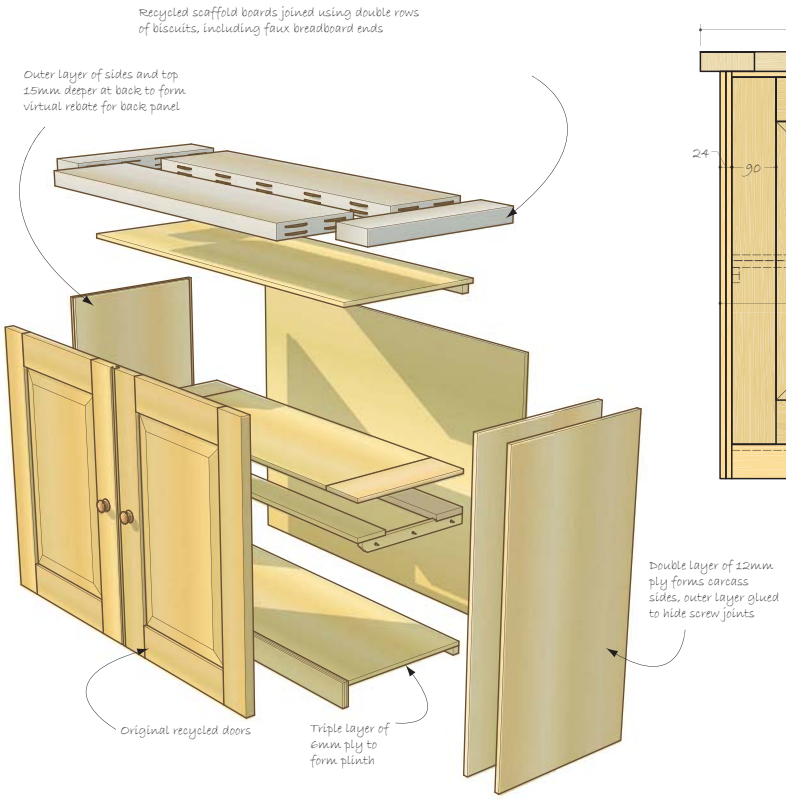
Or maybe a more natural golden hue with figured panels and discreet detailing can work well

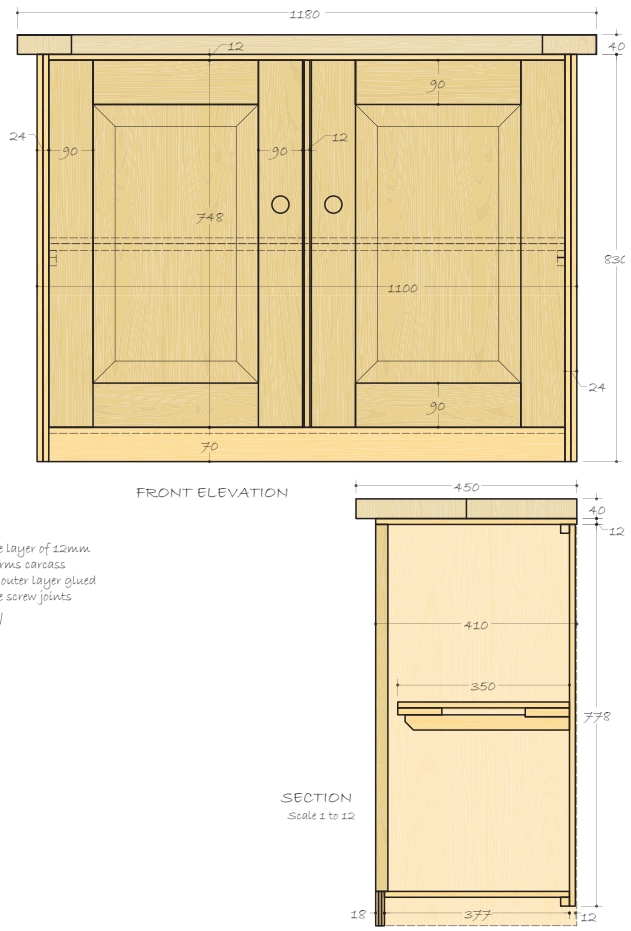
This deceptively simple style gives a nod to Oriental influence with a slide bolt and paddle drop handles

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Side effects

The Editor decided to make a cupboard 'on the side' – well, more of a side cupboard actually. Still, it opens a whole new door for him – bless...





I was 'gifted' a pair of old pine (*Pinus spp.*) doors which were apparently part of a larger set because although they had rebates too close together, one had a panel raise outwards and the other inwards and they both had edge beads. Still they fitted together and I don't like to look a gift horse in the mouth, so a bit of head scratching later, I decided a side cupboard would be the best use for them. All I needed was a carcass and top. A mixture of old and new, in fact.


1

1 The doors were the same 'hand' but I figured I might be able to spring one door apart and reverse the raised panel to match the other – some hope, as it turned out.

2 I decided to make a modern carcass out of ply but with contrasting doors of old pine. But what for the top? By lucky chance I found a couple of quite degraded scaffold boards, which would make the right width and hopefully the length as well.


2

Carcass

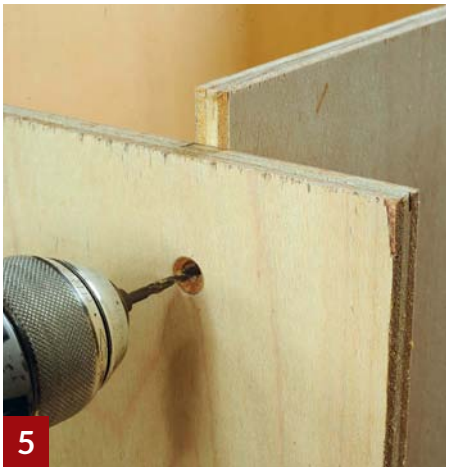
3 All I had in stock ply-wise was some 12mm Far Eastern, which was too thin for a normal carcass but I decided to double it up for the sides. The back would have to be the same stuff so it was going to take about a standard 2,440 x 1,220mm board plus a half board. I used a track saw to make clean accurate cuts.


3

4 The construction of the inner carcass shell was all screwed together with predrilling and countersinking since the twinfast screws would be going into the thin edge of the 9mm ply and would need to be carefully centred on that.


4

5 Because twinfast screws lack the tapering form of traditional slot head screws the pilot holes used the same size drill as the clearance holes being therefore one and the same, i.e. pilot right through.


5

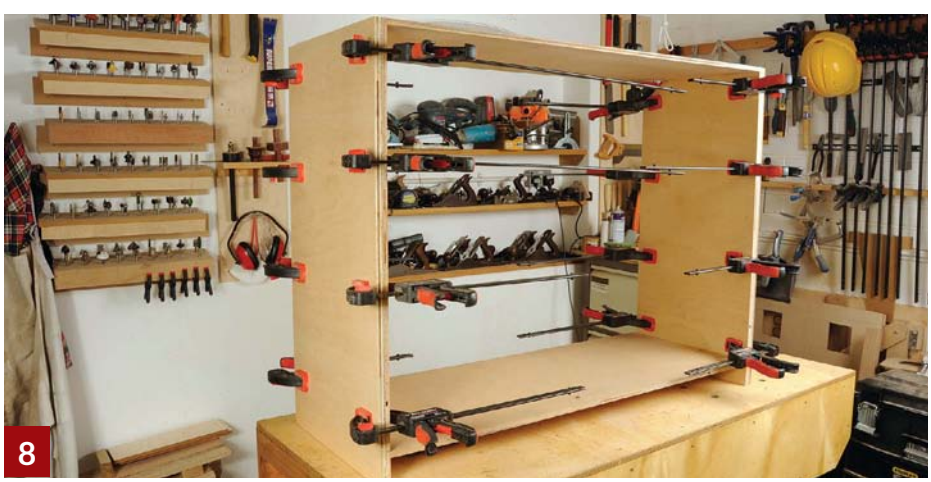
6 This is what happened when one hole was misaligned and the screw run in. Thankfully my previous restoration experience and some acrylic paints would blend this in!


6

7 Once the carcass was screwed together, the outer ply cheeks were added using just aliphatic resin glue and clamps to hold them in place until dry. It meant there would be no visible fixings on the carcass sides.

7

8 The carcass top and outer sides or cheeks projected backwards by 15mm so the back panel would sit neatly inside them and not be visible on the outside.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9 The front plinth was just a flush fit glued into place. Because I was short of material I glued up three 6mm thicknesses of veneer-faced MDF and ran them through the table saw afterwards to trim them neatly to width.

10 The cupboard needed one shelf. The same problem, a lack of material and desire to spend money on what after all was meant to be a cheap budget production. With usual Bailey cunning, I used a mixture of ply and veneered MDF to create a faux breadboard-ended shelf made out of bits and pieces.

Screw Choice

I use a lot of modern twinfast screws but I avoid the standard cheaper types because they don't work very well. Premium types should drive easily, the heads should seat in the wood neatly and not cause 'cam out'. With this project carefully pilot drilling and countersinking in the thinnish ply was essential but decent screws made the job a lot easier to do.

9

10

11 The shelf was supported by two offcuts bevelled back at the front to be less visible and with a cutout at the back to accept the thicker MDF. From the top it all looks perfectly normal, though.

Top

12 Now for the top, neither board was long enough so I adopted the breadboard end trick again, which it needed anyway, but it allowed me to extend the overall length. The first job was to cut off the weathered ends.

13 I considered all the possible options for joining the ends on. The whole thing would be sitting on the carcass so not a structural matter. Since the wood wasn't very solid from years of exposure it didn't seem sensible to form proper joints. Instead I decided on using my biscuit jointer but have the biscuits 'stacked'. Firstly I knifed on a biscuit to check the blade depth was set correctly.

14 I used the bench as the reference surface for the lower set of slots. Because the boards were a bit bowed I had to press them down firmly at each biscuit position.

15 For the upper row of biscuits I sat the jointer on an MDF offcut and went through the same machining routine. It is essential to always machine with the board the same way up or the slot positions may deviate.

16 The scaffold boards were then all glued and cramped up without doing a trial fit although it is generally better to try the fit first, however I was pretty confident it was all good.


11


12


13

14

15

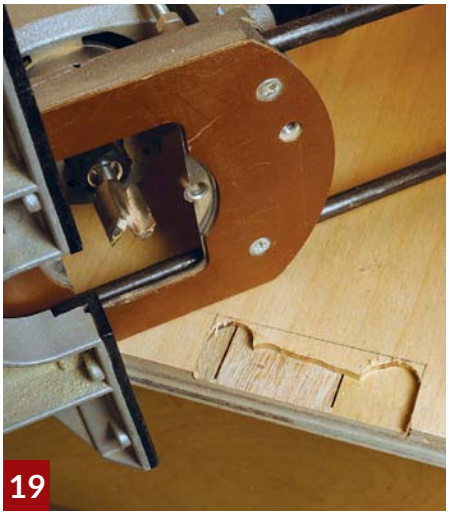

16

Biscuit Jointing

- Using a biscuit jointer for creating carcass joints is insanely easy.
- Beech biscuits are cheaper when bought by the 1,000.
- Buy a mixed box of 0, 10 and 20s so you have a choice available.
- A biscuit jointer can be bought for less than £50 if you shop around.
- Whenever possible, use the base of the machine as the most accurate reference face.
- Build a large board with a stop to press workpieces against when slotting.


17


18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Doors

17 Finally, I could think about fitting the doors. The carcass should be the correct size for them but there was the matter of reversing one door panel and the hinges. I tried 'springing' the door apart but the long tenons and the joiners' wedges defeated me, so rather than cutting and weakening one door I left it as it was. Adjusting the hinge recesses was a simple matter, though.


20


21

18 Now to mark the hinge positions ready for routing out. The doors weren't that square so I knew there would be a bit of trimming to fit nicely later on.

19 I fitted a hinge recessing bit in the router and set the depth for the thickness of one hinge leaf. I always remove the front edge of the recess first to reduce breakout and do a 'climb cut' i.e. with, rather than against cutter rotation, for the right-hand side for the same reason. This cut needs to be done with care.

Finishing

20 Back to the breadboarded top; the ends needed some rounding over to blend into the overall shape and then a general orbital sanding to smooth out the roughness. I used standard decorators' caulking to fill the deep gap between the boards and a few other surface deficiencies.

21 The doors and the top were given a good scrubbing with liming wax. The top accepted it better as it was so porous but the pine doors don't behave like oak with its open pores, so I ended up with a more ghostly effect!

22 The last two jobs were a coat of clear varnish inside the cabinet and two even coats of a Rust-Oleum Chalky finish paint, followed by a quick spray lacquer coat to seal it. Now I'm really beside myself with this new side cupboard... ■

22

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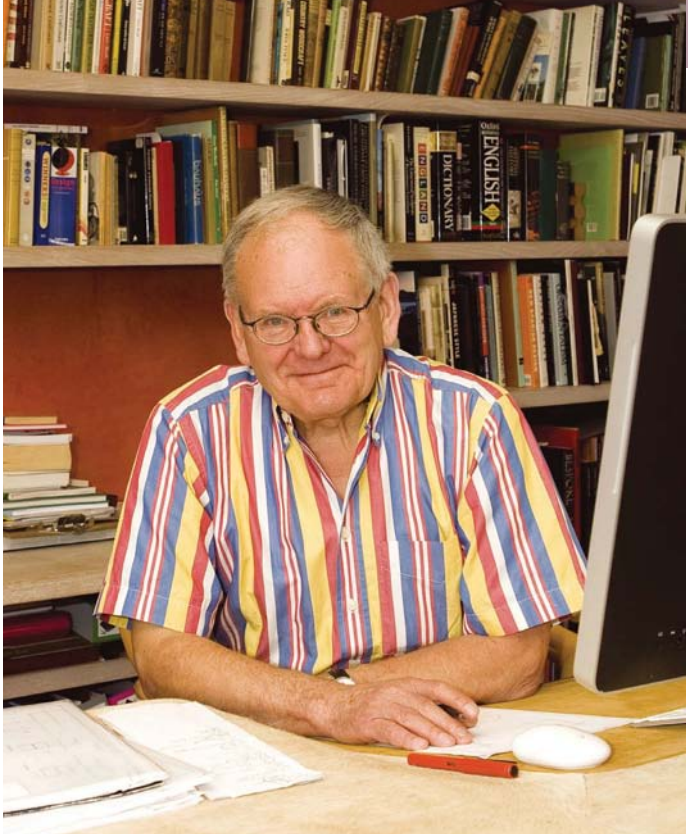
NEWS & EVENTS

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

Launch of the John Makepeace Prize for Innovation – a £3,000 cash prize for the winning designer



PHOTOGRAPH COURTESY OF THE FURNITURE MAKERS' COMPANY

John Makepeace has partnered up The Furniture Makers' Company

The Furniture Makers' Company drives high standards within the industry, recognising and rewarding excellence with its Design and Bespoke Guild Mark awards. They have now partnered with Britain's best known designer and furniture maker, John Makepeace OBE, who is sponsoring the annual John Makepeace Prize for Innovation to encourage more radical concepts.

New for 2016, this £3,000 cash prize for the winning designer seeks to encourage innovation that exploits new possibilities in design, materials and manufacture. The prize will celebrate the achievement of the designer selected from those awarded a Bespoke or Design Guild Mark, or who have won a Wood Award in any one year. The 2016 Innovation Prize is open to Design Guild Mark entrants for the next awards in May 2016, those awarded Bespoke Guild Marks between March 2015 and March 2016, and those shortlisted in the Furniture category of the 2015 Carpenters' Company Wood Awards. The John Makepeace Prize for Innovation will be judged in March 2016 by an independent panel of judges from the design and furnishing industries.

John Makepeace said: "As a designer and a maker, I am constantly trying to evolve more eloquent concepts for furniture. My objective is to achieve freer, lighter, stronger and more sculptural forms better suited to their function and more expressive of what is particular to each commission.

"I have always been fascinated by the interplay of design and technology, exploring processes and materials leading to new possibilities and creating products for current and future generations."

Master of The Furniture Makers' Company David Dewing said: "We are excited about this initiative to drive innovation in the field of furniture design and hope this new prize will prove a real incentive to designers, encouraging new ways of thinking and working with radical concepts, materials and new technologies. British design and manufacture is among the very best in the world and we welcome bold thinking to keep our industry ahead of its competitors."

Contact: The Furniture Makers' Company
Web: www.furnituremakers.org.uk

The Furniture Makers' Company
the furnishing industry's charity

Joe McKenna Ltd – Record Power Show 2015

Record Power will be on hand to answer your questions and demonstrate products from their extensive range. In addition, exclusive show deals will be available on the day, making this an event not to be missed!

When: 5 December, 2015
Where: Joe McKenna Ltd, 54-56 Parnell Street, Limerick, Eire
Web: www.recordpower.co.uk

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Woking 20th Century & Art Deco Fair

This popular event includes furniture, art, fashion, jewellery and decorative pieces from a variety of eras and styles, including Art Nouveau and Art Deco, as well as vintage items from the 1960s and 1970s. The fair offers a range of good-quality items from English and European makers.

When: 28 December, 2015
Where: Woking Leisure Centre, Kingfield Road, Woking, Surrey GU22 9BA
Web: www.ukvintagefairs.com

Reader letter

Dear Anthony, a few issues ago in *Woodworking Plans & Projects* you published the design of this step stool. So I encouraged my students of 14 years old to make one each and they all exceeded my expectations. I thought you may be interested in one of our achievements in the Falklands. P.S. I do like the new magazine *Woodworking Crafts*. It is superb and long may it continue.

Yours truly, **Willie Bowles**
By letter, Falkland Islands

Traditional Chilterns Christmas

On 5 December, 2015 Chiltern Open Air Museum is opening especially for a festive traditional Christmas weekend. With something for everyone, see Father Christmas in his grotto and receive a gift - £3.00 per child, see the historic buildings festooned in traditional Christmas decorations and take part in Christmas crafts. There is also the opportunity to meet costumed re-enactors making preparations for a Regency Christmas and to hear folk singers singing traditional songs and music. Enjoy warm mince pies, spiced apple and hot drinks in Chiltern Open Air Museum's tea rooms.

When: 5–6 December, 2015
Where: Chiltern Open Air Museum, Newland Park, Gorelands Lane, Chalfont St Giles, Buckinghamshire, HP8 4AB
Contact: Chiltern Open Air Museum
Email: enquiries@coam.org.uk
Web: www.coam.org.uk

Gap in the Sofa

Brits are changing their furniture a lot more regularly than consumer advice suggests, according to new research. A new study by ahf.co.uk has uncovered a large gap in the amount of time we keep our furniture for, compared to the lifespan recommended by watchdog guidelines. Items of furniture and appliances last on average six-and-a-half years less than stated by consumer advice, researchers found when quizzing Brits on their sofas, bedframes, mattresses, washing machines, fridges, freezers, dining table, boilers, ovens and dishwashers.

While many experts and watchdogs state a freezer should be replaced by residents every 16 years, it was found that they are actually lasting an average of 6.63 years, meaning a difference of 9.37 years between consumer advice and the reality for homeowners.

In further findings, although instructions commonly suggest changing a washing machine every 12 years, the average lifespan of a washing machine in Britain is 6.21 years – 5.79 years less than the guidelines. More differences were recorded in fridges – 7.48 years, dining tables – 7.54 years, boilers – 7.54 years, ovens – 8.97 years, dishwashers – 5.50 years – and sofas – 1.38.

The research - which took lifespan averages from advice offered by consumer sites and industry experts such as GoCompare, MrAppliance and The Sleep Council – also showed that furniture and appliances lasts six months less in flats as opposed to houses, likely due to wear and tear caused by a higher turnover of residents.

Jonathan Gregory, eCommerce Manager at AHF, said: "It is clear that the guidelines given by the experts have not taken into account the everyday effect that busy homes, with children and pets, can have on our items and with research stating that Brits spent nearly £14bn on new furniture in 2014, it's important that we ensure no money is lost by having to replace items sooner than expected.

"AHF furniture is built to the highest possible quality and we're confident that with proper care, our products will last the full term highlighted by the experts. In order to extend the lifespan of furniture and appliances, we recommend they are regularly checked for their working condition, and that stain proofing is considered."

Contact: AHF Furniture & Carpets
Web: www.ahf.co.uk

AHF Home Furniture Store

IMAGE COURTESY OF AHF

Items of furniture and appliances last on average six and a half years less than stated by consumer advice

The Geffrye Museum

Christmas Past: 400 Years of Seasonal Traditions in English Homes

The Geffrye Museum's annual Christmas exhibition returns this year as traditional festive decorations transform the museum's period living rooms, showing how Christmas has been celebrated in Britain over the past 400 years. The exhibition brings to life many of the rich and vibrant traditions of Christmas past, from feasting, dancing and kissing under the mistletoe to playing parlour games, hanging up stockings, sending cards, decorating the tree and throwing cocktail parties. 'Christmas Past' has been mounted at the Geffrye for over 20 years and on-going, original research into the history of Christmas adds a new dimension to the displays each year. This year's accompanying events have a 17th-century theme and include a special open evening with festive music and activities, an 'a capella' concert by candlelight and festive decoration workshops for adults and children. On 17 December the Crafty Fox Night Market offers visitors the opportunity to purchase design-led, handmade products direct from the makers at this festive evening event. Throughout the exhibition, seasonal food will be served in the café and unusual gifts, cards and Christmas decorations will be available in the shop.

When: 24 November, 2015–3 January, 2016
Where: The Geffrye Museum, 136 Kingsland Road, London E2 8EA
Web: www.geffrye-museum.org.uk

PHOTOGRAPH BY JAYNE LLOYD, COURTESY GEFFRYE MUSEUM

PHOTOGRAPH BY CHRIS RIDLEY, COURTESY GEFFRYE MUSEUM

Above: A drawing room in 1870 decorated for Christmas at the Geffrye Museum

Left: Recreation of a living room in 1965 at the Geffrye Museum

Meet Green Father Christmas

On the weekends of 5–6, 12–13 and 19–20 December Weald & Downland Open Air Museum are welcoming a very special guest to the Museum – Green Father Christmas (Old Winter). Seated in his chamber, traditionally decorated with seasonal greenery, Old Winter will be selecting presents from a large wooden chest to give to each child that he meets. Every child will receive a traditional wooden toy wrapped in brown paper and string.

When: 5–6, 12–13 and 19–20 December, 2015
Where: Weald & Downland Open Air Museum, Singleton, Chichester, West Sussex, PO18 0EU
Contact: Weald & Downland Open Air Museum
Email: office@wealddown.co.uk
Web: www.wealddown.co.uk

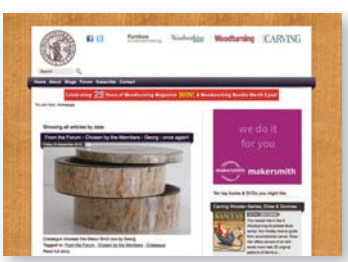
Ardingly International Antiques & Collectors Fair

The largest antiques and collectors fair in the south of England is regularly held at the South of England Showground in Ardingly and the first event of 2016 takes place right at the beginning of the year on 5–6 January. Attended by local, national and international dealers and buyers, there are up to 1,700 stalls offering fine antique and vintage furniture as well as thousands of other decorative items.

When: 5–6 January, 2016
Where: South of England Showground, Ardingly, near Haywards Heath, W. Sussex RH17 6TL
Web: www.iacf.co.uk/ardingly

The Woodworkers Institute web forum

Why not join in the discussions on the Woodworkers Institute web forum? Covering all four GMC woodworking titles, including *Woodworking Crafts*, you can view the work from fellow craftsmen, exchange useful hints and tips, or join in on the hot topic of the day on the live forums. To register, simply log on to www.woodworkersinstitute.com, click the register button and follow the instructions.



WOODWORKING IN THE NEWS

NFC pushes grants scheme in bid to grow tree planting

PHOTOGRAPHS COURTESY OF THE NATIONAL FOREST

Woodland cover in the National Forest has tripled over the past 25 years

The National Forest Company (NFC) has stepped up its woodland creation grants campaign, enabling landowners to build a legacy for themselves, their families and the nation.

The grants, which come as the National Forest approaches its first quarter century in 2016, are available to all types of landowners within the 200 square miles of the National Forest, be they farmers, estate managers, businesses, schools, parish and local councils, charities or individuals. The aim is to create the biggest environmentally-led regeneration project in the country.

Woodlands can boost jobs and income

Businessman and landowner Chris Montgomery is one of the many people to have benefitted from the NFC's help. "I wanted to create a woodland space that could provide fuel for my family," he explained, "while also boosting wildlife and providing a place for people to enjoy the woodland and the wonderful views through the woods."

The grant schemes, which offer up to 100% funding, encourage landowners to plant trees and create woodlands and related habitats, and add to the almost 8.5 million trees that have already been planted throughout the parts of Leicestershire, Derbyshire and Staffordshire that fall within the National Forest boundary.

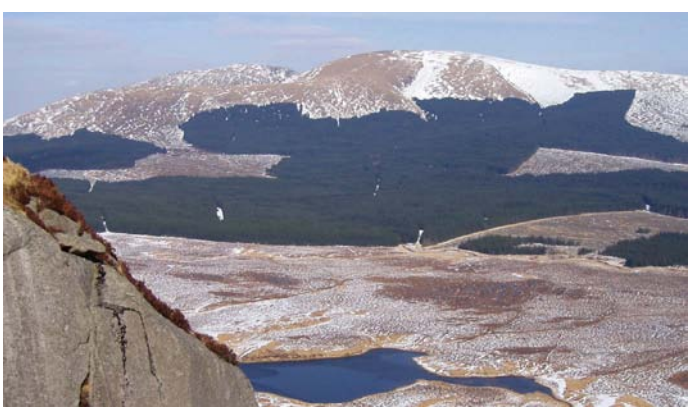
As it grows, the National Forest is creating jobs in tourism and woodland management, improving the quality of life for the people who live and work there and creating valuable habitats for wildlife. Great strides have been made over the past 25 years, as woodland cover within the Forest has tripled from a meagre 6% in the early 1990s to more than 20% in 2015.

Planting trees can be an option on otherwise less productive land, potentially generating a deferred income as a mature timber crop. They can also provide shelter for stock and help to increase privacy and reduce noise pollution.

Commenting on the scheme, Simon West, head of forestry at the NFC, explained: "It's great to see landowners, large and small, investing in the National Forest and creating a legacy for the future. It is our children's children who will really benefit from what we are doing here."

Contact: The National Forest
Web: nationalforest.org

New native woodland in Galloway Forest Park



PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

Cultivation and planting work will be ongoing throughout the next three to five years

Forestry Commission Scotland has taken inspiration from Europe's mountain areas, treeline woodland and montane scrub habitat to create a new native woodland on Bennan Hill and the lower slopes of Benyellary in the dramatic and stunning Galloway Forest Park.

