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November 2020

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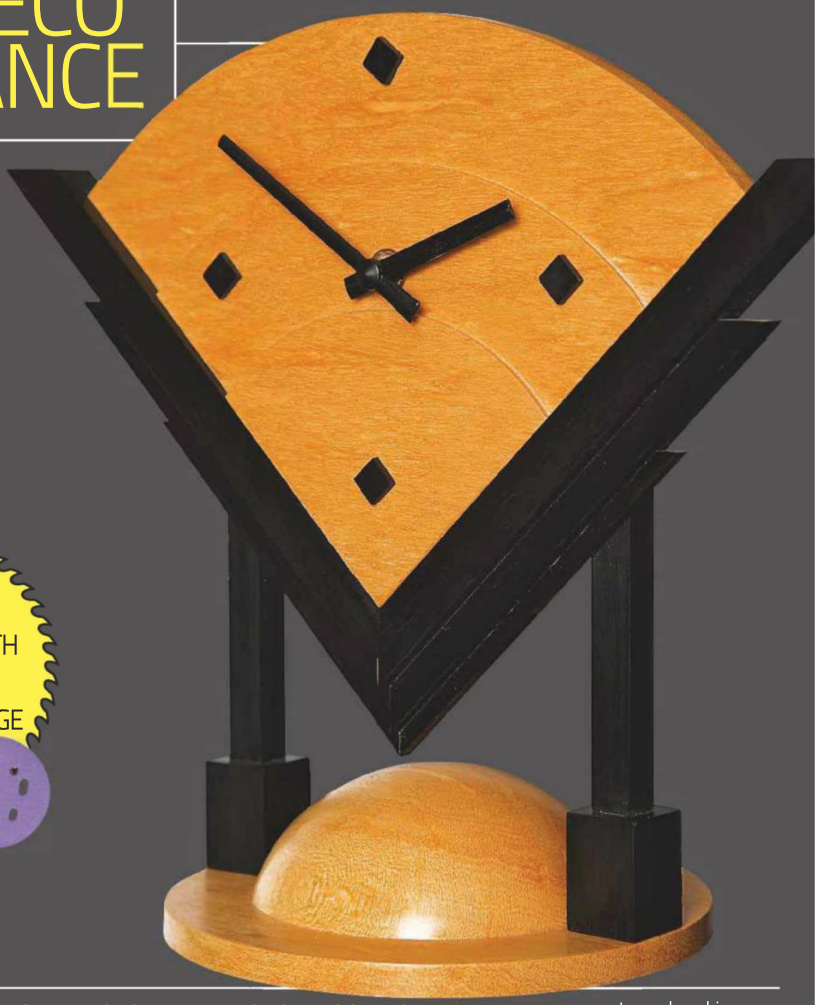

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3YR GUARANTEE

Welcome

Hello and welcome to our November issue. Regular readers will be familiar with our promotion and coverage of the Alan Peters Furniture Award since last August, and hopefully many of you may already be working on pieces as I write this. While we originally hoped to hold a judging ceremony this summer, sadly, due to the pandemic, plans had to be changed and the award deadline was therefore postponed until further notice.

The good news is that we've got the show back on the road, and have decided to launch it as an online event, while renaming it '**The Alan Peters Online Furniture Award 2021**', which will also include a virtual exhibition of winners' work.

If you're a UK citizen over the age of 18 who has a talent and passion for woodworking, then this is the award for you to consider. Please start making your piece(s) soon as the entry deadline is 28 February 2021. The application fee is £20 per exhibit, and each applicant can enter up to two pieces of work.

A word from our sponsors

This award would not be able to take place without the enthusiastic sponsorship of Axminster Tools and Triton Tools, in conjunction with the magazine and organiser Jeremy Broun. Here at *The Woodworker & Good Woodworking*, we're thrilled to partner with Jeremy in putting this award together, as well as being given the opportunity to keep it running, albeit in a slightly different format.

The prizes on offer include first prize of a £1,000 tools voucher from Axminster Tools; second prize is a £500 tools voucher from Triton Tools; and third prize is a £300 judges' prize.

Main sponsor Axminster Tools are very passionate about woodworking, especially when it comes to discovering and promoting new talent within the industry, as Communications Officer, Kelly Wakeley, comments: "Being involved in this award gives us an opportunity to get behind our passion, find that new talent, and promote it. People really like to share their pieces and to show everybody what they've made – it's all about showcasing individual work and skill."

Judges & judging criteria

The award keeps alive the legacy of one of the prominent British furniture designer-makers of the late 20th century, Alan Peters, who had a profound influence on generations of woodworkers. The award focuses on hand craftsmanship and it's important to note that you don't have to make a large piece; it could be indoor or outdoor furniture, and some machinery can be used in its creation.

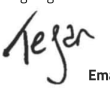
The judging panel consists of three esteemed furniture makers: Jeremy Broun, Andrew Lawton and David Barron. When asked what he's looking for when it comes to judging, David comments: "For me, the most important thing of all is the design and proportion of a piece: it needs to look nice. Second is the craftsmanship: something needs to look good but it also has to be beautifully made. And then finally, a fine finish: something that is a pleasure to touch."

While each judge will bring their personal insight and opinions will differ slightly, one thing they all value is the importance of hand skill. The award also encourages design, and part of that comes down to the way in which a piece is constructed, and lastly, of course, the entry must be fit for purpose.

Get busy

If you're considering entering the award, we ask you to submit six high resolution images of the piece, one of which must show its making in a workspace environment. Full details, along with the application form, can be downloaded from **www.woodomain.com/alanpetersaward**. Winners will be asked to submit a short video, or engage in a Zoom call, for the final award ceremony, which will be held during the third week of March 2021. A short video giving details of the award can be viewed here: **https://www.youtube.com/watch?v=0y308TcMeBs**.

So if you haven't done so already, it's time to get busy designing and making. Have fun!



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Zac Matchett-Smith makes a pair of bedside tables by cutting lengths of walnut and ash into thin strips before setting about gluing them all together

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WOOD AWARDS 2020 shortlist announced

'Barking Up The Wrong Log' is shortlisted within the Furniture & Product Production category...

... while 'The Beehave' is shortlisted within the Furniture & Product Bespoke category

17 structures and nine product designs have been nominated for the Wood Awards 2020 shortlist. The independent judging panel visits all the shortlisted projects in person, making this a uniquely rigorous competition. An online exhibition of the shortlist was launched on 14 September during the London Design Festival. Established in 1971, the Wood Awards is the UK's premier competition for excellence in architecture and product design in wood. The competition is free to enter and aims to encourage and promote outstanding timber design, craftsmanship and installation. The Awards are split into two main categories: Buildings and Furniture & Product.

Among the Buildings entries is 'The Handlebar Cafe', a new community café and bike workshop created by a group of local teenagers supported by Hampshire charity SPUD. The building sits on a viaduct cycle and walking path and two train carriage-like elements are linked by a glass divide. A third small building houses a cycle workshop and a profiled Accoya cladding board roots the project within its isolated setting. Bespoke, laser-cut shutter panels, depicting cogs and wheels, link the site to the existing railway line and new cycle route.

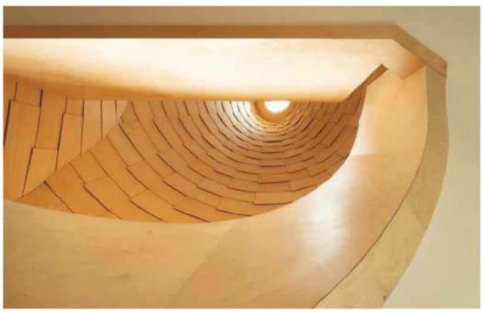
Also shortlisted is 'Bumpers Oast', which is closely based on the traditional local oast houses used to dry hops as part of the beer-brewing process. Five shingle-clad towers create an extremely low-energy contemporary home. The proportions of the tower roundels were based on traditional oast geometries but stand slightly apart from one another, creating views inwards and outwards. Each oast contains private rooms, such as bedrooms and bathrooms.

In the Furniture category is 'Duo', a pair of deceptively delicate sofas designed for Alex Beard CBE, Chief Executive of The Royal Opera House. The seat and back are made from a solid timber frame and sit on a nook cut into the end frames secured by a metal dowel. The seats are upholstered in tan leather.

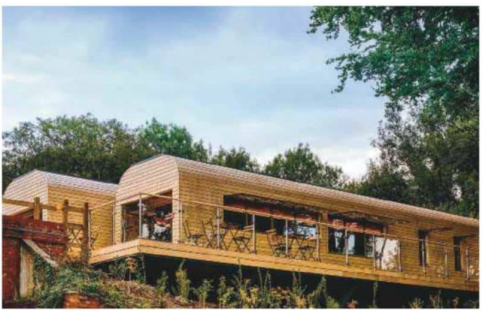
'The Beehave' also makes an appearance: Sir Ian Blatchford commissioned Marlène Huissoud to create a beehive to feature in a new permanent gallery at the Science Museum focused on the future of agriculture. The piece was hand-carved and the red oak then blackened using a scorching technique.

Also, in the Production Furniture category is 'Barking Up The Wrong Log', which questions identity and disguises. Maker Charlotte Kingswood has a deep interest in deconstructed archetypes, as well as Jean Baudrillard's concept of hyperreal and the inability to distinguish reality from a simulation of reality. 'Tenon Table' is also shortlisted and sees Designer Daniel Schofield taking a pragmatic approach to the design of this particular piece. Material is removed where it is not needed, leaving the base weighted and stable, which naturally creates the joint for the top. A combination of woodturning, CNC machinery and hand jointing were used to create each piece.

For further information on the Awards and entries, see **www.woodawards.com**.



'Bumpers Oast' is shortlisted within the Buildings category



... as is 'The Handlebar Cafe'

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If you see sanding as a chore and as frustrating or exciting as watching paint dry, chances are you've hit all the problems inferior abrasives can give you: grit coming loose, dull cutting, poor performance, poor finishes, clogging, overheating – the list goes on...

Bad enough that the abrasives let you down, but buying cheaply and investing in poor quality abrasives is as detrimental as it is costly; hours, days or weeks of work can be ruined by skimping on abrasives.

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To find out more about the new range of abrasives from Trend, contact your local dealer or visit the Trend website – **www.trend-uk.com** – to find your nearest stockist.

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Ben Burbidge presenting Daniel Middleton with the MGM

MIDDLETON BESPOKE **JOINERY** joins Manufacturing Guild Mark elite

Middleton Bespoke Joinery, a family business specialising in luxury furniture and custom-made joinery, has been awarded the eminent Manufacturing Guild Mark from The Furniture Makers' Company, the City of London livery company and charity for the furnishing industry.

The company, part of DM Specialist, has been manufacturing and installing bespoke furniture and joinery in London, Surrey, Hertfordshire, Oxfordshire and other fine homes across the country for almost 20 years.

Sponsored by Biesse Group and Lectra, the Manufacturing Guild Mark has been the mark of excellence, distinguishing Britain's top furnishing manufacturers, since 1993. The Mark is awarded to companies that demonstrate high standards across seven assessment criteria: design, product development and function, manufacture, human resources, financial stability, sustainability and sales and marketing.

Ben Burbidge, Manufacturing Guild Mark Chairman, presented Daniel Middleton, Managing Director at Middleton Bespoke Joinery, with the certificate of authentication at a presentation ceremony held at the company's Biggleswade, Bedfordshire premises on Thursday 10 September. Holding the Mark entitles the manufacturer to publicise the designation of excellence within its own press activity and marketing.

Ben Burbidge, Manufacturing Guild Mark Chairman, said: "Celebrating the success of a flourishing, well run British business has never been more satisfying than right now, what with everything that is going on in the world. We commend Middleton Bespoke Joinery for achieving the absolute pinnacle of awards, the Manufacturing Guild Mark, which recognises excellent UK furnishing manufacturers. The award is a testament to the skill and commitment of all the team at the business, whose dedication ensures excellence is maintained consistently across all areas of the company – congratulations."

Daniel Middleton, Managing Director at Middleton Bespoke Joinery, said: "It is with great privilege that we receive the Manufacturing Guild Mark; it emphasises our work ethic, highlights our incredible skilled team and marks the work we do as a leading British joinery company.

"We are extremely proud of Middleton Bespoke Joinery and have seen it grow and create phenomenal furniture and joinery. We pride ourselves on our friendly work atmosphere, incredible workshop, best quality materials, remarkable team allowing for spectacular results, ensuring we go above and beyond customer expectations. By receiving this award, our exemplary standards are recognised, and we will continue to produce bespoke, British furniture to the best standard."

For more information on The Furniture Makers' Company, see **www.furnituremakers.org.uk**.

What's new from

RECORD POWER SABRE-250 10IN BANDSAW

MANUFACTURER: Record Power
D&M GUIDE PRICE: £349.99 (inc VAT)

The BS250 has long been one of Record Power's best-selling bandsaws and has a solid reputation of probably being the best bench-top bandsaw on the market. Following the development of the SABRE-350 and SABRE-450, they decided to take some of the DNA of these revolutionary new machines and inject it into the BS250, to produce the definitive small bandsaw with premium features and unparalleled performance at this level of the market.

By taking the most relevant features from the existing SABRE series and applying them to the BS250, Record Power believe they have produced the best bench-top bandsaw available on the market for below £400.

In addition, Record Power believe that the capacities, power and performance upgrades, combined with the unique SABRE features now found on this machine, make it a real contender in the general purpose floor-standing bandsaw category when combined with the optional BS250-AW stand and wheel kit. In this configuration, it has quality and features well ahead of many of the lower cost floor-standing machines available.

The end result is a premium-quality, affordable bandsaw, which retains the compact size of the BS250 while offering improved capacities, usability, accuracy and performance.

RECORD POWER ESTABLISHED 1909

5 YEAR GUARANTEE

CREATE YOUR OWN TORMEK T-8 CUSTOM SHARPENING SYSTEM (BARE MACHINE)

MANUFACTURER: Tormek
D&M GUIDE PRICE: £359.95 (inc VAT)

New from Tormek, the Tormek T-8 Custom includes a clean T-8 sharpening machine without grinding and honing wheel. In addition, the package includes just the essential Tormek accessories: the HB-10 Tormek Handbook on sharpening, the WM-200 AngleMaster to measure the edge angle, the US-105 Universal Support to give support for the jigs, and the Tormek instructional DVD. The rest is up to you to decide by just adding the other accessories separately.

The Tormek T-8 is a powerful and versatile water-cooled sharpening system. The machine has a maintenance-free industrial AC motor, designed to drive the grinding wheel during continuous use. The powerful motor is tested for a 25,000 hour service life. The efficient system manages to maintain a constant speed, even under full load, thanks to its unique driving wheel. The motor and characteristic Tormek drive system ensure you have years of silent and reliable operation ahead of you.

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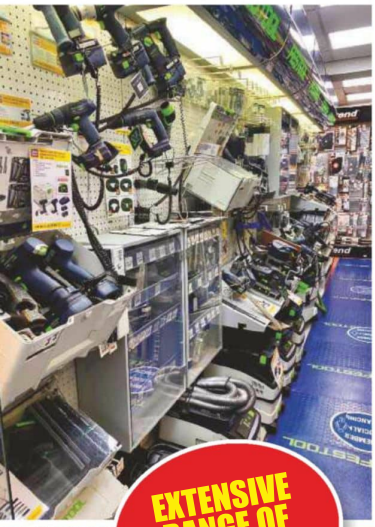

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With over 600 power tools on display from all the leading manufacturers, as well as an extensive range of hand tools and accessories our Superstore is well worth a visit!

We also have an area dedicated to a wide selection of woodworking machinery by leading manufacturers including Record Power and Scheppach, which is available to view on request.

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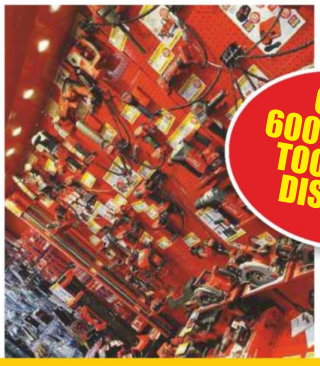

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SKIL 5810 CIRCULAR SAW

Although rated as a DIY tool, this circular saw from SKIL performs as well as many pricier alternatives, says **Phil Davy**

SKIL should know a thing a two about circular saws – after all, they pioneered the 'electric handsaw' back in the early 1920s. The American company changed its name to Skilsaw in 1926, and on construction sites worldwide the term 'skilsaw' is often still used to describe this type of power tool, rather like the 'hoover' vacuum cleaner. Many woodworkers will have fond memories of the Skilsaw Classic, myself included.

So, almost 100 years down the line, how does their latest 230V saw measure up? First, we'd better make it clear that the 5810 is rated as a DIY machine, though you'd hardly guess from its performance. With standard 184mm (7¼in) blade diameter, maximum cutting capacity is 63mm at 90° and 46mm at 45°. That's deep enough for ripping or cross-cutting most constructional timbers, worktops and so on.

Blade guards

Weighing 3.85kg, the SKIL feels heavy enough to withstand the rigours of regular workshop life. Equipped with a 1,250W brushed motor, its speed is 5,300rpm, while the tool is fitted with an 18-tooth, general purpose TCT blade. Cable length could be longer at 2.6m, though.

The plastic body has plenty of textured rubber around the enclosed rear handle and substantial front grip, making the saw comfortable to grasp and control. Above the on/off trigger is a push-through, lock-off safety button, accessed from either side of the handle.

Although it looks like alloy (and was on the Classic model), the upper blade guard is now thick plastic, though this actually seems pretty rugged. Incorporating a 36mm diameter dust port, an angled adaptor is included for connecting a vacuum extractor hose. Also plastic, the lower retractable guard is transparent, with a sizeable lever to lift it above the material you're cutting when necessary. Its spring-loaded action is positive, retracting smoothly as you make a cut. Like many portable saws now there's no riving knife fitted, enabling you to make plunge cuts in the centre of a board.

Fitted with a heavy steel baseplate, this is flat and well finished with rounded edges. A slot at the rear enables you to store the blade wrench, while up front is a clear plastic blade guide. Notched and etched for 90 and 45° cuts in red, these marks are aligned with your pencil line when cutting freehand. You can tweak this guide via a Torx screw.

Depth adjustment

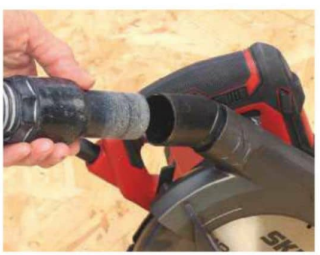
Depth of cut is set via a steel locking lever at the rear of the upper guard, with etched metric graduations for guidance. For bevel cuts you release a thumbscrew at the front of the tool, tilt the blade over and lock. The protractor scale is easy to read and an offset enables you to set the blade up to 50°. There's a stop at 45°, plus a calibration screw at zero.

Changing the blade is straightforward, a standard format with wrench and spindle

With standard 184mm (7¼in) blade diameter, maximum cutting capacity is 63mm at 90° and 46mm at 45°

The plastic body has plenty of textured rubber around the enclosed rear handle and substantial front grip, making the saw comfortable to grasp and control

Above the on/off trigger is a push-through, lock-off safety button, accessed from either side of the handle



Incorporating a 36mm diameter dust port, an angled adaptor is included for connecting a vacuum extractor hose

Also plastic, the lower retractable guard is transparent, with a sizeable lever to lift it above the material you're cutting when necessary

A slot at the rear enables you to store the blade wrench, while up front is a clear plastic blade guide

Notched and etched for 90 and 45° cuts in red, these marks are aligned with your pencil line when cutting freehand. You can tweak this guide via a Torx screw

Depth of cut is set via a steel locking lever at the rear of the upper guard, with etched metric graduations for guidance

For bevel cuts you release a thumbscrew at the front of the tool, tilt the blade over and lock

lock button behind the upper guard. With a 16mm bore, the blade is mounted using heavy steel flanges. The steel fence can be fitted to either side of the baseplate, giving a maximum rip capacity of 90mm to the right of the blade and 170mm to the left. It would be an advantage if this could be fitted with a longer wood facing, though disappointingly no screw holes are provided for this.

In use

Like most circular saws, running the baseplate against a guide fence gives an accurate edge. With a quantity of 19mm OSB sheets to cut, the SKIL made short work of these. Bevel cuts in chipboard were a cinch, too. Similarly, cutting 40mm oak worktop was no problem. With a sizeable motor there's plenty of power, though the saw is still easy enough to control. I didn't find the lack of a riving knife a problem, though you'd have to be careful if ripping green timber or where case-hardening was likely. I found the blade a useful compromise for both ripping and cross-cutting, giving a reasonable finish. You'll probably have to plane up sawn edges that remain visible, though. On veneered boards you need to make sure the best surface is underneath, due to slight splintering on the upper face. It would be worth buying a finer blade if a really clean finish is important.

Conclusion

Although rated as a DIY tool, this saw performs as well as many pricier alternatives. If you can't justify spending a huge amount on a tool for occasional use, the SKIL should be on your shortlist. The fence isn't brilliant, so just use a guide fence when cutting sheet materials. Its cable could be longer, but if you can live with these issues it's quite an impressive budget tool. Not as convenient as a cordless saw, but with no batteries to consider it's a lot cheaper overall.

Changing the blade is straightforward, a standard format with wrench and spindle lock button behind the upper guard

The steel fence can be fitted to either side of the baseplate, giving a maximum rip capacity of 90mm to the right of the blade and 170mm to the left

It would be an advantage if this could be fitted with a longer wood facing, though disappointingly no screw holes are provided for this

Like most circular saws, running the baseplate against a guide fence gives an accurate edge

With a quantity of 19mm OSB sheets to cut, the SKIL made short work of these. Bevel cuts in chipboard were a cinch, too

SPECIFICATION

Input: 1,250W
Sawing capacity at 90°: 63mm
Sawing capacity at 45°: 46mm
Saw blade Ø: 184mm
Arbor Ø: 16mm
No-load speed: 5,300rpm
Saw blade diameter: 184mm
Weight: 3.8kg
Voltage: 220-240V

Noise & vibration levels

Sound pressure: 97
Sound pressure level: 97 dB(A)
Sound power: 108
Sound power level: 108 dB(A)
Standard deviation: 3 dB(A)
Vibration level (cutting metal): 2.8
Vibration level (cutting wood): 4.0
Uncertainty: 1.5m/s²

Typical price: £60
Web: www.skil.com; www.diy.com

THE VERDICT

PROS

- Powerful motor; decent depth capacity and bevels to 50°

CONS

- Fence limited; no riving knife

RATING: 4 out of 5

TRITON TQTRSS ORBITAL PALM SANDER

For regular sanding of corners and panels the Triton would make a useful workshop addition, while it can be used on convex surfaces too, says **Phil Davy**

With the ubiquitous random orbit sander a favourite tool among many woodworkers, the more traditional rectangular orbital sander has taken something of a back seat in recent years. This is probably because these have a habit of leaving swirls on the surface after sanding, which show up under a clear finish. A round, random orbit machine generally overcomes this problem, but it's not always convenient for some jobs, plus you're restricted to using hook-and-loop abrasives. A small, square palm sander can get into corners such as drawers that cannot be easily accessed by a tool with a circular format.

Triton's new quarter-sheet sander is a mains-powered model offering two methods of attaching abrasives. A standard feature of most orbital sanders, this means you can use regular 115mm wide abrasive rolls, which work out cheaper than hook-and-loop sheets.