The Park contains some of Europe's most important habitats from the ancient oakwoods rising from the shores of Loch Trool to the mountains and moorlands of the Merrick Kells, including the iconic Silver Flowe containing Britain's most important and varied systems of patterned blanket bog.

Within this exciting mountain scenery there are scattered remnants of native woodland types sometimes called 'treeline woodland and montane scrub'. These fragments are often found clinging to crags, cliffs and boulder fields which have provided refuge from hungry sheep and deer.

Botanical surveys and ornithological research have shown the remaining fragments of natural woodland and montane scrub are rich in wildflowers and the upper treeline provides habitat for 52 species of birds. As well as black grouse and eagles, there are nationally significant numbers of bullfinches and redpoll, which spend much of the winter on the high ground in scrub between forest and moorland.

On the ground, closely packed conifers will be replaced with a more widely spaced and diverse range of native species and there will be low-density planting on moorland at Bennan Hill and the lower slopes of Benyellary.

Cultivation and planting work will take place over the next three to five years and Forestry Commission Scotland expects a establishment phase of 15–25 years. The new woodland will then be relatively resistant to grazing animals and the tall deer fence replaced with a shorter stock fence.

Contact: Forestry Commission Scotland
Web: scotland.forestry.gov.uk

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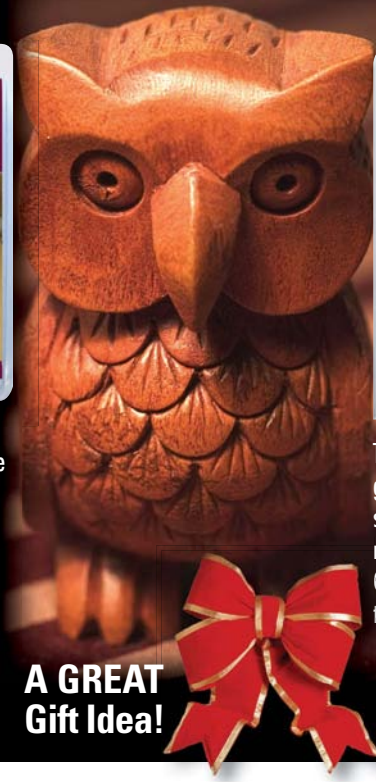

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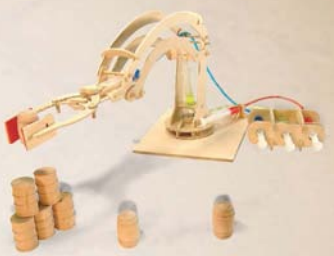

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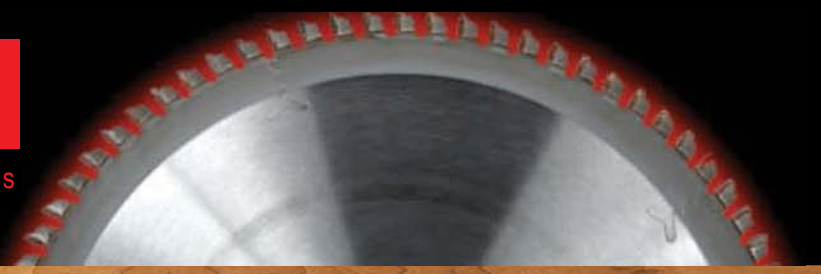

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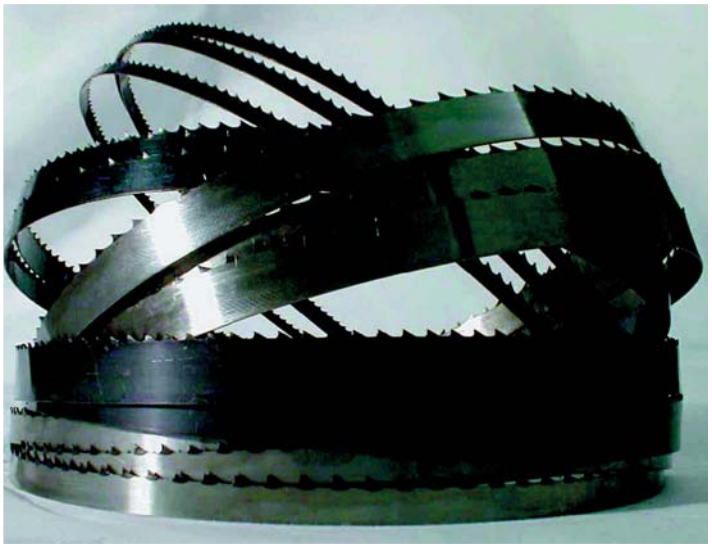

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GREEN WOODWORKING

PHOTOGRAPHS BY LEE STOFFER

Rustic reindeer

It looks like Santa has come early as Lee Stoffer takes the reins to create this fascinating festive flight of fancy...

I know it's a tad early to be getting all festive, but here's a little project that can be fun in the run up to Christmas and is simple enough that the kids can get involved too. I usually make a batch of these cheeky characters around this time of year for a local shop and they always go down well. I focused here on a small version that can fit under the Christmas tree, but you can use the same techniques and scale up the dimensions to make these as garden ornaments. My friend and fellow green woodworker Neill Mapes was the first person I ever saw making these and he was kind enough to share his design and experience having made numerous herds over the years.

1 The materials and tools required are minimal and you may even be able to utilise some garden prunings in the project. For the body and head you need two 200mm lengths of green wood, one 60mm the other 30mm in diameter. The legs and neck are made from five 120mm lengths of preferably dry wood at around 10mm diameter. For the nose – and to assist in leg alignment – you'll need a couple of slimmer lengths at 8mm, plus some twiggy trimmings for the the antlers.

1

2 Let's start with the head. Take the 30mm stick and make a stop cut halfway into it about 30mm back from one end. Angle the saw back about 10° for this cut. As I make these in batches, I made a simple jig as a guide for this.

2

3 Mark out a shape similar to this for the face and also mark a line around 25–30mm back from the stop cut.

4 Remove the waste in front of the stop cut above the line. I used an axe but you could use a chisel or saw if you prefer.

5 You should end up with something like this.

6 Mark lines that taper the nose to about half its full width.

7 Now shape the underside of the head to the line and taper the nose area.

8 Gently drill a 5mm hole as close to the end as you dare at an angle similar to that pictured here.

9 Use a knife to tidy up and refine the head.

10 Draw some eyes on to the face you created with the initial stop cut. I find a Sharpie marker works well for this task.

11 Drill an 8mm hole about 15mm deep, parallel with the line marked earlier and halfway between this and the stop cut. This will be the mortise for the neck to fit into.

12 Take one of the 10mm sticks and carve a tenon on one end around 15mm long. This can be slightly tapered down to just under 8mm at the end.

13 A firm push should seat your tapered tenon into the head. The moisture in the head should swell the dry tenon temporarily, as the head dries out the mortise should shrink down to a tight fit.


12


13


14

14 Repeat the process with one of the 8mm rods, carving a tenon to fit the 5mm hole for the nose. Again, push the tenon in but be careful not to overdo it and split the nose.


15

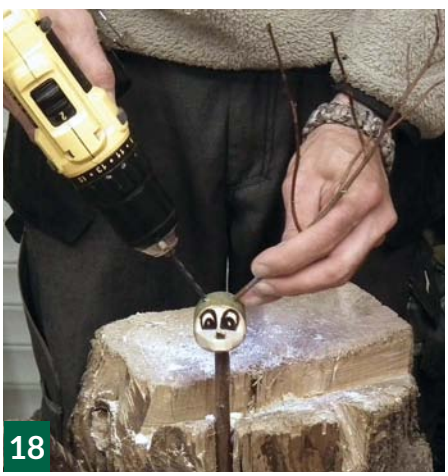

16

15 Trim back the rod to leave an 8–10mm stump for a nose. If you want to make a 'Rudolph', trim off the bark and colour the nose with a red marker pen or paint.

16 Chamfer the bark on any cut ends, just to soften the edges a little.

17 Find somewhere to hold the head upright and offer up your antlers. Measure the diameter near the end to be inserted into the head and select an appropriately sized drill bit to provide a mortise.


17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18 Hold one antler roughly in position and use it as a guide to drill the opposite hole by mirroring the angle. Fit a twig antler into the first hole then drill the second hole using the fitted side as a guide.

19 Now it's time to make the body. Trim the ends of the 60mm stick to leave a 120mm length, again at a slight angle around 10° opposing on each end so the body ends up wider on the top than the bottom, as seen in top right of photo 2.


19


20

20 Hold the body in a vice with the narrower side uppermost. Each leg should splay out in two planes, around 10–15° front or back and 25–30° to the side. You can drill the first 8mm leg mortise by eye, measure it or you can offer up the opposite leg in a similar fashion to fitting the antlers. Reflecting the angle cut on the ends of the body gives you a rough guide to fore and aft splay. ➤

21 This is where the spare 8mm stick comes in handy. Pop it in the hole just drilled then use it to guide the next hole. Repeat for the remaining pair of legs. The mortises should be around 15mm deep.

22 Take the remaining 10mm sticks and, as in step 12, create slightly tapered tenons on one end of each stick. Tap the tenons home into the holes you just drilled.

23 Flip the reindeer onto its feet on a flat surface. You'll probably find that only three feet touch the surface. Rotate the reindeer until it's standing on three legs and looking fairly level with one leg hanging over the edge of the bench. Trim the long leg to bench height and all four feet should now sit on the surface.

24 Now you can drill a hole to receive the neck. Again, drill to 8mm and around 15mm deep.

25 Trim the neck down to around 50mm and prune the antlers if you think they need it.

26 Prepare the tenon ready to fit to the body.

27 Push the tenon home with a twist, being careful not to damage the antlers. The head can be rotated to find a suitably jaunty angle to give your festive creation some character.

28 There's plenty of scope to add more detail by perhaps carving more shape into the head or body, or using crooked sticks for the hind legs. I quite enjoy the simple charm of this rustic design. I hope you're inspired to at least make one for under the tree or as a gift for a friend. You might have a whole herd before you know it! ■


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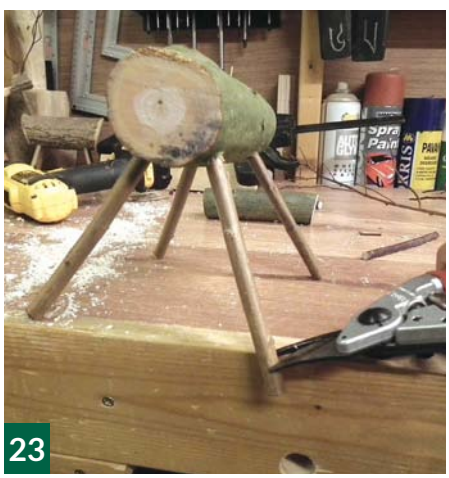
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Lee Stoffer

Lee Stoffer has finally decided to turn his passion for green woodworking into a full-time occupation, making, teaching and demonstrating. Lee can be found showing off his skills at many woodworking shows and events.
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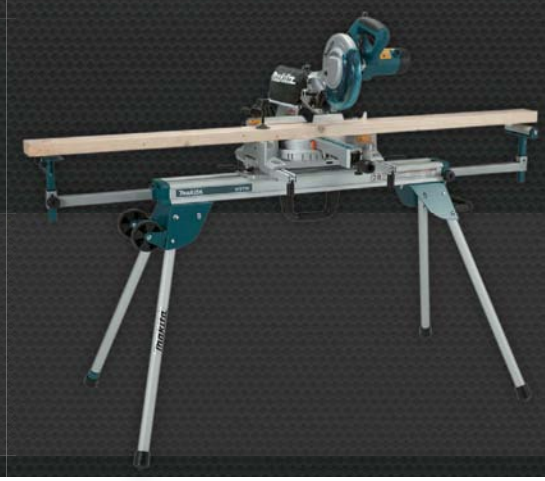

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PHOTOGRAPHS BY MICHAEL T COLLINS

Making a Bench mallet

In Issue 6 we showed you how to make a green woodworking mallet, now **Michael T Collins** gives us a refined design for cabinetmakers

It's hard to imagine being a woodworker and not having a good quality wooden mallet. In fact, the wooden mallet is essential for joinery, furniture making, for chopping mortises and 'persuading' joints together and apart. Wooden mallets have been around for thousands of years. I have accumulated a selection in my workshop – some purchased and some homemade.

Making a mallet was traditionally an apprentice piece – incorporating accurate layout, cutting angles, mortises and shaping.

Wood selection

A mallet head can be made of pretty much any tight grained and well-seasoned hard wood. A good source of wood in upstate New York is firewood, which is typically oak (*Quercus spp.*), black locust (*Robinia pseudoacacia*), maple (*Acer spp.*) or hickory (*Carya spp.*). However, beech (*Fagus spp.*), dogwood (*Cornus Florida*) and apple (*Malus sylvestris*) can also be used. My carver's mallet is made from live oak (*Quercus virginiana*), a very dense and heavy wood. Another good source of seasoned wood is old pallets. When selecting a wood for your mallet, make sure you used a seasoned piece as this will prevent the wood from splitting.

Let's look at making a medium sized joiner's mallet from a piece of hard maple, rescued from the wood pile. The handle is made from a piece of straight grained oak.

Roughing out the billet

1 Split the wood out of a log or obtain a piece that is several centimetres larger than the size you want.

Layout and bring a block of wood to final dimension

2 The final dimensions of the head are 140 x 89 x 63mm and the handle will be approximately 368 x 25 x 50mm. Orientate the rough-hewn block of wood so that the end grain runs perpendicular to the bench. Using a Jack plane, bring one face flat, we'll call this the 'face side' or 'cheek of the head'.

What you will need:

- Try square
- Ruler
- Mortise gauge
- Brace
- Mallet
- Block plane
- Jack plane
- Rip saw
- Rasp
- 25mm firmer chisel
- 25mm spiral bit
- Bevel gauge
- Axe – optional
- Spokeshave

1

3 Plane an adjacent side at 90° to the face side – use a try square to check for squareness. Then, with a marking gauge set to 63mm, score around the block. This will delineate the width of the mallet. Plane down to the score line. You will now have two sides parallel – repeat the marking and planing process for the other two sides, setting the marking gauge to 90mm and checking for squareness. Leave the wood longer than required – we will adjust the length in a later stage.

4 Using a mortise gauge set to the width of your 25mm chisel, draw a 50mm long mortise centred on the top of the head ...

5 ... and a 38mm long mortise centred on the underside.

6 Extend the mortise lines to the face side, then use a bevel gauge to join up the lines across the face sides – this will give you the required angle of the mortise. It will also give you an X-ray view of the internal angle of the mortise.

Chopping the mortise

7 Using a brace and 25mm bit, drill a hole vertically halfway through the wood and then repeat from the other side. It's important to try to drill through the centre of the wood in order to meet the hole coming from the other side. Use a try square to keep the brace and bit vertical. Alternatively, drill horizontally and use the ring trick – this was discussed in detail in Issue 4, 'Bridle joints'. While it might seem like a good idea to drill the hole at the required angle, it is difficult to control a spiral bit and you will run the risk of missing the mark on exit. ➤


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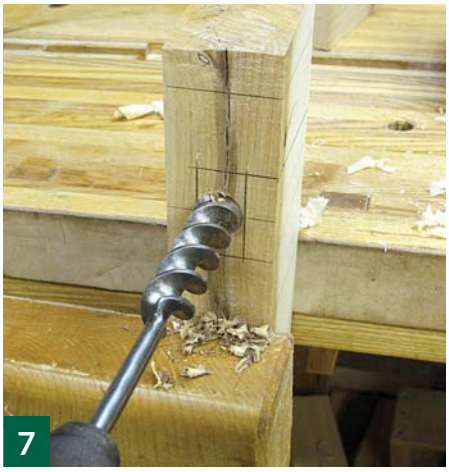
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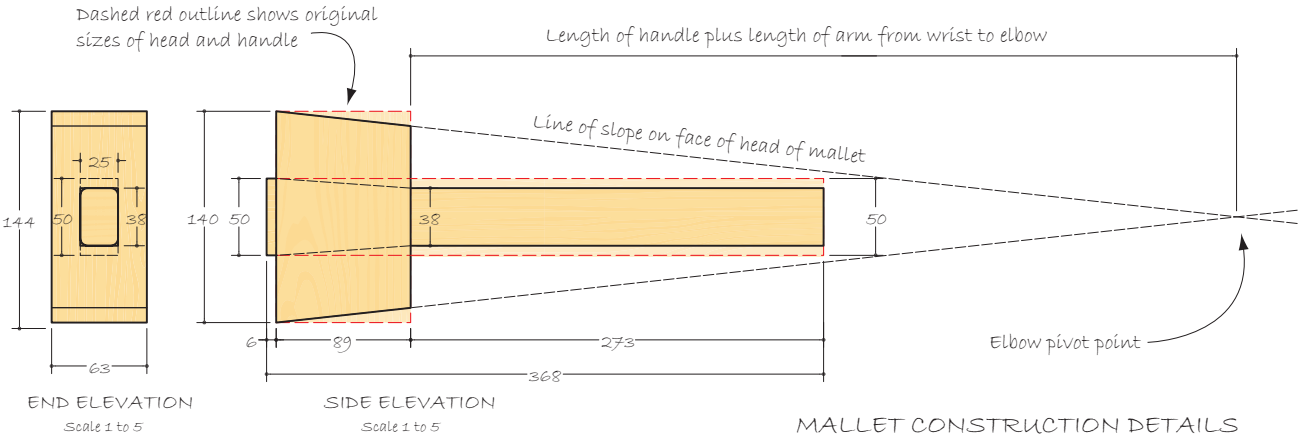
Diagram 1



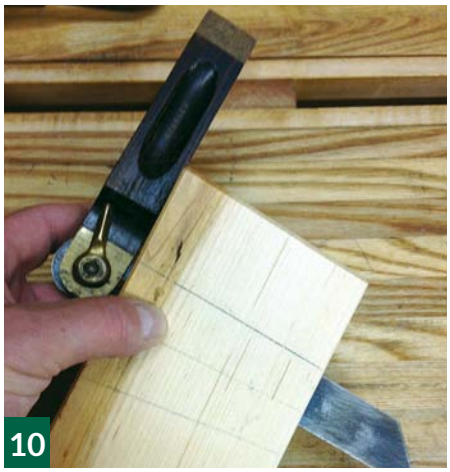
8 Once through, we can start to chop out the waste. Chop in small increments, working your way through the waste; use the lines you drew on the outside to guide the chopping angle.


8

9 The bevel gauge, or a small block of wood cut at the same angle as the mortise, will help to guide you. Once one side is cleaned up, repeat the chopping process from the other side. Again, use the block or bevel gauge to guide the chisel. It is very tempting to try to chop out too much wood. Resist the temptation and be patient. If the chisel gets jammed in the mortise it will be difficult to work free and you will run the risk of damaging the blade.


9

10 With the bevel gauge set to the same angle, check the mortise for flatness. Be very careful not to hollow out the sloping sides – you want the entire length of the mortise to be in contact with the handle. If hollowed out, constant pounding on the mortise fibres at the top and bottom will begin to compress, resulting in a very loose head.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11

The handle

11 Prepare the wood to 25 x 50 x 368mm, this will provide 6mm above the head, 89mm in the head and 273mm for the handle. With a pencil, transfer the same angle used to chop the mortise to the handle, allowing for about 6mm protruding out the top.

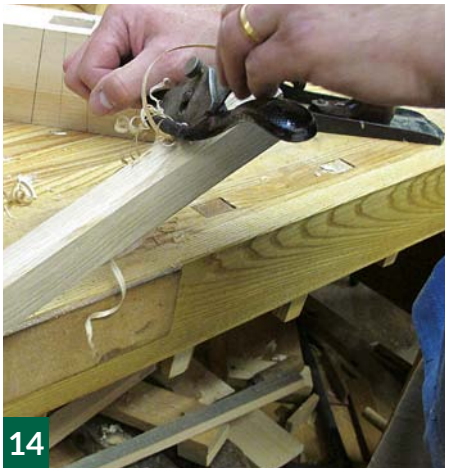
12 Saw out the tapered section, staying on the waste side of the marks. Then rip saw the handle section.


12


13

13 Use a spokeshave to remove the saw marks on the tapered section and bring it down to the pencil marks.

14 The section between the taper and the end of the handle can be shaped with the spokeshave – the simplest method is to chamfer the corners, making an elongated octagon. Putting a slight concavity in the handle will provide a better grip and prevent the mallet flying out of your hand.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15 Test fit the handle to the mallet – it should slide in with just a little resistance as it seats itself. Use the rasp to fine-tune the fit. Ease all the edges of the handle.


15

Finishing up the head

16 Regardless of the method used to construct the head, the angle of the striking face needs to be fine-tuned to fit you. Just like a saw, when it's in use a mallet should be like an extension of your arm, pivoting at the elbow in such a way that the striking face impacts the chisel perpendicularly. So we need to determine the slope angle of the face. The easiest way to do this without resorting to maths, is to place the mallet on the table and mark a distance equal to the length of your arm – from elbow to wrist – plus the length of the handle. The slope angle is found by drawing a line from the head of the mallet to where it intersects your elbow – see diagram 1. Using a crosscut saw, remove the waste wood.

17 Lastly, clean up all the surfaces and add a 5mm chamfer to all edges, this will prevent the fibres from splitting. I hope this inspires you to check out the next wood pile or abandoned stack of pallets you come across and find some really knurly, knotty wood to make yourself a couple of wooden mallets. ■


16


17

Alternative construction method


1


2


3


4

Before we determine the angle to cut the head of the mallet, let's look at an alternative construction method. Very few big box stores carry 12/4 lumber, so consider making the head out of four pieces of hard maple laminated together.

1 Cut and plane four pieces of wood to 25mm thick as per the dimensions in diagram 2. Make the handle using the same method described above then cut the two sloping parts to the same angle as the dovetailed section of the handle.

2 The parts at this stage could simply be glued and clamped together, however, while modern glue bonds are strong, the amount of pounding that a mallet undergoes may break the bond.

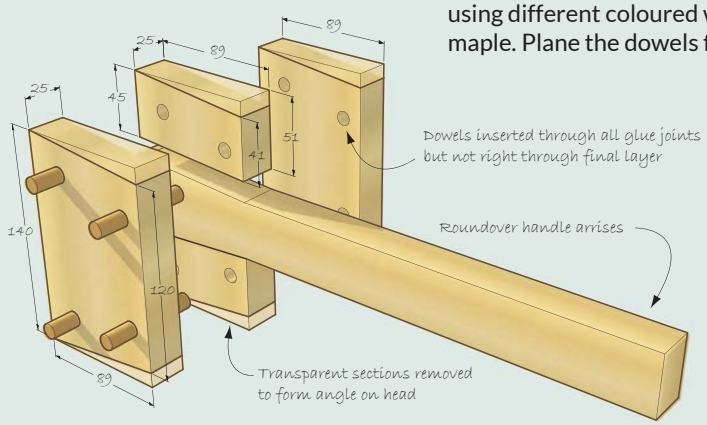

Diagram 2

It is better to add some mechanical device to hold the parts together.

3 Simple dowels will prevent any lateral movement. Hold the sections of the head together with a few clamps and then drill two 10mm holes either side of the handle. There is no need to drill the holes all the way through but they do need to be long enough to span each glue joint. Use the ring method to get holes perpendicular to the head.

4 Glue and clamp the head together with the handle in place and then glue the dowels in place. Once the dowels are seated, remove the handle and clean off any glue on the handle and inside the socket. Allow the head to dry. If you really want to get fancy, try using different coloured woods or dyed maple. Plane the dowels flush.

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, Adams fireplaces, book cases and reproduction furniture.

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PHOTOGRAPHS BY LOUISE BIGGS

MEMORY BOX

Louise Biggs makes an elegant veneered box to store precious childhood mementos

The birth of a first great-grandchild is always a special event and the child's first birthday is even more special, so to mark the occasion a friend asked me to make a memory box for her great-grandson. Apart from having something blue on it, the design of the box and the choice of timber were left entirely up to me. I chose to use some blue paua shell laminate, but you could decorate your box anyway you wish. I also had the box lid laser engraved, which is a great way to personalise a gift.

What you will need:

- Tablesaw
- Router and table
- Straight cutters
- 45° cutter (if not using a tablesaw)
- Straightedge
- Veneer cutter
- Knife
- 45° square
- 90° square
- Strap and 'G' clamps
- Chisels – various sizes
- Plane
- Cabinet scraper
- Abrasives

1 First you need to decide on the decoration and the timber. As my client wanted something blue, I decided to use some blue paua shell laminate. A colour wheel showed that orange was the complementary colour to blue so yew *(Taxus baccata)* was the perfect choice for the timber.

2 Start by preparing the veneer panel in the centre. The depth of the engraving requires more than one thickness of veneer so three rectangles of crossed veneer were prepared with the bottom two layers inset into the MDF top. The underside of the top was also cross veneered.

3 Cut out the rebated area for the veneers with a router and trim the corners with a chisel. I left the top oversize in case of damage to the corners during transport to and from the engravers. ➤


1


2

3

4 Cut four pieces of 12mm plywood slightly wider and longer than required for the sides, front and back. Then cut the mitres on one end of each board on the tablesaw with the blade tilted. You could also use a router on a table with a 45° cutter. You can then cut each piece to length while cutting the second mitre.


4


5

5 The next stage is to cut the rebates for the top and bottom. Cut the top rebate 6mm so the veneered MDF is flush with the top edge. The bottom will be covered with faux suede so the depth of the rebate must take into account the thickness of the MDF/ply and one thickness of material.

6 Before gluing up, split the pieces to create the lid and base. Set a tablesaw at 24mm and cut through each piece, marking them so that tops and bottoms line up. You can then trim the base to 74mm.


6


7

7 Glue the base and lid sections together holding the corners with masking tape. Use two strap clamps with corner blocks and clamp the two frames up together. Place the top clamp over the box joint so that the lid and base are clamped to the same shape. Check that both pieces are square.

8 Plane the top to fit tightly within the rebates. Slightly chamfer the bottom edges of the top to allow for any discrepancies within the corner of the rebate. Glue the top into the lid, support the frame on a piece of board and, using battens over the rebate area, clamp the lid down into the lid frame.


8


9

9 The next stage is to cut the 6mm wide strips of paua shell laminate around the engraved panel. This photo shows the shell laminate the right way up for clarity but as the material was new to me I did find that after a couple of unsuccessful cuts with the shell breaking out, a cleaner cut was achieved when cutting from the reverse side.

10 Once the four strips are mitred and fitted around the engraved panel they can be glued into place. I used a contact adhesive due to the laminate backing but a test piece was glued first to check the compatibility of the glue to the materials.