Cable length is an impressive 3m and it comes with a smart zipped fabric holdall, with an inner pocket for storing sanding sheets

Construction

Powered by a 200W motor, this is a single speed tool running at 12,000rpm. Like most Triton products it's heavily built, weighing 1.35kg. It certainly feels substantial when you pick it up. Cable length is an impressive 3m and it comes with a smart zipped fabric holdall, with an inner pocket for storing sanding sheets.

Similar in size to a small random orbit sander, the plastic body has plenty of cooling vents. The upper part of the tool is shrouded in rubber, making it comfortable to grip. Easily reached with your index finger, the push button on/off switch is sealed against dust.

The motor assembly is attached to an extruded aluminium platen, making it more durable than the plastic found with some brands. Fitted to this is a 5mm thick rubber pad, with overall size of 113 × 105mm. In theory, you should be able to replace this pad when it eventually wears out, though it could be a challenge removing the adhesive.

A series of elongated holes enable dust to be sucked upwards through the tool and into the detachable plastic box at the rear. This is a twist fit over the outlet at the base of the body, a rubber gasket acting as a seal. It's simple to empty and has a filter built into the lid. The 26mm diameter outlet means an extractor hose can be hooked up for workshop use.

Abrasive choice

The Triton is supplied with three mesh sheets: 80, 100 and 120 grit. Certainly it's the easiest option for sanding and quick to swap between grades. For finish sanding I tend to use 180 grit abrasive or finer, but had to stick with the coarser grits provided.

Steel clamping levers either side of the platen

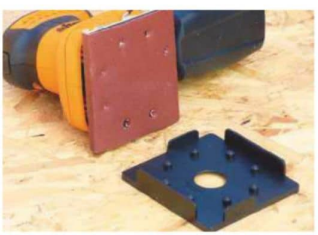
Easily reached with your index finger, the push button on/off switch is sealed against dust

The plastic dust collection box is a twist fit over the outlet at the base of the body, a rubber gasket acting as a seal

The 26mm diameter outlet means an extractor hose can be hooked up for workshop use

The Triton is supplied with three mesh sheets: 80, 100 and 120 grit. Certainly it's the easiest option for sanding and quick to swap between grades

Lift the clamping levers to insert the ends of the sheet, closing them again to retain the paper



Once the paper is clamped you simply position the sander on the plate and push downwards to pierce the holes

enable you to fit unbacked (non-hook-and-loop) abrasive paper. Lift these to insert the ends of the sheet, closing them again to retain the paper. You can either use pre-punched sheets or cut from a roll. For this you'll need to make holes in the paper for effective dust collection, and a tough plastic punch plate is included. Once the paper is clamped you simply position the sander on the plate and push downwards to pierce the holes.

In my experience, clamping levers on orbital sanders can tend to lose their strength over time, resulting in abrasive sheets working loose. Only time will tell if the Triton will follow the pattern, but these levers look sturdy enough.

In use

To check performance I tested the Triton on a variety of materials: softwood, veneered MDF and hardwood (olive and oak worktop). As expected, it sanded all surfaces efficiently enough, even removing paint fairly rapidly from old timber. It's small enough to control along narrow edges without tipping, too.

Most of the time the single speed was OK, though you need to take care sanding veneered boards, especially if using coarser grades. There was a certain amount of swirling evident, though not excessive with 120 grit abrasive fitted. The dust box collects well enough, though using a vacuum extractor is more effective.

Conclusion

This is quite a basic, compact sander, but it's sturdy enough and should withstand heavy use. For regular sanding of corners and panels it would make a useful workshop addition, while it can be used on convex surfaces too.

To check performance I tested the Triton on a variety of materials: softwood, veneered MDF and hardwood (olive and oak worktop)

As expected, it sanded all surfaces efficiently enough, even removing paint fairly rapidly from old timber

SPECIFICATION

No load speed: 12,000rpm
Power: 200W
Product height × length × width: 150 × 257 × 114mm
Weight: 1.35kg
Sanding area: 110 x 100mm
Sound power LW: 73.5dB(A)
Sound pressure LP: 84.5dB(A)
Variable speed: 12,000rpm
What's in the box: 1 × TQTRSS Triton 200W ¼ sheet sander; 1 × dust collector; 3 × sanding sheets; 1 × sanding sheet punch plate

Typical price: £56.94
Web: www.tritontools.com

THE VERDICT

PROS
- Compact; hook-and-loop or clamped abrasives

CONS
- Single speed

RATING: 4 out of 5

VERITAS CARD SCRAPER BURNISHER

A new take on typical single-handled burnishers, this latest tool from Veritas is an innovative design permitting a two-handed grip, as **Phil Davy** discovers

One of the simplest of hand tools, a well-sharpened cabinet scraper is a pleasure to use. Achieving a consistent hook, or burr, along the edges can be tricky, though. This new burnisher from Veritas is designed to make it easier to achieve the correct angle, using both hands to grip and apply pressure. Bigger, traditional burnishers are often used in one hand and can be awkward to maintain the right angle if you're not used to the process.

Made from dense plastic, the Veritas is just 108mm long – small enough to fit in your palm. Running between the two contoured thumb grips is a 5mm tungsten carbide steel rod. Its overall size means you can't apply too much pressure, which is easy to do with a conventional burnisher.

It works well, though you obviously can't run the tool horizontally along a scraper held flat on the bench. This would normally be done to harden new edges after renewing the burrs with a file and sharpening stone.

Conclusion

A handy little gadget that can be kept in your pocket, unlike a normal burnisher. Although its scope is slightly more limited, it's useful if you want a more consistent angle on your scraper.

This new burnisher from Veritas is designed to make it easier to get the correct angle, using both hands to grip and apply pressure

SPECIFICATION

Length: 108mm
Body: ⅜in diameter, 1in wide rod injection-moulded into a plastic body

Typical price: £9.44
Web: www.classichandtools.com

THE VERDICT

PROS
- Compact and easy to use

CONS
- Cannot be used flat on scraper

RATING: 4.5 out of 5

AURIOU CABINET MAKER'S RASPS

Hailed as the most exquisite rasps money can buy, **Simon Frost** jumped at the chance of testing this range of cabinetmaker's rasps from **Auriou**

When these hand-stitched Auriou rasps came up for test, I jumped at the chance. Their reputation precedes them – the most exquisite rasps money can buy.

Auriou rasps are hand made using traditional methods of forging, heat treatment and hand stitching, by a small team of highly skilled artisans in France, under the guidance of Michel Aurio, the fourth generation of the family business. Take a look at 'The Making of Auriou Rasps' on YouTube – these are tools made by craftspeople for craftspeople.

The range stocked by Classic Hand Tools includes cabinet, modellers, half-round, rat tail, tapered flat combination and curved ironing rasps, all of which come fitted with French walnut handles in a protective wallet. To test, I had the No.4, 8 and 9 cabinet maker's rasps – the 4 being the coarsest and 9 finest, although like the best guitar amps, they go up to 11.

Heavy removal

But what's all the fuss about? What makes a hand-stitched rasp better than the ubiquitous machine-punched variety? Much like how a random orbital sander's range of movement improves its finish, it has to do with the randomness of the arrangement of indentations. With each indentation carefully placed by hand, the cutting surface is not arranged in regular rows but in an intricate pattern that prevents furrowing, where each row digs in to the same ridges the row ahead has created.

The very coarse No.4 makes light work of heavy removal, even in dense hardwoods. I drew a rough roundover profile on the end of a chunk of mahogany and was able to make a chamfer and then start the work of graduating the top and bottom into a curve across the 80mm width of the piece in a matter of seconds, using the flat side of the blade.

Using a rasp takes away the need to come in from both sides, as one would have to with a block plane, or messing around setting up a trim router, which can be especially fiddly to use on something small like, say, the top of a bed post.

Creating roundovers

After establishing a chamfer and the start of the roundover, I went in with the No.8 to bring it closer to the finished profile, and finished with the No.9. All in all, it took less than a minute to get a smooth, even roundover, without even going to the finer No.10 or No.11 rasps available. A little hand sanding with some 240 abrasive and I had a perfectly smooth, flat-free roundover quicker than boiling the kettle. Not once did any of the three rasps get caught mid-stroke.

Being half-round, these rasps are also excellent for creating rounded indentations with the rounded side, which I used on the inner profile of the curved legs for a desk I recently made. I found this was where the 12in length of the two coarser rasps really came into their own, as I was able to pivot from the toe of the tool and create a scoop around the entire radius profile in one smooth motion.

Conclusion

The brass-ferruled walnut handles are perfectly ergonomic, and their sizes vary depending on the size of the blade – maddeningly, not always the case with otherwise decent tool ranges – meaning each tool is exquisitely balanced. They don't come cheap, but these are real heirloom quality tools.

The irregular pattern of the hand-stitched blades prevents furrowing

Using the coarse No.4 to establish a chamfer

Using the finer No.9 to finish off the roundover

One roundover almost complete in no time

Pivoting the blade to use the rounded side to create a scooped curve

The finished curve

SPECIFICATION

Please note that left-handed rasps are normally special order and may take up to six weeks to despatch, but Classic Hand Tools do currently have some in stock. Call **01473 784 983** or email **sales@classichandtools.com**

Typical prices: Cabinet Makers Rasp 8in Grain 11 – £90; Cabinet Makers Rasp 9in Grain 10 – unhandled – £88; Cabinet Makers Rasp 10in Grain 5 – £99; Cabinet Makers Rasp 10in Grain 7 – £105; Cabinet Makers Rasp 10in Grain 9 – £108; Cabinet Makers Rasp 10in Grain 9 – unhandled – £102; Cabinet Makers Rasp 12in Grain 6 – £108; Cabinet Makers Rasp 12in Grain 10 – £120

Web: www.classichandtools.com

THE VERDICT

PROS

- Exceptional quality of manufacture; random hand stitching pattern prevents furrowing; well balanced and ergonomic handles; length of the blade allows for smooth, unbroken passes

CONS

- Nothing to see here

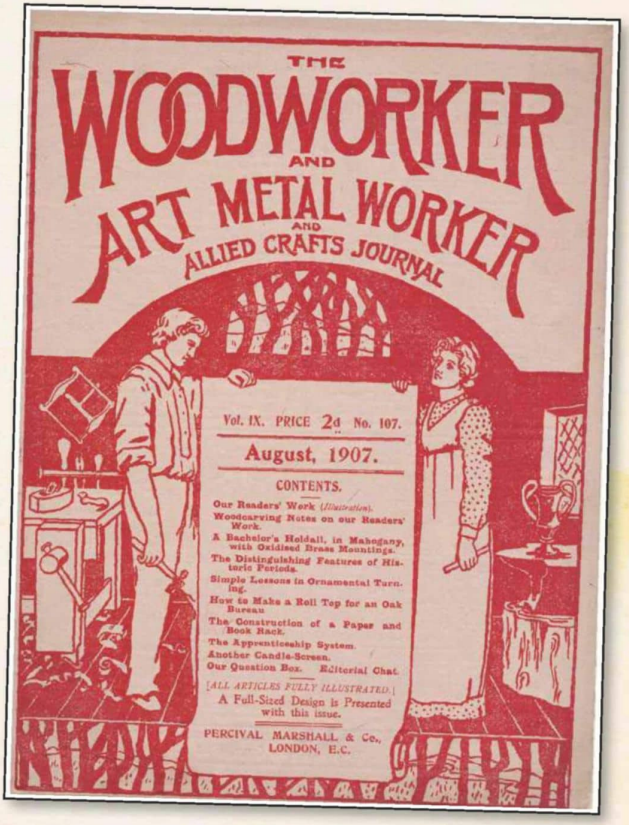
RATING: 5 out of **5**

What's in a name?

Robin Gates picks up the August 1907 issue of *The Woodworker & Art Metal Worker & Allied Crafts Journal* and gets glued to the cover

There's nothing like a pandemic for catching up on neglected reading. This issue of *The Woodworker & Art Metal Worker & Allied Crafts Journal* had been lying in a corner for years – not quite the 113 years suggested by the cover date of August 1907, admittedly, but not far off. What an indigestible mouthful the title was in those days – surely a candidate for longest ever – and yet how shapely was its typography. In fact the artistry of the cover as a whole fairly reflected a rare breadth of arts and crafts awaiting the reader inside. I'm not sure how it was done but it has the look of a woodcut.

You might notice that this issue is from the ninth volume of the magazine although, having been launched as *The Woodworker* in October 1901, it had been going for only six years. That's because the magazine had been published fortnightly for a while. Meanwhile the name was changing as often as the weather. In 1905 it had expanded to *The Woodworker and Art Metal Worker*, thence to be expanded further with *Allied Crafts Journal*, before dropping the *Art Metal Worker* in 1908 and settling – albeit temporarily – on *The Woodworker & Allied Crafts Journal*. And just to keep things interesting, the journal went weekly with cover price reduced from tuppence to one penny. How confusing for the Edwardian subscriber!



Under inspection

The fixed cover illustration of the day puts us squarely on the workshop floor but with vignettes of the outdoors at top and bottom showing the winter outlines of trees on a rolling landscape, reminding us of the source of our raw material. At the right of the picture a weighty blacksmith's anvil stands at comfortable working height on a tree stump, and standing upon that is a loving-cup style of trophy catching the light from a lattice widow, suggesting the finer metal-bashing of a silversmith.

On the opposite side is a joiner's workbench of the Nicholson type with deep apron and a leg vice, which would have a massive wooden screw to adjust it and a parallel guide at the base. The position of the vice suggests a left-handed worker, or perhaps artistic license deployed for the purpose of a more satisfying composition. A bow or turning saw hangs from a nail above the bench, looking almost musical in its resemblance to a harp, while assorted screwdrivers and chisels are placed handily in the rack below it. The plane on the bench is a wooden coffin smoother and it looks like something is being made because the floor is littered with wood shavings. I was perplexed by the second object on the bench, wondering if it were a bevel gauge or scraper, but now feel sure it's just another shaving.

August contents

Which brings us to the man and woman holding up a scroll of the August contents. He grasps what looks like a Warrington hammer, sleeves rolled to the elbow, and appears focused on the prospect of a good read, while she, perhaps mildly put out by the interruption to her work, seems impatient to get on – perhaps with measuring, if that's a ruler she holds.

Now I would discuss the contents in some detail had my eyes not been glued all this time to the cover. Skipping the adverts, there's sufficient space to mention that the first item of interest under the heading 'Our Readers' Work' is a fantastically carved settle pictured on the deck of a ship, 'executed whilst at sea' by Captain A.F.Marshall. And I wonder if this possibly under-exploited sea-going market for the journal may have prompted consideration of yet another change of name – something along the lines of *The Woodworker & Maritime Wood Carver*.

In conjunction with **Trend**, we're giving two lucky readers the chance to win up to £100 worth of abrasives from their new Zirconium, Mesh and Aluminium oxide range

WIN! UP TO £100 WORTH OF ABRASIVES FROM TREND'S NEW ZIRCONIUM, MESH & ALUMINIUM OXIDE RANGE

Trend are offering two lucky winners a prize of £100 worth of abrasives from their new Zirconium, Mesh and Aluminium Oxide range. Thanks to some great innovation, these abrasives are designed to last longer, have better material removal, and are designed to fit all machines.

This innovative, high performance range is designed to tackle every aspect of sanding from aggressive, fast stock removal through to fine finishing across a wide range of materials, including wood, metal, paint, plaster and plastic.

Aluminium Oxide, Zirconium & Mesh

- **Aluminium Oxide (3× longer lasting)** – Trend's range of Aluminium Oxide abrasives are designed for high quality, consistent results, whether at trade professional or keen hobbyist level, and is a great all-rounder for general sanding applications. This and the Zirconium feature dual layers of resin adhesive to keep abrasive grains secure for longer
- **Zirconium (4× longer lasting)** – Trend's Zirconium range of abrasives are designed for heavier sanding applications where a sharp, ultra-durable grit is required for fast stock. Stays sharp as it wears, to maintain effectiveness and prolong useful life removal, or stripping back multiple layers of paint/ other finishes
- **Mesh (5× longer lasting)** – Trend's range of mesh abrasives use ultra-hard Silicon Carbide grit for superior performance, durability and speed, offering up to 5× longer lifespan when compared to conventional abrasives. Can be rinsed and re-used for extended life

Features & benefits

- **Anti-clog technology** – open coating system and mesh design helps to prevent clogging and allow dust extraction
- **Maximum stock removal** – available in a range of grits from extra coarse 40 up to extra fine 240
- **Longer lasting** – 3×/4×/5× longer lifespan when compared to traditional abrasives
- **Unrivalled compatibility** – sanding solutions for every machine, including orbital sanders, 1/3rd sheet, detail, delta and belts

Once the two winners are announced, they will be able to visit the Trend website and choose abrasives of their choice up to a value of £100. For further information on the new range of abrasives, see **www.trend-uk.com/abrasives_range**.

HOW TO ENTER

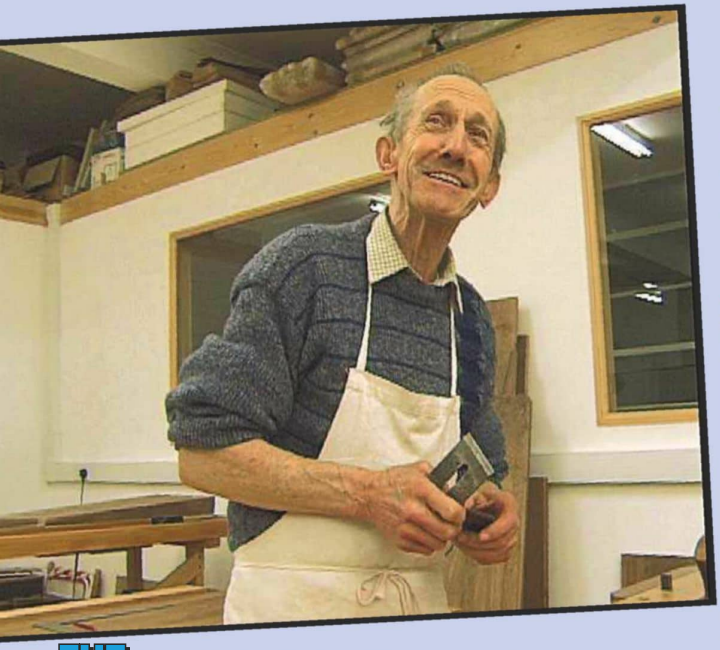
To be in with a chance of winning £100 worth of abrasives from Trend's new range, just visit **www.getwoodworking.com/competitions** and answer this simple question:

QUESTION:

What is the increased lifespan offered by the Mesh abrasives?

The winners will be randomly drawn from all correct entries. The closing date for the competition is **20 November 2020**

Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Trend are not eligible to enter this competition



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THE WILSON CHELTENHAM ART GALLERY & MUSEUM

THE ALAN PETERS Online FURNITURE AWARD 2021

Don't miss out on the opportunity to be part of this prestigious annual award, which champions UK furniture designing and making talent while celebrating the life and work of the late **Alan Peters OBE**

This annual award celebrates the legacy of one of Britain's most prominent furniture designer-makers of the late 20th century while aiming to encourage emerging talent in the craft of furniture design and making.

Any woodworker who is a resident UK citizen over the age of 18 and who has a passion and talent for designing and making contemporary furniture is invited to submit up to two items of furniture made primarily of wood. These pieces, if applicants so wish, can also include other complementary materials that echo the philosophy of Alan Peters. Judging is based on the appropriate use of wood, the quality of workmanship, functionality and originality of design.

Both one-off designs and potential batch-produced designs are encouraged and the piece(s) does not have to be large. Applicants should be familiar with the work of Alan Peters prior to applying and are encouraged to read organiser Jeremy Broun's 64-page online video-integrated ebook, which is offered free-of-charge (via the website link opposite).

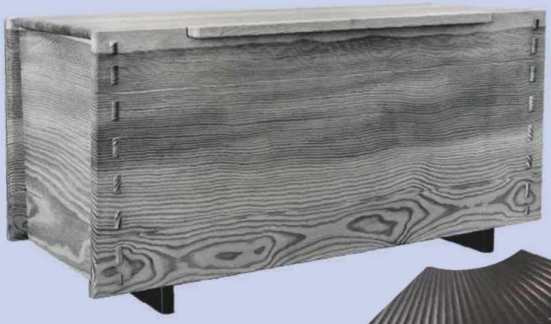
The man behind the award

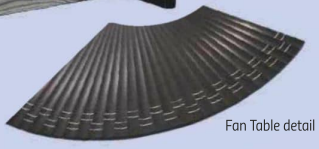
Alan Peters OBE (1933–2009) was one of Britain's most prominent furniture designer-makers of the latter part of the 20th century. He was apprenticed to Edward Barnsley and had a direct link to the English Arts and Crafts Movement. He was hugely influential internationally in his practice, teaching and publications. Above all, his respect and understanding of how wood behaves and the value of hand skill, yet moving tradition forward,

Alan Peters and Jeremy Broun in 2005

Alan Peters chest with silver inlay

Blanket chest in Douglas fir





Fan Table detail

resulted in the creation of many timeless pieces. He created affordable, functional furniture which was made to last, making an art of his craft in some of his subtle innovations.

History of the award

The original award was called 'The Alan Peters Award For Excellence' and was initiated by Jason Heap in 2010. The prize was offered to three winners, each of whom were given free exhibition space alongside the professionals at his annual furniture exhibition in Cheltenham. The award ran for eight years. The judges were Jason Heap, Keith Newton and Jeremy Broun.

Award judges

Jeremy Broun (organiser) – designer-maker and co-exhibitor with Alan Peters 1978–2002
Andrew Lawton – designer-maker who worked with Alan Peters and on his last commission
David Barron – professional furniture maker who also produces his own range of hand tools.

To see a video giving details of the award, visit **https://www.youtube.com/watch?v=0y308TcMeBs**.

PLEASE NOTE

Due to COVID-19 restrictions, The Alan Peters Furniture Award 2021 will now be an online event with a virtual exhibition

PRIZES OFFERED

1st prize
£1,000 Axminster Tools voucher

2nd prize
£500 Triton Tools voucher

3rd prize
£300 Judges' prize

Winning pieces will be exhibited in a virtual exhibition on Jeremy Broun's website – **www.woodomain.com/alanpetersaward** – and other platforms to be announced.

Entry deadline: **28 February 2021**
A £20 entry fee applies and a maximum of two entries can be made (£20 per entry).

This award is open to any resident UK citizen aged over 18 who has an enthusiasm and flair for woodworking. A piece of furniture (indoor or outdoor) is to be made and six high resolution JPEG images submitted, together with a Word document description. Shortlisted applicants will be asked to engage in a Zoom video call or submit a one-minute mobile phone video introducing themselves and describing the piece(s).

The judging of furniture pieces will take place in March 2021 with the online award ceremony broadcast in the second week of March. Winning entries will be announced in the April issue of the magazine.

If you already have items made for the 2020 award, or are ready to get started for the 2021 award, please do not hesitate in submitting your application any time before the entry deadline (**28 February 2021**).

To download an application form and view the 64-page e-book, please visit **www.woodomain.com/alanpetersaward**. The form can be found at the right of the page. Payment for entry can also be made securely via the website.

For further information, please contact either Group Editor, Tegan Foley (**tegan.foley@mytimemedia.com**), or organiser, Jeremy Broun (**jb@woodomain.com**)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CREAM OF THE CROP

PROGRAMME INFORMATION

1 *Kings and Queens of the Wild Frontier*
Thursday 15 October @ 9pm

Week one's historical era is the American Frontier, and the contestants are furnishing a homestead from this period. For the first group challenge, the woodworkers are separated into two teams and charged with each making a centrepiece table for the cabin.