10


11

11 Veneer the lead edges of the base and lid, keeping the

veneers matched throughout. Use a straightedge and a veneer cutter to cut the narrow strips. I also veneer the bottom edges as, when polished, they will set off well against the faux suede used on the bottom.

12 Mitre all the corners, glue the veneers and, when dry, clean up all the edges using a chisel or a cabinet scraper. At this stage, however, do not use any abrasives as the edges need to be crisp and sharp for the face veneers.

13 It is always better if the veneer pattern continues through the lid and base. If the veneer is wide enough you can also follow it through to the lid. Careful marking of the veneers – face and top edges and the joining edges – is required to keep the veneers in order. Use a stack of veneer with enough continuous leaves to complete the job and select veneers for the front and back and then both ends. Using the straightedge and veneer cutter you can then split the veneers through for the base and lid.

14 The order for veneering a box both on the base and lid is firstly the back, then the two sides before veneering the front and finally the top. Trim any edges as required keeping the veneers in order so that the back and front match and the two sides match. Using a contact adhesive, there is no swelling of the veneer due to water, so you can line up the lead edges right on the edge of the veneer achieving a much closer grain match.

15 Once the sides are veneered, complete the veneering to the top. Cut mitred corners, you can tweak the angles if required, to ensure the corner points line up. All the surfaces can then be cleaned up with a cabinet scraper and abrasives. Remove the sharp edges with abrasives. Veneer some test pieces for the purpose of setting up the router for the hinges and lock.

16 The hinges and lock come with detailed instructions and cutter requirements from the supplier. A router table is essential as well as an accurate fence. Make up the measuring blocks as detailed to set the stop fence the correct distance from the cutter. ➤

Adhesives and veneering

Briefly, the golden rule of veneering is that 'whatever is put on one side you must put on the other side to counterbalance the ground material to keep it flat'. It is the water content of the glue and the forces within the veneer when in contact with the water that causes the pull and curl on the ground material. If I veneer and polish the inside and outside of a box I will use PVA, aliphatic resin glue or animal/hide glue. If the box is to be lined with fabric throughout the inside I use a contact adhesive – non-water based – such as Evo-Stik and veneer only the outside. With the boxes I have made I have found no movement within the ground material on these small sections when veneered only on one side, with the exception of the top – see step 2 – but the lining of the box must be carried out with a non-water based glue, for this I use a latex-based glue such as Copydex.


12


13


14


15


16

Neat Hinges and Lock

A range of high-quality hinges and locks, perfectly suited to box making, in a range of metals. Available from Ian Hawthorne.
Prices start from £8.00 inc. VAT
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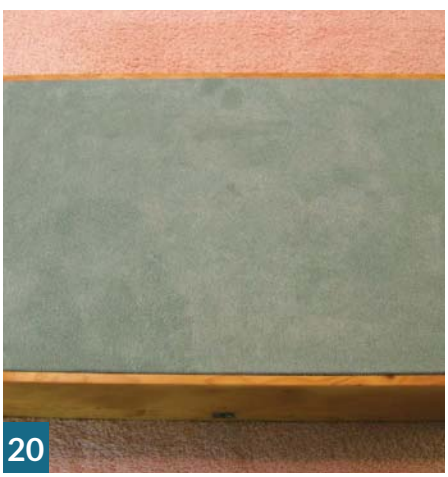
18 Cut out the right-hand lid and left-hand base hinge. Then reverse the stop blocks to the other side of the cutter, setting up in exactly the same way for the left-hand lid and right-hand base hinge. You will have to carefully drop the box and lid down over the cutter keeping the edges tight to the fence and the edges parallel to the table.


18

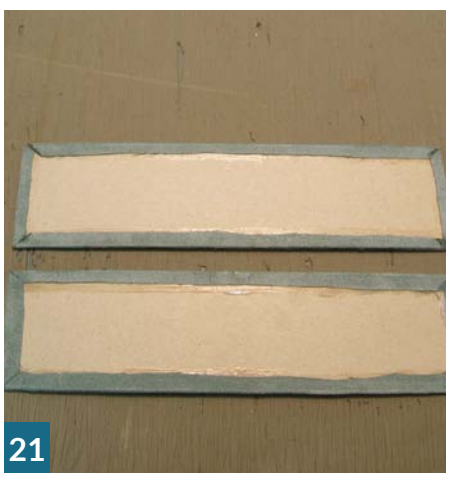
19 The hinge cut-outs will look like this. The lock is cut out in a similar way using measured blocks to set the stop blocks but this time you must drop the box down over the cutter to begin to cut and hold in position until the cutter is turned off. Cut and fit a paua shell escutcheon for the keyhole. Give the box one final clean up and finish with a 30% sheen spray finish or the finish of your choice.


19

20 Cut the ply for the bottom with clearance for the material all round. Use double-sided adhesive film to cover the inside face of the bottom with faux suede, or a material of your choice, and trim to the edges. Repeat the process of the outside of the bottom leaving enough material to glue around the edges using a latex adhesive. With the same adhesive glue the bottom into the box.


20

21 Cut pieces of card to fit each inside surface, allowing for the material, and mitre the corners as required. Cover the outside face of the card with adhesive film then wrap the material round the card to glue and finish on the back edges.


21

22 Fit the pieces around the sides of the base using latex adhesive, ensuring they are pushed tight down to the bottom so as not to show any gaps.


22

23 The lid is lined in the same way, firstly by covering a piece of card to fit the inside of the lid, then creating the side pieces, which will in turn cover the edges of the top. Prepare these in the same way as the base pieces in steps 21 and 22.


23

24 Finally, re-fit the hinges and the memory box is ready to be filled with photos and tokens that will, in time, depict a life story. ■


24

Louise Biggs

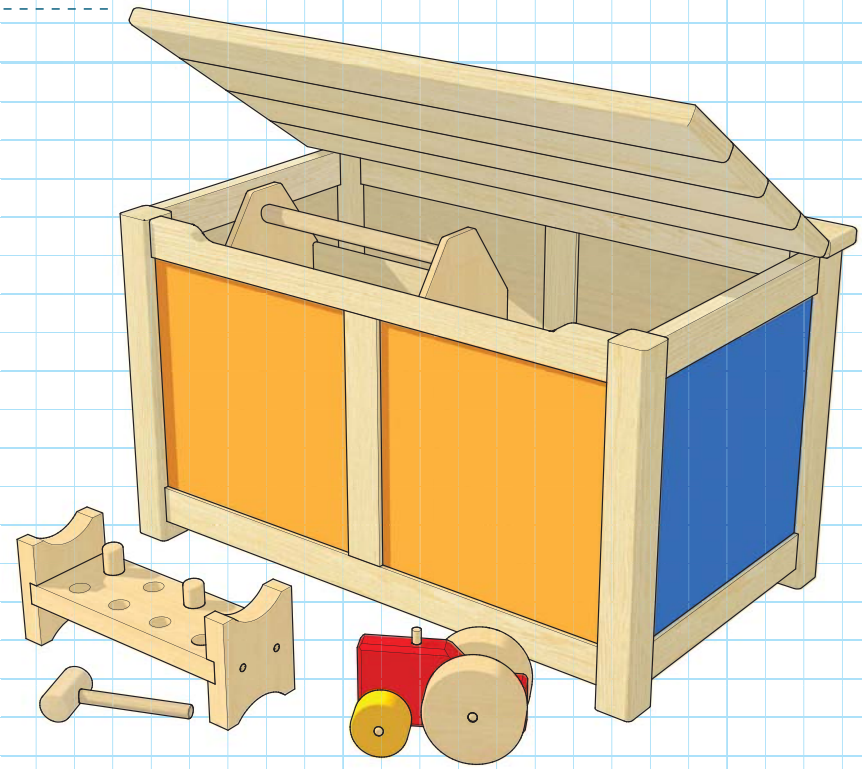
Having completed her City and Guilds, Louise trained for a further four years at the London College of Furniture. She joined a London firm working for the top antique dealers and interior designers in London, before starting her own business designing and making bespoke furniture and restoring furniture.

Web: www.anthemion-furniture.co.uk

PLANS 4 YOU

Toy box

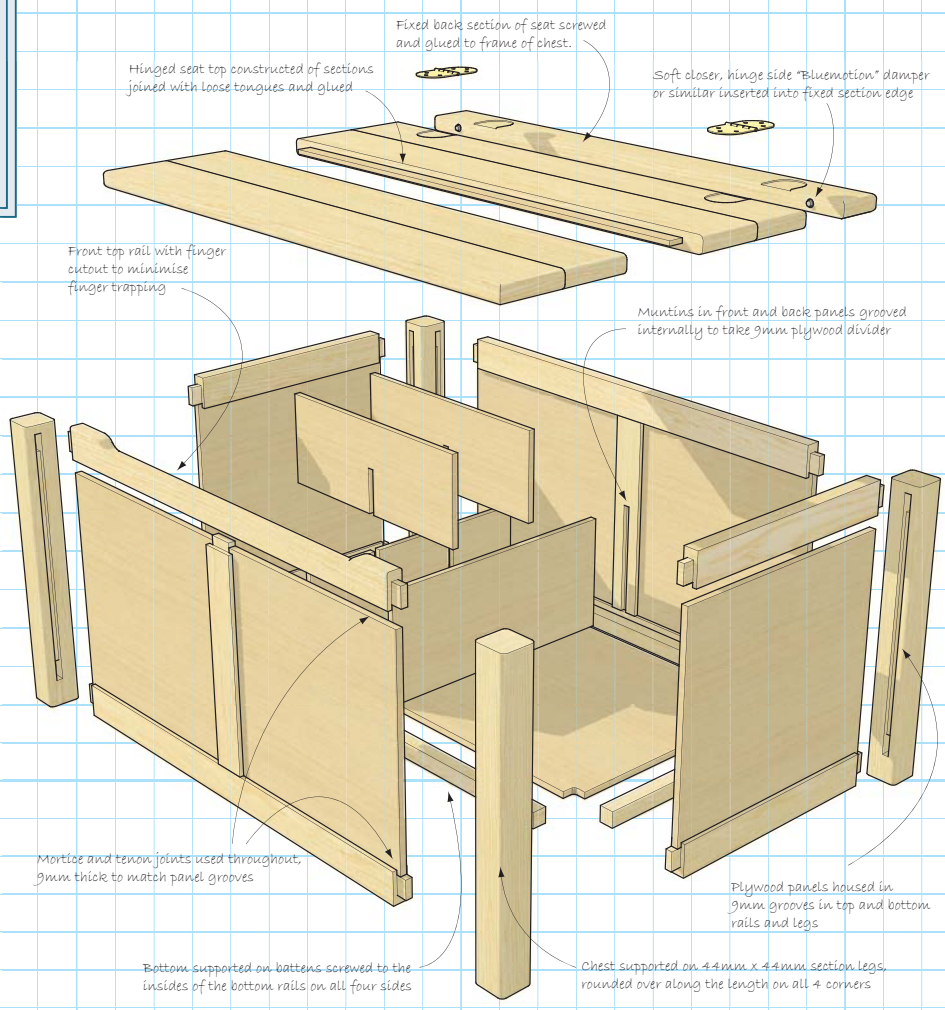
Simon Rodway shows how to make your very own toy box



CUTTING LIST

Top	1 @ 720 x 416 x 22mm
Legs	4 @ 400 x 44 x 44mm
Side rails	4 @ 352 x 44 x 20mm
Front/back rails	4 @ 652 x 44 x 20mm
Muntins	4 @ 317 x 44 x 20mm
Side panels	2 @ 324 x 299 x 9mm
Front/back panels	4 @ 296 x 299 x 9mm
Bottom	2 @ 648 x 348 x 9mm
Support battens	2 @ 612 x 20 x 20mm
Support battens	2 @ 312 x 20 x 20mm
Divider	1 @ 359 x 150 x 9mm
Divider	1 @ 359 x 130 x 9mm
Dividers	2 @ 325 x 130 x 9mm
Caddy ends	2 @ 193 x 178 x 9mm
Caddy sides	2 @ 282 x 103 x 9mm
Caddy bottom	1 @ 282 x 160 x 9mm
Dowel	1 @ 292 x 22mm diameter

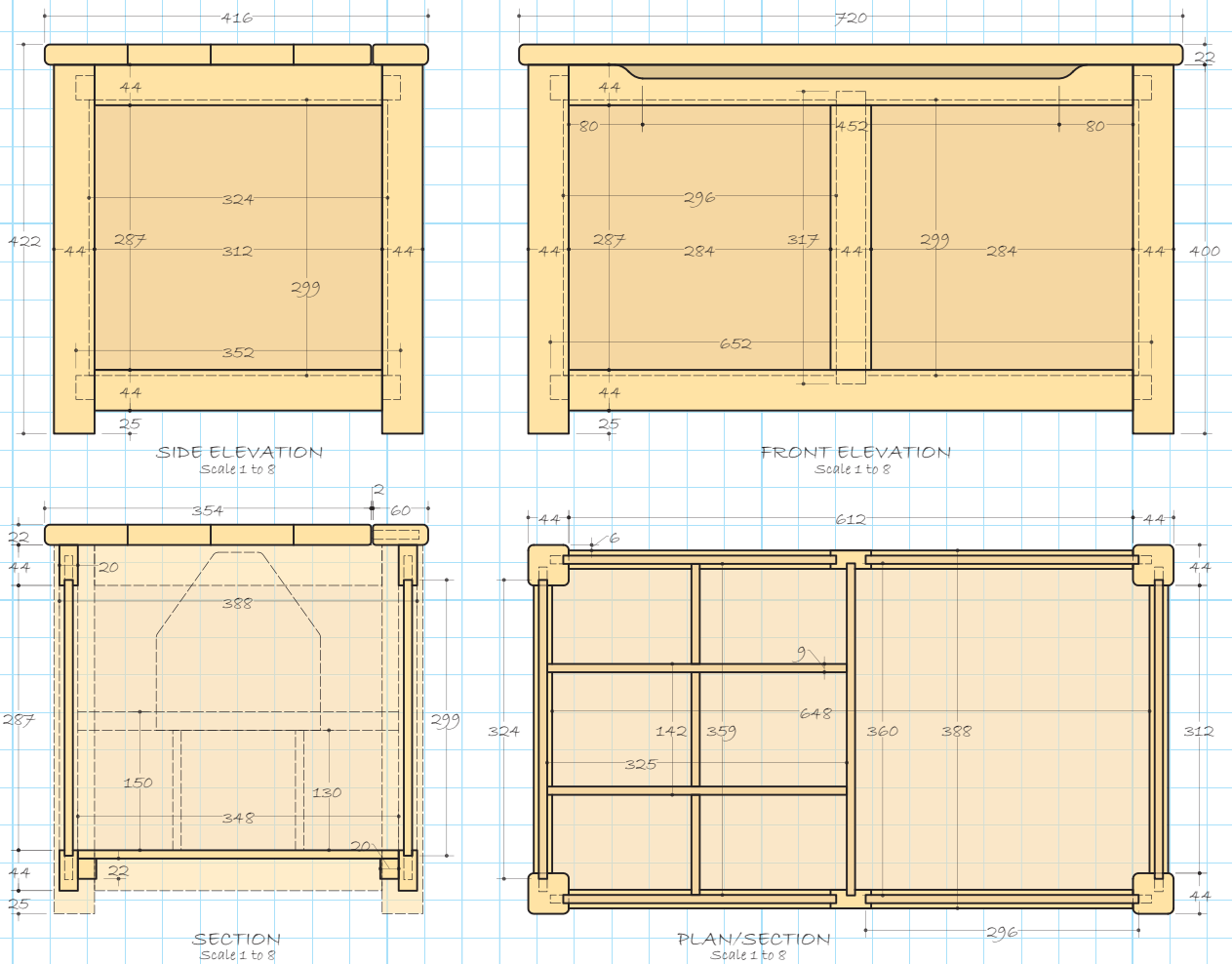
The top is shown as an overall size and not by component parts.



Toy chests or boxes usually fall into one of two categories; either they echo the type of thing that you might see in a *Pirates of the Caribbean* film, with a curved lid, a large brass clasp and the promise of treasure inside, or they are, like this one, all rounded corners and edges and finished in bright colours and natural timber. The second type is designed with safety and practicality in mind and this one has the added advantage of doubling up as a seat when closed, but hopefully that shouldn't detract from the sense of wonder and anticipation that a box full of toys can bring. I've included a simple design for a toy caddy which can be stored inside the chest.

Design

In keeping with most of the projects I design, this one uses stock timber section sizes as much as possible and the parts that are 9mm plywood can



all be got out of a half sheet, so making this is not going to break the bank and won't mean hours of planing to size. I chose a slightly chunkier thickness for the top, just because it looks better and will get quite a bit more wear-and-tear, but I also split this into a fixed section at the back, which holds the hinges, and the main part which opens. This has the added advantage of lessening the weight of the lid slightly and means you can insert a couple of soft closers as well. Combined with the front cut out on the top rail, this should lessen the chances of small fingers suffering any nasty shocks.

Construction

This is a tailor-made project for the router, as you will need to cut vertical 9mm grooves in all the legs and deepen them at the top and bottom to take the tenons on the ends of the rails, which I've made 9mm thick to match. The rails all need grooves worked along their inside edges, either top or bottom, to take the panels and the front and back rails have mortices centred on those grooves for the tenons on the ends of the muntins. The main divider, which is slightly higher than the others, is let into grooves in the muntins as well, but the shallower dividers just use a halving joint to interlock the parts and are then glued in place. To add a bit of interest and mystery, it would be an easy thing to put a false bottom in one of the compartments, a secret hiding place for a few precious things.

Additionally, the legs are radiused on all four vertical corners, as are all the edges on the top as well. Basically, it's a project where you just go around smoothing anything sharp or angular, like the tops of all the dividers for example. The plywood bottom is supported on battens fixed to the front, back and side rails, and finished flush with the top face of the bottom rails all round. I suggest you place the finished frame on top of the bottom and trace out the profiles and positions of the corners of the legs which will need to be notched out to get a really good fit.

The sections for the opening part of the solid top can be joined with ply splines and glue – more router grooves. With a bit of judicious marking out there should be enough to get the splines out of the single half sheet as well. The fixed hinge section is simply glued and screwed into the tops of the legs and back rail. Find a couple of nice feature hinges to surface mount on the top of the lid, as these will allow you to open the gap between the fixed and closing section slightly, again with small fingers in mind. A few millimetres can make all the difference here. The toy caddy is an optional extra, just a bit of fun with more 9mm plywood and 22mm dowel for the handle. You may find it easier to drill straight through the ends and cut the dowel off flush rather than the stopped holes shown on the drawing.

Finish with paint and varnish and if you or someone you know has an artistic streak, the plywood panels could be painted with scenes rather than simple colours. ■

Simon Rodway

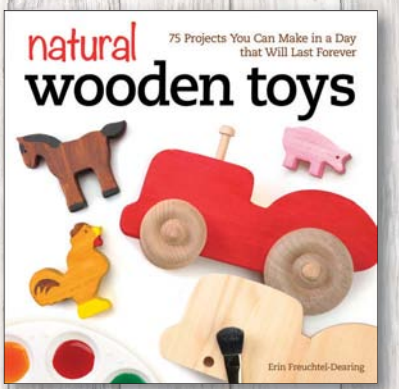
Simon Rodway also runs LineMine, a website with articles and online courses on drawing software. A new course, 'SketchUp for Woodworkers', is proving popular. For details and to get discount coupons (available for a limited time only), see website below.

Email: sjr@linemine.com

Web: www.linemine.com/courses

BOOK REVIEWS

We review six books for you to enjoy

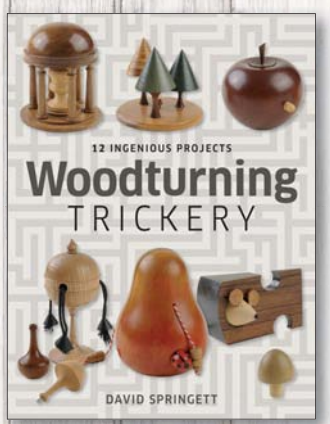


ISBN: 9781565235243
Price: £12.99
Web: www.gmcpubs.com

Natural Wooden Toys
by Erin Freuchtel-Dearing

'75 projects you can make in a day that will last forever,' says the sleeve of Erin Freutchel-Dearing's *Natural Wooden Toys*. And you would certainly want to keep these as the designs are cute, colourful, imaginative, playful and child friendly. Freutchel-Dearing is a stay-at-home mother whose concerns about the safety of her children's toys, as well as the low level of play and imagination they were promoting, led her to purchase a scroll saw and learn to make wooden toys from scratch. As Freutchel-Dearing puts it: "I am evidence that your typical mom with very little familiarity with power tools can learn to make simple, safe, creative, open-ended wooden toys for their children."

The book itself has a general introduction followed by three parts detailing 'getting started', 'kid-safe finishes' and 'toys'. These take the reader through the basic steps of choosing materials; purchasing a few relatively common tools – namely a scroll saw, a palm sander and a drill and making the items. There are also handy tips on general cutting and sanding as well as how to apply non-toxic, natural, kid-safe finishes to your creations.



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Price: £16.99
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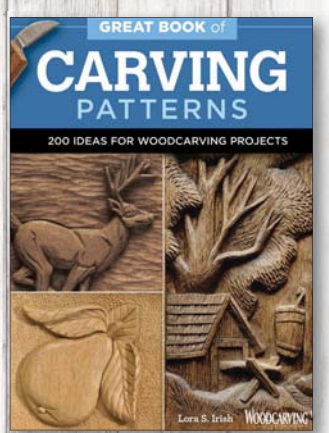
Woodturning Trickery
by David Springett

Beautifully photographed, *Woodturning Trickery* promises to unearth the secrets to a collection of puzzling projects that are designed to mystify and intrigue. There are 12 seemingly impossible woodturned puzzles to make, all with incredibly simple solutions, once you know how. Using old techniques in a new and fascinating way, former woodwork teacher David Springett shows how to create these tactile and entertaining works of art. With clear step-by-step instructions, photographs and illustrations to follow, plus a wealth of information and guidance on tools, materials and techniques, you'll be mastering the tricks in no time.

Each of the 12 projects has a fully illustrated guide and the text takes you from preparations through to tools, materials and lathe speeds. There is a good balance of text and pictures, handy tips are dotted throughout and the information is clear and concise. The puzzles, which can be worked exactly as shown in the book or developed in the reader's own way, include the cunningly designed, gravity-testing 'Isaac Newton's Orange', the twisted 'Magic Mushroom' and the intricate 'Gordian Knot'.



ISBN: 978156238688
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Great Book of Carving Patterns
by Lora S. Irish

If you're stuck for ideas for fresh carving projects, help could be at hand in the form of Lora S. Irish's new book, *Great Book of Carving Patterns*. It features some 200 original patterns for relief carving and in-the-round carving. But her ideas aren't for carvers alone; artists, painters and illustrators will also be able to glean ideas as starting points for their own work.

Irish, who trained as a fine artist at the University of Maryland, has divided her inspirational drawings into eight categories, each covering a different 'pattern set'. The themes covered are: country folk art; floral and still life; nautical; fishing; patriotic; wood spirits; birds and wildlife. Featured within theses themes are myriad ideas, from a happy pig in the 'Country Folk Art' section to 'Knots and decoys' in the fishing chapter. Within the 'patriotic' section there are even patterns for the Statue of Liberty and Uncle Sam.

Woodland Craft
by Ben Law

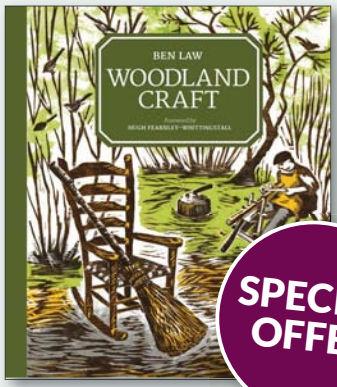
Ben Law is approaching 25 years of living in Prickly Nut Wood, so we can certainly say he knows his woodland crafts well! His new book, *Woodland Craft*, focuses on the crafts and products that are manufactured from, and in, the woods.

Woodland Craft has seven chapters – each of which are divided further down – on the following; the woodland resource, directory of tree species, crafts for farm and garden, wood fuel, crafts for building, domestic crafts, and finally tools and devices for woodland crafts.

Within the 'directory of tree species' Ben looks at a small number of different woods, including; alder (*Alnus glutinosa*), ash (*Fraxinus excelsior*), beech (*Fagus sylvatica*), birch (*Betula pendula*), cherry (*Prunus avium*), elm (*Ulmus procera*), lime (*Tilia vulgaris*), oak (*Quercus robur*) and more, which could be useful should the reader be interested in learning about a certain type of tree/timber.

Ben addresses all kinds of subjects, such as woodland craft materials, the history of the woodland resource and woodland management. He also shows you how to make projects, like a wattle hurdle, woven panel, besom broom, split-handle hay rake, chestnut paling fencing, post-and-rail fencing, diamond trellis and a gate hurdle and many more!

The information is packed into clearly divided chapters, with plenty of lovely colourful photographs throughout. The pages are fun, in that they don't follow a particular pattern, some text-based and others with bright photo galleries.



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Woodland Adventure Handbook
by Adam Dove

Author Adam Dove has been involved with early years outdoor education in the UK for more than 10 years and his experience is much in evidence here. His aim is to inspire parents, carers and teachers looking for ideas for children's activities using nature. He does this with 10 'recipes' for woodland adventures. Each 'recipe' is a story designed to capture the imagination of two to six year olds and provides parents and carers with a list of the kit required – generally, simple household objects – and a set of step-by-step instructions.

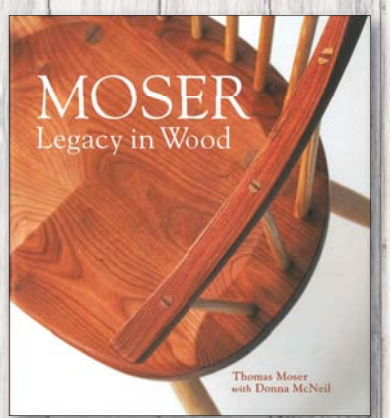
The idea is to become familiar with the adventure in each recipe, assemble the kit required and then read the story to the children. The book is beautifully produced. Each recipe is clear, the writing is easy to follow and it is broken up into short, easy-to-use chapters with images that are colourful and engaging, with plenty including children having fun. It facilitates imaginative play, experimental learning and adventure with friends within the magical backdrop of the great outdoors. It is a useful and helpful tool to enable outdoor learning and benefit every child's – and adult's – development.

ISBN: 9780711237131
Price: £9.99
Web: www.gmcpubs.com

MOSER Legacy in Wood
by Thomas Moser with Donna McNeil

A foreword by furniture-maker Mira Nakashima-Yarnell sets up this intimate look at the life and work of pioneering Maine craftsman Thomas Moser who, with his wife Mary, established Thos. Moser Cabinet Makers in the early 1970s. The company has gone on to set the standard for fine woodworking and meticulously hand-crafted furniture for more than 40 years. Nakashima-Yarnell's introduction is followed by Donna McNeil's prologue. A former executive director of the Maine Arts Commission, she outlines Moser's background and the inspirations that have had a lasting effect on his designs and approach to his craft. We then hear from Moser himself. A former English professor and antiques restorer, he explains how he 'hopes to convey the thinking behind the design choices I have made'.

The timeless appeal of the furniture has given Moser nationwide recognition and allowed the company to open galleries and showrooms across the US. *MOSER Legacy in Wood* is beautifully photographed and would appeal to experts as well as anyone interested in well-crafted furniture.



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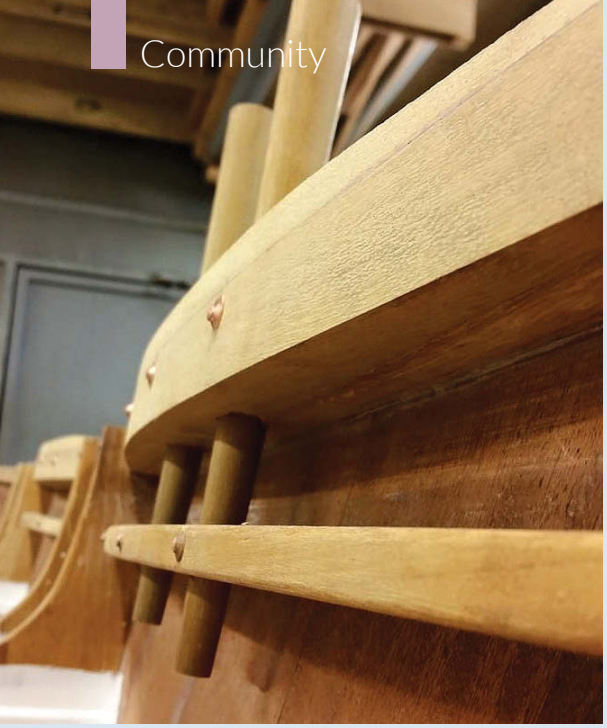


Pioneer Sailing Trust

Briony Darnley discovers it's all hands on deck as the Pioneer Sailing Trust helps young people develop valuable work and life skills

Pioneer in all her glory

Originally built in 1864, the 70ft Essex smack *Pioneer* fell into decay after a life spent dredging oysters in the North Sea. In 1998 an audacious restoration project by the Pioneer Sailing Trust recovered the wreck and restored her. *Pioneer*'s new life is as a sail training vessel. She can take up to 16 people and is used as a means to facilitate learning skills and explore new and adventurous territory while in a unique environment. The Trust has also maintained the boat-building ethos by developing a specialist training facility at Harker's Yard at Brightlingsea in Essex where apprentices learn boat-building skills and develop essential values needed to seek future employment. Hundreds of young people benefit from their time at Pioneer Sailing Trust each year, whether on a sailing adventure, work experience in the boat yard, or an apprenticeship. The Trust is passionate about developing and supporting young people through education and new experiences.

Charitable Trust

Once it became apparent the complex restoration of *Pioneer* was possible, the decision was made to set up Pioneer Sailing Trust in 1999. The Trust, whose founder trustees were Mary Falk, Charles Harker and Rupert Marks, is a registered charity. From day one, practical help and funding has arrived in generous measure from many individuals, organisations and local businesses. *Pioneer*'s new purpose is to give young people the challenge of sailing, which often proves to be a life-changing experience. *Pioneer* has accommodation for three qualified crew and 12 trainees. As a powerful and strong sea-going vessel, she is ideally suited for day sailing or passage work in the Thames Estuary, across the North Sea or the English Channel.

Being a crew member highlights and emphasises many vital qualities essential in life and the Trust believes these practical and new experiences help develop young people. The Trust also opened Harker's Yard in 2009 to further its work with training and education in the marine industry and provided opportunities for work experience and apprenticeships in marine engineering and boat building and repair. Pioneer Sailing Trust works closely with life-development trusts, training agencies, councils, social services and other organisations devoted to improving the life prospects of young people, many of whom are coping with difficult circumstances. Young people often find time at the Trust opens new windows of opportunity.

Pioneer's history

The story of *Pioneer* is a long one and she is unique in being the very last of the larger size Essex smacks to survive, although only the bottom and other parts of her structure were salvaged as a basis for the ambitious reconstruction. To give scale to the vessel; her present dimensions are 64ft registered length – about 71ft overall length – and about 15ft beam.

Originally she was somewhat shorter, but like many contemporaries she was lengthened and altered slightly in breath to suit changing fishery conditions some years after her launch. To understand the background of *Pioneer* and her contemporaries, we must go back to the Essex fisheries in the mid-19th century, a time of great activity and development when everyday existence at the small towns and villages on the Colne and Blackwater rivers, with their common estuary in North East Essex, depended on fishing, professional yachting, shipbuilding and other maritime

PHOTOGRAPHS COURTESY OF PIONEER SAILING TRUST

Top: ***Pioneer*** **stripped back to the bare bones**
Bottom: **Plenty of work still to be done**

activities. At the time, there were approximately 250 smacks under sail, working from the Colne alone. They would have been manned by about 1,000 hands.

Pioneer was built by Peter Harris at the maritime village of Rowhedge in the parish of East Donyland on the upper reaches of the river Colne. It has deep water by its quays and was home for many mariners and shipbuilders after the 1780s of large numbers of professional captains and hands for yachts of all sizes and types, many of whom found something of a winter living fishing in the 50 or so smacks owned there. *Pioneer* continued to sail from Brightlingsea and by 1919 Joseph Eagle, one of an old local fishing family,

Above left: The ribs rebuilt and in position. **Above right:** Awaiting deck boarding. **Below:** Detail of the carvel planking

was managing owner. The trade slumps of the early 1920s bought further change of ownership and eventually she was laid up and became a houseboat at East Mersea, later being towed round to West Mersea on the nearby river Blackwater where she was moored on the mud. It was not until 1998 that she was rescued from the mud and brought back to sailing condition by Pioneer Sailing Trust.

Ambitious restoration

In the dying days of 1998, in a bitter December wind, *Pioneer* was raised from the mud and floated to Wyatt's Hard, West Mersea. From there she was transported to a temporary home at Goldhanger where she was carefully cleaned, blocked up, shored and plumbed. A three-dimensional digital survey by laser assured the accuracy of her recorded lines. Finally laid up in a barn at Great Totham her restoration began. In 2003, she emerged, restored, drawn across the waterlogged fields by five tractors, on her low loader artic, to the hard Colchester road. Manoeuvred overnight by the narrowest of margins past Colchester Castle she eventually arrived back at Brightlingsea. On 17 May, 2003, she was re-launched bearing her original Colchester registration CK18. She was, and is, the pride of Essex and the UK's great maritime tradition.

Marine apprenticeships

Since the restoration and launch of *Pioneer*, The Pioneer Sailing Trust has developed Harker's Yard on the Shipyard Estate, Brightlingsea, with the aim of benefitting and developing the local area's marine industry through training. Harker's Yard is a purpose-built training facility that provides work experience and apprenticeships for young people wishing to enter the marine industry. Along with a base for *Pioneer* during the winter months, it also provides a quay and fuel barge facility for working vessels. The yard specialises in training apprentices in the restoration of historic vessels and the manufacture of the East Coast Rowing Gig, as part of the expansion of coastal rowing.

Recent projects include major restoration on the 19th-century yacht *Volante*. It was designed and built in Wivenhoe in 1870 by John Harvey. The 1897 gentleman's yacht *Rainbow* was also recently restored as well as John Constable's vessel. Additionally, the East Coast Rowing Gigs are at various stages of production. These cold-moulded rowing gigs are designed to be rowed by four oarsmen and a cox in coastal waters. The Trust hopes coastal community rowing using such gigs will allow people of all ages and backgrounds to get on the water.

The *Trinity House Launch* and *Priscilla* are part of a wider three-year project and are financed by the Heritage Lottery fund. The apprentices work alongside shipwrights to learn and develop woodwork skills. The hope is the traditional skills will be transferred and conserved for the future. While most of the projects in the yard are centred on traditional wooden boats, apprentices are also given the opportunity to work using up-to-date techniques, which equip them with relevant stills needed for modern marine industries.

The apprentices work towards the Apprenticeship in Marine Engineering, comprising a NVQ level 3 qualification in Marine Engineering and City and Guilds 2451 course in yacht building and repairs. The apprenticeship programme lasts approximately 24 months and provides apprentices with the valuable knowledge they need to carry out safe practice at work, understand the marine industry and ultimately make them more employable. The apprentices

are also encouraged to sail aboard *Pioneer* in the summer. Sailing is a valuable experience for them and the hope is that it will reinforce their passion for boats and the water. Through the combined experience of boat work, theory and sailing, *Pioneer* gives the apprentices an enriched and unique experience which they can take with them into their next steps in life.

Voyage across to the Netherlands

Pioneer and its crew, along with five new apprentices, embarked on another voyage to Terschelling, northern Netherlands, where the boat was originally used to dredge for oysters in the 1800s. They were certainly put through their paces as they took it in turns to helm, navigate, trim sails and cook. The crew were split into four watches and rotated shifts every four hours. Taking only 30 hours, the outward journey ran very smoothly. The next day, after a good rest, the crew hired bikes and set off to explore Terschelling. The first place they visited was the Wreck Museum. This museum is an Aladdin's cave of treasures, old and new, from WW2 artifacts to trainers washed up from container ships. The next stop was something a little more exciting for the apprentices, going blow carting! They had to cycle to the beach, which lends itself perfectly to this sport as the area is flat and wide. It was a great sport to try, so everyone took part. As it was windy, they managed to get up to some impressive speeds... and impressive tumbles! When the bikes were packed away and everyone was back on the boat, the day seemed over all too quickly. Once on board, however, the skipper, Jim, informed them that bad weather was approaching and they needed to leave in the morning. If not, they might be stuck there for another week. Some of the apprentices thought this did not sound like a bad idea!

Setting out for another journey across the North Sea, *Pioneer* left Terschelling at about 9am the next morning. All the sails went up as the conditions were calm. They were making good progress. But as they approached the shipping channels the conditions became more challenging. *Pioneer* seemed to thrive, however, and sailed like she knew her way home. Steadily, the sea state worsened but *Pioneer* was in her element, powering through the waves. The sails needed to be reefed, making it a little easier to handle; at some points the bow sprit was going under every other wave and

The team photo after a job well done

The final stages of fitting out

there were a few big ones over the bow. For the well-trained crew, handling the boat was no problem.

The rocky waves made it all the more exciting for the crew as the boat felt sturdy and strong in the challenging conditions. It reminded them what *Pioneer* was built for... and they loved it. The watch systems were altered from a four-watch system to a three which meant that more people could be up on deck to help. As *Pioneer* approached the UK, more technical skills were required as the crew had to tack frequently. Everyone had to be alert for this, especially in the dark. The crew all pulled together as a team, making the boat run smoothly and safely.

Pioneer was soon approaching home. The shorter chop of the waves meant the momentum of the boat was changing, more waves were coming over the bow. The decision was made to get shelter in Pin Mill, Suffolk, where they knew they could anchor safely. As the boat slowed down and the engine was turned on, the excitement died down as everyone realised how tired they were. The anchorage was a welcome sight and *Pioneer* settled down for the night... waiting for the next adventure. ■

Contact details

Contact: Pioneer Sailing Trust
Tel: 01206 303373
Email: admin@pioneersailingtrust.org.uk
Web: www.pioneerck18.org

PIONEER SAILING TRUST
Developing Young People Through Practical Experience

PHOTOGRAPHS BY NEIL LAWTON

What you will need:

- Plastic paving mesh
- Edging wood
- Weed retarding sheet
- Pea shingle
- Builder's sand
- Paving
- Pallet wood
- Door latch
- Screws
- Edging spade
- Garden spade
- Bolster chisel
- Table/mitre or hand saw
- Drill/driver
- Drills
- Nail gun

WOOD STORAGE SHED
Part 2

Neil Lawton finishes the wood storage shed for the back garden

With the main structure complete it was time to leave my comfort zone. I have no real experience of hard landscaping, but was in need of a path and a floor!

How I went about this was completely influenced by donations. I asked around and received the plastic paving mesh, a few pavers, the weed-retarding matting, and the builder's sand, free of charge. If it wasn't for the paving mesh, I would probably have gone for a hardcore-type path, as bricks and rubble are easy to obtain free. It's always worth asking around, or using your local freecycle group. There are many people out there with materials that are surplus to requirements.

If I could have waited, and done the work on a bit-by-bit basis, I could probably have done the whole thing for free, but I was desperate for the space so bought materials to complete the job.

1 Using the lock-together mesh as a guide, I used an edging spade to cut into the turf, marking the edge of the path.

2 The turf was skimmed off with a standard spade.

3 Offcuts of an iroko (*Milicia excelsa*) table top were used to edge the cutting, with some of the mesh used to gauge the depth of cut required.

1

2

3

4 The weed-retarding mat was full of holes but luckily there was enough to have a double layer.

5 With the mat trimmed back the mesh could start to be locked together. I was short of three pieces to cover the whole area, so arranged them so the space would be bordered by the two small concrete paths.

6 Pea shingle was then poured over the whole area, filling the mesh and forming the path.

7 Eight bags later, and the path is finished.

8 The turf inside the shed was skimmed off, using a spade once more. A straight-edged piece of wood was then scraped over the surface. This will show where high spots need to be removed or low spots need to be built up, to get a more level surface.

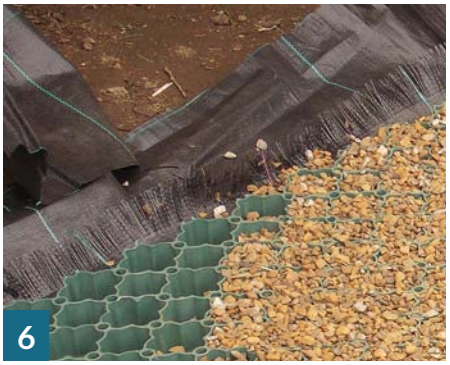
9 The weed-retarding mat was laid, and builder's sand spread on top of it.

10 The pavers were laid and levelled by either building up, or removing sand underneath them, until they were stable.

11 I'm not too worried about aesthetics, and had only bought enough new pavers to fill the space the free ones couldn't.

12 The old pavers were cut by tapping down the line with a bolster chisel. I have to admit not all went as well to plan as this one!

13 All the pavers are now in place, and bordered with the remaining pea shingle. One more bag wouldn't go amiss, but it's not essential.



14 Back in my comfort zone, and on with the shelving. In the absence of any posts, some packing crate will become the uprights, with the shelves themselves made from pallet wood.


14

15 The pieces of crate were de-nailed, then roughly cut to length. These were then ripped to size on the tablesaw.


15

16 Two pieces were then screwed together along their length to form an upright. A third piece was used to support the timber.


16

17 Repeated four times and the outside uprights are complete.


17

18 These were then placed side by side with the two pieces that will make the inside uprights, and the shelf positions marked on. A scrap wood offcut is dimensioned to the right thickness and used so it negates the need for measuring.


18

19 Batons were cut from the rest of the packing crate, and were laid out in position.


19

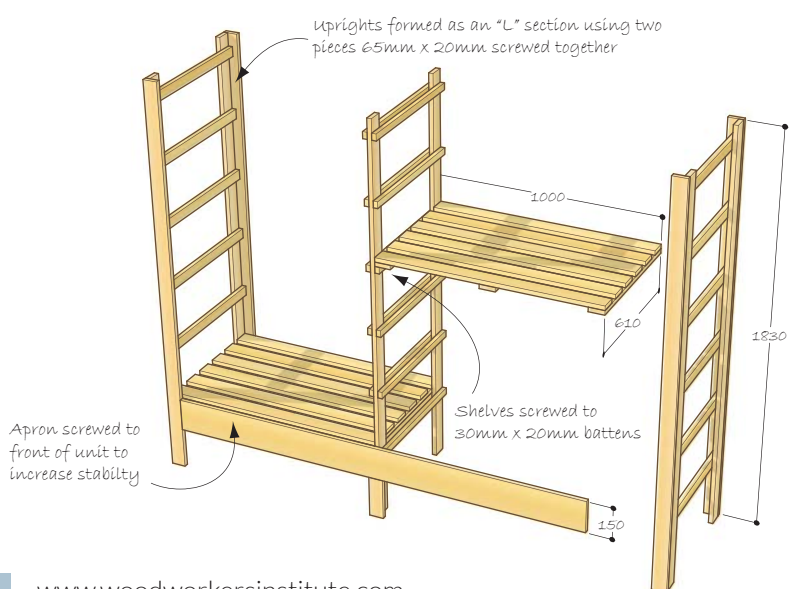
20 A nail gun was then used to initially tie the structure together.


20

21 Pilot holes were then drilled and the whole thing screwed together.


21

22 The inside upright was made in the same way but required a baton on both sides. One side was fixed then used as a reference for the other, by simply butting the baton up to a piece of scrap held against the fixed baton.




22

23 The upright completed with a bit of warp. Reclaimed wood can't always be perfect. This should pull back true once assembled.

24 The shelves were made by basically making pallet wood into a simpler pallet!

25 Assembling the unit, I added a couple of blocks to the bottom of the inside uprights to help spread the load. The shelves are simply screwed to the batons to pull the whole thing together.

26 A pallet wood apron was screwed to the front to provide more stability, and the shelves were stacked.

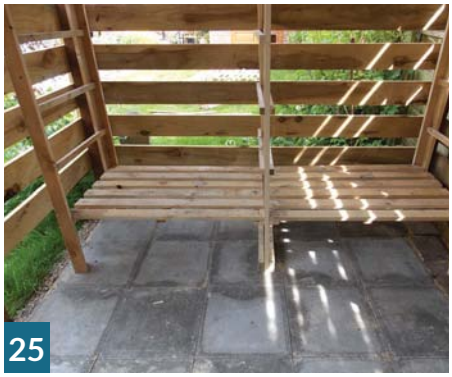
27 The finished unit is now fulfilling its purpose. Another two will be made like this when enough wood becomes available.

28 A bit of snagging! The fall on the roof is towards the small concrete path. When it rained heavily, water bounced off the path on to the paving. This was solved by simply adding another plank just above the pea-shingle border.

29 The gates have sat together nicely, but were blown open in high winds, so a small latch was added to the finished shed. ■


23


24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28


29

Tips for storing wood

- Make sure you not only stack timber neatly, but also ensure there is ventilation between the boards and blocks of wood.
- Once the wood has a long enough period to dry, you will need to complete the drying ready to work it. Often the best way is to cut components oversize and bring them into the house and store 'in stick' – under the bed is good!

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

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- 225mm x 160mm table, tilts 0-90°
- 370w, 230v motor

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Clarke 6" BELT/ 9" DISC SANDER

- Includes stand
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NEW 4" BELT/ 8" DISC SANDER

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- Includes two tables
- 550w 230v motor.

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CLK3 LEG STAND KIT FOR CTS10D - £29.99 INC VAT. LEG STAND KIT FOR CTS11 - £27.59 INC VAT

FROM ONLY £69.98 EX.VAT £83.98 INC.VAT

CTS10D

INCLUDES LEFT & RIGHT TABLE EXTENSION

*Moulded base

MODEL	MOTOR	BLADE	EXC.VAT	INC.VAT
CTS800B	600w	200mm	£69.98	£83.98
CTS11*	1500w	254mm	£139.98	£167.98
CTS10D	1500w	254mm	£159.98	£191.98

Clarke RANDOM ORBITAL SANDER

CROS1

£29.98 EX.VAT £35.98 INC.VAT

- For sanding & polishing
- 125mm diameter sanding discs
- 4000-11000 opm

INC 5 DISCS

Clarke ELECTRIC POWER FILE

CPF13

- Variable belt speed
- Tilting head

*Black & Decker

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MODEL	MOTOR	EXC.VAT	INC.VAT
CPF13	400W/230V	£44.99	£53.99
KA900E*	350W/230V	£49.98	£59.98

Clarke BANDSAWS

NEW RANGE

Top Quality Bandsaws - ideal for professional workshop use. Strong steel body with solid cast iron table featuring induction motors

- Table tilts 45°
- Adjustable blade guide
- Supplied with 4 TPI wood cutting blade, rip fence, mitre guide and push stick

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FLEXIBLE LED WORKLIGHT

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DRIVE-BELT TENSIONING

MULTI-STEP DUST EXTRACTION OUTLET

REMOVABLE DUST TRAY

CBS300

CBS350

ONLY £349.98 EX.VAT £419.98 INC.VAT

ONLY £449.00 EX.VAT £538.80 INC.VAT

MODEL	THROAT DEPTH	MAX CUT 90°	MAX CUT 45°	EXC.VAT	INC.VAT
CBS300	305mm/12"	165mm	115mm	£349.98	£419.98
CBS350	340mm/14"	225mm	160mm	£449.00	£538.80

Clarke TABLE SAW WITH EXTENSION TABLES (250mm)

CTS14

- Ideal for cross cutting, ripping, angle and mitre cutting
- Easy release /locking mechanism for table extensions
- 0-45° tilting blade
- Cutting depth: 72mm at 90° / 65mm at 45°
- 230V/50Hz, Motor: 1800W,

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Shown with optional leg kit CLK5 £22.99 exc.VAT £27.59 inc.VAT

Clarke 1" BELT & 5" DISC SANDER

- Inc. 2 tilt/lock tables and mitre gauge
- 300w motor

CBS1-5

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- Compact, high performance wet & dry vacuum cleaners for use around the home, workshop, garage etc.

* SS = Stainless Steel

MODEL	MOTOR	CAPACITY WET/DRY	EXC. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£47.99	£57.59
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC25SS*	1400W	19/17ltr	£64.99	£77.99
CVAC30SSR*	1400W	24/21ltr	£86.99	£104.39

Clarke STAPLE/ NAIL GUNS

- All models include nail/staple pack and tough moulded case

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CONSN118LI

FROM ONLY £19.98 EX.VAT £23.98 INC.VAT

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ELECTRIC AND CORDLESS MODELS IN STOCK

MODEL	TYPE	STAPLE/NAIL GAUGE	EXC. VAT	INC. VAT
CESNG1	Electric	22/18	£19.98	£23.98
CCT48	Cordless 4.8v Ni-MH	22/18	£29.98	£35.98
CESNG2	Electric	18/18	£39.98	£47.98
CONSN18Li	Cordless 18v Lithium-Ion	18/18	£109.98	£131.98

Clarke STATIC PHASE CONVERTERS

PC60

- Run big 3 phase woodworking machines from 1 phase supply
- Variable output power to match HP of motor to be run

ROTARY PHASE CONVERTERS ALSO AVAILABLE

PRICE CUT NOW FROM £209.00 EX.VAT £250.80 INC.VAT WAS £382.80 inc.VAT

CONVERT 230V 1PH TO 400V 3PH

‡ was £274.80 inc.VAT
# was £322.80 inc.VAT
† was £382.80 inc.VAT

MODEL	MAX. MOTOR HP	FUSE	EXC.VAT	INC.VAT
PC20‡	2HP	10Amps	£209.00	£250.80
PC40#	3.5HP	20Amps	£249.00	£298.80
PC60 †	5.5HP	32Amps	£299.00	£358.80

Clarke CIRCULAR SAWS

- Great range of DIY and professional saws
- Ideal for bevel cutting (0-45°)

FROM ONLY £34.99 EX.VAT £41.99 INC.VAT

CON185

*Includes laser guide

MODEL	MOTOR	MAX CUT 90/45 (mm)	EXC.VAT	INC.VAT
CCS185B	1200W	65/44	£34.99	£41.99
CON185*#	1600W	60/40	£56.99	£68.39
CCS2	1300W	60/45	£59.98	£71.98

was £71.98 inc.VAT

Clarke DISC SANDER (305MM)

- Powerful, bench mounted disc sander
- 900W
- No load disc speed: 1490rpm
- 305mm Disc Dia. (1 x 60 grit sanding disc included)
- Dimensions (LWH): 440x437 x386mm

CDS300B

£119.98 EX.VAT £143.98 INC.VAT

Clarke SHEET SANDERS

CON300

*110V in stock

FROM ONLY £13.99 EX.VAT £16.79 INC.VAT

MODEL	SHEET SIZE	MOTOR	EXC.VAT	INC.VAT
COS200	190X90mm	150W	£13.99	£16.79
CON300	230X115mm	330W	£32.99	£39.59
Makita BO455*	112X102mm	200W	£54.99	£65.99

Clarke QUALITY CAST IRON STOVES

OVER 20 GREAT STYLES IN STOCK

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11.8kW BARREL £209.00 EX.VAT £250.80 INC.VAT

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6.9kW POT BELLY

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Rugged fan heaters with tough steel cabinets

- Adjustable heat output with thermostat

FULL RANGE OF ELECTRIC MODELS IN STOCK FROM ONLY £27.59 INC VAT

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DEVIL 6003

MODEL	OUTPUT	EXC.VAT	INC.VAT
Devil 6002	0.7 – 2kW	£39.98	£47.98
Devil 6003	1.5 – 3kW	£49.98	£59.98
Devil 6005	2.5 – 5kW	£74.99	£89.99
Devil 6009*	4.5 – 9kW	£119.00	£142.80
Devil 6015#	5-10-15kW	£179.00	£214.80
Devil 6025	0 – 22kW	£289.00	£346.80

*was £155.98 inc.VAT #was £227.98 inc.VAT

Clarke CONTRACTOR BELT SANDERS

- Ideal for surface removal, sanding and finishing

ABRASIVE SANDING BELTS IN STOCK

BS1

FROM ONLY £29.98 EX.VAT £35.98 INC.VAT

MODEL	WATT	M/MIN	EXC.VAT	INC.VAT
Clarke BS1	900W	380	£29.98	£35.98
Clarke CBS2	1200W	480	£69.98	£83.98
Makita 9911	650W	75-270	£94.99	£113.99

Clarke POWER PLANERS

BLACK & DECKER

FROM ONLY £23.99 EX.VAT £28.79 INC.VAT

- 82mm cutting width

CEP1

MODEL	INPUT POWER	DEPTH OF CUT	EXC.VAT	INC.VAT
Clarke CEP1	650W	2mm	£23.99	£28.79
Einhell RT-PL82	850W	3mm	£49.98	£59.98
B&D KW750K - GB	750W	2mm	£57.99	£69.59

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT

- Great for sawing, cutting, sanding, polishing, chiselling & much more
- 250w motor
- Variable speed

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- Simple fast assembly in minutes using only a hammer

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CHOICE OF 5 COLOURS RED, BLUE, BLACK, SILVER & GALVANISED STEEL

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350 KG PER SHELF (evenly distributed) Strong 12 mm fibreboard shelves