For their skills task, the carpenters have two hours to make a rudimentary stool from a short section of tree and some basic tools. The creative challenge brings out the group's inner cowboy and cowgirl with saddle racks, settles, benches, trunks and a child's cradle among the offerings. When guest judge Robert Young arrives, he is very impressed, but which pieces will be chosen for the Frontier cabin?

2 *Rolling out the Barrel*
Thursday 22 October @ 9pm

Week two sees a new addition to the cabin – a Victorian barrel-shaped pub. As Rick says: "Once you've got a basic homestead, obviously the next thing you want is a boozer."

This week's theme is Victorian style and the group task is to make a bar for the oddly-shaped cabin – a combination of cabinetmaking and fine decoration. The creative task takes the gang into their own happy hour as they have to make additional pieces for the bar – with games, shelving, hat stands and mirrors taking shape in the workshop. Guest judge Rowan Bain from the William Morris Museum arrives to cast her eye over the pieces and calls time on one of the woodworker's dreams of making it to the next round

"I came into this show knowing absolutely nothing about carpentry. The contestants and Will took me on a real journey"

Rick Edwards

Sky HISTORY will crown Britain's best craftsman this autumn in a brand-new UK series – ***The Chop: Britain's Top Woodworker***. We bring you the full rundown of episodes and introduce you to the contestants ahead of the airing of the first episode on Thursday 15 October

Hosted by Lee Mack (pictured centre), Rick Edwards (pictured left) and master craftsman William Hardie (pictured right), this carpentry contest sees 10 of the country's finest woodworkers gather in Epping Forest to whittle, carve and chop their way to the final, to see who will be crowned 'Britain's Top Woodworker'. The winner will also have the chance to stage their own exhibition at the prestigious William Morris Gallery in London.

Master Carpenter William Hardie oversees the construction of a grand and spectacular cabin in the woods. Each standalone 'room' is based on a different historical theme, including a Victorian pub, Nelson's cabin on HMS *Victory*, a Gothic bedroom, a Georgian hunting lodge, and a 1960s' *Mad Men*-inspired lounge.

The contestants are challenged with group, skills and creative tasks to produce amazing items to furnish the rooms while expert guest judges with specialist knowledge of the different historical eras join the show each week to offer advice.

Lee Mack, Rick Edwards and William Hardie work with the guest judges to decide who progresses to the next round and who will get 'The Chop'. Lee Mack said: "When I was at school I loved woodwork mainly because there was never any homework. Being surrounded by the amazing carpenters in this competition has reinvigorated that love and has inspired me to invest in my first shingle froe (Google it…)."

Rick Edwards added: "I came into this show knowing absolutely nothing about carpentry. The contestants and Will took me on a real journey. I learnt about techniques and styles of woodwork and, perhaps most importantly, I learnt things about myself – for example, I'm not good with my hands. It's great to be part of a show celebrating a trade that, in an era of disposable furniture, deserves more respect and appreciation. I'll never look at a table the same way again."

3 *The Magic Treehouse*
Thursday 29 October @ 9pm

This week's episode introduces a new extension to the cabin complex – a Gothic children's treehouse – all pointed arch windows and dark materials, the kind of place that would give most children nightmares.

In the group task the teams are charged with creating the key feature of the room – a child's bed. For the skills task the group take on their toughest challenge yet, to whittle a child's toy from one block of wood.

Creatively, the carpenters pull out all the stops, as an array of fantastical items for a children's gothic bedroom come together in the workshop. From chess sets to toy boxes to magic bookshelves and everything in between, the carpenters let their imaginations run wild, but what will guest judge, Gothic expert Michael Snodin, decide is good enough for the cabin, and who will be sent home?

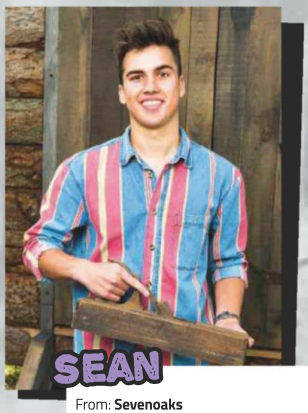
4 *All Aboard!*
Thursday 5 November @ 9pm

There's nothing a wood buff likes more than to go back to the time of tall timber ships, when shipbuilding and woodworking ruled the waves. This week sees the addition of the Admiral's Quarters to the cabin complex, harking back to the time of Nelson's ships in the Napoleonic War.

The two groups have to create a cot bed that moves with the motion of the ocean to enable the admiral a good night's sleep. The skills task isn't plain sailing as the would-be sailors craft miniature boats from blocks of wood, and they're tested for their sea worthiness by Admiral Hardie and Midshipman Edwards.

Back in the workshop, and the creative task sees the woodworkers creating individual items for the Admiral's quarters, with secret compartments and side tables galore, and when it comes to judging, Will and guest judge Brian Matthews make a choice that takes everyone by surprise

CONTESTANT BIOGRAPHIES



SEAN

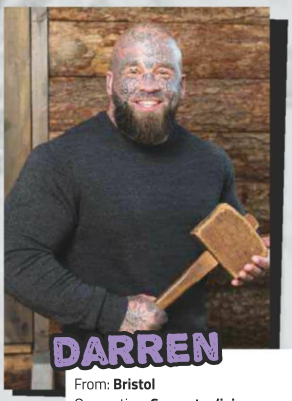
From: **Sevenoaks**
Occupation: **Student**

Background: Currently studying at Rycroft School of Furniture Design, Sean started making items from cardboard when he was eight-years-old. He was inspired by a teacher to move over to wood and is self-taught. He has built an impressive workshop in his parents' garden and loves to film and upload woodworking videos to his YouTube channel, which has seen him gain 22,000 subscribers. Follow Sean on Instagram: **sean_evelegh_woodwork**

LUA

From: **London**
Occupation: **Designer/maker**

Background: Six years ago, Lua packed in her secure job as a travel agent, started a degree in Furniture Design, and has never looked back. She loves to experiment with materials, now works on bespoke furniture commissions, and has even started designing her own range of furniture



DARREN

From: **Bristol**
Occupation: **Carpenter/joiner**

Background: Darren has been working in woodwork since he left school, and says he loves the variety that each day brings. Darren has two children and loves building them wooden items. His favourites were the special beds and wardrobes he made for them, which even included LED lights

EMMA

From: **London**
Occupation: **Designer/maker**

Background: Emma spontaneously enrolled in a Furniture Making course two years ago and has since become a full-time designer and maker having left her career as a journalist behind. She has a very contemporary style and loves to combine other materials such as concrete into her work. Follow Emma on Instagram: **dead.marys**

5 *Mid-century vintage* Thursday 12 November @ 9pm

Week five brings viewers to the time of *Mad Men* – the era of the 1950s and 60s. Sleek, minimal furniture, new techniques and space-age design are the order of the day as the woodworkers are employed to furnish the mid-century lounge that Will has built.

For the group task, the two teams have to create a sideboard to take pride of place in the lounge, while making a magazine rack is the skills task and the pressure is getting to the woodworkers as at least one rack falls apart before the judging.

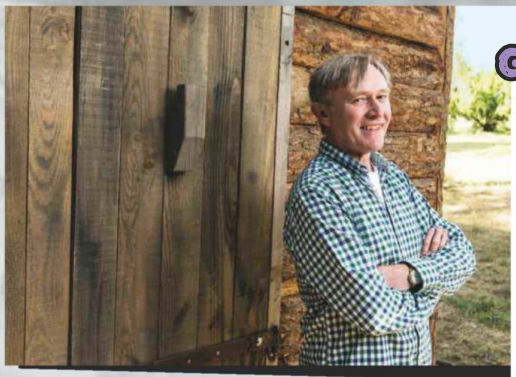
Finally, the mid-century era is brought to life with the creative task, which sees the woodworkers create some truly jaw-dropping designs. From futuristic floor-lamps and floating coffee tables, beautifully crafted stools and ornaments, the competitors make a roomful of fabulous furniture, but which pieces will guest judge Tom Raffield take through, and who will be shown the door?

6 *Georgian Pursuits* Thursday 19 November @ 9pm

This week's historical era takes viewers back to Georgian times – and a study in the woods. The first thing a study is going to need is a writing desk and for the group task the remaining woodworkers split into two teams to make the perfect Georgian desk.

The skills challenge is to make a book stand in two hours and for their creative task, the carpenters really get into the Georgian mindset with gun racks and trophy wall-hangings.

When guest judge, Georgian furniture expert Amy Boyington arrives, it's announced whose pieces make it into the cabin, and who the show will be bidding a fond farewell to



GLYN

From: **Northamptonshire**
Occupation: **Professional woodcarver**

Background: Glyn has been a woodcarver since he was 12 years old. He's only ever worked for himself and is now one of the most renowned carvers in the UK. Glyn has been commissioned for high profiles carvings and has designed chairs for MPs, as well as creating items for Westminster and the Supreme Court. Follow Glyn on Instagram: **glynmouldwoodcarver**

BRETT

From: **Bedford**
Occupation: **Master craftsman**

Background: Brett has worked as a painting and decorating contractor for the last 27 years, and over the past 10 years has been exploring his passion for woodwork. Brett is self-taught and likes to make models in his spare time. His multi-trade skills have even earned him the nickname *'The Finisher'*

SAF

From: **Bradford**
Occupation: **Builder/joiner**

Background: Saf spent every summer working alongside his dad since he was 14 and has been woodworking since his early 20s. Known locally as 'the right man for any job', Saf has recently secured himself some celebrity clients, including England goalkeeper Jordan Pickford, who he made a number of bespoke nursery furniture items for

7 *Back to Nature* Thursday 26 November @ 9pm

For the semi-final the show goes back to nature with no historical era but instead a sense of the beginnings of woodwork and a place to contemplate life – the hanging woven willow nest.

There are only two tasks this week – the first, which is an amalgamation of the group and skills task, is to make a ladder to provide access to the nest. For the creative challenge this week the woodworkers take their inspiration from nature and are freed from the constraints of a specific historical era.

Between them they create a picnic basket, a midnight feast container, a very upmarket bird box and a large wind chime. Which will guest judge and Eden Project designer Michael Pawlyn rate the best? Most importantly, who will go forward to the grand finale?

8 *The Final: Let's Go Outside!* Thursday 3 December @ 9pm

It's the grand finale and just three competitors remain. Their mission in this final episode is to create important pieces for the exterior of the cabin complex.

Employing environmentally friendly methods by using offcuts and leftover wood from the first seven shows, the finalists plan to make a curved bench, a rustic swing seat, and a firepit shelter with a hanging seat.

For a bit of light relief and for old times' sake the carpenters take a break to do their final skills task – they have to make a weather vane for the roof of one of the cabins.

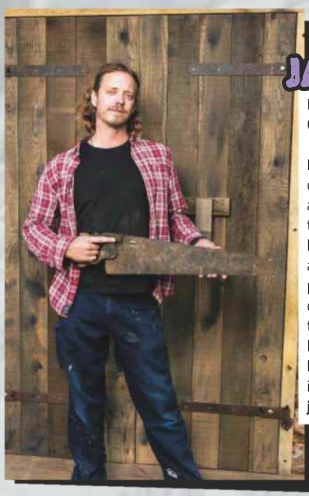
Back at the final task and the woodworkers are seriously under pressure, unsure if they will finish in time, and the pressure ratchets up even further when they get wind of this week's guest judge – a giant of the industry known as the 'godfather of contemporary furniture', John Makepeace OBE.

John gets a chance to examine all the finalists' work over the last eight weeks. What does he make of their talents? Which items will the expert judges deem worthy of a place alongside Will's cabins, and who's body of work will impress them enough to be crowned the series champion?

OLLIE

From: **Lancashire**
Occupation: **Furniture maker**

Background: Originally trained as a chef, Ollie decided to then go on to study as a cabinetmaker, and after recently being made redundant, has started his own furniture design business. Currently converting a barn on the family farm into his workshop, Ollie also works part-time as a DT Technician at Central Lancashire High School. Follow Ollie on Instagram: **ofwoodworks**



JACK

From: **London**
Occupation: **Carer/cabinetmaker**

Background: Jack has been a cabinetmaker since he left school and spent 10 years working at the top of the interior design world for high-end companies. He is now a full-time carer for his disabled partner and practises carpentry on the side. Nominated to go on the show by his girlfriend, Jack makes lots of toys for his children, including hand-carved swords, among other items. Follow Jack on Instagram: **jackfinessevincent**

ANNIE

From: **Isle of Wight**
Occupation: **Woodworker**

Background: Initially trained as a computer programmer, Annie now has nearly 30 years' experience in woodworking. She trained at the Building Crafts College in London where she became a Freeman on the fine woodwork course. She has worked in New York and London before moving to the Isle of Wight where she has her own studio. Follow Annie on Instagram: **wrennwoodwork**

FURTHER INFORMATION

For more information on ***The Chop: Britain's Top Woodworker,*** see the following links:
Web: **www.skyhistory.co.uk**
Facebook: **www.facebook.com/HISTORYUK**
Twitter: **www.twitter.com/HISTORYUK**
Instagram: **#TheChop**

9 *The Story of the Cabin* – Thursday 10 December @ 9pm

Lee Mack looks back over the series, and in particular, Will's dearly beloved cabins. This is the story of how those cabins came about, the furniture that filled them, the men and women who made that furniture, and how they fared in the competition. 114 items and pieces of furniture have been fashioned by the woodworkers over the series – all under tight time constraints. It's an impressive body of work and Lee gives viewers a tour of the best of them.

Not forgetting Lee's own work of art that he's been working on throughout the series: the chunk of his mother-in-law's tree that's been sitting outside his house for two years. Will and Rick were sceptical of Lee's talents, but were they underestimating him?

The first episode of *The Chop: Britain's Top Woodworker*, airs on Thursday 15 October at 9pm (9x1) on Sky HISTORY. Sky HISTORY is available on Sky 123, Virgin 270/BT 327/TalkTalk 327. All episodes will be available on various catch up services.

PART 4

BUILDING EXPERIENCE TO RESTART STRONGER

In the last of this series, **Simon Frost** puts the finishing touches to his start-up diary as he embarks on a work experience role within a professional furniture making business

In retrospect, 2020 might not have been the year to start a business. Setting up a furniture business is hard enough when your only experience of a professional workshop has been as a student, but add to that a global pandemic and the odds are really stacked against you. After full lockdown was over, it was abundantly clear that people were in no rush to spend money on bespoke furniture, and there was only so long I could rely on my part-time income alone, especially while my fiancée and I were beginning to arrange meetings with mortgage advisors. It was time to look for a furniture making job.

To my surprise, there was no shortage of job vacancies in furniture workshops. The problem was the experience they all wanted – typically three-to-five years. After a less-than-fruitful session of searching for junior roles, I had a look on the Robinson House Studio alumni Facebook group, a private group where former students and the school's Principal, Marc Fish, post interesting job openings, competitions, funding opportunities and the like.

Laying out the locations for biscuits for a shelf in a carcass side using a template to locate spacing and distance from the top

Inside the Philip Clay workshop bright and early


F45

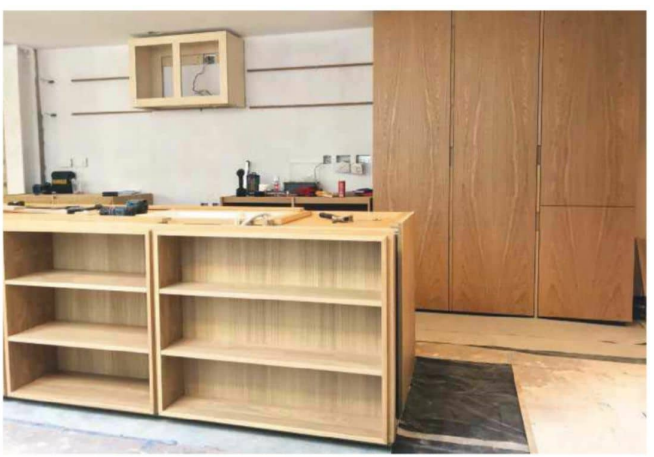
Barry, the experienced fitter, screws a cabinet divider in place

Marc had posted a link to a vacancy being managed by a recruiter who specialises in the furniture industry – the first furniture-specific recruiter I have ever come across. The job itself was in the wrong part of the country for me, but on following a link to the recruiter's LinkedIn account, I found that she was also looking for candidates in my area for other jobs. I sent her a message of introduction, and the next day she had booked me an interview for a full-time Junior Cabinetmaker role at Philip Clay Luxury Bespoke Furniture. I couldn't believe my luck!

With a workshop based in the small village of Bovingon, Hertfordshire – a 40-minute drive from me – Philip predominantly designs and makes bespoke kitchens and other built-in furniture. Philip runs the company with his wife, Keighley, a fabric designer who previously worked as a fabric and prints designer for the luxury department store Liberty.

A weekend of preparations

It was a Thursday when I was offered an interview on the following Monday, and I needed to bring with me a portfolio of work and a small piece I had made. I had work with my other job on the Friday, and I had neither a portfolio prepared, nor anything small enough to bring with me, so I spent the weekend designing a portfolio using InDesign, and then making a simple,



Midway through the fitting of this bespoke oak kitchen for the refurbishment of a Victorian family house in south London. Almost ready for worktop templating

All of the drawer and cabinet fronts feature these eye-catching finger joints. Even the backs of the drawers, too!

but as close to perfectly made, mitred A4 picture frame as I could to take along to the interview.

I used American black walnut for the frame, cutting and shooting the mitres by hand before using a shoulder plane to create the rebates to hold the glass, mount board, picture and backing board flush with the back. I sanded it all to 320 grit, raising the grain with a damp cloth between each grit, before gluing up and finally French polishing the frame, which I buffed with a coat of Renaissance Wax once the shellac had fully hardened. It happened to be the very height of a heatwave at the time, and my small shed workshop was like a kiln. I can safely say I've never worked up such a sweat preparing for a job interview. To finish off the frame, I printed off a detail shot of a piece of Philip Clay furniture to go in it. Every little helps.

Having been employed by the same company for the past three years, it had been some time since I'd had a job interview, and I'd never had one for a job in the furniture industry. I found out from the recruiter that there wouldn't be a bench test, just a conversation with Philip and Keighley, but I didn't really know what to expect, so I just did as much research into the company as I could to help me feel prepared and calm my nerves.

When I arrived at the workshop, Philip introduced me to one of his makers, Richard, who had trained at Robinson House himself, leaving shortly before I arrived. Having someone I could easily chat over some common ground with while Philip made the teas was just the trick to relax me for the interview. The site was fantastic – located in a beautiful farm setting, fantastically clean and well organised, and impressively equipped, with a small and friendly team of makers working on a lovely oak kitchen.

The interview went better than I expected my first ever furniture interview to go. Philip and Keighley were interested in my portfolio and my idea to include a detailed breakdown of the making of my student project had the desired effect of demonstrating the range of

All done for the week on site – everything covered in blankets to protect it from ongoing renovation work in the house

different techniques and skills I had developed and deployed in designing and making my bedside table. The conversation went well, and they were impressed by the quality of the frame I brought, too. They had more people to see, so I would have to wait a couple of weeks to find out either way, but I left feeling content that I had given it my best shot.

A foot in the door

At the end of the two weeks, Philip contacted me to say that they had offered the job to another candidate, owing to my relative lack of experience. However, he and Keighley had been suitably interested by my interview to offer me some hours in a work experience role, with the view to either hiring me as a member of the team, or giving me more experience and a reference that would help me to get a job with another company. I didn't take long to accept. The job would have been great, but I couldn't pass up the opportunity to get my foot in the door, and I had a good feeling about the place having visited and met the team. Another positive was that being in a work experience role, there wouldn't be as much pressure to hit the ground running, and I could keep my other job for the time being – after all, I'd never worked in a furniture workshop. What if I got a month in and realised it wasn't for me?

Before starting at the workshop, Philip asked if I was available to spend two days on site helping his fitter to install a kitchen in south London. Again, I accepted, and spent two days fitting with Barry, a first-rate fitter with some 20-odd years' experience, working methodically and with exceptional attention to detail. It was really useful to get some hands-on experience with the company's work and to get the perspective of the fitters – how marking everything clearly in the workshop makes the fitters' job that much smoother; the tolerances a fitter needs to make the necessary adjustments on site, and so on.

The following week, I began my tutelage under Richard's guidance at the workshop – at the time of writing, I'm going into my third week there, working two days a week. We're making a built-in dressing room at the moment, and in just four working days I feel I've gained a lot of valuable experience and already started to build my confidence. We're making and assembling the whole room at the workshop, and once complete it'll be disassembled, marked and delivered for Barry to fit on site.

So far, I've levelled all the plinths, helped Richard to construct all of the carcasses – measuring, marking out, biscuiting and screwing them, following his guidance and using marking templates based on the drawings. Carcass-by-carcass, we've assembled the dressing room on the plinths in the workshop, and on one of my off-days the client came in and was apparently very pleased. I spent a good while on the panel saw making a series of cuts to drawer box sides to create grooves for the drawer bases. During some downtime in the dressing room project, I used a trim router to flush off a stack of veneer samples glued to MDF boards.

It's early days, but so far I'm delighted with how the work experience is going, and excited for all the learning I can take from it. Already there have been so many little tricks and clever processes that I've picked up – all the little efficiencies that combine to make a professional workshop successful.

So, that's the end of the Start-up Diary for the foreseeable future. One day I hope to fulfil my dream of running my own furniture business, but for now, it's time to learn how to make a success of it.

The frame I made for my interview, repurposed as a gift for the in-laws

I used this spread in my portfolio to provide a detailed breakdown of my most complex project build to talk through in my interview

MUSIC MAKER PART 2

In the second part of this article, **Matthew White** finishes his wonderful upgraded music stand, which is inspired by the great Wharton Esherick

In the first part of this article, I introduced you to the background of this challenging woodworking project, as well as discussing planning, tusk making, music rest assembly, plus the construction of the pivots. Here, I'll take you through the steps that led to completing the music stand build, which sees me adding the upper music rest, tusk assembly and shelf, before putting it all together. Enjoy!

The upper music rest

The upper music rest is equally as challenging as the lower sections. Looking at the pattern, we have a 50-75mm deep rest, two straight sides, an arched top, three rounded supports, and two horizontal supports, which are clipped.

Starting from the outside, cut the rest on the bottom, then the two sides and top using your pattern. Use your joiner of choice to attach them together (if you use mortises, good on you but remember to add the length to the sides). I used a pair of 5mm Dominos at each joint, which seemed to work well and ensure things are aligned. Keep everything square for now.

43 The locations for the pivots


WW
PROJECT

44 Test-fitting the top of the music rest

For the inner supports, mill three 12 × 12mm sticks, and cut half-lap joints at the top and bottom to mount them in place (again, following the pattern). These will also need to be rounded over, but not the full length as we don't want to ruin the lap joints nor the contact area with the horizontal supports. Next, mark the areas where the pieces should remain square and use a small roundover bit in a router table to take care of most of the work. We'll finish it with a file and chisel once everything is assembled. Glue and clamp the outside together and when everything is square, add the vertical supports.

Round over the fronts of the horizontal supports and smooth the corners by hand or with a sander. When the frame is dry, glue them to the flat areas of the vertical supports.

For the main music rest, I wanted to include a cove to add interest and catch more pencils/music, but didn't feel the router or table saw trick would do. Instead, I used an antique profile plane and a fence to make a shallow depression.

When the assembly is dry, use a roundover bit in a router to run over all the edges and follow with a fine rasp and sander on the bends and joints as needed. I also found it useful to wrap a thin strand of abrasive around the spokes and gently shape the joints so that all the elements flow together.

With the top assembled, mark the joint to attach it to the lower rest in whatever method you prefer. Again, I used small, stacked Dominos along the length to achieve a high surface area that would resist the forces placed upon it. Don't glue the top and bottom together just yet.

45 The front assembly glued up

Tusk assembly

With all of the preliminary work complete on the music rests, we can now do some assembly on the lower sections. Check the stretcher for its fit and when you are satisfied, apply your joint making process of choice to attach it to the legs. Again, I chose Dominos but mortises or capped screws from the outside would work just as well.

Once you are happy with the look of the lower rest, front legs and stretcher, glue everything up. I used a pair of horizontal pipe clamps to hold the stretcher in place and keep the pitch of the legs where I wanted, then added two more vertically between the lower rest and stretcher to pull the longer Dominos all the way together. Check that everything is square and let the assembly dry completely before placing any stress on the joints.

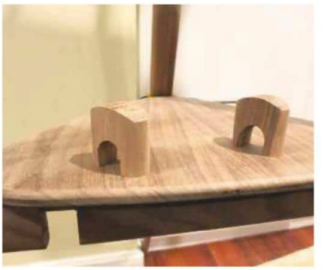
46 Softening the transition

47 Transition after sanding

48 This hole is made using a 12mm chisel and matching drill bit

49 Rear leg slot after cleaning up

50 Bookmatched shelf after resawing, assembly and sanding



51 Lower shackles in work

Standing it upright & making the shelf

Once the front assembly is dry, attach the rear leg, dry-fit the top and stand it up. Take one more look at the pitch and measure the space between the stretcher and rear leg; this will give you the measurement for the shelf.

The shelf on the original as well as mine was made as a triangle with circles in the corners and the connecting sides flared out. I drew a mock-up of this in Publisher and then marked half of it straight on a 32mm board. A compass with a 50mm radius took care of the points and a piece of brass bar bent in a clamp gave me the flare for the sides. Cut the shape on the bandsaw and smooth it out on the disc sander as needed. From here, I re-sawed the half-shelf by hand and glued it together along the centreline before running it lightly through a planer. This makes for a thinner shelf that doesn't make the piece overly heavy; it keeps each side mirroring one other, and allows for the grain to match as well. To finish up the shelf, I added a gentle roundover profile on the edge and sanded it smooth.

Next, we'll attach the shelf to the stretcher. To do this, we'll make two small shackles to ride in the notches we cut earlier. Cut both, round over the outside edges and remove the waste from the inside so that it'll swing around the 20mm dowel on the stretcher.

From the bottom, pre-drill a pair of pilot holes deep enough so you can insert a self-tapping screw through and attach the shackles to the shelf. To prevent the screw from going through, I went very slow, by hand, with a self-tapping screw and ensured not to overtighten anything.

There's always a catch. In order to have the shelf hit the rear leg, hold itself up, and keep the rear leg from slipping out, we'll need to make a hook to interact between them.

I drew a sweep by hand to match the legs and turned it into a 12 × 12mm square catch

52 Measure your screws so they don't puncture the shelf

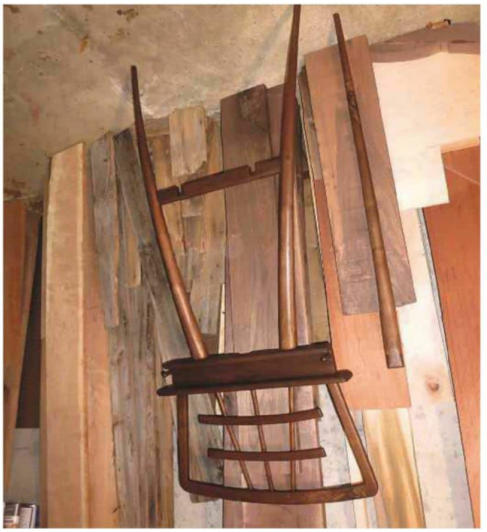
53 Test-fitting the shelf

54 Catch to hold the shelf

55 A close-up of the arm and catch before assembly

56 The catch and arm installed

57 Finally off to finishing! Halfway through a coat of walnut stain



58 After staining

59 All set up in the photo studio

that would be glued to the underside of the shelf and slip into a mortise in the rear leg. Once the catch is roughed out, mark where it will hit on the rear leg and use a drill and mortising chisel to carve out a mortise for it to catch. The top will be sloped but the bottom will need to hook down and under the surrounding material. Even this wasn't enough to hold the leg up, so I added a small block with a notch on the inside and mounted it over the mortise to grab the catch.

For the catch, carve away the underside of the leading edge to create a small hook. This will be extremely delicate so to keep from snapping it off, split the tip and epoxy a blade of the brass stock in the centre for strength. If you can get close with a hack saw, a file can be used to bring it into the final shape.

Once the glue around the brass catch is dry, test fit the assembly, and round over all the edges, leaving a flat area at the top so it can be glued to the underside of the shelf. Once it's cleaned up, use a deep hand screw clamp to glue to the shelf. Countersink a small screw through the catch for added strength.

Assembly

Home stretch now! Glue the upper music rest down to the leg assembly and as before, allow it to fully cure before moving. If you have any joints with glue showing, clean it up and do any final sanding you need. From here, everything needs to be broken down for finishing as we don't want globs of stain to be stuck in the moving parts. Apply stain and polyurethane as desired.

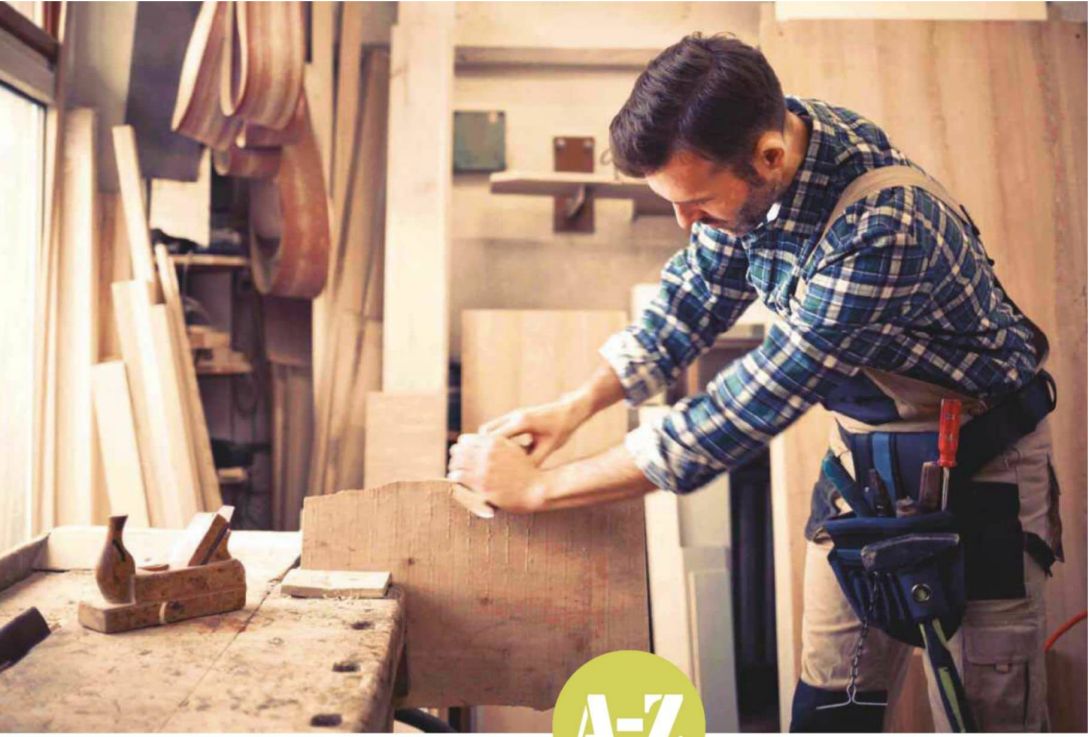
And that's all there is to it! Wasn't that easy? Maybe not quite, but I'm sure it'll enjoy many hours of use by a special musician in your life.

60 Close-up of the handmade pegs

61 The completed shelf

62 Detail of the music rest…

63 Shelf arm and catch when retracted



WOODWORKER'S ENCYCLOPAEDIA PART 21

In this section of the directory, **Peter Bishop** gets a bit 'crusty' about certain definitions and, to cap it all, is unsure of what to call himself! If we're lucky, we'll just about stretch into the Ks

In the round
A common phrase used by people in the primary sector of the timber industry. When used, it simply means that the person is referring to logs that have not been converted.

In the white
When we have a piece of furniture that has yet to be stained or finished, it's referred to as being 'in the white'. Some manufacturers will give an option to buy like this so that the next business in line can finish the piece as they wish.

Iron wood
There are a number of exotic trees that are called iron wood, but in trade terms this name is probably misused. It covers a large number of dark, heavy hardwoods that, perhaps, we don't actually know what they are!

Jacker or surface plane
A powered, machine that derives its name from the jack plane – see overleaf. It's a one surface planer, hence the other name, where you pass the piece of timber over the top of the cutting block. The bed and fence should be set up so that you can plane flat the face and then, working off the right angle fence, plane the first edge square to it. This is just as you would do if planing by hand. Some of the older machines are adjustable so that you can cut rebates as well. This is a simple but useful bit of kit; however we'd probably find an 'over and under' plane more useful. This enables us to finish off the planing sequence and produce square material to a finished size, but more on this machine later.

Martin T54 surface planer

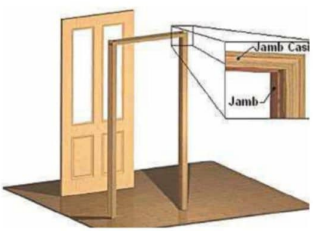
SCM F 520 Nova wood surface planer

WoodRiver No.5 jack plane

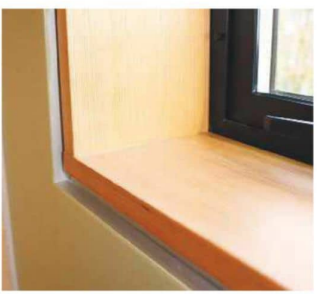
Axminster Rider No.5 ½ jack plane

Jack plane

This is a hand-held roughing down plane for taking off the worst of waste before finishing off. The original jack plane would have a wooden body and be around 18in long, say 45cm. Later versions will have steel or metal bodies and be about the same size although some shorter ones are called by the same name.



Door jamb explained



A recessed window jamb

Jambs

As the two vertical, outer components, the jambs help to form a frame. They are found in windows and doors, the pieces next to the wall into which the opening parts fit.

Queen Anne 18th century black japanned bureau cabinet

Japanned

Our Victorian ancestors like to 'japan' their furniture and fittings. It is finishing things off with a black lacquered surface. One assumes they got the idea from Japanese furniture that started to arrive in that same period. You might typically see a black, japanned surface decorated with flowers, trees or figures.

There are a variety of router jigs you can make yourself in the workshop

Jigs

We use jigs in the workshop to help us guide a tool, to make a specific cut, shape or feature. In most cases, this will be with a powered tool of some shape or form, but not exclusively. We'll use them when sawing, perhaps to make tapered legs, stopped cuts or trenches, etc. On a bandsaw to make circles, cones or stopped straight cuts and so on. One of the tools that will probably have more jigs associated with it is a router and a variety of books have been written about these.

Jigsaw

The vast majority of jigsaws will be the hand-held version with its reciprocating blade protruding out of a baseplate. The blade is fixed in and worked on a cam to create the up and down cutting action. The baseplate will be adjustable for different angles – that's unless it's a very basic one! This type of jigsaw is a useful addition to the workshop. The blade can enter the workpiece, via a hole, and should cut an inner circle with ease. There are

Wolfcraft 6197000 jigsaw table

static bench or frame-mounted versions where the work is presented to the saw rather than the other way round. All will be based on the hand-held coping saw, which can also cut fine detail.

Joiner & joinery

A joiner and their joinery are completely different from a carpenter and their work! The joiner's skill is in the art of preparing and fixing wood finishings in buildings. Typically these will be doors, windows and stairs – look back at the previous edition for the definition of a carpenter. I guess the joiner and carpenter could easily be confused, but it still annoys me to hear the so-called experts on TV misdescribe them, as well as other artisan skills! I suppose it's not surprising when even the trade bodies can't help with the confusion. I was trained as a carpenter, joiner and wood machinist, and certificated to an advanced craft level. This was by the then premier trade body, City & Guilds, so, one could easily ask: "What am I"? PS. There's no need to write in telling the Editor what you think!

Axminster Rider No.1 jointer plane

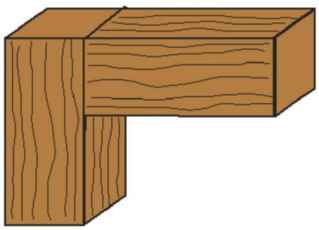
Jointer plane

Traditionally this is a long, hand-held plane that is used for 'shooting' edges, getting them flat and square, before joining one to another.

Joints

In our case this applies to any connection between two or more pieces of wood or wood products. The number out there is massive but here are a few:

- **Butt** – end or edge jointing by abutting the squared faces of two or more pieces
- **Edge** – joining two or more pieces together along their edges. May be plain, square-edged, tongued & grooved, loose tongued, etc.
- **End** – joining pieces end to end using joints such as finger, scarf, etc.
- **Finger** – end jointing by meshing together with finger-like shapes
- **Dovetail** – the most easily recognised joint



A butt joint explained

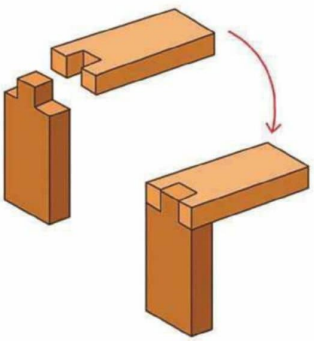


Diagram showing finger joint construction

Amazing Japanese sunrise dovetail joints by Theo Cook

A scarf joint

we make. This is a specialist, strong joint for a variety of uses

- **Lap** – this joint is made when one part overlaps another
- **Mortise & tenon** – another traditional joint using a mortise hole and a tenon that fits into it
- **Plated** – a joint that is strengthened by adding extra pieces to each face. Also known as a fish plate joint
- **Scarf** – the joining faces are cut at an angle across the grain. Several variations are used
- **Splayed** – or spliced, on one end joint, which is bevelled and overlapped.

The installation of floor joists

Joists

These are the timbers that span, horizontally, between supports to carry floors or ceilings, etc. Traditionally made from solid wood there are other variations now available. These might have wooden tops and bottoms but are webbed in the middle with metal or particle board strips.

Salvaged Moroccan pine door with Judas/wicket door in a frame

Judas holes & doors

An odd name for a door or hole you might think – I'll let you work it out! Several variations can be found. The first will be that little spy hole in a door allowing you to see who's knocking before you open it. The second, more traditional application, is in a solid wood door or doors. Imagine a courtyard with a pair of solid doors closing it off. Someone comes knocking so you open the Judas door. This is a small door within one of the doors that allows you to see who's out there. Sometimes these are solid but can be grill or mesh-like to save you opening them.

Jump saws & chop saws

Both these saws can be raised or lowered to make a cut across wood. The jump saw is usually found in a fixed framework and used for repetitive cross-cutting. Often pedal-operated the saw rises up through the workpiece when it's in position. Chop saws are more common and work the other way round. The workpiece is placed on the machine's bed and the saw is brought down and through it to make the cut. Chop saws are popular because they are portable, easily set up on a bench or stand and can cut a variety of angles.

A Grizzley jump saw

DeWalt 305mm DWS780 110V compound slide mitre saw

Kiln-dried, K.D. or k.d.

Kiln-drying wood using a Sauna wood drying kiln from Logosol

This is one form of artificially drying wood. It uses sealed chambers into which a controlled mixture of heat and steam is circulated by powered fans. This combination, if set at the right levels, will help the stacks of wood contained within to give up its moisture. There's quite a science to the process and lots of things can go wrong. If you are buying KD stuff, always ask what moisture content it was reduced to. For use in our homes today it'll need to be over 8% and less than 12%. Even within this range there might be further shrinkage.

Kerf

This name applies to the width of the cutting edge of saws be they hand- or machine-powered. To allow a saw blade to cut and work efficiently it must be able to move through the wood. The cutting teeth are 'set' slightly wider than the blade to create the necessary clearance – the kerf. If a tip has been welded on this will overhang both sides of the blade to achieve the same thing. When that old handsaw of yours is binding in the cut, it's probably in need of a sharpen and set.

Keyhole or pad saw

The keyhole, or pad saw, if you wish, is a thin, narrow-bladed saw protruding from a small handle. As its name implies, it's used to cut small holes. You need to drill a clearance hole to start if it's in the middle of a piece.

Keyhole saw from Dieter Schmid Fine Tools

NEXT MONTH

In part 22 of this ongoing series, Peter looks at more terms, including kick-back, kissing gate, late wood and laminated

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Mayflower launch day – mast and rigging still to be fitted

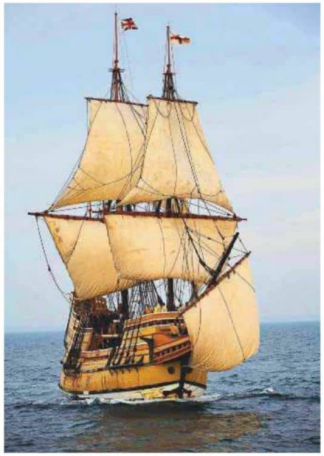
Restoring the Mayflower II ahead of its 400th anniversary

John Greeves reports on the recent restoration of the magnificent *Mayflower II*, to mark its upcoming 400th anniversary

It's estimated today that over 30 million people can trace their ancestry back to the Pilgrim Fathers. 2020 represents the 400th anniversary of this historic voyage with many planned international commemorations on both sides of the Atlantic now being rescheduled for 2021 due to the recent COVID-19 pandemic.

The original *Mayflower* was the ship that transported the Pilgrim Fathers to America in 1620. She was an 180 ton, three-masted square-rigged carrack, which had previously been used as a merchant ship and was between 90 to 110ft long and about 25ft in width. The carrack was distinguished by high 'castles' in the front and back and had three or four masts, with square sails on the first two masts and primarily triangular sails (lateen sails) on the aft masts (**photo 1**). Central to these celebrations will be *Mayflower II*, an authentic replica of the ship, which was gifted to America as a thank you from the UK for its support in World War II. The ship was built between 1955 and 1956 at Upham Shipyard in Brixham, Devon, before she sailed to the United States in 1957 to re-enact the Pilgrim's voyage.

Peter Padfield, aged 87, one of three surviving crew members, recalls this unique life changing experience he encountered in the late 1950s. At sea he was confronted with almighty winds and the threat of being de-mast. He lived on board in close proximity with other members of the 33 male crew, yet apart from one major quarrel over sharing out food, they lived in

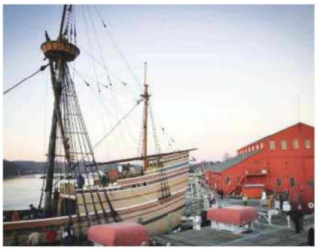


1 *Mayflower II* replica as seen from the front

2 Peter Padfield in 1957, at the wheel aged just 25
Photograph courtesy of **Peter Padfield**

Photographs courtesy of **Plimoth Plantation**, unless otherwise stated

3 *Mayflower II* voyage in 1957
Photograph courtesy of **Peter Padfield**



4 *Mayflower II Mystic* in the shipyard – 2016

5 Temporary shelter nicknamed 'the mailbox' where restoration work took place

6 Mystic workforce – up to 30 people were working on the ship five days a week

7 Wooden treenails, also called 'trennels' or 'trunnels'

harmony. Earlier on Peter experienced a vigorous regime of day and night watches (**photo 2**). He also manned the topsail for the first time, battled storms, steered the ship, literally learned the ropes and even swam in the mid-Atlantic. Quarters were cramped below deck in the 'Stygian darkness,' but for all of this, it was a "wonderful life changing experience," says Peter. His endearing memories are not of hardships but of lasting memories like "the shape of the sails against the sky and stars and the wonder of being out of touch with no television, telephones or newspapers" (**photo 3**).

Sadly, after 63 years, the ship Peter sailed in has now required a major refit with 70% of the ship's timbers needing replacement. *Mayflower II* is owned by Plimoth Plantation – a living history museum in Plymouth, Massachusetts. Much of its work focuses on replicating the original settlement of the Plymouth Colony (established in the 17th century by the Pilgrims) and the *Mayflower II* is a central exhibit of this collection. The museum has undertaken a $9 million major restoration of the ship in preparation for the 400th anniversary. This multi-year restoration is in keeping with the Department of the Interior's guidelines for historic preservation and was carried out in the Henry B. duPont Preservation Shipyard at Mystic Seaport, Connecticut, in readiness for the 400th anniversary celebrations (**photo 4**).

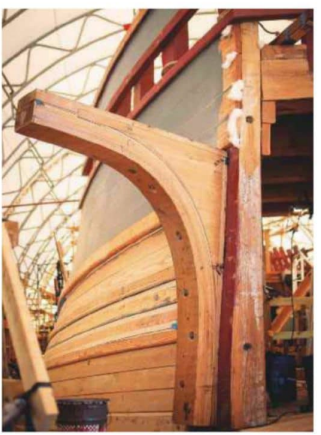
Surveying & project planning

In 2014-15, the ship was hauled out of the water for survey and evaluation. Before this was done the ship had to be de-rigged and lightened by removing 130 tons of iron and lead ballast. Concrete had been poured over to encase the metal and this concretion had in turn to be jackhammered or chiselled out to remove the ballast. Evaluation of the structure and instigating a planning process was fundamental to the project. Initial work included site planning and preparation, with preliminary engineering and milling of framing stock, knees and other essential timbers. At the time it was estimated to be a 30-month continuous regime of restoration, but this has proved to be an underestimate.

Sourcing the timber

The wood used on the *Mayflower II* is a combination of wood the Mystic Seaport has acquired over the years and that secured by Plimoth Plantation. Sourcing suitable wood posed a difficult challenge and the timber came from a number of different and sometimes unexpected places. Some wood was salvaged from storm damaged trees from Hurricane Katrina. Other repurposed wood, including lengths of long-leaf yellow pine, came from a pier built during the

8 Shipwright's hand tools, axe, mallet and chisels



9 Cathead replaced this horizontal beam used for raising the anchor

10 Cathead looking out to work on the bow

11 View of work undertaken towards the stern

1890s that was knocked down 25 years ago. Long-leaf yellow pine is used in the waterways that shed water off the ship's side. Old-growth Douglas fir harvested on the West Coast during the 1970s was acquired for the decks and for the forecastle, among other uses. White oak was sourced from Massachusetts, Connecticut, Ohio, Kentucky, Virginia and South Carolina. For some the donated trees represented more than wood and formed part of a family story. Sam Bordelon, who lived in Louisiana, had 12 live oak trees on his property that had been there for 100 years. They were coming down as part of a right-of-way by a power company and Sam offered the wood for the restoration as a way of softening the blow. Live oak is very important to shipbuilding because it is very dense, hard and resists rot better than almost all the other species in North America. Two sawmills on site sliced large logs down to manageable sizes with flat surfaces.

More impressively, 20,000 board feet of white oak was obtained from the Royal Danish Forestry Service. These boards are used for planking below the waterline and are 3in thick, 24-30in wide and 38-40ft long, without a knot or defect.