ALSO EXTRA WIDE INDUSTRIAL UNITS AVAILABLE

MODEL	DIMS WxDxH(mm)	EXC.VAT	INC.VAT
150kg	800x300x1500	£29.98	£35.98
350kg	900x400x1800	£49.98	£59.98

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CPT800

- Ideal for DIY & Hobby use
- Dual purpose, for both finishing & sizing of timber

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MODEL	MOTOR	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CPT600	1250W	120mm	£169.98	£203.98
CPT800	1250W	120mm	£199.98	£239.98
CPT1000 NEW	1500W	120mm	£269.98	£323.98

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Provides exceptional finishes for deep & wide work pieces, front edges & narrow inner curves

- Dust collection port
- Inc. 5 sanding sleeves/ bobbins
- 330mm table height

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- Accurately creates deep square recesses
- Table size 150 x 340mm
- Maximum chisel cap.76mm
- Robust cast iron base & column ensures stability & accuracy
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FROM ONLY £13.49 EX.VAT £16.19 INC.VAT

Record WV7

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Clarke CHT152	Bolted	150/152/61	£13.49	£16.19
Stanley Multi Angle	Clamped	72/60/40	£16.99	£20.39
Record V75B	Clamped	75/50/32	£19.98	£23.98
Clarke WV7	Bolted	180/205/78	£24.99	£29.99

Clarke 10" SLIDING COMPOUND MITRE SAW

- For fast, accurate cross, bevel & mitre cutting in most hard & soft woods
- 1800W motor
- Laser guide

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CMS10S2

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CFMSS1

- Suitable for most sizes/makes of saw
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NEW FOLDING MITRE SAW STAND IN STOCK – CONMW1 ONLY £119.98 INC VAT

MITRE SAWS

Makita

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TH-SM 2534

- Quality Range of Mitre saws and blades available

MODEL	BLADE DIA	BORE (mm)	MAX CUT DEPTH/CROSS	EXC. VAT	INC. VAT
Einhell TH-MS 2112	210/30	55/120mm		£56.99	£68.39
Fury 3	210/25.4	60/220mm		£119.98	£143.98
Einhell TH-SM2534	250/30	75/340mm		£159.98	£191.98
Makita LS1040	260/30	95/130mm		£199.98	£239.98

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£129.98 EXC.VAT £155.98 INC.VAT

METABO ALSO AVAILABLE

- Powerful 750W motor
- 56 litre bag capacity
- Flow rate of 850M3/h

MODEL	MOTOR	FLOW RATE	BAG CAP.	EXC.VAT	INC.VAT
CDE35B	750W	850 M3/h	56Ltrs	£129.98	£155.98
CDE7B	750W	850 M3/h	114Ltrs	£149.98	£179.98

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BOSCH Power Tools

Clarke CONTRACTOR

FROM ONLY £36.99 EX.VAT £44.39 INC.VAT

* was £77.99 inc.VAT

MODEL	VOLTS	BATTS	EXC. VAT	INC.VAT
CCD180	18V	1	£36.99	£44.39
CDD240	24V	1	£39.98	£47.98
Bosch PSR18	18V	1	£54.99	£65.99
CON18Ni*	18V	2 x Ni-Cd	£59.98	£71.98
CON18Li	18V	2 x Li-Ion	£84.99	£101.99

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HUGE RANGE OF AIR TOOLS IN STOCK

- Superb range ideal for DIY, hobby & semi-professional use * V-Twin

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Tiger 7/250	2 HP	7	24ltr	£89.98	£107.98
Tiger 11/250	2.5HP	9.5	24ltr	£119.98	£143.98
Tiger 8/510	2HP	7.5	50ltr	£129.98	£155.98
Tiger 11/510	2.5HP	9.5	50ltr	£149.98	£179.98
Tiger 16/510*	3 HP	14.5	50ltr	£219.98	£263.98
Tiger 16/1010*	3 HP	14.5	100ltr	£269.98	£323.98

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- Simple, easy to set up & use for producing a variety of joints
- Cuts work pieces with a thickness of 8-32mm
- Includes a 1/2" comb template guide & holes for bench mounting

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CDTJ12 Router not included

Clarke ROTARY TOOL KIT

CRT40

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*DIY #Professional ‡ was £59.98 inc.VAT

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Clarke CJS380*	420W	55/6mm	£12.99	£15.59
Clarke CON750#	750W	80/10mm	£24.99	£29.99
Bosch PST700E*‡	500W	70/4mm	£44.99	£53.99
B & D KSTR8K-GB#	600W	85/5mm	£66.99	£80.39

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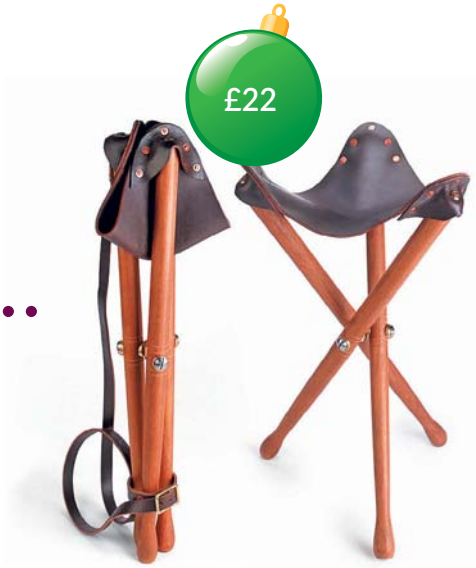
Take a look at the tools, gadgets and gizmos that we think you will enjoy finding in your Christmas stocking!

Veritas three-piece chisel set

New to the Veritas range are these three high quality chisels with blades made from Veritas's own unique PM-VII steel. They are about one-third of the scale of the Veritas bench chisels, each one being approximately 80mm long overall. The three tools in the set have 9.5mm, 6.3mm and 3.2mm wide blades. All permit a delicate touch for fine, controlled cuts, such as box making. Their 2.4mm-thick PM-V11 steel blades are hardened to HRC 61-63 and ground flat on the face. They have a 25° bevel and the chisel handles are bubinga (*Guibourtia demeusei*) with a stainless-steel ferrule. Please note that this price is valid until 31 December, 2015.

Contact: BriMarc Tools & Machinery
Tel: 03332 406 967
Web: www.brimarc.com



Lee Valley Campaign Stool hardware

Included in this kit is a sturdy and elegant three-way pivot for building a folding stool, such as the one in Chris Schwarz's *Campaign Furniture*. Developed for use with 32mm diameter legs, the hardware installs at the midpoint of the legs, letting them pivot to form a tripod or fold for compact carrying and storage.

The kit includes a central brass hub, plus three stainless-steel bolts, each with a set of shaped brass washers. To prevent the bolts from loosening in use, flat nylon washers are included to reduce friction between the outer washer and bolt. The hub is 25mm in diameter and 32mm thick. Fully assembled, the hardware is just over 100mm in diameter. Made in Canada.

Contact: Lee Valley
Tel: (001) 613 596 0350
Web: www.leevalley.com

STANLEY Tools' new 18V cordless power tool platform

This innovative new system will allow one interchangeable battery to be used across all FatMax tools in the 18V range. The versatile platform includes eight cordless power tools, ranging from an impact driver to an oscillating tool and flashlight. All products can be used with the same rechargeable battery providing the ultimate convenience as well as exceptional value for money. There are two STANLEY FatMax 18V batteries to choose from: a 2.0 Ah, ideal for light cutting, drilling and driving, while the 4.0Ah has a longer run time and provides the required power for heavy-duty cutting and grinding. Offering super-fast charge times of one or two hours respectively, you'll never be waiting long between tasks.

Contact: STANLEY Tools
Tel: 01753 511 234
Web: www.stanleytools.co.uk

Record Power DML320 cast-iron electronic variable speed lathe

Record Power has introduced an exciting new lathe to their comprehensive range of woodturning machinery – the DML320 cast-iron electronic variable speed lathe. This machine packs a real punch, with a powerful 1hp motor, 305mm swing over the bed and an impressive 510mm between centres. The spindle thread is the popular M33 3.5 and the tailstock is No.2 Morse taper, with a wide range of accessories available to fit. The solid cast-iron bed, tailstock and headstock offer superb stability, even when turning items at the limits of the lathe's considerable capacities. Most impressive of all is the high-quality electronic variable speed function, giving smooth and responsive speed change at the turn of a dial, with a highly accurate digital speed readout.

Contact: Record Power
Tel: 01246 571 020
Web: www.recordpower.co.uk

Sack-Ups seven-pocket chisel roll

This handy tool roll holds six 180mm chisels or carving tools side by side. The pockets are double the thickness and your chisels should lie side by side. Features silicone treated Sack-Ups fabric interlining for moisture protection and 1,000 Denier Cordora Nylon outer fabric for superior durability. Sack-Ups are silicone treated to prevent rust and to wick moisture away from your tools. They provide protection for your tools in your workshop or in the tool cabinet and prevent dings and scratches. Please note chisels not included.

Contact: Classic Hand Tools
Tel: 01473 784 983
Web: www.classichandtools.com

Artisan Classic Safety Razor Kit

Superbly balanced with just the right amount of heft, the Artisan classic safety razor kit from Craft Supplies USA features chrome plated solid brass components throughout as well as a full-size handle. It accepts all standard double-edge shaving blades and is compatible with their Artisan razor stand. The exclusive threaded rod design allows you to easily disassemble the handle as needed for cleaning or refinishing. Turning is done using a standard pen mandrel with bushings – sold separately. Instructions are included.

Contact: Craft Supplies USA
Tel: (001) 800 551 8876
Web: www.woodturnerscatalog.com

MASCOT LIGHT range

MASCOT LIGHT is the name of the new light workwear range from MASCOT. The range has been specially designed for work in Europe's large industrial companies. It contains nine new two-tone products, including work trousers, work jackets and a softshell jacket in two different colour combinations: royal blue/navy or dark anthracite/black. The range is offered in a broad range of sizes, including trousers with three different leg lengths as standard.

Contact: MASCOT
Tel: +45 8724 4820
Web: www.mascot.dk/en

Proxxon MICROMOT Mill Drill

The MICROMOT 230/E is a truly all round tool, designed for drilling, milling, grinding, polishing, brushing, cutting and engraving. With a diameter of 37mm and weighing just 270g, it offers easy handling and is without equal in its class. The extremely slim housing of glass-fibre reinforced POLYAMIDE with a soft component grip area enables the unit to be handled as a pen would be held.

The MICROMOT mill drill has a balanced, low noise, special DC motor with long life expectancy. The maximum speed of 21,500rpm can be continuously reduced to 6,500rpm through full-wave electronics. This tool offers nearly the same level of torque in the lower speed range. This is especially important for micro-drilling, brushing and polishing.

Contact: BriMarc Tools & Machinery
Tel: 03332 406 967
Web: www.brimarc.com

Triton Router Track Adaptor

The TRTA001 Router Track Adaptor fits any of the Triton routers to the precision guide tracks used with the Triton Plunge Track Saw 1400W. It's a very simple way to create laser straight rebate or dado cuts where a regular fence attachment or even a router table would struggle – across the middle of a large sheet or fixed surface, for example.

A robust, chrome-plated, low-friction baseplate and guiderails provide a sturdy and precise alignment to the track, combined with the quick-fastening mechanism ensuring minimal time and complexity in fixing the router to the track rail. The Router Track Adaptor features two-part micro and macro adjustability, allowing for precise router location on the workpiece. The locking mechanism ensures complete rigidity of the component during use.

Contact: Triton Tools
Web: www.tritontools.com

SHARPENING ROU

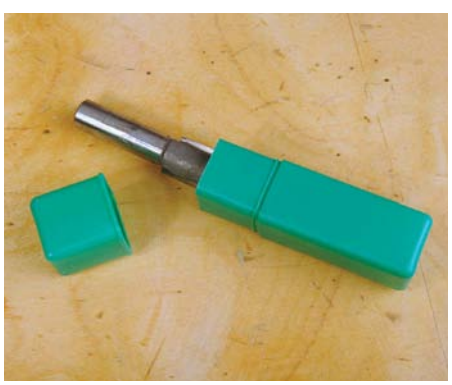
'Man of Steel' – and Tungsten Carbide – **Anthony Bailey**, with 'nose pressed firmly to the grindstone' proves his brain is still as sharp as his tongue, with some rather cutting observations about router bits

It's all very well having a set of router cutters but they need looking after. So the first few tips aren't about sharpening but care in use and storage. It pays to treat router cutters with respect so they have a long, safe working life.

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

In Issue 1 of *Woodworking Crafts* I suggested my own eccentric set of router cutters based largely on various straight cutters instead of the usual starter set of mixed cutter types. One advantage of my selection is that since straight cutters get used more than any other it evens out the wear across the set thus putting off the day when sharpening or replacement becomes necessary.

Don't buy a budget set of cutters because the carbide is going to be rather thin and possibly prone to breakage due to poor quality carbide. Thin blades cannot be resharpened as there is nothing much left after the carbide faces are reground.



Store your cutter properly. If they are all clanking about in a toolbox together or dropped on a hard floor then the carbide may break as it is relatively brittle. Carbide is not solid metal as such but granules, which are 'sintered' i.e. bonded together under pressure at high temperature.

TER BITS

You need to assemble a small kit of cleaning aids. You will need a cleaner with solvent qualities, a dewaxing solution or an engine degreasing compound are good for this or you can buy a special tool cleaning solution. You'll also need a craft knife for scraping the carbide faces, or you can use a chisel and a couple of old toothbrushes or a small brass bristle brush for removing deposits. You should have eye protection in case the brushing action causes any splashes.

Wet brush any remaining deposits away and use a rag to wipe the cutter clean. Avoid finger contact with the edges as they may still be quite sharp.

Brush on or dip your cutters with the chosen solution to start softening the deposits. Use a blade edge to scrape the muck off the faces of the TCT inserts and the edges and cutter body.

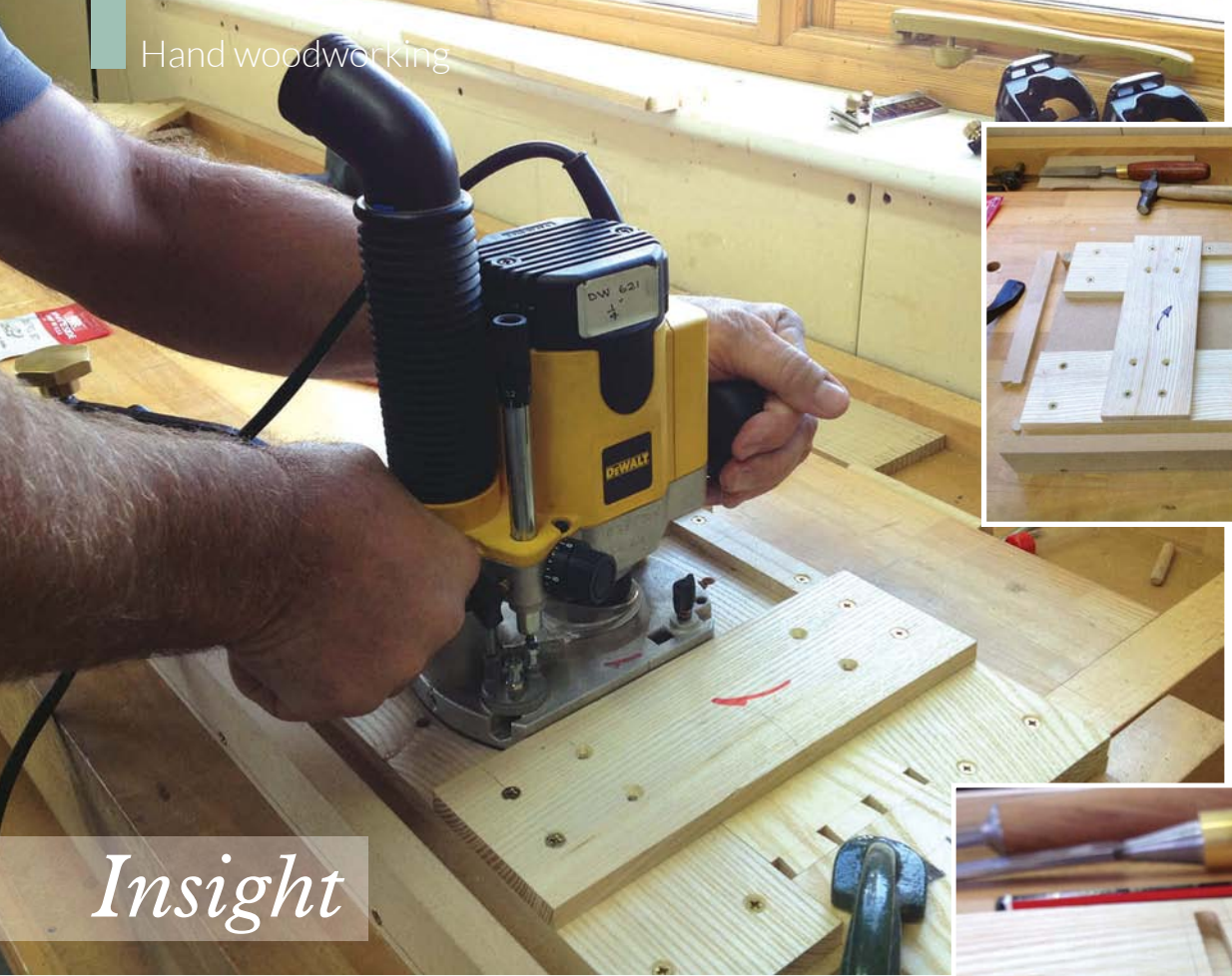
The only way to hone a sharp edge on TCT cutters is to use a small diamond plate or file. It is best to hone the flat faces of the carbide inserts because it is easier to keep the hone flat. If you try honing the edges you risk rounding them over and making them more blunt than they are.

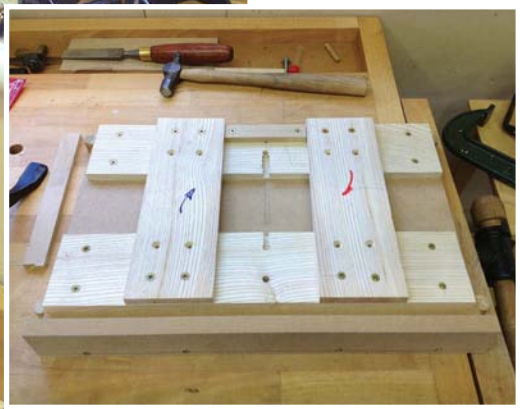
Adopt the correct machining technique. A very competent craftsman I know, insists on plunging deep holes instead of repeat passes to depth! Plunging like a drill will cause the bit to heat up considerably affecting the state of the metals involved and making wood dust and resin stick and cause burning.

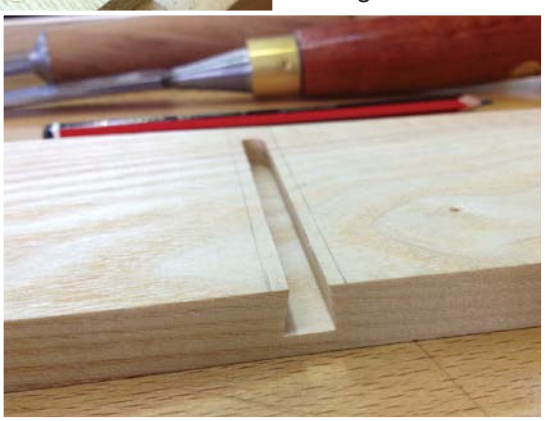
If a cutter is a big, quite valuable one then it may pay to send it to a saw doctor to resharpen if it is really blunt or chipped. However, they need to only remove the minimum of carbide necessary to regain a good edge. If the cutter has a bearing it will no longer be the right size although in very special cases the bearing could be 'skimmed' so it would still match the correct diameter.

The correct machining technique using multiple passes at ever increasing depths will avoid operator and cutter strain and reduce the incidence of burning. This will make cleaning up the cutter much easier and reduce damage to it.

The lesson about keeping sharp cutters is to buy good quality and treat them well and they will last longer in a useable state.







Main image: The jig guiding the router base for accuracy
Above: The jig gives control without the need for guide bushes
Below: A clean housing cut

Insight

First projects

Peter Sefton lets us join the class as his students begin their woodworking journey

My new full-time students have recently started their woodworking adventure and after initial hand tool preparation and sharpening, one of their first jobs was a small chisel rack to store their own new hand tools. The guys had been given a design brief, which includes fixing a solid timber shelf with either hand-cut through-wedged tenons or a routed dovetail housing; some chose one of each for opposing ends of the shelf to gain experience.

Getting started

One of the first decisions was to select a suitably sized dovetail router cutter and we chose a new ¼in shank, 8mm wide Whiteside cutter, with an 8° slope. Although the cutter was brand new and very sharp we used a second router, set up with a straight cutter to remove the bulk of the waste. The problem with routing enclosed dovetail housings is the strain this can place on the cutter – if one snaps mid-project it can be very frustrating.

We used a shop-made square housing jig that last year's students produced. The main elements required by this jig are accuracy of dimensions and squareness of the cross guide rails. The jig also offers work support to eliminate breakout, as the router cutter exits the housing. As the jig has been used last year we decided to turn it around and route a fresh housing from the other side in order to give us renewed timber support.

Making the cut

The housings were cut at just over two-thirds of the timber thickness – in our case the housings were cut at 8.25mm in 12mm timber – and a stop on the jig was used to keep the housings a consistent length. The male part of the joint was produced on the router table using the same cutter, at 8mm high, now inverted with the shelf passing over the top of it. A false fence was fixed onto the INCRA fence to reduce break out. The cutter was used to cut through the false fence, from behind, to give a zero clearance. We also used a pressure guard in front and a sacrificial piece of timber following on, which both helped to keep the shelf square and prevent breakout.

After the dovetail was cut on both sides of the shelf and tested for fit, I dampened the ash (*Fraxinus excelsior*) joint as this raises the grain. I do this and either re-rout or lightly sand prior to gluing; if you don't dampen the joint, the glue will swell the joint during the gluing process and the joint may bind up mid-assembly before all the joints have been pushed home. ■

Peter Sefton

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

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Woodland ways

Ashdown Forest was once a royal hunting ground

PHOTOGRAPHS BY GARY MARSHALL, UNLESS OTHERWISE STATED

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

A MEDIEVAL LANDSCAPE

Gary Marshall looks at the history of the High Weald

Reading the title of this article may make you think of 'Merrie England' in the snow, cattle sheds, feasting and Good Kings helping poor men and the like. However, there's a corner of England where aspects of the landscape, settlement, land use and routeways established in medieval times are still with us today.

Areas of Outstanding Natural Beauty – AONBs

I love our designated AONBs. I've lived near the Cotswolds, the Mendip Hills, the Surrey Hills and the South Downs – now upgraded to National Park Status – and have visited nearly all the others in England and Wales. They're all special. Less than a mile away from my home is the High Weald AONB. It's equally as deserving of its AONB status as any other but hides its secrets and atmosphere better than most.

The High Weald AONB

I'm no geologist, archaeologist or historian. I do, however, take more than a passing interest in these underlying disciplines when I'm immersed in the landscapes of the High Weald. Zoom in on any rural area between Horsham to the west and Ashford to the east, and Tonbridge to the north and Haywards Heath, Uckfield and Hastings to the south and you'll almost certainly be in the High Weald AONB. You'd be hard pressed not to find woodlands, with connecting shaws – old narrow irregular woodland strips. Overall nearly 25% of the High Weald is woodland, much of it being ancient woodland – indeed 17.6% of the High Weald has Ancient Semi-Natural Woodland status – the UK average is 2.3%.

But you can't just judge the High Weald from above, it's too intricate. The much geologically faulted topography is heavily indented with wriggling gills – steep-sided woody valleys sometimes spelt fancifully as 'ghylls' – and hollow trackways that pre-date permanent settlement. It has more than 10,000 ponds, nearly 2,000 hectares of heathland – most of it on Ashdown Forest, which was

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

The High Weald covers an area of 1,440km^2

Manor houses were built by yeomen ironmasters

Hammer ponds were created to serve the forges

Photograph courtesy of Wikipedia Commons

Nutley Windmill in East Sussex is believed to be around 300 years old

Remember to take your wellies for a walk through the High Weald

once a royal hunting ground. Indeed local place names such as Plaw Hatch and Colemans Hatch refer to the old hatches, or entrances, into the royal forest enclosure. Ashdown Forest is now protected under the European Habitats Directive, as are Hastings Cliffs – covering 655 hectares. Altogether the High Weald AONB covers more than 1,440km^2.

Despite its size, diversity and proximity to London, the Continent and the South Coast, the High Weald AONB isn't as familiar to most as, say, the Cotswolds AONB. Enough people fly over part of it every day on their way to or from Gatwick though! I'm committed to helping to raise public awareness of its intimate landscape and all that entails.

Medieval industries

Quoting from the 2004 Management Plan for the High Weald AONB: "The essential character of the High Weald was established by the 14th century and has survived major historical events, and social and technological changes. It is considered to be one of the best surviving coherent medieval landscapes in Northern Europe."

Many roads and rights of way follow ancient ridgeway routes with densely radiating narrow, deeply hollowed tree canopied tunnel-like lanes – once droveways. Small fields with woodland and ancient hedgerow boundaries are typical. Ashdown Forest was once a Norman deer hunting forest; today its heathland makes up 2.5% of this rare habitat in the UK.

In addition to mixed farming, with much grassland for grazing, the Weald – i.e. all the land bounded by the North and South Downs – was home to an important iron industry. With roots from pre-Roman times, the industry continued throughout and beyond the Roman era. The Crown purchased Wealden iron objects as early as 1250 A.D. Iron uses included horseshoes, nails, tools and, later in the 1500s, guns and cannon. The site of the first blast furnace in England can still be found at Newbridge in the Ashdown Forest, not many miles from Poohsticks Bridge near Hartfield in East Sussex. Iron-making needed masses of small timber for charcoal. Historically, woodland management has been important in the High Weald. Coppicing was carried out in a controlled, cyclical manner ensuring good supplies. Larger timber would be saved for things such as timber framing, cranes, wind and watermills – not to mention shipbuilding. Transport in the Weald was a problem with its claggy subsoils, so massive teams of oxen pulling carts and timber cut deep into the land. Between 1520 and 1548 the number of blast furnaces in the Weald rose from two to 53.

If ever you wander off main roads like the A23 or A21 or you arrive at one of the High Weald's rural railway stations such as Horsted Keynes, Buxted or Etchingham – remember it wasn't always peaceful. Giant hammers and bellows were driven from water supplied from distinctive 'hammer ponds'. Smoke, fire, fumes and cinders from furnaces kippered the air. Shouts from ox drovers, sawing and chopping, and the slip, slide, slap of mud – all these would permeate the scene. Yeomen ironmasters built fine houses but it was a long time before very much of the High Weald became 'gentrified'. Indeed, today I still rarely venture out without my wellies.