12 Fine adjustments are crafted at all times

Restoration

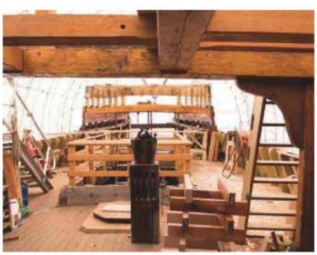
After the ship was hauled out of the water, a temporary shelter was erected over the vessel (**photo 5**). The 50ft high fabric structure protected the vessel and enabled the shipwrights to work in all weathers. To safeguard the integrity of the ship's shape, a massive cradle was fitted to the entire hull. Five large steel beams, resting on supports on the ground, also ran athwartships (side to side through the gun ports) to stabilise the ship and allowed shipwrights to remove planks, frames, floor timbers or knees without changing the ship's shape.

The immediate task for several months involved replacing the frames, keelson and planking. Out of a total of 300 futtocks in the ship, 60% approximately needed replacement.

13 Topside looking down below new timbers

Futtocks are the separate pieces of timber that together form a frame or rib and the replacements were made using live oak or white oak. In the shipyard, multiple teams

14 Securing a knee below deck



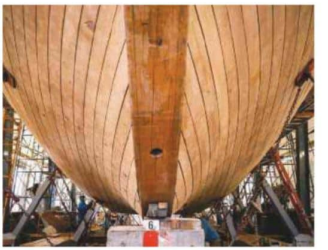
15 Heavy replacement restoration timbers are very visible in this photo

16 On the main deck up to 70% of the ship's timbers had to be replaced

17 Work on the interior and cabin

18 The interior of the cabin has now been finished

19 The last hull plank has been steamed and is now ready to fix below the wale



20 Showing restoration below the hull

21 Framework at the stern of the ship

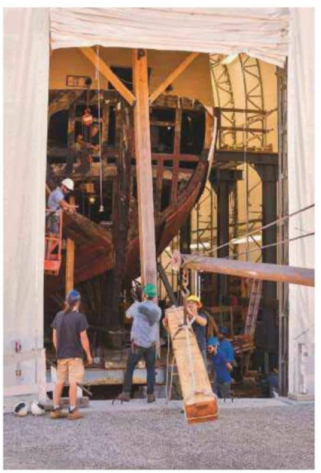
of shipwrights worked simultaneously in the different areas of the ship. Sections were carefully removed, thoroughly documented and then replaced. At its height 30 people were working on the ship five days a week (**photo 6**). The hull planking, primarily of white oak, proved to be a time consuming and laborious task. Most of the 182 planks below the waterline spent three hours in a steam box before they could be bent across the hull with only 20 minutes to set each in place. The build used black locus trunnels (tree nails) (**photo 7**) and galvanised metal spikes as fasteners.

Modern as well as traditional tools (**photo 8**) were employed – with traditional methods of construction being used throughout the restoration.

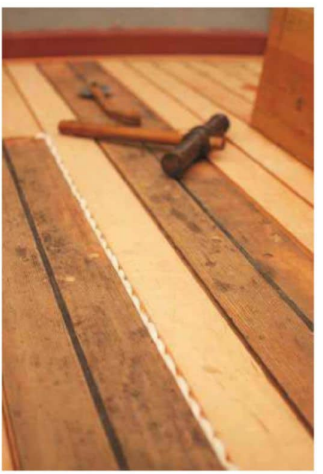
Much of the ship was replaced because so much timber had to be removed to access the rotten wood. This included replacing about half the knees (the braces that hold up the deck). Paradoxically, it's much slower and harder to restore a wooden ship, piece by piece, than to build a brand-new one. However, it's not only a history of 1620 that's important to preserve, but the 1957 *Mayflower II* story as well.

22 Heavy timber being passed through the exposed stern of the ship

23 Caulking irons and mallet



24 Heavy timbers being lifted at the stern



25 Caulking the deck

26 Using the caulking hammer

27 Inserting caulking

28 Caulking is essential to ensure everything is water-tight

29 Rope making takes place on site

One of the working teams replaced the stem; others worked on various structures (**photos 9-23**). Once a shipwright selected a piece of wood for a particular part it was rough-cut to an approximate outline of the final shape. Hand tools then took over with the shipwright using a chainsaw, power planer, adze, broad axe and slick (oversized chisel) to achieve the ultimate shape. In addition, a new foremast and mizzen mask were completed. These were stepped after the ship was relaunched. The ship has been fully caulked with ropes of cotton caulking between long lines of decking and the hull (**photos 24-28**). Separate gangs have worked on preparing rigging, while sails have been made in Maine and Virginia with the ship's old spars and blocks now restored in the maritime shop back in Plymouth (**photo 29-30**).

Recommissioning & relaunch

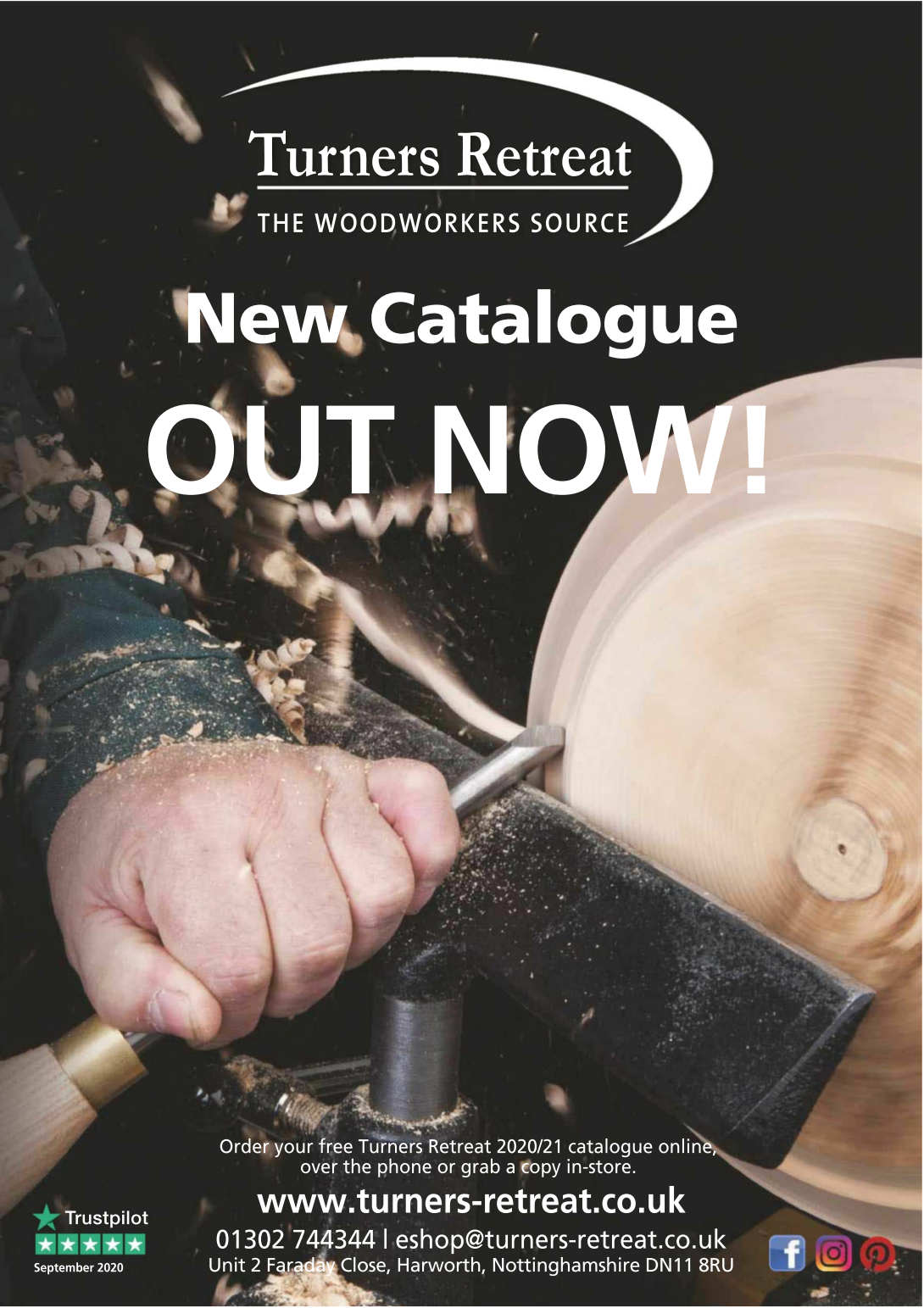
Recommissioning and relaunch took place on 7 September 2019. The ship still needed months of outfitting and up-rigging before it returned to the Plimoth Plantation in Massachusetts, in August 2020. Following the launch, the remaining stages of restoration were completed. This included installing new systems, such as a new Cummin diesel generator, modern pumps and emergency lighting. Stepping the masts, complete with a new suit of sails and re-rigging, also ensued. The ship then underwent stringent tests before finally returning to her berth at State Pier in Pilgrim Memorial State Park, on 10 August, to commemorate the 400th anniversary of the Pilgrims' arrival on New England's shores.

30 Leather chafe guard to prevent wear and tear

FURTHER INFORMATION

Plimoth Plantation – **www.plimoth.org**
Mayflower II Diary Sketches from a Lost Age, by Peter Padfield – **ISBN: 978-1-5272-4400-9**
Mayflower 400th – **www.mayflower400uk.org/events**

31 *Mayflower* launch day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MODERN TIMES

Inspired by the roaring '20s, **Dave Roberts** goes all stylish and turns an Art Deco clock

Art Deco is one of my favourite periods because the designs are so bold and daring, and I thought a clock with gentle curves and straight lines would look great. The light timber is pauamarillo and the dark timber is ebony; I chose these for their striking contrast, and they also seemed like suitable choices for the period. Other timbers will work too, and to get the black effect of the ebony, you can always use a stain or eboniser.

The clock face

The grain on the clock's face runs from left to right, which looks much better than if it runs vertically, I think. The diameter of the face is 300mm, so it will fit into the lathe with a 12in swing, allowing just a few millimetres' spare for clearance. Draw a circle on the timber and bandsaw it as round as possible. You'll be able to get two full-size faces out of the one disc, so the option's there to make another clock with the spare. I found that the best way to fix the disc to the lathe was to hot glue it on. Using screws with a faceplate is a definite 'no', because chances are

TOOLS YOU'LL NEED
- 6mm & 9mm gouges
- Parting tool
- 6mm & 9mm drill
- Combination chuck
- Jacobs chuck

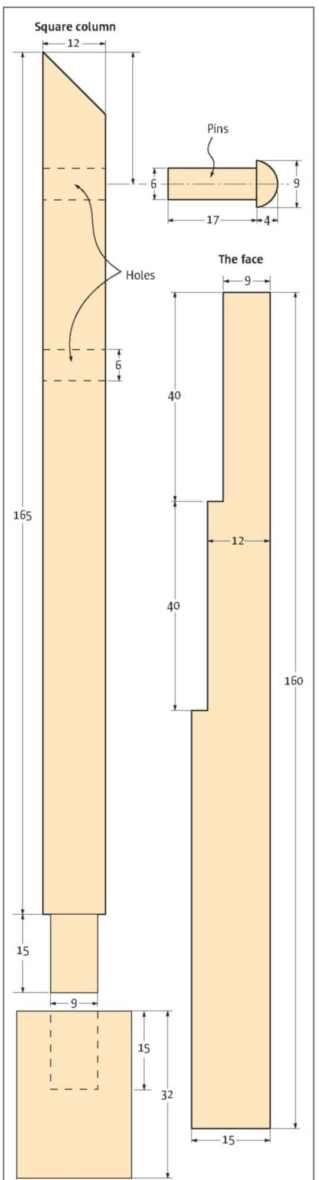


Fig.1 Columns and face

1 Bandsaw the blank round before mounting it on the lathe

2 Hot glue the blank onto a scrap piece of wood – screws are a definite 'no'

that the screws will show through when it's turned. Fix a scrap piece of wood onto a faceplate large enough to support the disc – usually just over half the size of the disc is OK – and face the disc up with a 9mm gouge to get it flat, checking it with a steel rule. Make sure that the glue gun has been on for a while so that the glue is thin and hot, then put one ring of glue on the edge of the scrap wood and push the disc on. You can use the tailstock to hold it in place while the glue sets, which will only take a minute or so.

Now, with the disc firmly fixed to the scrap wood, put the lathe on a speed of around 425rpm, and face it up using a 9mm gouge. Turn it to the finished diameter and then flatten the surface; pull the gouge from the centre towards the outer edge and, as long as it's sharp, it will soon flatten the surface. Once it's flat, pencil in where the steps are to be cut.

You can turn the steps with a parting tool; push it in slowly to reduce the chances of the grain tearing out and keep each section crisp and sharp, checking, again, for flatness. When it comes to sanding, be careful that you don't sand that crispness away. Work up through the grades of abrasive to at least 400 grit, stopping the lathe in between each grade to rub with the grain, which is the one sure way of eliminating those fine sanding marks. Apply a good coat of sanding sealer and when it's completely dry, rub it back with '0000' wire wool. Make sure it's totally dry or you may well get black deposits left in the timber from the wire wool. You could also give it a coat of polish, but remember that the polish will soon wear away with handling. Removing the disc shouldn't be too difficult. Try tapping it with a rubber mallet or you can turn part of the glue chuck away to weaken the glue joint; just go slowly and carefully. Before you cut the face out on the bandsaw, it may be worth putting some masking tape on the surface, which will allow you to pencil in where you're going to cut. The blade in my bandsaw is 6tpi and leaves a reasonable finish if you cut slowly. To get rid of the saw marks on the edge of the face, you can use a disc sander, which is the quickest way – just don't sand beyond the pencil marks. When you've finished sanding, put a square on it to check it's 90°.

Ebony strips

The columns are made from ebony, which goes well with most timbers. The downfall is that

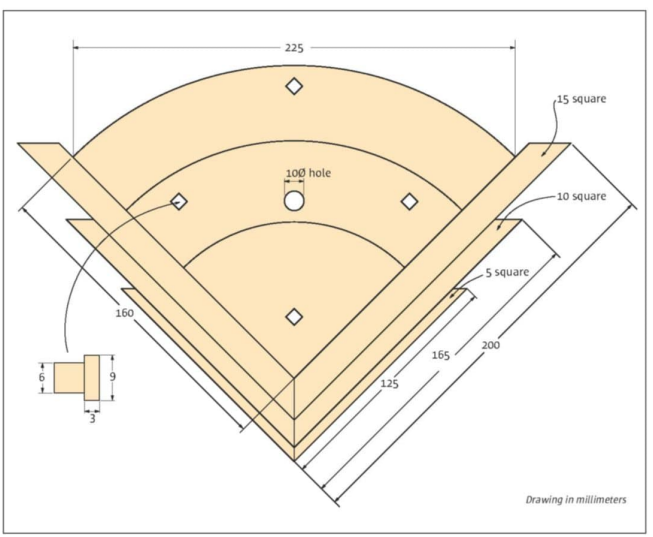
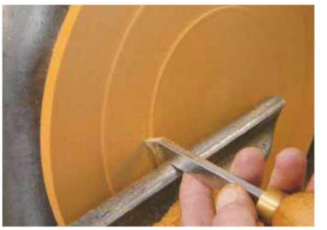


Fig.2 The face

3 Keeping the lathe on a low speed, use a 9mm gouge to face up

4 Mark off and pencil in the cut lines for the steps



5 Turn the steps slowly, using a sharp parting tool

it's expensive and dirty to work with, so the alternative is to use another hard timber and ebonise each piece when they are completely finished. To darken the timber down, you could use Indian ink, which will do a reasonable job providing the timber is dark to start with.

You can also use a spray can of eboniser, or black spray paint from Halfords; if you apply a few thin coats you'll get good results. I know which is the cheapest option, but among all the bits of timber in my workshop, I came across some ebony just big enough for this job.

Run the timber through the saw slowly, leaving it with a reasonable finish. The biggest piece is 15mm square, the middle piece is 10mm, and the smallest is 5mm. Be careful when cutting them on the tablesaw, especially the smallest piece, and ensure to use a push stick rather than your fingers.

Once all the six pieces are cut, you'll have to cut a 90° angle so that they all fit neatly to the base. The joints will have to fit spot on or you'll get unsightly gaps, but you can always tweak them a little on the disc sander to get them right. Placing them on a belt sander will be a little too aggressive and you'll probably take off more timber than you need to – especially on the two small pieces – and maybe your fingers too. I find that it's best to get a long strip of abrasive and tape it to a flat surface, allowing you to rub the timber up and down against it, which is safer and leaves you in complete control. Work through the different grades of abrasive until you have a fine finish – it will take a while but it's worth it.

You'll find it's best to seal the ebony once it's assembled and the glue has dried. Only put a little glue on when you attach it to the clock face, as too much will squeeze out and make a mess. Put the biggest pieces on first, then put masking tape on to hold them in place. Leave them for a day to set firmly, after which you can fix on the other pieces.

The base...

Just like the face, the best way to mount the base onto the lathe is to hot glue it to a scrap piece of wood so that there aren't any screw holes. The base is a simple shape, with a dome in the centre and a flat edge on the outside. Turn it to the finished diameter before shaping it up; the outside rim can be turned with the parting tool. The final cuts on the flat edge should be taken slowly to ensure a good finish, using a steel rule to make sure it's flat. Turn the dome with the gouge, which won't be too difficult if you make a template for it so that you can check progress. When all of the turning is complete, you can then sand and seal it.

... & columns

The columns are made up of two pieces of ebony joined together via spigots, and are cut and sanded the same way as the ebony on the face. The first job is to drill a 9mm hole into the small piece, which is held in a combination chuck. Fix the drill into a Jacobs chuck, then put it into the tailstock and set the lathe on a low speed. Wind the tailstock in and drill the hole about 15mm. For added support you can put the revolving centre into the drilled hole while you turn the spigot.

A sharp tool is needed to turn the 6mm spigot on the end, and you'll have to take your time – if you push the tool in too fast, you'll probably break the corners off the square block. The rest of the column is straightforward, but when turning thin items, I often put one end in a chuck and the other in a revolving jam chuck. The jam chuck is easy to make, requiring just a piece of timber (in this

6 Applying masking tape, draw the face on the disc and slowly cut it out

7 Use a disc sander to quickly sand off those edges

8 Cut the ebony on a tablesaw, using a push stick for safety

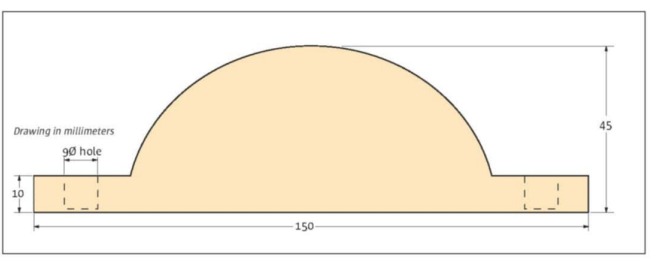


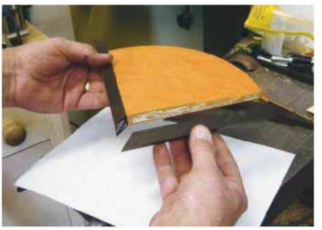
Fig.3 The base

9 Rub the ebony strips on the abrasive, using different grades

LINES OF THE FUTURE

The Art Deco style is one of the most celebrated and enduring styles of the 20th century. Its streamlined and elegant forms embody the spirit of the roaring '20s, and offer the first glimpse of the 20th century's 'modern' look. Today, it is seen as an iconic era of glamour, and is currently enjoying a widespread revival.

In 1925, the Exposition internationale des Arts décoratifs et industriels modernes was held in Paris, and Art Deco was coined as an umbrella term for the eclectic art movement that began before World War I. It received fresh impetus after the war when air travel and leisure time became more widely available. Soon Art Deco's geometric lines were sweeping away Victorian and Art Nouveau styles, and it quickly gained much-deserved global appreciation and notoriety



10 Apply a little PVA glue, and push the strips and face together

11 Use a few strips of masking tape to hold it together, then leave to set

12 Glue the base onto scrap wood and turn it to the finished diameter

13 Use a parting tool to form the flat area of the base…

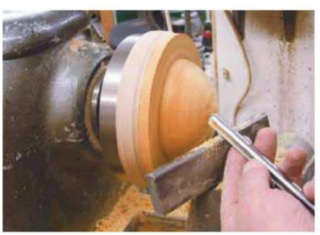
case, boxwood) that has a hole drilled in one end; it slides over the revolving centre making for a tight fit. The other end has a drilled or turned hole to accommodate the size of the timber you're turning, ensuring that whatever you put into it is automatically centred. Check the spigot using Vernier callipers – aim to get a push fit.

The ebony hour markers for the three, six, nine and 12 positions are turned the same as the spigots, but are obviously very fragile, so be careful. Make sure that your parting tool is sharp and that the lathe is set to a speed of around 2,000rpm. The face is connected to the columns via turned pegs, with a little help from PVA glue. Hold the piece of timber in a Jacobs chuck while you turn them, using the tailstock to support the other end. The most important thing for these pins is getting the diameter right, so check them with Vernier callipers. Round over the ends and remove the tailstock.

Drilling the holes

As you can imagine, successfully drilling holes is a vital part of making this clock. The holes for the hour markers are 6mm in diameter and 5mm deep. Find the centre of the face, stick down some pieces of masking tape and use a pair of compasses to mark where the hour markers will be drilled; the masking tape saves you from marking the face. Set the depth gauge on your pillar drill to make sure you don't drill all the way through, and go slowly.

For the quartz clock movement, drill a 10mm diameter hole, this time going right the way through. Quartz movements aren't very expensive at about £3, and they come as small,



14 … and a 9mm gouge to form the smooth curve of the dome section

15 Drilling the holes for the ebony base blocks requires a combination chuck

16 Bring the tailstock up for support while you turn the spigot

17 Place one end of the column in a revolving cone to turn the spigot

18 Fix a piece of ebony into a Jacobs chuck and turn the four hour markers

19 The pins are held in a chuck and supported by the tailstock while you turn them

20 Mark the hole for the clock movement and drill it slowly

medium or long reach, depending on the thickness of the face. Mine is long reach.

Now you can drill the 6mm holes at the top of the columns where they connect to the back of the clock via the pins; drill right the way through the columns. Next, hold the columns against the back of the clock and mark out the holes onto the clock. There are four parallel holes in the 15mm ebony section and the main part of the face; when drilling them, take care not to go all the way through. The last holes to be drilled are in the base to accept the columns. Mark them out evenly and again set the depth stop on the drill so as not to go all the way through.

Assembly

When it comes to fixing it all together, remember not to use too much glue as it will only make a mess and spoil your fine work. When you glue the columns to the back of the clock, it would help if you put a small clamp on each column. You can protect the surfaces with small bits of plywood and then leave it for 24 hours to dry.

With all the handling you will rub off any polish you've already applied, so when dry you can polish it by hand.

21 Drill the holes for the base with the pillar drill; set the depth stop

22 Slowly and carefully assemble the clock, not applying too much glue

DESK BOUND

Geoff Ryan shares a quick and easy way of building a substantial flat-pack desk with the option of adding a separate printer/storage unit

1 Shaping the rear support panel

COVID-19 has led to many people having to work from home and, for my son-in-law, that looks like how it will be for the foreseeable future. I had built a small desk for him in 2017 as he occasionally worked from home, but it wasn't big enough for his new setup with two large screens, plus he needed somewhere to house a printer.

Why use kitchen worktop?

I've built two previous desks and other furniture items using solid wood kitchen worktop held together with pocket-hole screws and they have stood up very well to hard use. I used 40mm beech worktop for the top and front apron of my workbench and it has provided an excellent sturdy surface to work on. The worktop panels are built up from carefully machined staves of wood, which are flat and stable and require only a light sanding before applying a finish. Although they may seem expensive you would probably find buying and processing hardwood boards at least as expensive and a whole lot harder. Gluing up a large panel from boards and the subsequent problem of getting it flat and true is not for the faint-hearted and would be a challenge for most amateur woodworkers.

The range of wood species is extensive with oak, beech, sapele, walnut, cherry, zebrano, maple, birch, iroko, wenge, and bamboo readily available. So far I have only used beech and oak as they generally provide the best value for money. Thicknesses are usually 22mm, 27mm and 40mm. The basic worktops are 'good one side', which means while the other side is flat, there may be some minor defects with filler. If both sides will be on view you can opt for 'prime' quality if you don't mind paying more.

2 Dry run assembly – no screws yet

I buy my worktops online from **www.worktop-express.co.uk** and have been pleased with the service they provide but there are other suppliers, so check out prices and delivery costs before committing. Some will send you samples either for free or a small charge to cover postage. As an example of cost, a 3m × 620mm × 27mm thick worktop is £165 plus delivery and will make a desk up to 1,400mm long × 620mm wide × 700mm high, including using the offcut to make support braces for the sides. If you were to use 22mm thick worktop, you would have to ensure the joint between the sides and the top were adequately braced to stop the desk racking and the screws pulling out.

Construction

As this was to be a fairly big desk (1,400mm long × 720mm wide × 700mm high) and I wanted it to look sturdy and substantial, I chose a 40mm thick worktop for the desk top. For the sides and other components, I used the 27mm thick worktop. The total cost including delivery was £384.

The desk construction is straightforward and

TOOLS & MATERIALS REQUIRED

Tools

- Circular saw and straightedge guide or plunge cut saw with guide rail
- Router with bearing-guided round-over bit – size to suit the thickness of worktop or your round-over preference. I also used a bearing-guided straight bit to create a cut-out, but this is not essential
- Pocket-hole jig
- Power drill for pocket-holes
- Driver for pocket-hole screws
- A jigsaw is useful if you want to add shape to any components
- Dovetail jig if you are adding a drawer and don't cut them by hand – you can use other methods of making a drawer if you don't want dovetails

Materials

- Oak worktop: 2m × 720mm × 40mm
- Oak worktop: 3m × 620mm × 27mm
- Rear panel (400mm × 340mm in this case) for printer/storage unit (if you don't want to use more of the 40mm worktop – I used some oak-veneered MDF)
- Pocket-hole screws – use the longest screws you can depending on the thickness of materials you are joining. I used 38mm screws to join the sides to the 40mm thick top
- Castors and handle for the printer/storage unit
- Suitable finish

Drawer for the printer/storage unit

- Wood for drawer fronts and sides – I used some recycled oak
- Plywood or veneered MDF for the drawer bottom
- Drawer slides

4 Maker's inscription

3 Rear view of the support panel

5 Sanded and finished support panel

6 Leg brace

7 All squared up

8 Rear cut-out for cables

9 Rounding over the edges

it can be flat-packed for transport as it is only held together by pocket-hole screws. If you wish you can use glue as well as the screws, but the size and weight will make it difficult to move from room to room should you need to.

I started by cutting the worktops to length using a plunge cut saw with guide rail. I do this on my workbench having placed some sacrificial pieces of MDF on top to protect the surface and provide additional zero-clearance to the bottom cut. The worktops are supplied slightly over-length so you can trim the ends to remove any dents and ensure they are square. For the 40mm thick top, having trimmed one end, only one more cut was required at 1,400mm (with the 600mm offcut I can make six clocks, which I can sell at a craft fair – if there ever is such a thing again!). From the 27mm thick panel, having trimmed one end, two desk sides were cut at a length of 660mm each. The remaining piece was then cut along its length to provide a 400mm wide board for the printer/storage unit and a 217mm wide strip for a support panel for the top. The 217mm wide strip was then cut to length at 1,196mm – when placed between the sides this means the top will overlap by 75mm at each end (**photo 1**).

Rather than leaving the support strip 217mm wide for all its length, I trimmed and shaped it to improve how it looked (**photo 2**). A line was drawn at 100mm from the top edge and some curves introduced at each end using the bottom of a paint can to draw around. The straight line was cut using a plunge cut saw and the curves using a jigsaw. The curves were cleaned up using a drum sander, but this could be done by hand, and the bottom edge rounded over using a router. **Photo 3** shows the finished support panel – the holes near the ends were added to support cables to the printer/storage unit, which can be positioned at either end. Plenty of pocket-holes were cut on the rear face where they will not be seen, nor will the maker's inscription shown in **photo 4**. The sanded and finished panel is shown in **photo 5**.

From one of the offcuts a triangle was cut to act as an additional brace for the side opposite the one the printer/storage unit will sit (**photo 6**). Pocket-holes were then cut in the rear face.

Having decided which end of the sides will be the top, a total of nine pocket-holes were cut on the inside face where they would not be easily seen (**photo 7**). Before all the edges were rounded over and sanded, all the panels were fixed together using pocket screws in a dry run. **Photo 7** shows that the sides were dead square to the top when tightened up, which is only possible if your saw has been carefully set up! So that the desk can be pushed up against a wall, a cable cut-out was added to the rear edge. An MDF template was first made and, after cutting out most of the waste with a jigsaw, routed out with a bearing-guided straight cutter to create the cut-out (**photo 8**). The burn marks created by the rounding over bit were not deep and easily sanded out. **Photo 9** shows the setup for rounding over the edges. In order to help stop the router tipping, a support board was fixed parallel to the edge – to get it to the same height as the 40mm top some packing was required. Note the hi-tech rubber band solution for keeping the vacuum hose in place – the dust extraction on this router is the best I have ever come across. Both the top and bottom edges were rounded over then each front corner was further rounded using a rasp and abrasives to eliminate any sharp edges.

10 Raised grain

11 Top after three coats of finish

12 Printer and storage unit

Finishing the desk

Cutting the panels had revealed a couple of small voids and slits in the edges and I filled these with a two-part epoxy to reduce the risk of them getting bigger. All flat surfaces were sanded with a random orbit sander using 180, 240 and 320 grit abrasives. I use Abranet discs as they allow for superior dust extraction and seem to last well. All rounded edges were then sanded by hand to 300 grit. After sanding, all surfaces were dampened with water using a sponge so as to raise the grain (**photo 10**), before being sanded again. Three thin coats of water-based clear satin polyurethane varnish were applied to all surfaces using a foam brush with a light sanding between coats to deal with any more raised grain. If you do as it says on the tin you would only sand before the third coat, but for the best finish I sand after each coat. As it is a water-based finish you might find the grain keeps rising even after three coats so you might have to apply more, but as it dries quickly you can apply several coats in one day. The top (**photo 11**) was left for a couple of days after coat number three. It was then hand-sanded with 400 grit and, after running my air filter for an hour to minimise any airborne dust, one more coat of varnish was carefully applied. Once the varnish has hardened for a couple of weeks, I recommend applying some furniture polish to the top surface.

13 Installing the drawer slides

14 Fitting the drawer

15 Assembly on site

The printer/storage unit

My original design for the desk incorporated a fixed drawer unit, which could be installed on either the left- or right-hand side of the desk. However, I had previously built a desk for myself with freestanding drawer units on castors, which had proved very versatile, so I decided to go with that option again. **Photo 12** shows the finished unit. The dimensions were chosen to provide a top space bigger than the size of the printer to allow for future upgrades. The front panel is 400mm wide × 590mm high and, once the castors are added the total height is 640mm, so it will easily slide under the desk, which is 660mm high to the underside. The top and bottom shelf are both 400mm wide by 500mm deep and the top shelf is set 200mm down from the top edge of the front panel. For the rear panel, I could have used some of the leftover 40mm board but I wanted to keep this for other things, so I used some 18mm oak-veneered MDF I already had with some matching iron-on veneer for the exposed edges. All boards are joined using pocket-hole screws and again, having taken care to cut everything at 90° the whole thing went together dead square. Again, you could add glue to the joints. The handle I used was recycled from an old kitchen cupboard and was positioned such that the rear fixing screws are hidden by the top shelf.

A drawer is optional and there is space for two if you wish. I opted to use drawer runners (recycled from a redundant kitchen cupboard) that can slide out on either side so the unit can be positioned on either side of the desk. The width of the drawer needs to be carefully determined as ball-bearing guided runners only give you a small amount of leeway. It is also essential the two sides that the runners are to be fitted to are parallel. For the drawer I was fortunate to have been given a recycled oak board about 2,400mm long × 160mm wide × 18mm thick. The board was finished in a dark varnish and after running it through the planer/thicknesser, I was delighted to find it was very nicely figured and quarter-sawn. There were some screw holes along its length but these were well spaced out and I was able to use the sections in between. I used an INCRA jig to dovetail both the drawer fronts and the bottom is some 3mm oak-veneered MDF set into slots cut into the sides and fronts. I now cut through slots on the tablesaw using a good quality combination blade, which has flat-topped teeth and find it quicker than using a router where you might have to make several passes to achieve the required depth. If you want stopped slots, then the router is the best option. The top and bottom inside and outside edges of the drawer fronts were rounded over to provide a smooth handhold for opening and closing the drawer – no handles or knobs are fitted as these would catch on the desk sides when the unit is pushed home.

To position the drawer slides, I turned the unit upside down on the edge of my bench and used an old spirit level as a spacer to set their position (**photo 13**). The drawer was then inserted (upside down) resting on some scraps of flooring laminate to give some clearance to the underneath of the shelf before being screwed into place (**photo 14**). The whole unit was finished in three coats of polyurethane, the same as the desk.

Assembly

The desk was assembled upside down in the room it was to inhabit. **Photo 15** shows the leg brace (**photo 6**) fixed between the top and left side. If no printer unit is to be made, then a brace can also be fitted on the right-hand side. To ensure all the pocket-hole screws were equally tight, I used a ratchet spanner (**photo 16**), but be careful not to strip them out. A multi-way socket was also fitted to the rear of the support panel. When turned right side up, the desk should be lifted sideways to avoid stressing the side fixings but can be slid back and forth with no risk of damage. **Photo 17** shows the desk in position with the printer/storage unit in place.

Quality control

Always check the client is pleased with the job you have done. After close inspection (**photo 18**) satisfaction was expressed with "granddad, please will you make me a desk like daddy's?"

16 Checking screws are tight

17 The completed desk

18 Final inspection

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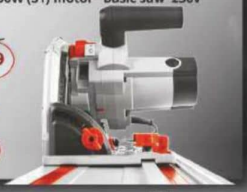

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Shoreditch College remembered

Jeremy Broun recollects his time at the unique **Shoreditch College** – the stories, the projects, the people, and in particular his tutor, John Penfold, whose methodical approach stood out as inspirational

There is a saying that 'Great institutions are built on great characters' and this is certainly true of the legendary Shoreditch Teacher Training College, a few of whose characters were mentioned recently in the magazine. Anyone attending this foremost UK handicraft teacher training college in the 1960s, as I did, would remember Ted Marshall, R A Williams (successive principals), 'Stroppy' Jack Maynard, Mr Sawdy, Sam Bowden and 'Chic' Fowles, just to mention a few.

'Stroppy' Jack Maynard reprimanded me for demonstrating to the rest of my group cutting a mortise & tenon sitting on a sawhorse. I felt that you needed to see what you are doing and get down to eye level to do that, but it was unheard of in those days to sit down in the workshop. Who knows what he would think of woodworkers today wearing gloves when using a router – not my advice!

The mention of 'Stroppy' Maynard in the magazine naturally aroused my curiosity, so I Googled the lecturer who I recall as standing head and shoulders above others at 'Ditch' in shaping my own career, the year being 1963, and his name was John Penfold. Sadly he passed away in 2019 as I discovered in an obituary in *The Guardian* online by his daughter, Sarah Feazey. He touched the lives of many more besides me.

Optimism & opportunity

Before I relate John Penfold's profound influence on me, let me first paint the scene of this all-male 500-strong college, not sited in the East End of London but moving to Coopers Hill overlooking Egham in Surrey, a stone's throw from Runnymede. The college was a large Victorian building (used for a film with Hayley Mills and Elizabeth Taylor in it) and its campus included modern residential blocks. On the new tarmac chicane bends between A and B block halls of residence, I would give lecturers and my girlfriends rides in my Morgan three-wheeler. The practical jokes were legendary. This was the 1960s, a far cry from political correctness, snowflake and woke attitudes, but a time of great optimism and opportunity radiating from the capital: Carnaby Street, The Beatles, Mary Quant.

Best in the land

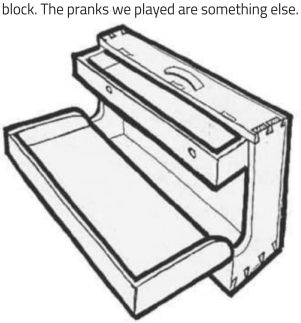
As a fresher straight out of school, little did I realise that the compulsory Shoreditch College style toolbox, which suddenly had to be built, was an initiation hoax. We had to build it in a weekend ready for Monday morning lectures. Fortunately, I had gained a GCE A level in woodwork at school but this test certainly sorted out those students who thought they could bluff their way into the country's foremost college, and the country badly needed teachers at that time, so there was a lot of bluff! The 'examiners' were of course third year students posing as lecturers! In my second year, I watched the incoming freshers being herded and stripped to the waist in a line with white-coated medics with stethoscopes listening to their hearts. The line split into two: pass and fail.

Jeremy Broun cutting mortises for a pottery display unit commissioned for the late Dame Lucie Rie

The completed pottery display unit

How did they (we) get away with it? Also, while tennis courts were being built, some of the turf was mysteriously transferred to the assembly hall stage and lectern for the principal and his staff for one Monday morning student address. The principal delivered the usual speeches without neither he nor the staff batting an eyelid. That student prank misfired. As he exited he briefly turned round and said: "Put it back neatly, please." But it showed the tremendous spirit between students and staff and we even had an entertainment/talent show involving the best talent of both each year. The proof was in the eating of the pudding – the final year show of student work was always the best in the land.

This gives a taste of an incredible college of its time. It was full of characters. In my third and final year, I had a room next to Andrew Varah (sadly deceased but known to many woodworkers). He was social secretary and invited me and three other friends to have the best rooms in the college in the old college block. The pranks we played are something else.



The Shoreditch College toolbox

Many years later Andrew Varah, John Makepeace and I were invited to speak at the Irish 'Create' event (hosted by Joseph Walsh) and during question time, Andrew related his experience of perfecting his veneering skills at Shoreditch College 'that Jeremy and I attended' and when the microphone was passed to me, I said I simply didn't recall that at all: "What I recalled was while I was honing my craft skills 24/7, he was out with the girls." In the 1960s that referred to young women students at the nearby University of London Royal Holloway College. The truth is that I had time for both, but skill, whether social or woodworking, was honed at Shoreditch College.

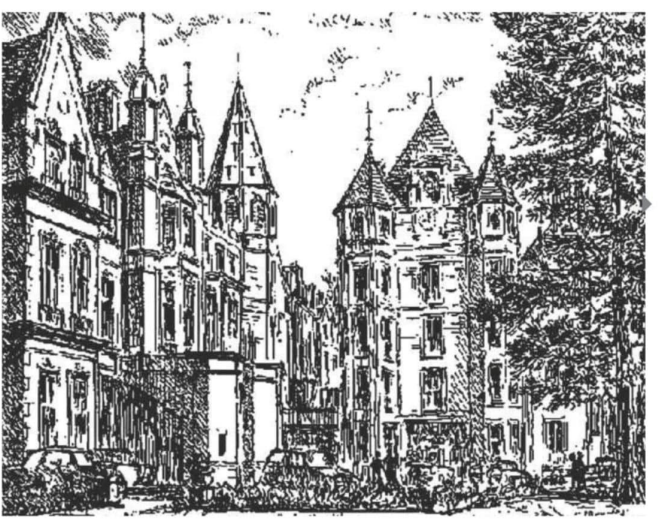
The Cinderella of the school curriculum

At Shoreditch the first year was spent learning a variety of different material handling techniques; the different crafts of woodwork, metalwork, ceramics, basketry and bookbinding. Then some of us specialised in the second and third years – I pursued an advanced wood course.

The strong recollections that shape one's journey in life are of those few rare teachers (if one is lucky). John Penfold, then probably the youngest tutor at Shoreditch College, impacted my life greatly. Memories are crystal clear now over half a century later as he was my first year wood lecturer.

In Mr Penfold's highly detailed demonstrations, the first year groups made an upholstered music stool – four mortise & tenons, square sectioned parallel or tapered legs, side rails and end rails. I chose Burmese teak and tapered the legs. Danish oil was used.

Mr Penfold had presence. He was an athletic, good-looking, blonde-haired man, neatly

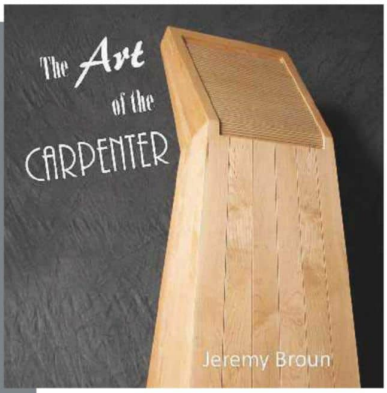


Line drawing of Shoreditch College by John Spencer
Photograph courtesy of **www.shoreditchcollege.org/pages/history.html**

John Penfold in recent years
Photograph courtesy of **Sarah Feazey**

THE ART OF THE CARPENTER

Jeremy Broun's latest book, *The Art of the Carpenter*, is a beautiful hardback showcasing over half a century of one of Britain's best known and most innovative woodworkers across a broad spectrum of woodworking disciplines. Each copy is signed by Jeremy himself and priced at £19.95 (plus P&P). Order your copy direct from the website: **www.woodomain.com**



presented, with an air of knowing exactly what he was doing. All the tutors at 'Ditch' were exceptional master craftsmen and they demonstrated to each group. What impressed me was that he worked precisely and at speed while delivering key instruction slowly and concisely with a relaxed but clear voice – a very good voice. His demonstrations were short. This was to prove a valuable teaching model for my entering tough London schools for teaching practice where the attention span of pupils wasn't that great.

His demonstrations were well planned, the bench set out with all the components and tools needed and the tools razor-sharp. Everything was tidy. Method was absolutely pivotal and the first thing to do was set out and label each component of the project.

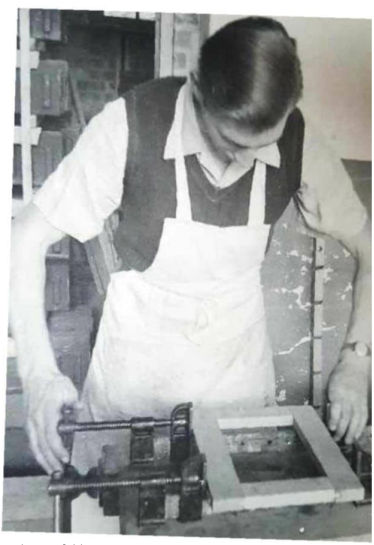
It is staggering to think that being a furniture designer/maker today is prestigious and among some of the most expensive courses, yet back in the 1960s it was the Cinderella of the school curriculum. Pupils were lucky to get an hour and a half a week of woodwork lessons, so the way the projects were planned with deadlines set and time left for tidying up and returning tools to the central tool cabinet was essential.

I was lucky; I was naturally gifted at woodwork and went on to gain a distinction at Shoreditch College, but the one thing above all else that I shared with John Penfold is that the piece of woodwork that stands out from the crowd is the one that is crisp, and this is as much an attitude of mind of planning ahead and getting it right first time as well. The sharpness is something you immediately observe when judging cabinetry and of course today the benchmark among professionals is very high.

The late Alan Peters OBE attended a two-year course at Shoreditch a year or so before me. Many of the students pursued a teaching career across the land, some making the transition to Design and Technology as Handicraft as a subject diminished. In fact it was, as Shoreditch College in the late 1960s changed its name to 'Shoreditch College of Education' and a new Bed course in CDT was established. A decade later, when the college was threatened with closure, John Penfold, with another colleague, negotiated the merger of Shoreditch College with Brunel University in 1980.

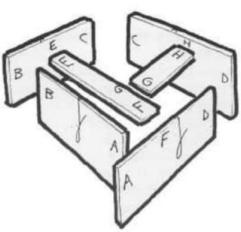
John Penfold (1930–2019) was a man who strived to make a difference, enhancing the lives of others through his example, his warmth, his great knowledge and artistic skills, and a man truly ahead of his time. And he really was ahead of his time, evident in his 1988 book *Craft, Design and Technology: Past, Present and Future.*

Shoreditch College was quite unique and tends to challenge that cliché: "Anyone who can remember the '60s wasn't really there."



John Penfold circa 1963 and as Jeremy recalls him

Shoreditch College old building



Labelling components is essential

A selection of Jeremy Broun's Shoreditch College projects

I traded my corporate career for woodworking and couldn't be happier

School Principal **Tom Fraser** talks to student **James Bullen** about how he came to study at **The Chippendale International School of Furniture** and his experience of learning there

We welcome students from hugely diverse backgrounds to study furniture making with us. Often, students have discovered a passion for woodworking that emerged later in life and are now acting on their enthusiasm to craft a fulfilling creative career.

These career changers have often realised their former role wasn't quite as fulfilling as it once was – and this is exactly what happened with current student James Bullen.

From London to Canada

After leaving his high-profile role as a commodities broker in London, James dabbled briefly in the restaurant business before investing in a technology company – giving him the ability to work from anywhere.

He packed up his family and made the move to a remote island in Canada, just off the coast of Vancouver Island, where they lived for six months in a log cabin during winter.

It was here that he took his woodwork from a hobby to new levels, trying out more projects; making a smoker for an off-grid neighbour and a bench for a homestead. Through these projects, he developed the desire to 'do things properly' as opposed to experimenting and picking up skills through YouTube videos.

Returning to the UK to reset the family's visas, James was determined to expand his woodworking skills so he could put them to good use. His research led him to our one-of-a-kind School in East Lothian, with our intensive nine-month Professional Course being the main draw.

An "extraordinary" learning experience

James started on our 2019/20 course and describes his experience to me as "extraordinary," saying: "I couldn't be happier – I have learned so much already, and not just the practical side of woodworking but also advice on how to start and market your own business and present a professional design to clients."

He further explains what he loves about studying with us: "The tutor-student ratio is excellent, allowing them to help and advise students as and when it's needed. The School tries to make sure that everyone's learning styles are catered for and that students have knowledge of all aspects of running a business"

A highlight for him has been our expert guest lecturers, commenting: "I have loved learning from these highly-skilled professionals, and they have passed on knowledge and tips that are invaluable."

James and his daughter in the workshop


One of James' completed designs


James at work on his Windsor chair

Making bold moves

James has faced his share of challenges, explaining that the main one is "... probably procrastination! Finding the confidence to work independently and not be afraid to make mistakes is a challenge, but the tutors help gives you the confidence to trust your judgements and make that first cut."

Despite the challenging circumstances 2020 has brought, James has nonetheless seen the positives: "I have had lots of time at home to practice and develop and have already had several commissions to build furniture."

So, what's next for James?

"My family and I would like to open our own woodwork school back in North America. Having the qualification will hopefully aid in our visa application and having the Chippendale School name attached to the qualification will hopefully inspire our future students, as it is a recognised brand."