There's heaps more I could write about the High Weald – its current-day craftsmen, its wildlife, activities, castles, rivers, sandstone outcrops, railways, oast houses, pubs, stately homes, magnificent gardens and forests. But I'll leave the rest to you – go and see for yourselves. Visit www.highweald.org and then immerse yourselves in the wonderful medieval landscape that is the High Weald AONB. Wear your wellies for the mud though, with luck, you'll only need them for a white Christmas! ■

Gary Marshall

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

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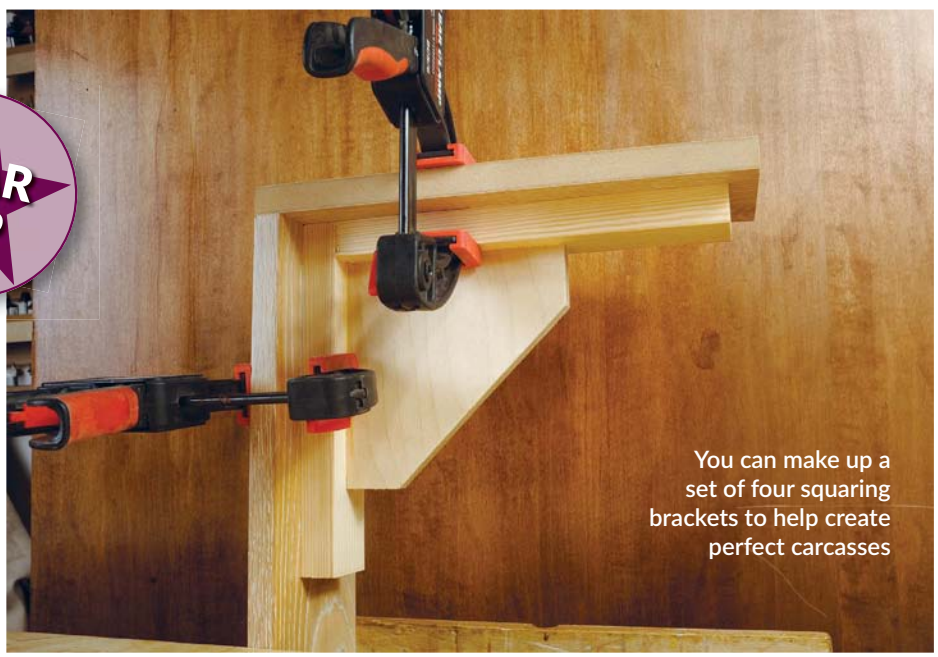
BRACE YOURSELVES

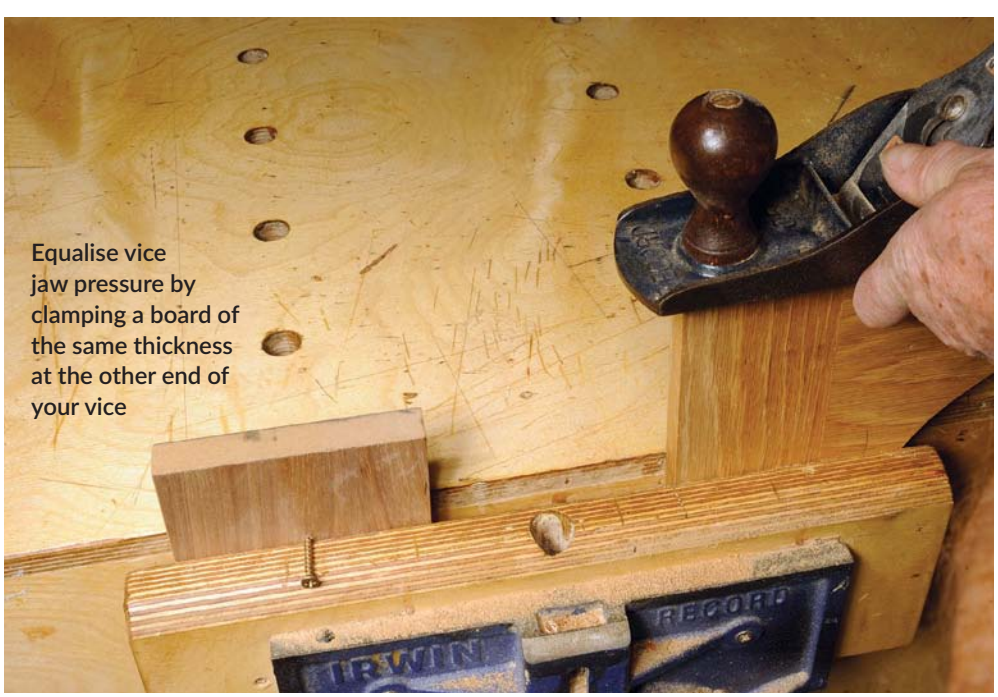
STAR TIP

Whenever I put carcasses together and do a glue and clamp up, I find it a faff to try and get everything square – what with checking and rechecking and running a tape rule from corner to corner. So I made up some brackets, a bit like clumpy shelf brackets. The foot at each end gives somewhere to place a clamp, although a clamp will hang on the edge of the bracket higher up if necessary. Needless to say I checked these brackets during and after assembly to make sure they are truly true!

Fred Warden



You can make up a set of four squaring brackets to help create perfect carcasses



Equalise vice jaw pressure by clamping a board of the same thickness at the other end of your vice

TIGHT VICE CLAMPING

I have a simple bench without a lot of scope for extra fittings, but I do have a proper woodworking vice. I often try planing or sanding and things like that, but they slip easily in the vice. It then occurred to me that pressure at one side of the vice was making the moving jaw twist slightly.
I tried putting a spare piece of wood of the same thickness that I was working on, at the other end of the jaws and let it hang there using a screw – although a clamp does it better. When the jaws are closed the pressure is now equalised and the workpiece is far less likely to slip!

Candy Marshall

BELT SANDER JIG

I often use a belt sander and I can invert it if I want to, but it needed a lengthwise fence and I found it awkward working upside-down. It makes more sense when it is lying on its side, so the workpiece is sitting on a sanding bed. The first thing is to make the sander absolutely secure on the baseboard. This will vary from one machine to another, but a belt sander will often have fixing points for inverted use so you can probably adapt these to suit. Then, you need a table surface to sit the workpieces on. This needs to be above the edge of the abrasive belt and if you can raise it then you can make better use of the belt before having to dispose of it. I find it much easier to control and sand working like this including using the front roller end for internal curves.

Gary O'Donnell

Make your belt sander more versatile and easier to use by fixing it on its side

A bench hook with a centre kerf makes more sense

IMPROVED BENCH HOOK

I found my bench hook a bit annoying to use because it didn't support the waste piece when I was cutting and most cuts are narrowish stock, so the fence was further away than it needed to be. I made a hook with a sawing gap down the middle and a shorter saw bed. The fence was glued and screwed on in one piece and the centre cut out afterwards. That way I knew the fences would line up exactly. It works!

Roger Fewberry

A neat wooden doorstop can help sort out a 'wind' problem (pronounced *wined*)

DOORS 'IN-WIND'

I made a long set of wardrobe doors recently – six to be precise – but one of them decided not to lie dead flat, it had a bit of a wind to it. I didn't want to make another door as it was a waste and the wood grain had to match. I was using strong magnets for door closure and tried them at both top and bottom to try and hold the errant door flat on closure. Unfortunately, although it worked, when the door was opened the juddering as it broke free from the magnets was ridiculous. In the end I used just one magnet and at the bottom of the door fitted a simple stop making sure it was in the correct position to hold the door in line rather than skewing inwards a bit. A compromise, but at least the doors look flat when they are all closed.

Gary Newbould

PHOTOGRAPH: MARGARET WILLIAMS

Table-top HOUSE SIGN

A recent commission prompted **Margaret Williams** to take a fresh look at an unused table top and carve out a sign fit to adorn the finest of homes

What you will need:

- Skew chisel at 7mm wide x 3mm thick
- 6mm straight chisel
- 25mm straight chisel
- Bull-nosed straight chisel
- No.4, 5mm fishtail chisel
- No.3, 10mm fishtail chisel
- Straight blade knife with both faces honed to a mirror finish
- Belt sander

Not so long ago I received a commission for a house sign. The property was called Church Farm and, at the time, it had a paper sign fastened to the gate, so my version needed to be much more weather resistant and permanent!

For the task, I recalled an old teak (*Tectona grandis*) draining board, from which my partner had made a round top for an Edwardian cast-iron table, which sat in our garden. We no longer used the table, so I promptly stole the top and proceeded to make the sign. I do not possess lots of different sweeps among my chisel selection, so I chase out lettering. This method is what I hope to show you.

Holding the work

I have problems using my left hand, so most of my work is led with my right hand. For this reason I like to use a Workmate to hold my carvings; I can then easily access the work from all sides as I can no longer swap hands for most of my detailed work. The Workmate I use for letter-carving is a very old one, which is taller than the modern ones. It is important to work at a comfortable height, so if you are doing a similar flat carving, think about blocking it up to bring it to a convenient height.

The process

1 The table top was in two semi-circular halves, so I used one for the project. At this stage it was very weathered and had a moulding around the rim. I did not touch the underside, as the client and I agreed it should show its draining-board origins. ➤


1

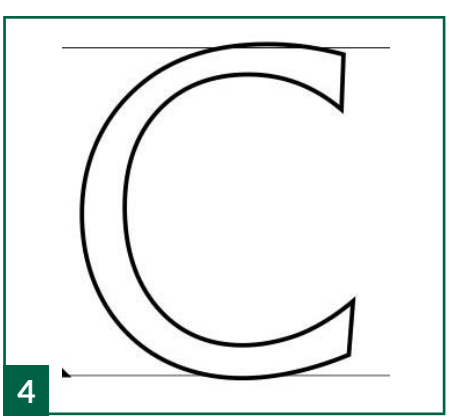
2 It measured 680mm in diameter, but I wanted a sign with straight sides and a curved top, so I cut off 100mm either side.

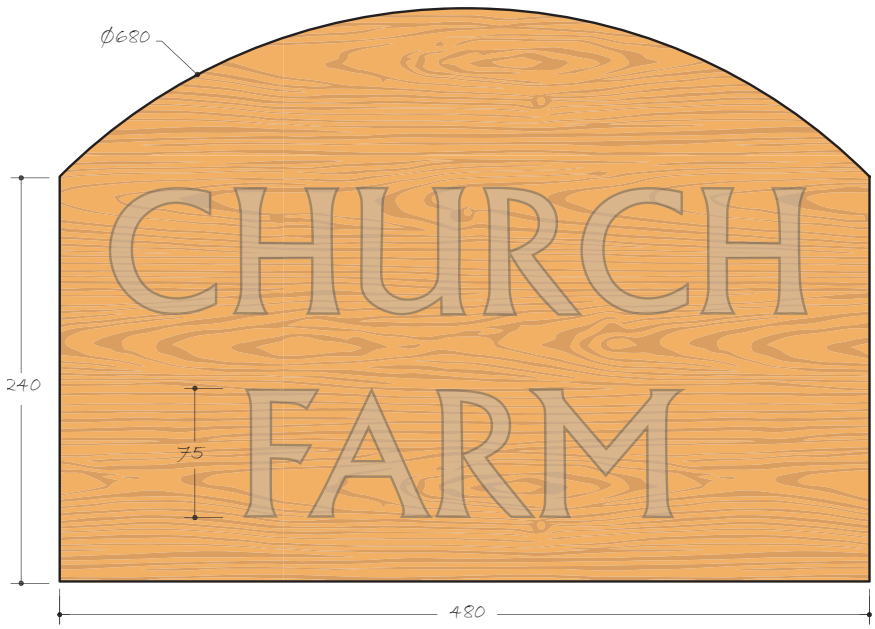
3 The next step was to sand the table top in order to give a flat surface to carve. For this I used a belt sander, which is quick and easy to use. I always ensure I have on a mask, gloves, boilersuit and goggles for this job as it creates a lot of fine dust that is usually toxic to breathe, especially when using hardwoods such as teak. I decided to leave the moulding on the curved surface as it did not detract from the look of the piece.

4 Having my computer-generated design printed off, I used tracing paper to transfer the design to the timber. In this case, I had an A4 printer, so I manipulated the image in order to print the design onto three sheets. I also included lines above and below the lettering. This was important as the curved letters actually projected slightly above and below the lines. If this had not been accounted for, the lettering could seem slightly wrong to the eye.

5 The outline of the letters were drawn on the reverse of the tracing paper, which was then positioned on to the timber. I held it in place with masking tape attached to the upper edge of the paper and to the timber. This meant that I could 'hinge' the paper off the carving yet still bring it back on to the surface to renew the pencil marking if necessary.

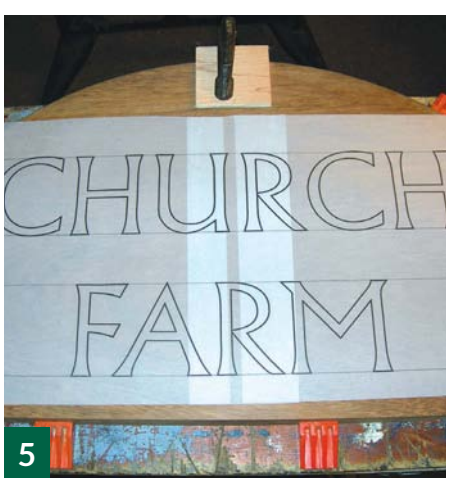
6 The letters were then traced onto the timber. I ensured that I also marked on the horizontal lines. I like to start with straight letters so that I get a feel for how the wood is going to behave. In this case, it was the verticals of the first 'H'.





Design

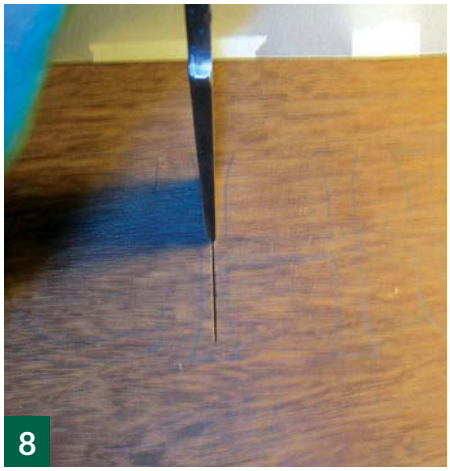
I designed the sign on computer so that I could show the client what the font and shape would look like. Using a computer in this way is useful as I can print out an accurate representation of the final sign to scale. It also makes sure that the lettering 'sits well'. Sometimes the letters may be too spaced out, especially with letters such as an 'F' next to an 'A'. This can be remedied by adjusting the kerning between the letters. Kerning is adjusting the spacing between letters.



7 My initial step was to mark in the centre of the verticals. I used a transparent square to ensure I had accurately marked the centre and also ensured that I was at 90° to the horizontal lines.


7

8 Once I was sure the pencil mark was accurate, I began to stab in the centreline. For this I used the straight 25mm chisel. I left enough space at the top and bottom to allow for the serif at the end of the letter and ensured that I held the chisel vertically. A sharp, but not too heavy tap with a carving mallet marked in the vertical centreline. This process was repeated along the length of the vertical. Ideally, one would use a chisel that covers the full length of the vertical, but I find that making multiple stabs of equal depth does not affect the end result.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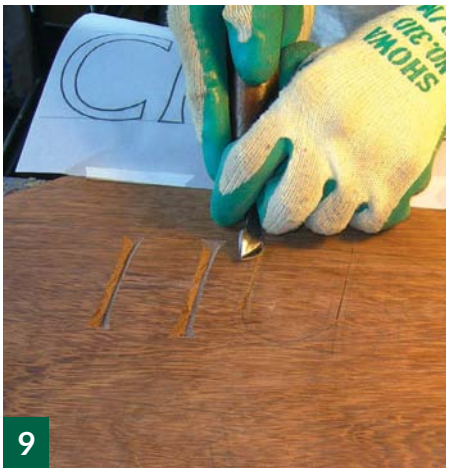
9 The next step was to begin chasing in the letter. I used a skew chisel at 7mm wide by 3mm thick for this. The initial chasing was gentle and I made sure I was following the stabbed vertical on both sides of the 'v'. Again I ensured that I did not go as far as the horizontal lines. I then chased each side of the 'v' progressively deeper, changing sides to ensure that I kept the angle of the 'v' to 60°. If the wood started to tear, I changed direction of cut.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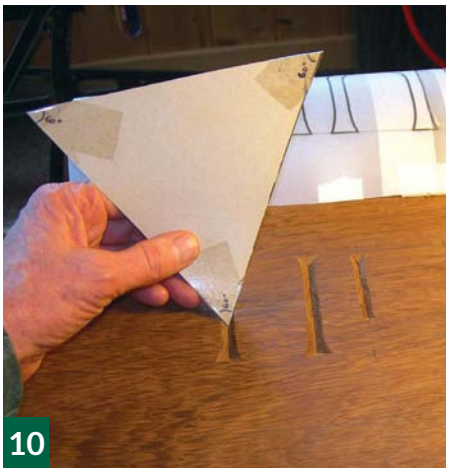
10 I checked I was making the 'v' at approximately 60° using a cardboard gauge. I found that a depth of 3mm to the bottom of the 'v' is right for this size of lettering…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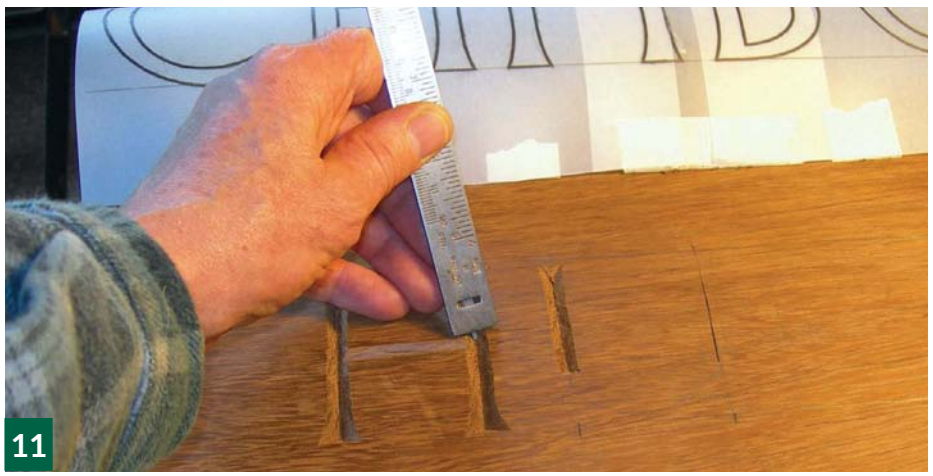
11 … so I used an adjustable Vernier calliper set at 3mm to check the depth of the cut.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12 To make the serif, I used the No.3, 10mm fishtail chisel. First I made a stop-cut so that the timber would not splinter out. Next, I stabbed in from the base of the 'v' up to the corner, ensuring the chisel was angled from deep at the centre to the surface at the corner. I did this for both sides of the serif and then gently cut the 'triangle' out to make the serif.


12

13 To cut horizontals I followed a similar process to cutting the verticals, but ensured that if the horizontal was not going to enter into a vertical, I first cut end-stops. This prevented the timber from splintering ➤


13

as the horizontal was cut. The letter 'F' shows the process where the right hand side of the horizontal does not enter into a vertical.

14 At that point the horizontal on the 'H' was narrower than the verticals, so when it was cut in at 60°, it ended up shallower than the verticals.

15 Cutting curves requires concentration and care. I first marked in the centreline and then carefully stabbed it in using the 25mm straight chisel held at a slight angle along the curve, but still vertical – so that the point dug in more deeply.

16 I cut in end-stops to prevent any splintering of the timber and used the bull-nosed chisel to cut in the 'v'…

17 … carefully angling it at 60°.

18 It is not neat at this early stage, but as the letter was worked gradually from both sides of the 'v', it became tidier. The angle and depth were regularly checked.

19 Angled parts of letters, such as the leg of the 'R', for instance, needed to be cut carefully. Often the leg is slightly curved.

20 Care does have to be taken where the leg meets the curve of the letter.

21 In addition, as in this case there is no serif, the lower end of the leg must be curved gently from the bottom of the 'v' to the surface.

TEAK (*Tectona grandis*)

- The word teak comes from the Southern Indian word 'Tekka'. Other names for teak include Teku, Sagwan and Kyun.
- Teak is a large deciduous tree which can reach 45m (150 ft) high. It is native to Southern and Southeast Asia and naturalised in Africa and the Caribbean.
- It produces a strong and durable timber, slightly oily to the touch and with a coarse grain. It also rapidly blunts tools!


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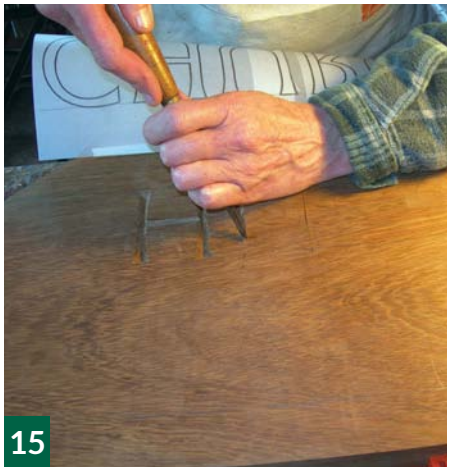
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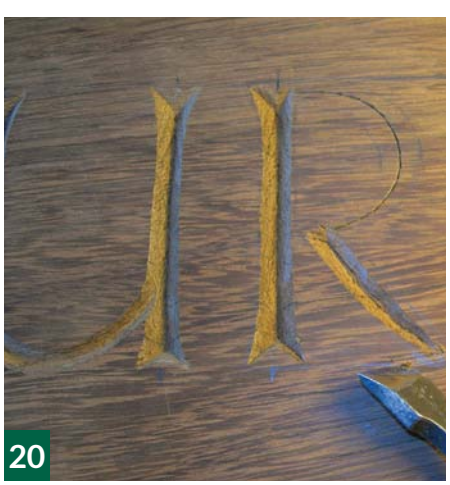
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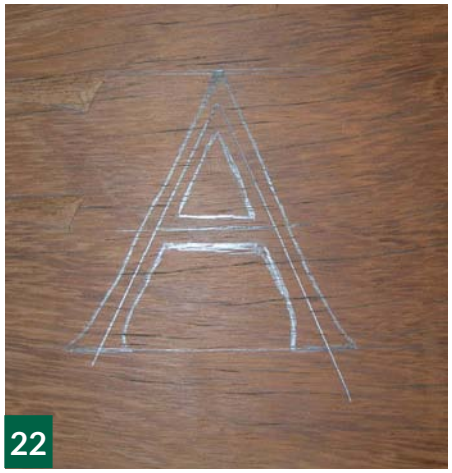
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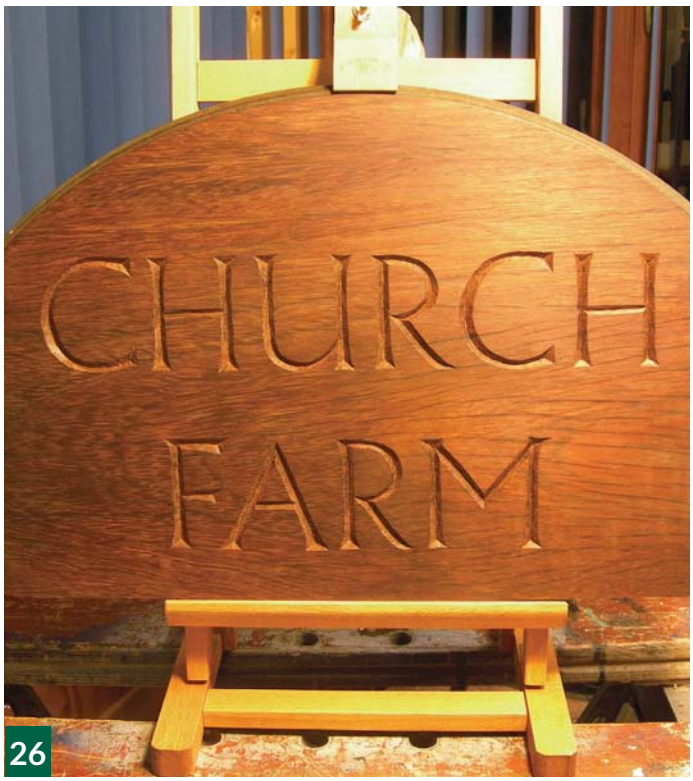

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22 Letters such as 'A' and 'M', with sharply angled apices that come to a point, need special attention if they are not to split out. The letter 'A' gives a good overview of my method. I stabbed in the centrelines first, but stopped at the top of the inner marking of the 'A'.

23 I then stabbed in a stop-cut cut from the right-hand centreline to the apex – taking care to angle it towards the surface at the apex – and another at 90° to it.

24 Next, I chased out the 'v' on the right-hand side up to the top of the inner apex, taking care to chase out the outer side of the 'v' first. The left-hand side was treated similarly, but was left short. The aim was to support the inner apex by leaving wood un-cut until the last moment. This is because cutting and chasing out stresses the timber and can cause the inner apex to fracture. The stop-cuts also help to prevent this from happening. Finally, the left-hand side was carefully chased out, again the outer side of the 'v' first. The horizontal could then be cut as for the 'H' and again, being narrower, will also be half as deep as the verticals.

25 Once all the letters had been cut, they needed tidying up. You may have noticed on the pictures so far that some of the serifs were not quite horizontal and the curves a little ragged. I used the knife, bull-nosed gouge and fishtail gouges to remedy this and also ensured that for each letter the bottom of the 'v' was clean cut. I then lighly sanded the surface to remove any pencil marks. In this case, as the sign is going outdoors, I gave it a good coat of teak oil.

26 You would never know that behind the resulting sign is an old teak draining board! ■

Margaret Williams

Having always been creative, Margaret began drawing, painting and clay sculpting at a very early age and has now been carving for about 20 years. Margaret uses all kinds of timber in her work, from British woods to exotic timbers. Her work often includes thought-provoking humanoid figures, comic animal carvings and lettering.

PHOTOGRAPHS BY GARY MACKAY

Scrap wood snowflakes

Gary MacKay makes these scrap wood snowflakes, perfect for Christmas

I was looking for a way to use the pile of scrap wood that continually accumulates in my shop. With the holidays right around the corner, I designed these snowflakes specifically to use that pile and provide a way to replenish my wood supply.

My only criteria in saving a piece of wood is it must be at least ¼in thick. I sell the snowflakes that I make at craft galleries, and they go a long way to paying for my next trip to the hardwood store. I can then buy hardwood for my larger projects and make more scrap wood to inspire new smaller designs.