Should you take the leap?

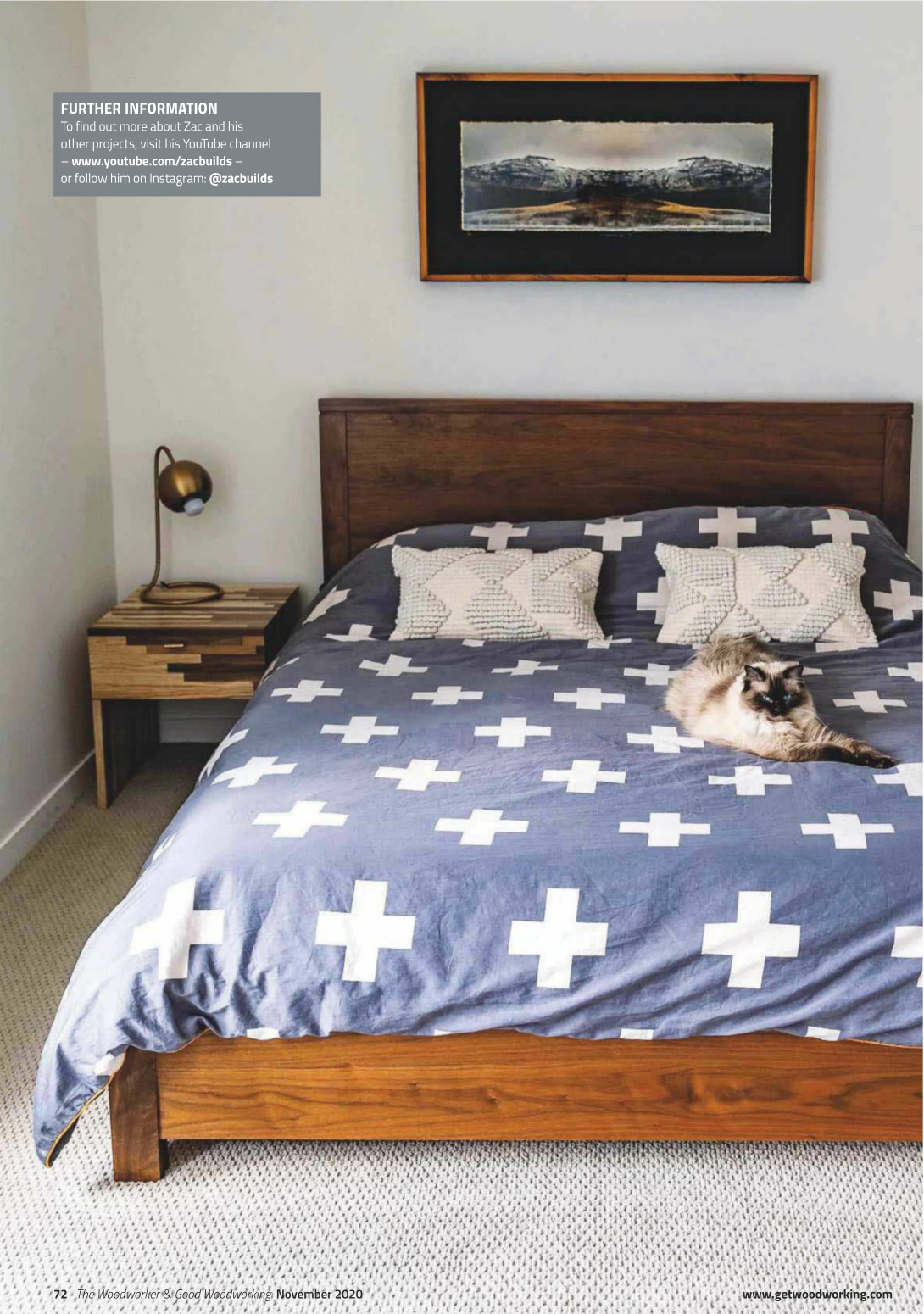
If you are considering making a career change and dream of turning your woodworking hobby into a career, James wholeheartedly says to go for it: "I would advise anyone who is considering the course to go ahead and do it. It's the experience of a lifetime and whether you are a serious hobbyist or a professional, you will gain skills and knowledge to create some truly beautiful and bespoke furniture.

"I definitely feel I now have a purpose and a plan for the future, and I feel really proud to be able to achieve a professional qualification."

FURTHER INFORMATION

If you're thinking of changing career to study woodworking, check out the Chippendale School's intensive 30-week Professional Course: **www.chippendaleschool.com/cabinet-making-courses/professional-course**

FURTHER INFORMATION
To find out more about Zac and his other projects, visit his YouTube channel – **www.youtube.com/zacbuilds** – or follow him on Instagram: **@zacbuilds**



FROM DARK TO LIGHT

Zac Matchett-Smith makes a pair of bedside tables by cutting lengths of walnut and ash into thin strips before setting about gluing them all together

What a project this was, let me tell you! it probably took me close to a month to finish. I was only working on it in my spare time, during weekends and after work, since my day job has been really busy lately. This is definitely one of my longest projects, but totally worth it! I'm really happy with how they both turned out.

Before we get into the rest of the article, if you haven't done so already, then do take a look at my Instagram page: **@zacbuilds**.

Years ago I saw a coffee table that had a mosaic wood pattern, which slowly transitioned from darker to a lighter wood, and it's been stuck in my mind ever since. Recently, I was trying to brainstorm some designs for a bedside table for my bedroom and decided to finally do my own take on it. In fact, I liked the project so much that I decided to make two of them! As you can see, each bedside table is approximately 50% ash and 50% walnut. I wanted each bedside table to 'fade' from the darker wood (walnut) to the lighter wood (ash).

As you can see from the photo here, my bed frame is made of walnut, so obviously, the walnut side of each bedside table faces towards the bed frame. As you move away from the bed frame, the bedside tables transition to ash. In the future, I'd like to build on this concept and add some ash shelves in the corners on either side of my bed. I think that a couple of triangular shelves in each corner will look good.

Please note that in some of these photos, machines are shown without the appropriate guards in place.

1 This is the small pile of wood I started with – some 4×4 ash and 4×4 walnut. I had about 20 board feet of each type of wood. I bought it at a local mill and it cost me around £85. This was the bulk of the cost of the project, but I used a lot of timber I already had. I'd say I had a good £30 in other miscellaneous expenses, such as glue, wood filler, etc. When I was choosing my wood I tried to pick pieces that had as few defects as possible, which would maximise my yield. It helps that I cut everything up into small strips, but even still, any cracks or missing knots can make a piece unusable. I also tried to pick pieces that divided nicely into 25mm increments, as that's the width I'd be cutting everything to

2 To start, I cleaned up every piece of wood by running it through the planer. This process removes a thin layer from the top of the wood, exposing the nice smooth surface beneath. I repeated this process many times until each piece of wood was of a uniform thickness. By the time I'd finished, I was three hours older and the wood was about 20mm thick

3 The contraption shown here is called a straightedge jig. I used it to remove the slight bows from my piece of wood. After placing the concave side of the wood against the jig, you can then push it through the table saw and cut a perfectly straight line on the opposite side. Then, once you have a perfectly straight line on one side, you can work off that line and be confident that all of your subsequent cuts will be nice and straight as well

4 Once I knew all my wood was straight and of a uniform thickness, I set about cutting it into smaller strips. I set my table saw to 2mm and began ripping. I pushed each and every piece through until I had a selection of 25 × 20mm lengths of ash and walnut. Again, this was pretty time consuming

5 After everything had been ripped into long and thin pieces, I cut them into random lengths using my chop saw (mitre saw). I stuck to lengths between 305 and 914mm so that I wouldn't have any pieces that were too small or too big

6 Finally all the cutting is done! Here you can see all the individual pieces that would come to make up my bedside table. Getting to this point basically took me all day. I know it doesn't look like much, but prepping and cutting the wood is normally one of the most labour intensive parts of any project I undertake

7 Here you can see I've organised all those individual pieces of wood into a pattern that I like, starting with walnut on one end and ending with ash on the other. I'm planning on gluing all these pieces together, but I haven't yet. This is my 'dry run', which I use to figure out my layout and set everything up before I start gluing. It saves time during the actual gluing process. It's a race against the clock to get everything done and set in place before the glue starts to dry. I also took the time to wrap my table with plastic to make for an easier clean-up. When time is of the essence, you don't need to be worrying about glue drips and spills. Doing big glue-ups like this tends to be a messy affair

8 Tick tock! Here we go! I rolled each piece over onto its side and then applied a generous bead of wood glue. Once every piece had some glue applied to it, I rolled them back over and pushed them together. Like I said before, try not to worry about making a mess when you're doing this. You're just focusing on getting everything glued and then back into position before it starts to dry

9 With all of the glue applied and the pieces in the correct position, I was ready to start clamping. I clamped my new wood mosaic in seven different spots using big bar clamps. Again, in the interest of saving time, I had preset all of my clamps to the right size during the dry run phase. So when it came to this step, I could just drop the clamps into position, spin the tensioner a couple of times, and I was good to go. It's all about working as efficiently as possible when you're doing a big glue-up

10 After I'd completed the big glue-ups, I carried out some smaller ones for elements such as the drawer fronts and the back of the bedside table. This is the same process, but I wasn't nearly as stressed out about time when completing these smaller glue-ups

11 The next morning I came back to the workshop and got to work removing all the clamps. After they had been removed and I flipped the wood over, this is the mess I was left with. All of those stains are the excess glue that was pushed out during the clamping process. It doesn't look great right now, but this is actually a good sign. If I didn't see all this dried glue on the underside, I'd really be questioning whether I'd used enough glue, otherwise I'd be worrying that my bedside table may fall apart!

12 Using my belt sander and some 80 grit abrasive, I smoothed the entire surface. Sanding down high spots and smoothing out any low spots over a large area, I worked to make it as flat as possible. I took random breaks to check my work and apply wood filler to any small gaps between pieces. I really wish I had a giant planer I could feed this whole thing through, but for now, the best I have is a belt sander. This is the part of the process where photos don't really do the amount of work any justice!

13 So I'm about 1.5 days into the build at this point, and so far all I have to show for it is this flat slab of wood. Granted it's a pretty cool slab of wood, but I think it's time to give this thing some actual shape. That piece of wood, though, is going to form the bulk of my bedside table – it just doesn't know it yet! I spent some time figuring out all the cuts I would have to make and visualising how it would all go together. Using light pencil marks, I actually traced out every cut and mortise I would need to make onto the surface of the wood. Don't worry about the pencil marks; they sanded off easily later. This made it so much easier to visualise what I was doing and really helped to prevent mistakes down the road

14 With all the planning out of the way, I was ready to grab my track saw and get to cutting. This part was actually pretty easy because of all the planning I did previously. I knew exactly where I had to cut and what angles were necessary. It's important to note, though, that because I wanted my bedside tables to have a continuous grain pattern, I really only got one shot at each of these cuts. If I messed one of them up and had to do it again or use a different piece, it would've been really noticeable. Similarly, because I wanted to have the cleanest mitre cuts possible, I had to carry out all of my track saw cuts in a single pass without any stopping and restarting. Luckily it all went to plan

15 All those track saw cuts left me with these three pieces (well actually six because I was making two bedside tables). The middle piece is 457 × 18 × 483mm and the two pieces flanking it are 483 × 483mm. Hopefully, from this photo, it's pretty obvious how the whole project folds into shape

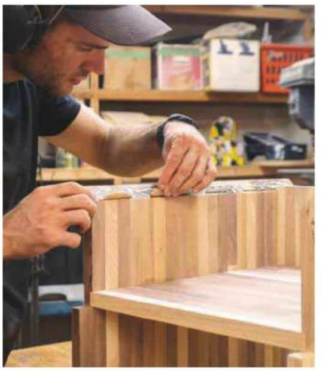
16 Before I could start on the assembly, I still had some mortising to complete on each piece. I set the table saw blade a quarter above the table surface and cut the mortises by removing one blade of material at a time. I probably should've done this with a dado blade or router, but I find that sometimes setting up the dado blade takes more time than just carrying out multiple passes with a regular blade

17 I had to cut a notch in the front face of the bedside table to recess the drawer fronts. I did most of the heavy lifting on the table saw, but in order to finish off the cuts, I used a flat saw. Finishing the cuts by hand gave me more control and made for a better finish. Plus, I always feel a bit more professional when I'm using hand tools!

18 Here's a photo showing the mortises and notch cut-out after I had competed the work on the table saw. Try and ignore the part on the left-hand side where I made a mistake and ended up cutting too far...

19 To hold my mitred corners together I used a biscuit joiner. The biscuit joiner cuts pockets in the wood into which you can insert wooden 'biscuits'. If you have two pieces of wood and each has a corresponding pocket, you can use a biscuit to bridge the gap between them and then glue the whole thing together. Biscuits help keep things aligned and add strength to the mitre. I've had various people tell me that biscuits aren't strong enough for mitres or that they don't lend any strength to the join, but that hasn't been my experience. I've used this exact same technique on projects I built years ago and the mitres are still perfect despite regular use and abuse. People often recommend using a Festool Domino jointer, but I don't see how it would be significantly stronger?

20 More glue! I really do need to start buying this stuff in bulk... Let's assemble all these various components into something that looks like an actual bedside table. I applied a generous amount of glue into my mortise channels and then slotted everything into place. The two sides, middle section and back all got glued and clamped together



21 Remember before when I was talking about biscuits? Well, here they are. As you can see, I'm inserting them into their pockets. I made sure to apply a generous amount of glue to the whole mitred corner, including inside the biscuit pockets

22 The only piece left to put into position is the top of the bedside table. I pressed it into place and with a little bit of gentle persuasion from my rubber mallet, everything seated nicely into position. There's a fine line between too much force and just the right amount when it comes to assembling something like this. On one hand, if everything goes together easily you probably didn't make your tolerances tight enough; on the other, if you have to use too much force to get everything to assemble, then you run the risk of breaking something. The rubber mallet helps reduce the risk of breaking something, but you still have to be very careful when using it

23 The last step of assembly is clamping everything together. I used a selection of bar clamps to make sure all components were just where I wanted them before leaving for the night (end of day two for those of you keeping track). The clamps really helped pull everything together and close any remaining gaps; however, like the rubber mallet, you have to be careful not to go too far. It's really easy to over-tighten them and end up pulling something out of square. I went over every corner with a finishing square to make sure I hadn't thrown anything out of whack while tightening down the clamps

24 At this point the main body of my bedside table was completed, or at least it would be once the glue dried. All I had left to do was build and install the drawers. In my head I thought this would be the easy part, but it took significantly longer than expected. This was my first time building a set of drawers from scratch so it's all part of the learning process. I started with the drawer fronts. Luckily my planer is big enough that I could just put the drawer fronts right through it. This saved me from having to use the belt sander again. After a few passes through the planer, the components were nice and smooth

25 Using my larger mitre saw, I cut the drawer fronts to size: 457mm wide × 190mm high for anyone keeping track at home

26 Originally, I'd planned on making the drawers out of solid wood, but unfortunately, I under-estimated the amount of material I needed and had run out of walnut and ash at this point. No worries, though, as I had some walnut plywood scrap left over from another project, so I decided to improvise

27 I cut four strips of plywood to 100 × 787mm, then set the table saw blade to 6mm above the table surface and cut 6mm wide channels into each piece of plywood. I did this to support the bottom of the drawer, which I decided to make out of 6mm plywood

28 The good thing about being a contractor is that I always have odds and ends lying around the workshop that I can use in these projects. I had this piece of 6mm birch plywood left over from a job collecting dust, so I thought I'd put it to good use. I cut two pieces measuring 355 × 381mm. But wait, I said it was birch plywood, didn't I? That's right, I was fresh out of 6mm walnut plywood stock (I'm not sure they even make 6mm walnut plywood). I couldn't just add another species of wood into my build, so I adhered to a very strict design philosophy: two's company, three's a crowd...

29 ... so it was back to my strategy of just faking it. I applied a dark walnut stain to my birch plywood and achieved a colour that roughly approximated that of walnut. I applied two coats with a rag and then let them dry for 48 hours. After the second coat, it was actually a decent match to the existing walnut ply. Not perfect, but again close enough for the inside of a drawer

30 I used a set of soft clamps to hold my drawer pieces in place as I screwed them together. The clamps prevented the wood from moving around and ruining my alignment

31 Before I could finish screwing the drawers together, I had to insert the bottom. This photo shows how the birch plywood turned out after applying two coats of stain. The drawer bottom simply slid into the channels I cut into the drawer sides earlier. To lock it all in place, I then attached the fourth side of the drawer. Walnut plywood is great and all, but it really only has two finished sides that look like walnut. So I was left with a drawer that was still very obviously made from plywood and that wasn't going to fool anybody! Those exposed edges were going to be visible whenever the drawer of the bedside table was opened, so to cover it up I used walnut edgebanding, which is a thin layer of wood with a heat-activated adhesive backing. To apply it you simply cut strips to length and then iron onto your desired surface

32 After the glue is dry, you can trim off any excess edgebanding using a razor blade and a little bit of patience. After trimming off any excess, I like to take a high grit abrasive (180-220 or thereabouts) and slightly round off the hard edges of the banding. It makes for a nicer feeling, and more convincing, finish

33 Now that my drawer looks semi-convincingly like it's made from real wood, I can move onto mounting the drawer slides. I ordered these 305mm drawer slides online and they cost around £12 a pair – they also have the soft-close function that everyone loves. After unboxing them, I separated the slides into their two constituent parts: one half gets mounted on the drawer, the other gets mounted to the body of the bedside table. I decided to mount them exactly in the middle of the drawer, though the location doesn't really matter so long as you make sure it's the same on both sides

34 To ensure that I mounted the other side of the drawer slide at the correct height inside the bedside table, I cut a block that I could rest the drawer slide on while I screwed it into place. This eliminated any guesswork and measuring from the equation

35 With both halves of the drawer slides mounted, it was time for a test fit. I re-mated the drawer slides back together and tested the drawer a couple of times – perfect! The drawer action was smooth and the soft-close function worked well. Now to mount those drawer fronts!

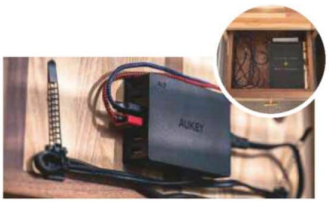
36 Mounting the drawer fronts was a pretty simple affair. I drilled two screws from inside the drawer into the backside of the drawer front. I used a countersinking bit to pre-drill my holes and clamped everything in place to prevent any movement. The only real trick to mounting the drawer front is getting the alignment correct. I spent some time making sure I had the drawer front in just the right place

37 In this photo, I'm applying some clear coat. I used a satin floor varnish as my finish on this project. It's really tough, owing to it being a floor varnish, and it's also really fast drying, which is great when you're trying to apply multiple coats in a short space of time

38 Between coats, I gave the whole project a sand using 220 grit abrasive. Sanding between coats really helps to achieve an extra smooth finish and allows the clear coat to adhere to the wood properly

39 I drilled a small 25mm hole into the back of each bedside table. In order to achieve a nice clean hole, I started drilling on the outside, but, once the pilot bit punched through to the inside, I spun the project round and finished the hole from the inside, which avoids inevitable splintering on break through. You'll have to wait to see exactly why I drilled this hole...

40 The last step before I brought the bedside tables home was to drill a hole in the drawer front, which would allow me to install a drawer pull



41 On the backside of each bedside table, I affixed these USB charging hubs – that way I'd only have one cable that ran from the bedside table to the outlet on the wall. Perfect for charging your phone at night and various other USB devices, I just used some simple double-sided tape to affix it and a couple of adhesive-mounted cable management tabs. The 25mm hole I drilled in the backs allows me to pass USB cables into the drawer area

42 These are the drawer pulls I used. I actually ordered 20 of them online and they were very reasonably priced, so I've used them in more than one project. They're clean and simplistic, and don't distract too much from the rest of the project

43 This bedside table is definitely my favourite. It makes use of a piece of walnut with a big crack in it, which I filled using a contrasting wood filler. I think it looks quite effective

44 I love all of the different patterns and textures in the surface of the completed bedside tables

45 Sometimes I worry that the mosaic pattern and waterfall edges aren't fully appreciable when the bedside tables are tucked into the corner of the bedroom, so I'll keep this photo framed on my desk to remind myself

46 I thought about adding a frame around the drawer fronts so that the grain pattern would be preserved when viewed from this angle, but in the end, I decided against it

LETTERS

LETTER OF THE MONTH

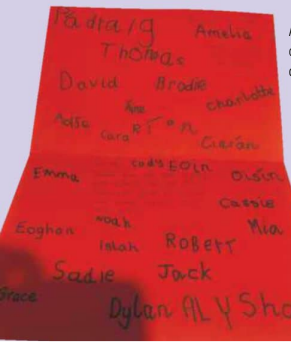
A GIFT FOR LIFE

Phil and his 26 completed pencil case boxes

Dear Tegan,
Let me start by telling you all about my granddaughter Alysha, who is a little bundle of joy and a funny character. She will soon be starting junior infants school in rural Co. Wexford, Ireland. To mark this occasion, I decided to make her a small gift of a hand-crafted wooden pencil case box, from her granddad Phil.
When I told my son I was going to make this box, he told me she would be one of 12 children starting junior infants school, so I thought to myself: "What the hell, I'll make 12 of them!" However, halfway through the build my son informed me that she would be sharing the class room with the senior infants, which brought the total number of children up to 22, so I was now making 22 pencil case boxes! I needed to get more wood, so I called a friend and he kindly gave me a piece of mahogany from which I made 13 boxes, so a big thank you to Rob Muray for his part in these gifts for life. I finally got the 22 boxes made and that same evening, my son and his partner were at a school meeting and broke the news to me that there would actually be 26 children in the classroom! This meant going back to the workshop for another few late nights making four more pencil case boxes.

Now all are done and dusted and I've handed them over to the school; however, this gave me time to think that I was given this gift in life of making things from wood, which I have enjoyed for over 30 years, and now it's my turn to give a gift for life to these children, who will be starting their first day at school. I hope that they can look back in years to come and appreciate this. Also, I've just finished reading the September issue and, as always, it is a fantastic read and a credit to you guys behind the scenes. Hats off to Robin Gates for his archive piece, too. I hope your readers find this letter of some interest.
Best wishes, **Phil Gaynor**

Hi Phil, well, it's fair to say that your email truly touched the hearts of us here at the magazine, and how could it not? It would have been enough making just the one pencil case box for your granddaughter, but to go on and make 26 is really a feat. There is also such a powerful and heart-felt message behind your reasons for doing so, and that is so lovely to see! I'm sure the children will treasure their gifts and who knows, you may just go on to inspire the next generation of woodworkers! Great job and thanks so much for sharing!
Best wishes, **Tegan**



Aerial view of one of the pencil case boxes

A touching thank you card from the children at the local junior infants school

BOLLOW PLANE

Dear Tegan,
A few months ago, following the unexpected prize of 'Letter of the Month' I was able to pass on the router bits to the Blyth Tall Ship Project. However, due to the COVID-19 situation, I've not been able to obtain photos of the bits being used, and I don't know if the following may be of any interest, re the making of a 'bollow plane', which was crafted for particular use in making the 'spoon' part of a spoon oar, to which the three photos relate.

In the mid-1980s, I took a break from my seagoing career and attended the then IBTC – International Boatbuilding Training Centre, in Oulton Broad, Suffolk – to train and qualify in wooden boatbuilding. Part of the initial intensive training was in the making of personal specific tools to the highest standards. One of these was the beech 'bollow plane', designed to fit into the palm of the hand. It was a very interesting and intricate tool to make, and its eventual use was most satisfying. In fact, the entirety of my time at IBTC ranks as extraordinary and creatively fulfilling, for which I have the highest respect for the complex art of building boats in wood.