Water makes a six-sided crystal when frozen, so all of these snowflake patterns have six arms. You need only your scroll saw and two pieces of contrasting wood that measure ¼ x 5½ x 5½in to make two pie-shaped laminations and two snowflakes where every other arm is contrasting wood.

Because I don't really need to worry about structural strength, I glue the scrap pieces end to end to give me a piece long enough for the snowflake pattern. Cut these pieces into strips of varying widths from ½in to 2in. Glue the strips together, alternating contrasting woods, to get a piece wide enough for your pattern. Plane or sand it down to ¼in-thick.

1 Glue up the stock for the snowflakes. Glue and clamp mixed stock into sheets that are 5in wide and 5½in long or multiples of 5½in long. Plane or sand your stock to the proper thickness.

2 Cut out the snowflakes. You can stack cut two or more layers

Things you will need...

- 10 each ¼in x ½in x 5½in scrap contrasting wood – straight laminations
- Two each scrap wood clamping blocks
- Double-sided tape or hot melt glue gun
- Assorted grits of sandpaper
- Table saw, planer, band saw optional – for machining scrap wood prior to gluing
- No.5 reverse-tooth blade or blades of choice
- Putty knife
- Hammer
- Razor blade holder with razor blade – to scrape off dried glue, newspaper
- Two screw-type clamps
- A palm, orbital or belt sander

1

together. Transfer the pattern to the blank. Drill blade-entry holes and the hanging hole with a 1/16in-diameter drill bit. Cut the frets first with a No.5 reverse-tooth blade. Then cut the profile of the snowflakes.

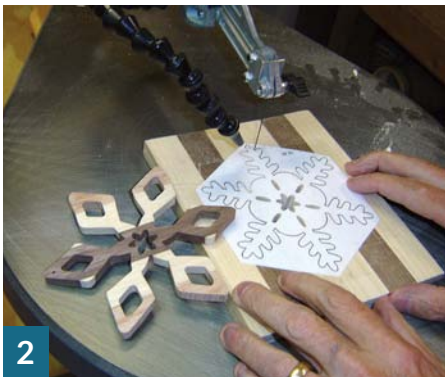
3 Cut the pie-shaped pieces for lamination. Use three strips of double-sided tape to adhere one light-colored blank to one dark-colored blank. Transfer the pattern onto the stack. Cut the segments. Drive a putty knife between the two blanks with a hammer to separate the stack.

4 Glue up the six segments. Separate the segments into two pie-shaped blanks, alternating light and dark woods. Return the segments to their originally cut positions, with segment 1 next to segment 2 and so forth. Glue up both blanks on a sheet of old newspaper. Sand both sides of the segment blank to remove any dried glue or newspaper.

5 Transfer the snowflake pattern to the blank. It is difficult to align two pie-shaped blanks together, so I don't stack cut them. Spray adhesive onto the back of the pattern. Push a pin through the center of the pattern into the center of the laminated blank. Slide the pattern down the pin, aligning the six lines of the pattern with the six joints.

6 Cut out the snowflake. Drill blade-entry holes for the frets with a 1/16in-diameter drill bit. Cut the inside frets first with a No.5 reverse-tooth blade. Then cut the perimeter of the snowflake.

7 Apply your finish of choice. Sand away any fuzzies with 220-grit sandpaper. Dip the snowflakes in tung oil poured into an aluminium baking pan that has a corner crimped into a 'V'. Wipe them dry with lint-free rags. Pour the tung oil back into the can when done. Hang the used rags outside to thoroughly dry before disposing of them. ■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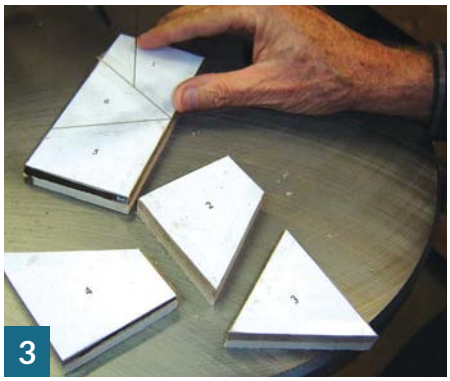
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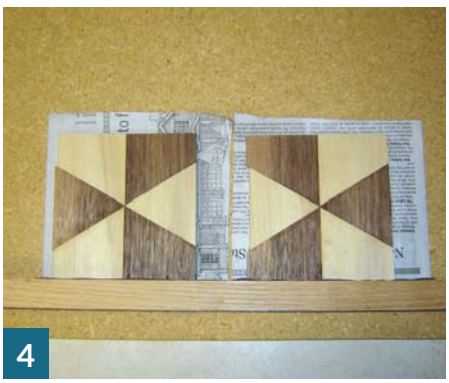
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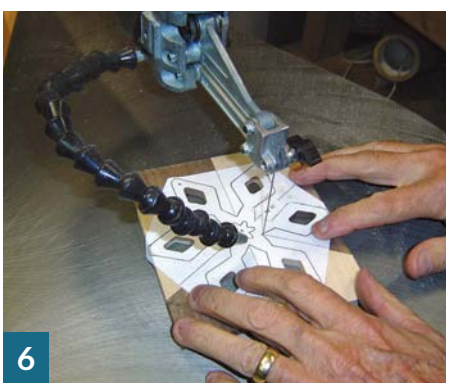
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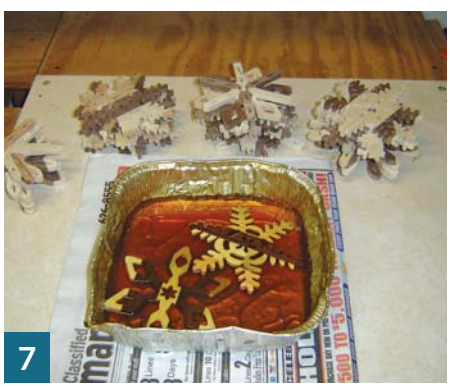
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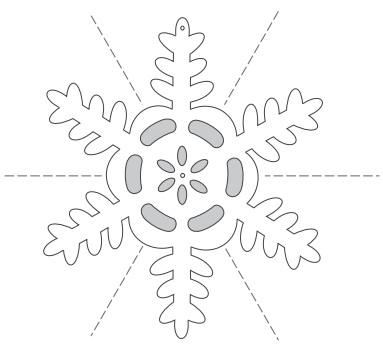

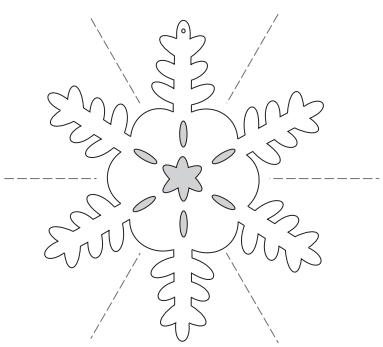

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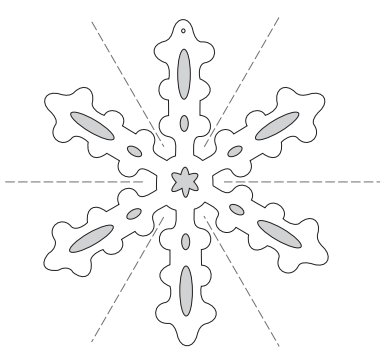

Handy hint

Do not plane wood that has been glued end grain-to-end grain, as it may break in your planer. You need to cut this wood into strips, and edge-glue it to other strips, offsetting the end grain laminations, before running it through the planer.

Big Book of Christmas Ornaments and Decorations

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with Peter Sefton
BlackBerry
SAMSUNG

Small space woodworking

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

TOP CHOP

Planning on cooking a proper blowout dinner at Christmas? Then you're going to need a decent chopping board. Here's one **the Editor** made earlier...

Have you ever been left with some offcuts of food-friendly kitchen worktop, say, ash (*Fraxinus excelsior*), oak (*Quercus robur*) or maple (*Acer saccharum*)? I have, and this is what I made with it. The finished board needs a food-safe finish; I chose tung oil because it is widely available and a known quantity safety-wise. So, get chopping, and impress your friends with this simple but pleasing and practical design.

1 This piece is quite large and a bit overlong at 540mm long x 290mm wide. I decided to cut it a bit shorter at 410mm. It would still be plenty large enough and, at 40mm thick, a solid heavy object on which to chop.

2 First I marked up the length, being careful to choose the end where there were some rather short segments so I would be left with longer, stronger pieces and no vulnerable finger joints right at the end because worktops are normally made up of short pieces jointed together to make up a big solid top.

3 After marking across with a trysquare I made a careful crosscut keeping the sawblade upright. The ends as well as the sides were going to be planed, but I didn't want more work than necessary cleaning the surfaces up. ➤


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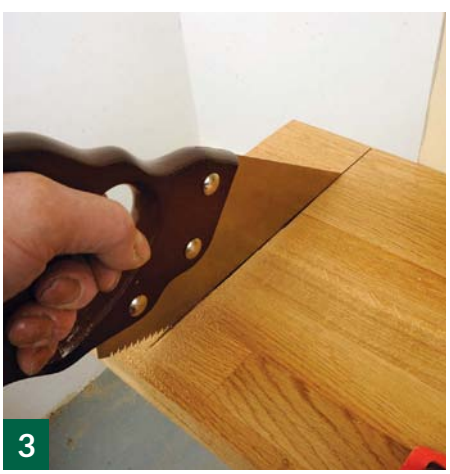
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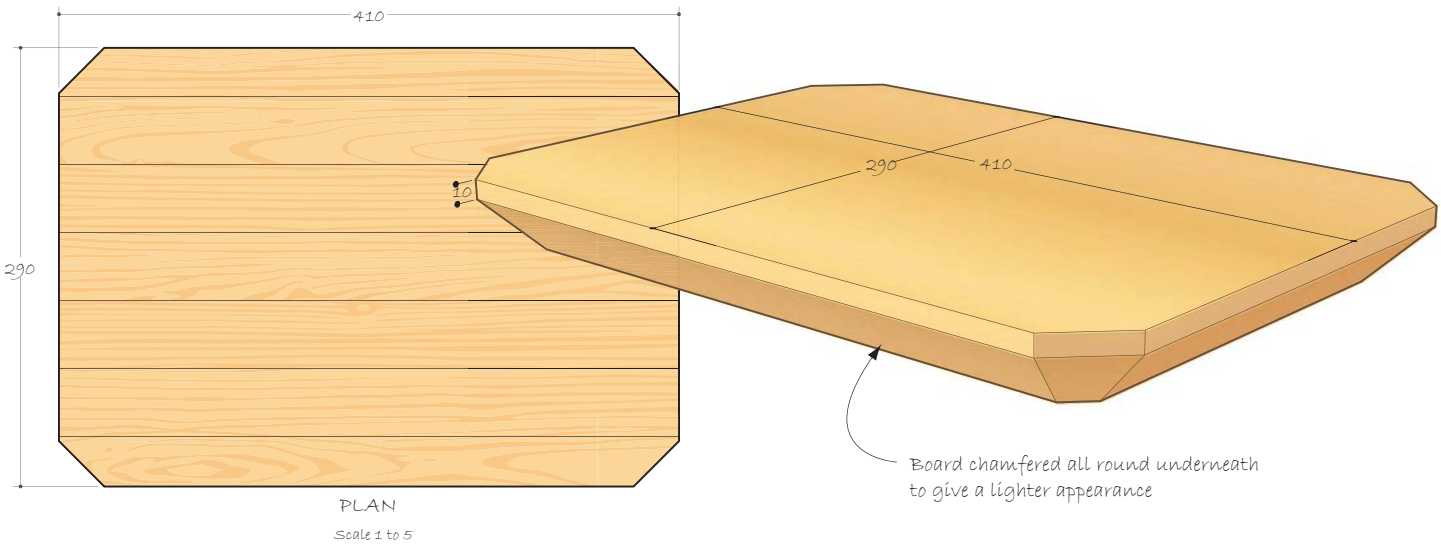
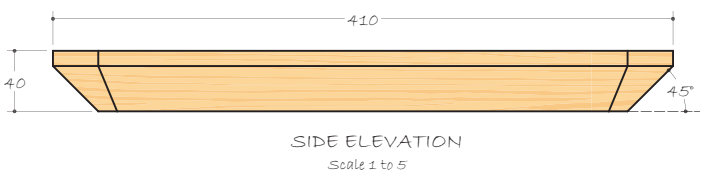
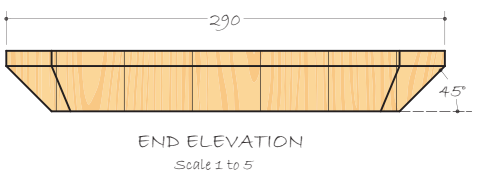






4 To finish the cut I tilted the handsaw down in order to follow the pencil line on the edge and cut through the wood fibres neatly.

5 Now to sharpen my marking technique, so to speak. By using my fingers as a 'fence' I marked all around the edge close to what I had chosen as the top 'seen' face.

6 Now the same trick on the underside, but with a much wider pencil track because I wanted to plane the edges down at 45º, which would make the thick board look slimmer as a result.

7 In issue 4 I explained how to sharpen plane blades properly. To be honest you won't get far with this project if you have blunt blades, as oak or any other wood you are likely to use will be quite tough.

8 It took time and effort but by planing to the pencil lines I ended up with a really strong bevel effect. The last bit is left square to keep the edges strong and looking 'correct'. It is much easier planing these narrow sections.

9 The result was a nice chunky bevel that would keep the strength in the wood but crucially meant it would be easy to pick up the chopping board!

10 By setting my sliding bevel at 45° and marking the corners so it lined up with the marks I was ready to saw off the corners.

11 A pencil line continued the top edge of the bevel around each corner to which I could then plane up.

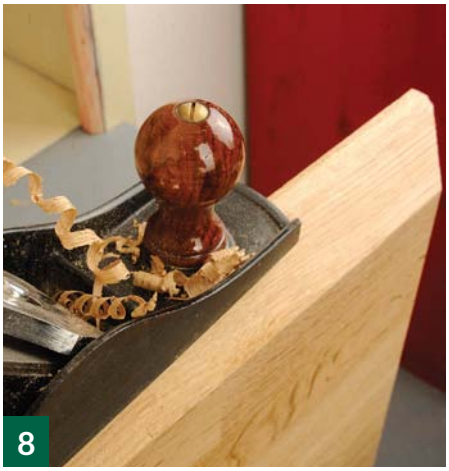
12 For this a block plane was the right size. I planed at an angle working towards the end of each board. It avoids impossible effort and tearing of the grain – a risk if I had tried working the other way directly into the facing grain.

13 Now for a good sanding on all faces and edges. The top face needed the most attention as it will be seen and will also be the food-preparation surface.

14 Even the arrises – meetings of adjoining faces – were given a rounding over for comfort and looks. It also disguised any discrepancies in my planing technique where the bevels met.

15 There are various food-safe finishes available but I opted for tung oil. It is pleasant – having no taste or smell when dry – and can be reapplied at any time when the wood is dry.

16 There were several end cracks in the oak which weren't a structural concern, but I fed them with tung oil to seal them and make it more hygienic. So no excuses, there's a meal to prepare – chop chop! ■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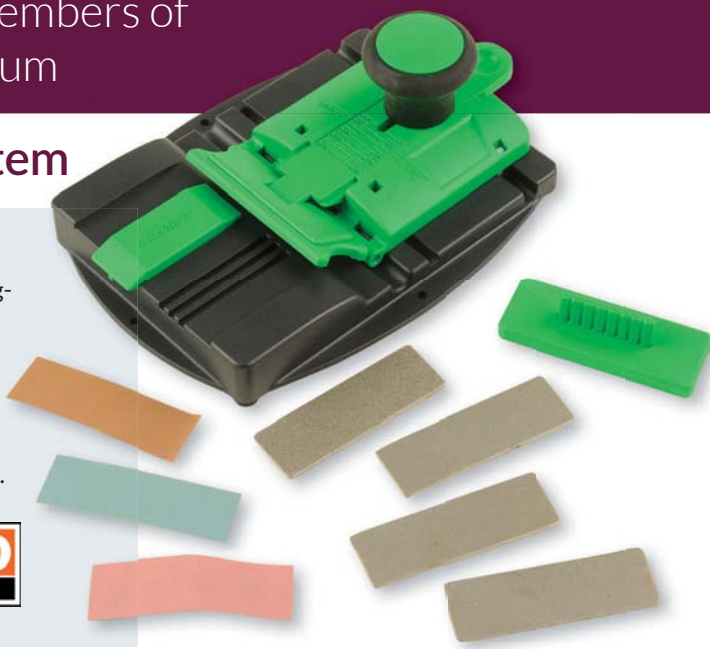
READER GROUP TEST

Welcome to our **Reader Group Test** by members of our very own Woodworkers Institute Forum

Sharp Edge Precision Sharpening System



PHOTOGRAPH COURTESY OF TOMACO

Sharp Edge is sold as a precision sharpening tool system, designed and made in Britain. The kit consists of the jig, plus a blade spacer and backing-off tool for burr removal and four interchangeable diamond plates 200, 400, 800 and 1,500 grits plus three self-adhesive strips of 3M foils 9, 5, 3 microns. These foils are stuck to the reverse of each diamond plate. The plates are held on by rare earth magnets. WD40 is the recommended lubricant, the jig being able to take plane or chisel blades from 3-85mm wide. The plates are moved sideways in order to create the honing action.

DETAILS:

Price: £41.95
Contact: TOMACO **Web:** www.tomaco.co.uk

TOMACO THE TOOL MARKETING COMPANY

TESTERS

Ray Herbert, Alan Turley, Alan Deloughry, Bruce Quinney, Brian Conchie

We asked the testers a range of questions, some of which were graded, others needed more articulated answers rather than just scoring. We asked what was their experience using the product and if they had any problems using it.

Ray Herbert: I currently sharpen my edge tools with an oilstone, but the diamond plates and 3M ultra-fine sheets were easy to use. I would have preferred paper instructions as well. Setting up took a bit of time before I could use it, but I got there. I would recommend it for DIY.

Alan Turley: Prior to receiving the product it was suggested that one should view the YouTube video clip of the product. This I did a few times, so I knew exactly what to do, but I have read the instructions and they seem very clear to me, even down to the advice to use WD40 to lubricate – it also cleans the diamond hones as well.

I normally have difficulty sharpening my small 6mm chisel because it twists in the honing guide and does not lie flat on the stone. So I tried it first and was pleased, it was so easy to sharpen.

I found that the diamond plates themselves were of a good quality. The grit range was excellent – 200-1,500 – and they sharpened my chisel and plane blades very well. I was intrigued by the three self-adhesive ultra-fine strips and was somewhat overzealous polishing the back face of my chisels trying to get a mirror finish, so much so that they are now pretty much blackened and worn out.

I did a search on the internet and found a woodworking site selling these 3M sheets – 9, 5 and 3 micron – at £2.70 each for about an A4-size sheet. So this makes the whole thing very reasonable. I do not see this tool as being used instead of, or replacing anything, serious, nail damage or the like will have to be fixed before this little 'gem' comes into action, and for that reason I see this as the 'icing on the cake'.

Ray Herbert found it took some time to get the kit working well for him

Alan Turley was concerned that the diamond plates would get worn in one area

Alan Deloughry: I currently use a grinder and wet stone and grit paper on glass. I found the diamond plates and 3M ultra-fine sheets achieved sharp, accurately honed edges. Having received the Sharp Edge Precision Tool Sharpening System to evaluate I thought my prayers had been answered. Sharpening is something I just can't master. I only sharpen my tools when it's absolutely necessary and that's it.

Having my own man cave and a place for everything, I don't tend to keep the packing and would have possibly

thrown away my instructions before I realised that I needed them. It would be interesting to know if these are available on the web. I would definitely recommend that the Precision Tool Sharpening System is secured to a workbench or, as I did, to an offcut of wood with some anti-slip material positioned on the reverse side.

The Precision Tool Sharpening System is cleaner and less cumbersome than oil or waterstone sharpening and would be ideal for carrying and using away from the workshop. I tested the Precision Tool Sharpening System while sitting at the kitchen table and received no complaints from the other half. I easily sharpened 13 chisels in less than 30 minutes and was impressed with the results.

Bruce Quinney: I use a Jet wetstone grinder at the moment, but the diamond plates and 3M ultra-fine sheets performed very well, fast and simple-to-change grades. It's much easier and faster to setup and do a micro bevel using these than on the grinder.

I do have some concerns about the life expectancy of the plates and potential for tools getting magnetised, but I will be continuing to use it for final sharpening from now on. You still need another method for doing full grinds but for that final edge, it's great.

Brian Conchie: I have found very useful web-based instructions, which would be very helpful to a new user; perhaps some information on this could be included within the instructions. Prior to this I have always sharpened by hand using an oilstone and a very old and basic angle roller guide. You quickly learn the amount of pressure to apply to obtain the best results and I made a note of the jig settings for ease of repeatability. The backing-off tool holder is a clever idea and the strips are very effective to polish the back of the blade.

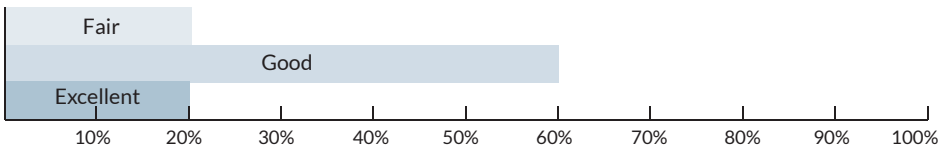
After some practice to get familiar with the setup I placed a mark on the angle on the hone support, so that future setup is quick and consistent with the previous sharpen. The backing-off tool works well and you only need a few strokes to remove any burr and clean the blade back. I found that at the start of using it the slide mechanism was a little stiffer than I had expected, but very soon after starting to use it the original 'newness' had worn, of which I attribute this more to the user getting familiar with the product rather than the product being too tight. The unit performs well, it is very portable, although I did use mine screwed to a scrap piece of plywood.

Brian Conchie preferred using the Sharp Edge to his more conventional method

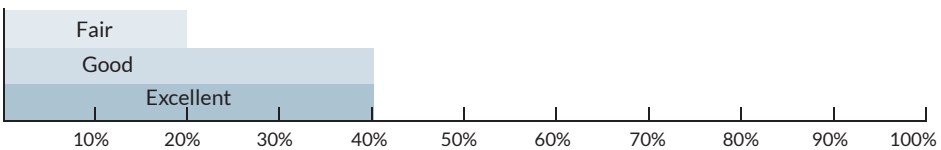
Alan Deloughry discovered 'speed sharpening' when he tried out the Sharp Edge jig

How our testers rated the product

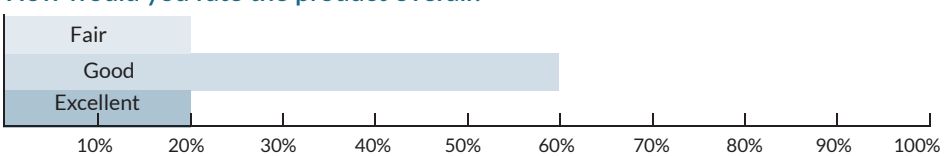
How would you rate the product performance?



How would you rate the product ease of use?



How would you rate the product overall?



Editor's comment

This is the first time I have tried this sharpening device which, to an extent, emulates the aluminium extrusion type made by Trend. Several things are apparent: it needs to be screwed to a board, mine has a strip of wood to clamp in a vice; it needs lubricant to move easily, as well as aid the cutting action and you do need to press down on the pads so they don't slip out of place. The Sharp Edge is intended for honing not for grinding, so that work needs to be carried out first. However, I found I got sharp edges very easily and the backing tool got rid of the burrs. I'm not overly fussed about using 3M papers, as I want edges that cut rather than being able to see myself in the mirror finish. Overall a remarkably good bit of kit though. ■

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

Ask the *Experts*

This is your chance to challenge our Editors and for them to answer your comments and queries

ANTHONY BAILEY
Editor, *Woodworking Crafts Magazine*

MARK BAKER
Group Editor, GMC woodworking magazines

DEREK JONES
Editor, *Furniture & Cabinetmaking Magazine*

L-R: 6mm parting tool,19mm skew chisel, 10mm bowl gouge, 10mm spindle gouge, 20mm spindle roughing gouge

STAR QUESTION

BEGINNER'S TURNING TOOLS

"I recently attended evening classes on turning and learned the basics of tool use, sharpening and holding and mounting wood, but now I am on my own and trying to buy kit. I really don't want to waste money on buying things I don't need. It was recommended that I buy a spindle gouge, a spindle roughing gouge, a parting tool, a skew chisel and a bowl gouge. We used all of these in the course. I have bought a chuck, a mid-sized lathe with a 355mm diameter capacity and a grinder with sharpening platform, but would you agree with the tool selection I used and if so, what sizes will be most useful when starting out?"

D Simons

Two 25mm wide scrapers, one skewed angle the other with a French curve

PHOTOGRAPHS BY GMC/MARK BAKER, UNLESS OTHERWISE STATED

A round bar multi-tipped tool

A flat & round bar multi-tipped tool

PHOTOGRAPHS BY ROBERT SORBY

Mark replies: Attending a course is the best way to get started and will put you on the right track with how to sharpen and use tools, safe work holding and the two main types of turning – faceplate and spindle work.

Tool-wise, I agree with the selection you used. I would recommend the following sizes; a spindle roughing gouge in 19 or 25mm; a spindle gouge at 10mm; a skew chisel in 19 or 25mm sizes in a rectangular shape with radiused edges – this shape will help with stability during the cut and can be easily manipulated to roll beads and such like; a parting tool 6mm; and a bowl gouge 10mm. Over time you will likely obtain a larger spindle and bowl gouge and if you have the money, I would opt for a thin 2mm parting tool and a 10mm beading and parting tool. Yes, the two tools will cost more, but they provide flexibility when cutting beads, spigots, detail and such like.

There is one range of tools you have not mentioned, from an area that causes much debate. I am making an assumption that you are likely to tackle a whole array of different projects. If that is the case, then it is advisable to have a scraper or two to clean up some shapes. One can opt for separate shaped scrapers and if one opts for this route then I would suggest two shapes. The first being an angled one – it has a similar end profile to that of a skew chisel, which will help to deal with the outside of bowls. Heavy-duty rectangular shaped ones are ideal for this. The other shape would be a French-curve edged scraper. This gives you a nice tight-radius curve on the top edge and a long lazy side curved edge.

An alternative to two scrapers would be to buy a multi-tip tool that comes with a selection of cutters. Two available options include a multi-tip tool with one shank, which has a round section on one side of the bar and a flat face on the other. It comes with a tear-drop shaped cutter which can be rotated round to present a flat or various curves to the work, and also mini-swivelling tips that will allow you to hollow out work too.

Another variant is a multi-tip tool with a round shank with many tips to fit for refining a shape or hollowing out. There are many variants from numerous manufacturers of these two types of tool and these will give you more flexibility in your turning than just two fixed-shape scrapers.

As with most hobbies, over time we build up a bigger selection of tools as our skill levels develop and have various different grinds on them to suit different jobs, but the ones mentioned will give you a good foundation to start with. I hope this helps and of course let me know if I can be of further help.

WOODWORM TROUBLE

"Dear Editor, I have acquired a piece of vintage 1970s storage furniture made from birch ply. Unfortunately it was pointed out to me that there were quite a few woodwork holes and it might be better off put on a bonfire! Is it really the end of the line for this? It looks good and it seems a shame just to junk it – help...."
Dave Norris

Anthony replies: Hi Dave, woodworm still persists today, as a problem where 'real wood' has been used. Birch, beech, sycamore, very old pine and other light woods are a favourite of the common furniture beetle (*Anobium punctatum*). There are other woodborers such as the woodboring weevil, death watch beetle, powder post and house longhorn but this is most likely to be the common furniture beetle. I used to do furniture restoration and had to deal with quite a lot of this. This little beetle lives in dry interior woodwork but is quite fussy about which timber to bore into. It doesn't like hardwoods which seem to be too tough for them. The adults which don't actually eat, lay eggs which become larvae that do eat through the wood and then pupate while lying in chewed out cavities just below the surface of the wood. Then the resulting beetles crawl or fly leaving dust that spills from the flight holes.

There are several ways to treat woodworm infestation. Small objects can be put bagged in a freezer for a while. Larger things like a chair or small table can be treated with woodworm fluid but care is needed as the fluid is hazardous to humans and animals, it also may not reach the larvae deep inside the wood. Large items or big infestations should be professionally fumigated. If the infestation is only in a small area then cutting out and removing the problem altogether may be the best answer. Don't leave it as it may only get worse because a colony takes a few years to develop.

Preventative Steps

If you find flight holes in wood, the damage is already done so remove or treat the item in question quickly. Check other woodwork for signs of infestation, look underneath furniture, remove drawers, check small piles of fine wood dust. Keep wood dry, damp wood is appealing to some borers such as the wood boring weevil, although it won't attack dry interior woodwork.

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

The beetles are actually quite tiny and the result of roughly four years development in the colony

PHOTOGRAPH BY GMC/ANTHONY BAILEY

The flight holes are the 'final' evidence of damage already done

If you have anything to say, write to: The Editor, *Woodworking Crafts*, 86 High Street, Lewes, East Sussex BN7 1XN. Alternatively, email: anthonyb@thegmcgroup.com

Things to do in December

PHOTOGRAPH BY ANTHONY BAILEY

Amber Bailey's tealight holder project

The winter months are often a difficult time both before and after Christmas but for different reasons. The stress of preparations beforehand, especially if there are a lot of friends and family involved and afterwards when the weather is just grim unless it decides to snow! However, as we suggest on our event pages there are various Christmas themed events going on at places which have a very 'woody' connection, so there are fun things you can do.

Of course, if you have good(ish) woodworking skills you can make gifts not just for your nearest and dearest, but to sell at a local seasonal craft fair. A word of warning though – goods must be safe and fit for purpose and toys in particular are subject to the Toy Regulations – which can be quite onerous to work to correctly. It is better just to do this sort of thing to start with for charity as you may not make a lot of money anyway. So, it can be better at least supporting a worthy cause.

Although the New Year is a good time to plot and plan, it helps to have an idea of what you want to achieve crafts wise next year. Especially if you are hoping to get certain tools or equipment as Christmas presents – well you can hope...

A set of Stanley bevel edge chisels

The completed roof, with plastic covering to the front

PHOTOGRAPHS BY JAMES HATTER

Protecting external timbers

James Hatter explores using plastic cover board to extend the life of outdoor timbers

Timbers such as pine (*Pinus sylvestris*), which are normally associated with the building industry, provide a good, economical building medium, and can have a long life if given adequate protection. The protection for externally used timbers is often in the form of layers of paint, although pre-treating the wood with an appropriate preservative will add to its longevity. Even advanced exterior paints, however, will only have a useful life of about five years.

One method of overcoming regular maintenance is to cover the timber with a plastic cover board, while another is to remove the timber boards and replace them with plastic alternatives. Both methods are used by professionals to make roofline timbers relatively maintenance free. The same method can be used to protect timbers used in porches and outbuildings. Constructions such as porches often use timbers about their roofline and these are ideal to protect using the plastic cladding method. Typical roofline components are fascias, barge boards and soffits. Soffits form the cover between the fascia or barge board and the wall. These are often 8mm-thick concrete-based boards, although older properties may have used asbestos boards. The old soffits can be removed and replaced with new plastic types. Normally soffits associated with the fascia boards use a soffit with a ventilation grill running along its length whereas soffits associated with the barge boards are normally unvented.

Flat-roofed garages often used timbers, where the roofing felt was attached to the top edge. These are ideal candidates for covering the timber with plastic to protect them and to avoid regular painting.

What you will need:

- Plastic cover boards (often 9mm thick)
- Poly pins (30mm should suffice)
- Fascia brackets
- Downpipes
- Offset bends
- Pipe clips
- Preservative
- Hammer
- Bevel gauge
- Silicone seal
- Fine tooth hard point saw

SAFETY

Procedures described to protect external timbers are strictly intended for timbers within easy reach for safe working. Working at any height poses many dangers and should only be considered if all the necessary precautions are taken and observed and if the operator feels realistically competent to carry out such work. Make use of all safety gear as appropriate and do not operate if tired. More precise guidance is listed on the Health and Safety Executive website that gives 'Work at height regulations 2005'.
Reference: **www.hse.gov.uk/pubns/cis10.pdf**

HANDY TIPS

1. A big advantage is that the plastic components used can be easily cut with saws intended to cut wood, including power tools.

2. The plastic fascia and soffit has a face side and a plain side so cuts should be made into the face side to reduce chipping.

3. For the corners and joints you can use silicone as an adhesive and seal. It is also useful to use poly pins to further secure. Pre-drilling for the pins in the thinner corners will help to aid the installation.

SUITABLE TIMBERS

The cover or refurbishment board method is only suitable over sound timbers; any small areas of less sound timber can be cut out and replaced with new treated timber. The cover board method is effective and the most economical. It is generally also the most straightforward.

The plastic cover boards and soffits are often 9mm thick, and supplied in 5m lengths, although it is possible to find a supplier with shorter lengths. The cover boards have a 25mm lip to cover the edge of the timber board being protected. While the boards are not particularly heavy, they are flexible, especially the soffits. They will require both hands, and two persons to position and fix effectively, when using long lengths. The long lengths could be cut to shorter ones if preferred, but more joints will then be required.

PROCEDURE

1 Inspect the timber to be covered. If it is showing any sign of rot deal with it first. Here, at a box end, the decayed wood is cut back to sound timber. The surfaces are treated with preservative.

2 The corner is reconstructed with new pressure treated timber.

3 Further additions are added as required. Build up the necessary support for the overboarding.

4 The front is attached. The additional front board needs to be flush with the barge board.

5 Finally the infill is added. For proper support the small triangular infill piece is fixed in place.

6 The repaired box end is now ready to be clad with cover board. ➤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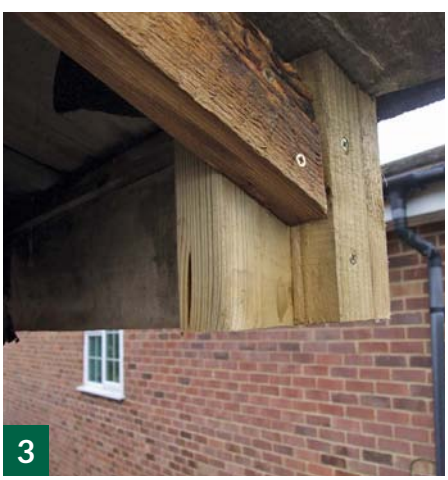
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7 Now continue with other work. Here the cement-based soffit board is removed.

8 To enable new soffit to be level fitted, the strip of timber below the old soffit rebate is removed. A portable circular saw can be used against a temporary wood guide.

9 Before fitting a new plastic soffit, the supporting timber must be checked to ensure that the new soffit will fit. Adjust if necessary.

10 The new soffit is fitted followed by the plastic covering to the fascia. Poly pins are used for fixing the plastic to the timber. Joins are used where lengths are joined.

11 Once the fascias, barge boards and soffits have been fitted any box ends can be dealt with.

12 A paper template is made of the triangular shape required.

13 The shape is transferred onto a plastic sheet ensuring that the top edge is a coated edge.

14 Silicone is spread on a piece of plastic membrane and inserted to well cover the join. The triangular shape is fixed in position using more silicone.

Definitions

Fascia: A board or other flat piece of material covering the ends of rafters or other fixings.

Soffit: Underside of an architectural structure such as overhanging eaves.

Barge board: A board fastened to the projecting gables of a roof to give protection and to hide and protect the otherwise exposed end of the horizontal timbers or purlins of a roof.

An extension uses plastic covering fascia and soffit


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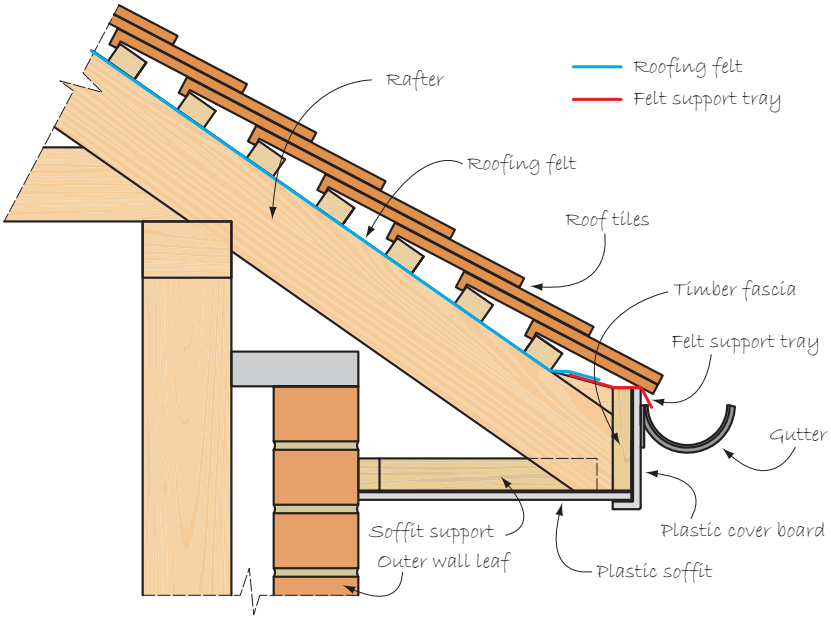

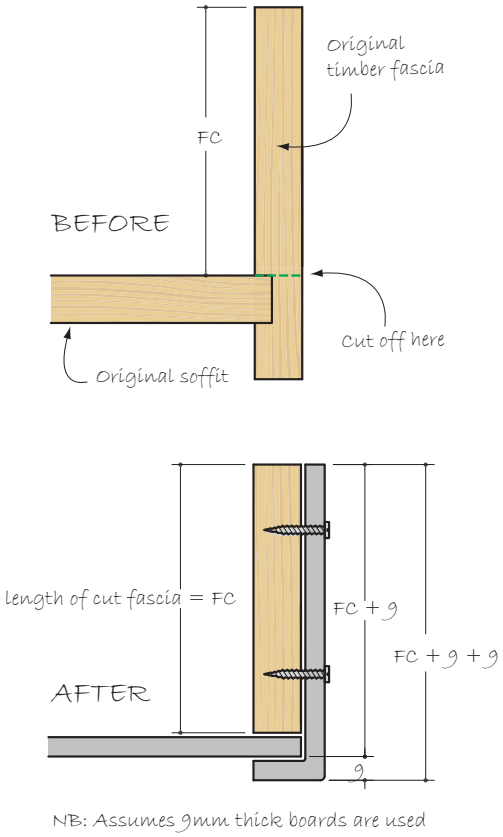

NB: Assumes 9mm thick boards are used

15 An end corner piece is attached. This looks finished and adds protection to the meeting corners.

16 The inner corner is attached. The same technique is used to cover in the inner corner.

17 A filler strip is included to level up the front with the bottom of the side fascia.

18 An angled piece is attached, so the timber is fully enclosed. ➤


15


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19 The completed box end viewed from below.

20 The completed box end. It looks neat and professionally finished, I think you would agree.

SURVEYING

The procedures described are intended for low structures that can be safely worked upon taking fully into account safe practices. Higher structures should only be tackled by professionals who have specific training to deal with working at height.

The first task is to take measurements to estimate the materials required. For most of the length measurement this can be achieved at ground level by measuring the length of walls and adding any overhangs. The widths of the fascia, bargeboards and soffits will require measurement of the existing ones, so will require closer inspection. Also note how the soffits are fixed beneath the fascia. Timber fascias normally have a rebate towards the inner bottom edge, that the outer edge of the soffit fits; the inner edge rests on the wall. If you use cover boards it is more effective to remove the bottom edge of the existing timber fascia at a point that is the top edge of the rebate. This will allow the new soffit to rest on the wall and be attached to the bottom of the timber fascia, and this will give a level soffit.

Measure the width required for the new soffit to include any extensions to allow the soffit to sit on the top of the house wall. For the barge boards and associated soffits, measure existing lengths, or estimate using trigonometry. Reckon on using ventilated soffit under fascias to give good ventilation to the roof space, and unventilated soffit associated with the barge boards. You will also need to estimate the number of joins and corners you will require. These are available to match the boards being used. The fascias and barge boards are attached in place using poly pins – these are ring-shanked stainless steel pins with a plastic head.

SUPPLIERS

Once the lengths and widths are known they will need to be matched to the materials available from suppliers. The cover-board width is normally given as the overall width whereas the actual inside width will be 9mm less or whatever the board thickness is. Measure the width of the existing fascia (reduced if required) and barge boards then select a cover board that is this measurement, plus 9mm for the new soffit, and plus 9mm to allow for the lip at the bottom of the cover boards.

Look for suitable suppliers and check prices and delivery options. Local specialist suppliers are best if available as it is easier to take immediate action in the event of any problems. However, there are also national companies that can supply cover boards and these can be checked for suitability.

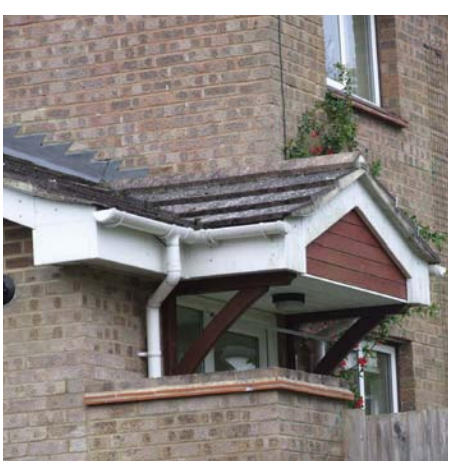
It is advisable to seal the edges using a silicone seal to further weatherproof the installation.

The plastic cladding will require a wipe over now and again to keep it clean, but the underlying timber will be kept dry and painting will be a thing of the past. ■

James Hatter

James is interested in the design and construction of a wide range of wood-based projects, and DIY, for home use. Ash (*Fraxinus excelsior*) and oak (*Quercus robur*) are his favourite timbers. He enjoys teaching, and working with his seven-year-old grandson, who he reveals makes really good suggestions in design.

This shows an example of plastic covering used over the timber at the front of a garage



Porches are among the structures that can make use of plastic covering over the barge boards, fascia and soffit

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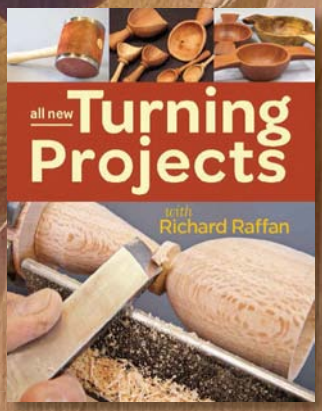

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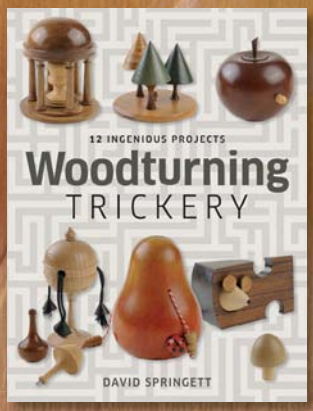

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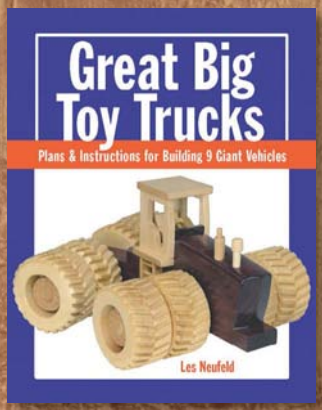

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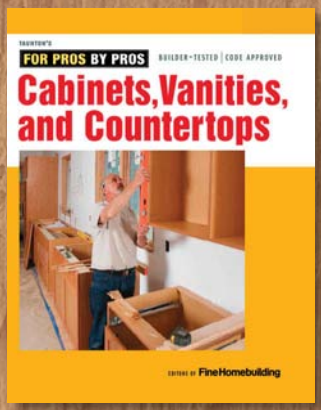

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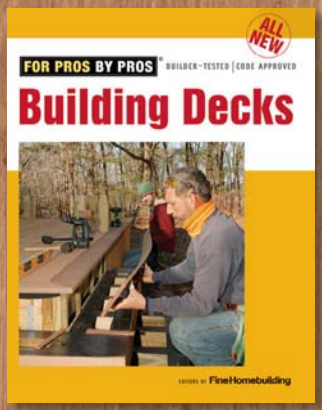

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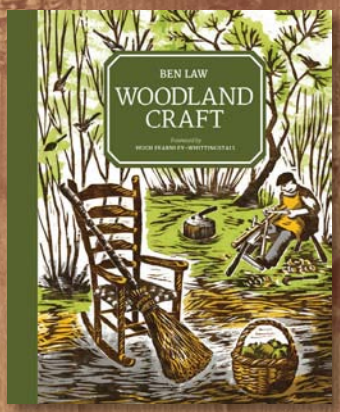

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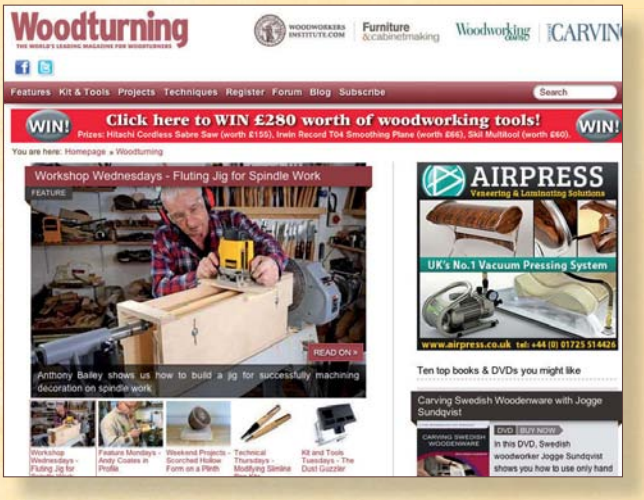

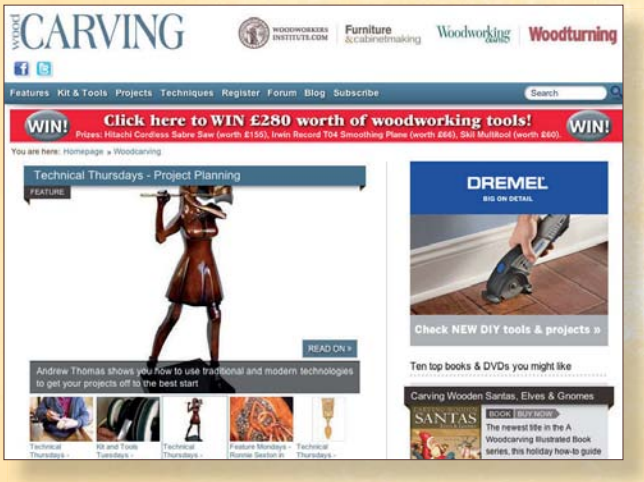

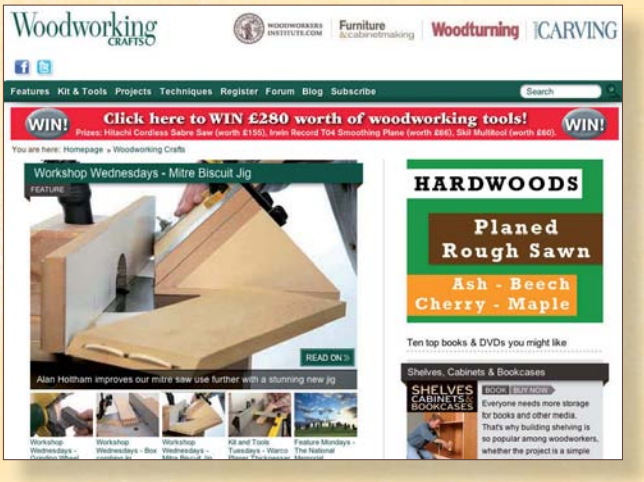

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Simon Rodway shows you how to build a staircase – part 2

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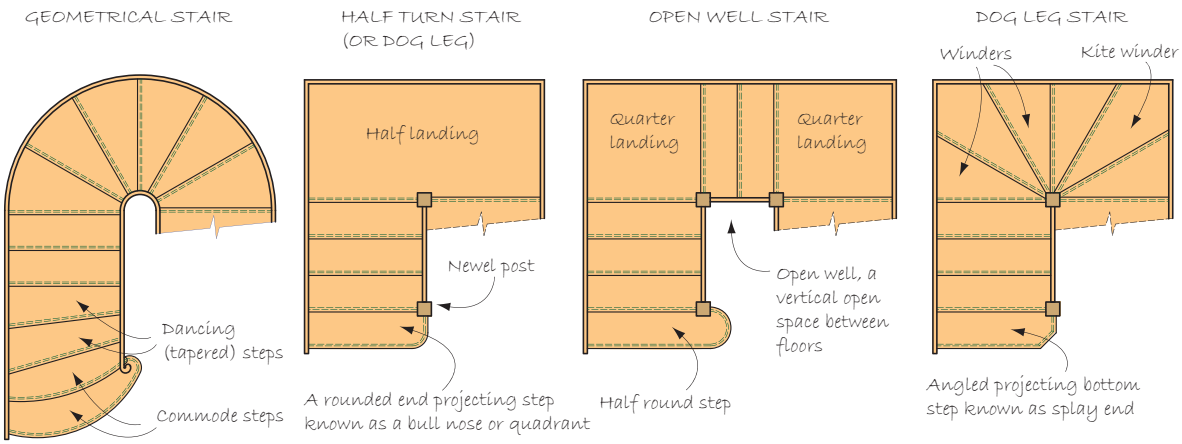

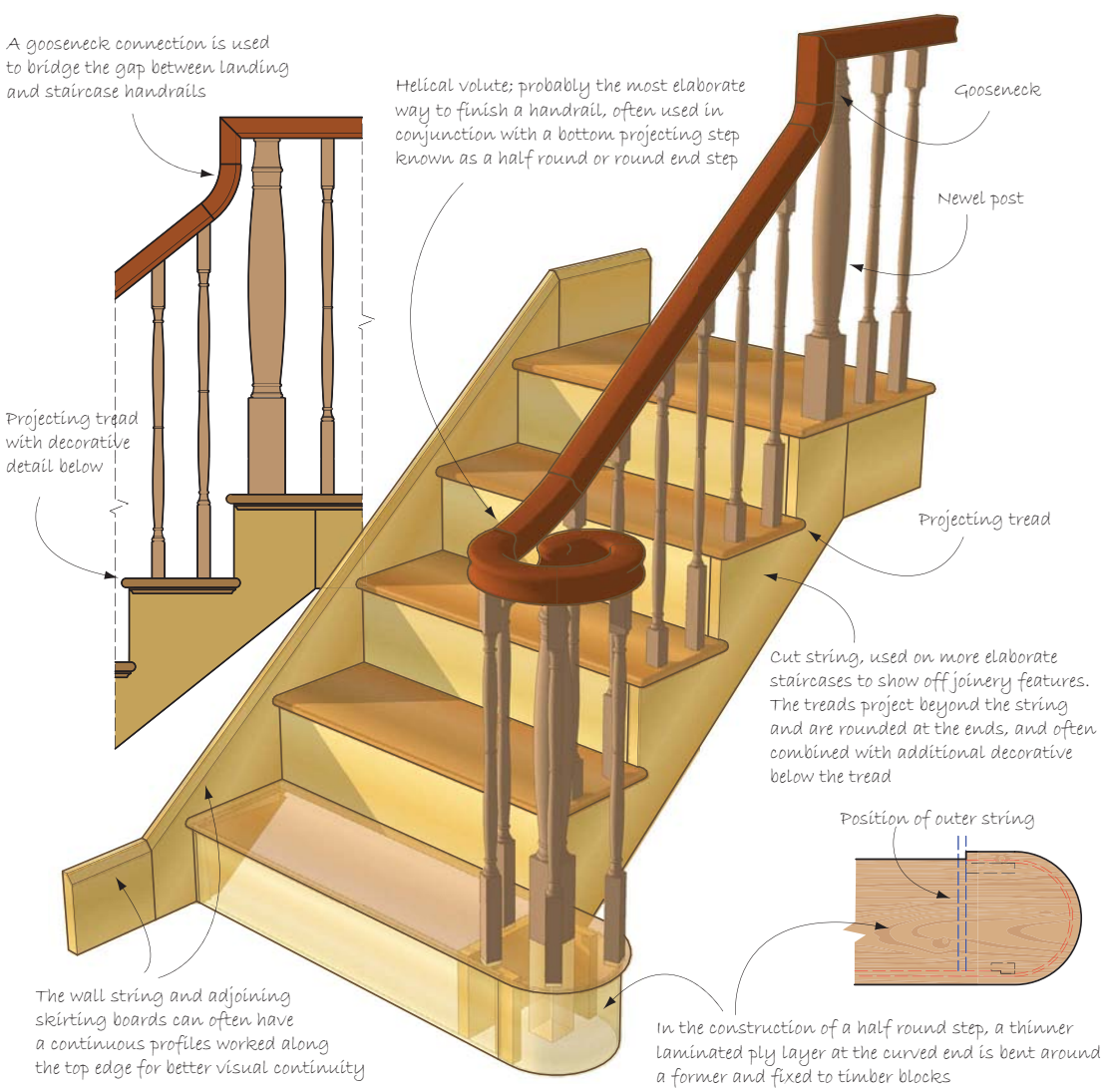

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