The 'joinery phase' of training at IBTC began with a bench hook, followed by beech mallet, spirit level, a test piece in advance of a fitted out mahogany tool chest (each corner completed with different pattern dovetails) a set of mahogany step ladders where the steps mirrored a yacht companionway and the 'rest' was in the style of a traditional grating – 78 joints in less than a square foot. Each piece had to pass stringent quality control otherwise it was thrown in the bin, and had to be redone. After three months, where we clocked in as if at a factory, we were judged ready to proceed to the graded hands-on training in the boatyard, under Lloyds assessment. Customers were able to order boats labour free, but had to wait longer for delivery. The RNLI was a regular client, for motorised harbour boarding craft, in either clinker or carvel hulls. The rowing gigs for HMS *Warrior* were built during my time as a student, and I did my lofting of lines on the substantial gun pinnaces, also for HMS *Warrior*. I saw them on location many years later when visiting Portsmouth. The IBTC continues today, but the 'C' now stands for College, not Centre.
Kindest regards, **Trevor Boult**

'CRAFTSWOMANSHIP' AT ITS FINEST

Hi Tegan,
A word of appreciation for the September issue. Fernanda Nunez' work is stunning in both its elegance and craftsmanship (or should that be 'craftswomanship'?) I'm still wondering how she managed to get all the legs and rails so perfectly aligned on those bedside tables, without a straight or flat surface for reference.

I also found Zac Matchett-Smith's piece most illuminating, especially in simplifying a tricky problem with my current project, a built-in unit using overlaid drawer fronts. I've always struggled to get the fronts neatly aligned for the reason he states, and had developed a somewhat complicated and time-consuming way of doing it. His tip about using 'No More Nails' came just in time for this project. What is it they say – the simplest ideas are the best! I hope all is well with you.
Kindest regards, **Michael Forster**

Fernanda Nunez' latest work: a pair of earrings made using oak and veneer scraps from her zebra wardrobe

Hi Michael, thanks for your kind comments regarding our latest issue. Martin's feature on Fernanda Nunez has certainly been popular and the cause of many emails of praise over the last few weeks. I think that 'craftswomanship' should certainly be coined as a new phrase, and who better to champion it than Fernanda! I'm glad you found value in the other articles too, especially Zac's desk, which is fantastic.
Best wishes, **Tegan**

The beech bollow plane assembled...

... and in its three component parts

Designed to fit into the palm of the hand, its curved lower side and blade are used to create the subtle concave surfaces of the leading face of a 'spoon oar'

READERS' HINTS & TIPS

For the next three issues, in conjunction with Veritas and BriMarc Tools & Machinery, we're giving one lucky reader per month the chance to get their hands on a fantastic **Veritas apron plane with PM-V11 blade**. Ideal for trim carpentry and featuring a ductile cast-iron body, its unique side wings allow for a comfortable, firm grip. To be in with a chance of winning this great piece of kit, just send your top workshop hints, tips or pointers – indeed anything that other readers may find useful in their woodworking journeys – to **tegan.foley@mytimemedia.com**, along with a photo(s) illustrating your tip in action. To find out more about Veritas tools, see **www.brimarc.com**

EXTENDING THE LIFE OF YOUR LADDER PLANTER

Dear Tegan,
While building the multi-level display featured in the September issue, it occurred to me that the four uprights will spend a lot of time standing in water, and as such, they will eventually become saturated and possibly go rotten. My suggestion is to scrounge some builder's damp-proof membrane (DPM) and, using some quality external adhesive, stick the DPM to the bottom of the timber uprights. A word of caution, however: do not use the polythene DPM favoured by house builders and jerry builders; instead, go for something like 'Hyload', which is virtually indestructible. Just a bit of effort will help your ladder planter last for years.

I studied woodwork 65 years ago at Waverley Grammar School in Small Heath, Birmingham. My skills have not improved much since then but I love your magazine; it is something I really look forward to receiving. I will never be a craftsman but the simple projects, such as Phil Davy's multi-level display, keep me happy and engrossed for hours – please keep 'em rolling!
David Pearce

Timber with DPM fitted

Fitting DPM

Shelves ready for fixing

Ladder planter ready to dismantle and prepare for painting

MY YEARS IN WOOD

Dear Tegan,
As my wife and I are in complete lockdown, this has given me time to reflect on my 'years in wood'. It all began in 1938 when I was given a Hobbies treadle fretsaw for my eighth birthday. During the early years of the war, I made many toys such as dolls' houses, castles, farmyards, etc. I managed to sell these to local shops.

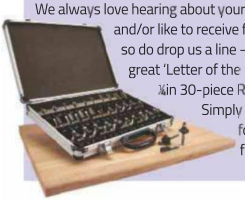
As a young teenager, I had a Saturday job repairing wringing machines. The large wooden rollers tended to wear in the middle. I was taught how to turn them parallel on a large lathe (no health and safety!).

After serving in the RAF, I trained as a teacher and spent my early years teaching woodwork and technical drawing. As a keen motorcyclist, I spent part of the summer holidays working in a bike workshop where I was taught welding, braying and spray painting. After over 40 years in education, the last 22 years as a headteacher, I retired.

My first project was the complete restoration of a classic car for our daughter. Most of the woodworking projects have been items for our local church, which include an altar for the chapel, lectern, mobile book racks, and seating for the altar. My most recent commission has been for a couple of 'French style' beehives for a local beekeeper.

I will be celebrating my 90th birthday this year, and over the past 80 years, I have built up a large collection of wood, woodturning tools and machines for my garage workshop. During this lockdown, I have spent a lot of time sharpening, cleaning and re-organising in the garage. Two of my most used tools have been my Trend router and my new low-angle jack plane, both won in *Good Woodworking* competitions! My copies of this magazine go back to the first issue.
Best wishes, **Bernard Neale**

WRITE & WIN!



We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about the magazine's features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently the new Trend ¼in 30-piece Router Cutter Set, worth over £100. Simply email **tegan.foley@mytimemedia.com** for a chance to get your hands on this fantastic prize – good luck!

THREE-LEGGED EXERCISE

Les Thorne's child-sized stool requires only fairly simple faceplate work

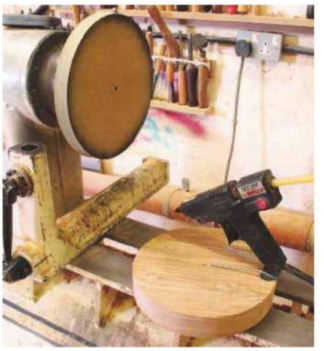
This project is about as close as I come to being a 'proper' furniture maker. From my point of view it's the fact that I haven't got to get the legs the exact same length that is the attraction of making this. Turned to seat a child, it would also make a great stand for a plant or to sit a teddy bear on. This is a really good project for the occasional turner as it requires fairly simple faceplate work and, apart from getting the spigots right, the legs are pretty easy. I have put some detailing on the legs but you could even leave most of it square and it would still work as a stool.

Turned from ash

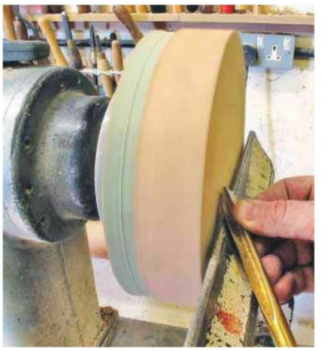
The timber for this project is ash, taken from a number of boards of air-dried stock that I purchased a few months ago. It has some great colour in it, the boards were 500 to 700mm wide so they came from a big tree. There was a little worm in the edges that had started to go slightly rotten but the majority of the wood seems fine. Ash is a very easy timber to work and if your tooling is not quite up to scratch yet, you can sand yourself out of trouble.

The finish on a piece like this needs to be durable so something like a lacquer or a hard wax oil is perfect, or you could even stain it. I would personally keep away from the soft waxes as they do not wear very well.

1 The sizes to which the wood is cut are only a rough guide and are worked out from photos. This ash has some stunning grain and a moisture content of around 16%

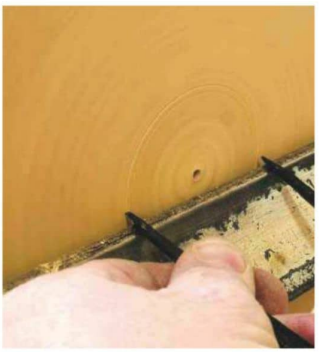


2 Because I don't want deep holes in the surface, I'm gluing the blank onto an MDF faceplate using hot glue rather than a faceplate

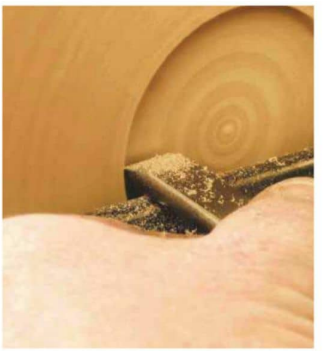


3 I am using a 10mm bowl gouge in a pull-cutting technique to carry out the initial truing of the base. A push cut could cut directly into the end-grain, resulting in an uneven surface

4 The chuck recess on the bottom will be hidden by turning an insert and gluing it in. I am measuring the perfect dovetail jaws on my Axminster Evolution chuck with dividers



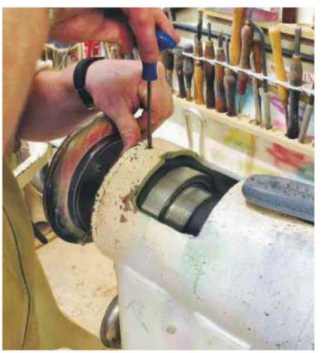
5 Set the toolrest on the centre height and scribe a circle with only the left-hand point; if this lines up with the right you are correct. Don't let the right-hand point touch the wood



6 After taking the majority of the timber with the gouge, use the skew as a scraper and cut the dovetail; this will be covered later so a good finish is not necessary

7 To turn large flat surfaces on the lathe I use a 13mm round skew with the corner just taken off. The removal of the corner means that it cannot create lines on the surface

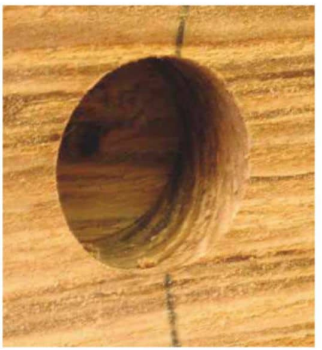
8 My knuckles are running along the toolrest; this keeps the tool cutting at a consistent depth all the way along and will create a flat surface



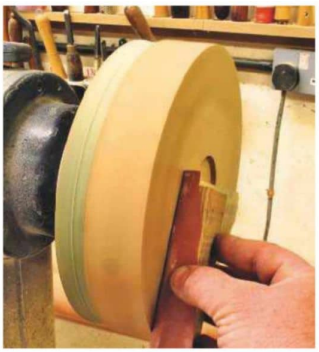
9 I like to drill the leg holes now, using the indexing system on my Oneway lathe, but this could be carried out afterwards on a pillar drill

10 My Drill Wizard is set up with a 22mm sawtooth and the lathe locked in the 1, 17 and 33 positions as it has 48-point indexing; on 24 point it would be 1, 9 and 17

11 The depth stop on my jig is set to drill 25mm deep; a piece of tape on the drill would do the same job. Doing this accurately will keep the legs the same length

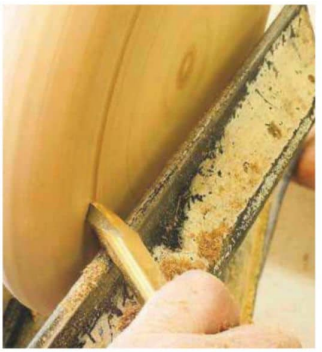


12 Even though the hole is drilled at an angle, it's really clean. The hole is drilled at an angle so the legs splay out, giving the stool stability on its three legs



13 To maintain the flatness of the bottom and avoid sanding out the softer grain to leave ripples, sand the base with abrasive wrapped around a block of wood

14 Once it's mounted on the chuck, round over the edge with the gouge. When doing a pull cut, don't hang the gouge too far over the rest as you could lose tool control



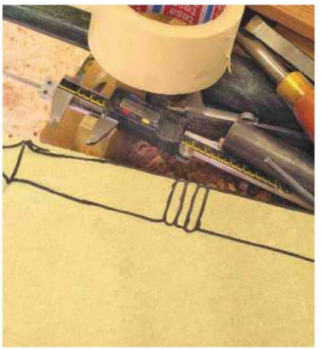
15 For definition, hollow the top slightly using the same gouge with the long-grind in a push cut; slow the feed of the tool as you get towards the slower wood in the centre

16 You can see the light under the straightedge. You can also see how pretty the figure is on this ash, the colours almost making it look like a piece of brown oak

17 To mark the centres on the legs, I use a marking gauge. Set the point up on or near the centre and mark it all the way round

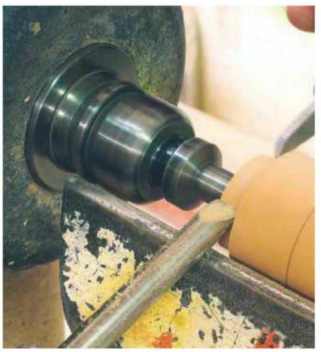
18 Marking the centre with a bradawl helps to locate it onto the drive and the live centre. The end-grain of the timber is just as stunning as the side-grain

19 This is the small Steb centre available from Robert Sorby. They're not cheap but the spring-loaded point and the multi-tooth design make them the most effective of drives

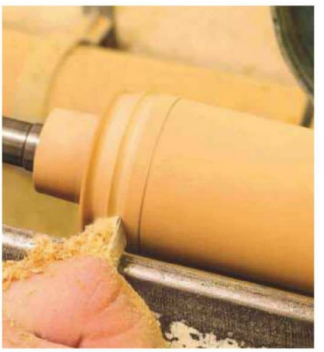


20 Not my best drawing: a simple design is all that's needed on the legs. You could make them more ornate or literally just round if you want

21 After making the wood round with the spindle roughing gouge, remove some of the waste from the tailstock end with a parting tool

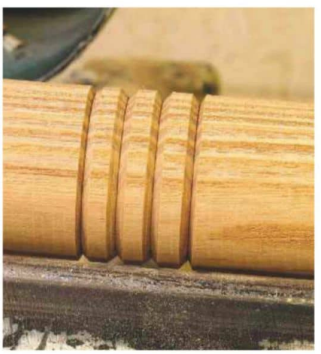


22 The most important measurement is the spigot that fits into the stool top. Vernier callipers are more accurate than the bow-leg type

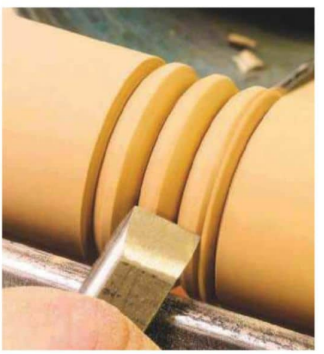


23 Using the spindle gouge, turn half a cove down to the diameter of the spigot, pick up the cut with the flute towards 9 o'clock and then open up to 11 o'clock as you progress

24 You can see how the cove flows perfectly into the spigot; the larger-diameter curve will hide the joint where the spigot goes into the base



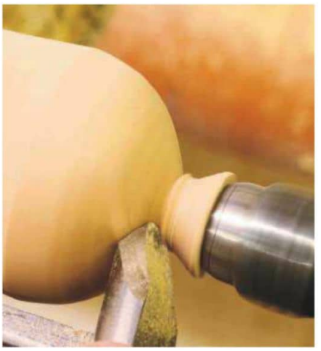
25 The area of the three beads is marked up and a series of 'V' cuts is made with the skew. They are now ready to turn into beads or you may think they look fine just as they are



26 I'm using the skew chisel to form the beads. The long point slices through the wood with a small amount of bevel in contact, keeping the chisel going forward all the time

27 To make the legs look lighter, turn away some of the material to the left and right of the beaded detail in the middle, using the small spindle roughing gouge for more control

28 Shaping the bottom of the leg is carried out using the Signature spindle gouge. Roll the tool over to the right keeping the bevel in contact with the wood



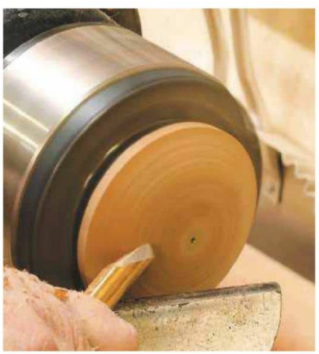
29 At the end of the cut the tool is right over with the flute at 3 o'clock. If the bevel came away from the wood and the point came into contact with it, you would experience a 'dig-in'

30 To see the shape more clearly and not sand away the detailing, I like to sand the wood behind like this. Be careful not to remove the spigot

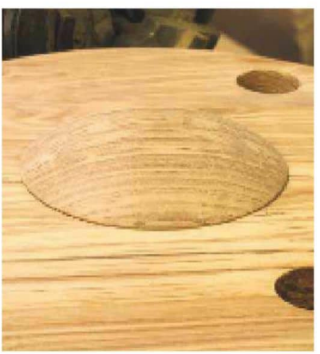
31 I use copying fingers to measure the next two legs, removing the wood until the fingers fall through; this is much better than using callipers

32 Once the waste on the ends of the legs is cut off they must be sanded. My Sand-o-Flex rotary sander is the best tool for this as it doesn't over sand the end-grain

33 All that's left to do is turn the cap to go into the recess. A piece of ash from the same board is cut to size and mounted between centres



34 Once a chucking point is turned on the piece it can be held while the top is rounded over. I decided that a large button shape would look best



35 The button and legs are glued in place using a good-quality PVA. Traditionally the legs would go through the seat and be wedged, but modern glue makes this unnecessary

36 The completed three-legged stool in ash should look something like this

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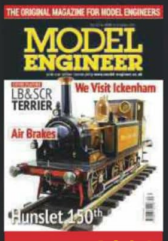

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DREMEL
BIG ON DETAIL

The Generation WEIL CHAIR

Made in Weil am Rhein, Germany by **Van Bo Le-Menzel**, we look at how a reproduction **Generation Weil Chair** can be simply made using a few clamps, glue and a selection of Dremel multi-tools

Is it really possible to recreate a designer chair that is on show at the Vitra Design Museum in Weil am Rhein, Germany? Can seats that are otherwise bent into shape industrially at great effort and expense be brought to the correct shape using just clamps and glue? In this DIY project, the designers show you how to make the Generation Weil Chair yourself inexpensively in 10 just steps using a selection of Dremel multi-tools.

Put your DIY skills to good use and enjoy making this wonderful project.

TOOLS & MATERIALS REQUIRED

Tools

- Jigsaw
- Cordless screwdriver
- Forstner bit
- Serrated spatula
- Several clamps
- Metal ruler & pencil
- Compasses or cups
- Plates
- Paint pots
- Oval paint bucket lid
- Dremel 8200 & a set of wood drill bits (636)
- Dremel DSM20
- Dremel Workstation (220)

Materials

- 2 × glued and laminated pine boards (18 × 600 × 1,200mm)
- 3 × birch plywood sheets for the seat (450 × 800mm)
- 3 × birch plywood sheets for the backrest (500 × 600mm)
- 2 × formwork boards
- 1 × stable batten (40 × 60mm)
- 2 × wood battens (60mm high)
- 1 × machine screw (12 × 120mm)
- 4 × screws (4 × 70mm)
- 2 × screws (4 × 60mm)
- 8 × screws (4 × 40mm)
- Wood glue

1 For the substructure you need to glue together two planed and laminated pine boards. Apply the wood glue to the entire surface of one board using a serrated spatula and lay the other board flush on top of the first. Clamp the two boards firmly together and leave overnight to harden

2 Next, draw the individual parts for the substructure, saw them out and sand the edges. Make sure that when you have finished adjusting the seat and backrest you screw and glue the substructure into place

3 If you don't have a pair of compasses to hand you can use cups, plates and even paint pots to draw the rounded edges you require. We shaped our seat and backrest with the aid of a large oval paint bucket

4 Finished substructure parts are best pre-drilled using the Dremel 8200. That is especially advisable for parts that need to be screwed into the end-grain of the wood. As we glued two pieces of board together, we pre-drilled a little from the middle, as it were, before they were glued

TIPS

1. Make sure that all parts have the grain running in the same direction, which will make bending easier. Draw the outlines of each on a separate sheet of plywood and mark the centreline (see **Figs.1** & **2**)

2. The dimensions of the drawing should be slightly less than those of the sheet because bending naturally affects the flushness (inner and outer radius)

3. The more pressure points there are, the more firmly the sheets will be glued. Beware of clamp 'footprints' – use pads to avoid this. To shape the backrest, simply saw off the backrest of an old chair and screw it to a board

4. Pay attention to the direction of the grain and the centreline of the backrest. Use the same gluing and clamping procedure as for the seat and leave the wood glue to harden overnight

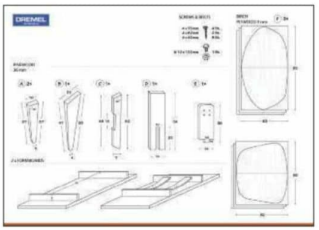

Fig.1

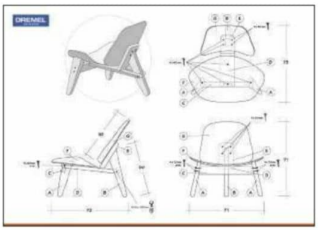

Fig.2

5 Cut the 3mm birch plywood for the seat and backrest to shape using the Dremel DSM20 compact saw

6 Using a serrated spatula, start by applying wood glue generously to one sheet (the seat, for example), spreading it over the entire surface. Then lay the second sheet flush on top of the first, apply glue to it and finally add the sheet with the centreline marking. Make sure the sheets are flush

7 For the seat platform, screw two wooden battens (60mm high) onto a stable formwork board 520mm apart (the length of Part C). Also mark the middle between the two wooden battens. Lay the newly glued birch sheets onto the battens and align the two centrelines to each other. Take, for example, a stable 40 × 60mm batten and lay it upended exactly on the centreline. This batten is then clamped to the formwork board. The birch sheets should now sit firmly in the centre of the formwork board, then clamp the remaining sheets together as quickly as possible (smaller clamps will suffice)

8 Carefully saw the shape of the surfaces and then sand the edges. Round off the edges by sanding them manually

9 Mark the borehole position for the assembly of the seat and backrest by laying them on or holding them against the substructure and making a mark where they lie flat against the substructure, then screw the seat and backrest firmly into place

10 Screw the back chair leg into place with a large machine screw (M12 × 120mm), countersinking it with a Forstner drill in order to recess the screw. You can also use a longer screw, of course

11 The completed chair shown from the front...

12 ... back...

13 ... and side

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Coming up in the next issue...

The Woodworker & Good Woodworking
December issue –
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REMAKING A 'PROPER LAND ROVER'

Working from an original article from the Christmas 1955 issue of *The Woodworker*, Peter Dunsmore makes his very own Land Rover trio with various paint jobs and finishes

MAKING A 'MOXON' TABLE VICE
Robin Gates hones his hand skills while making a hybrid vice for bigger boards using two Record Juniors and reclaimed oak linings

FESTIVE FROLICS
Carl Jacobson shows you how to turn this fun snow couple using leftover pieces of timber, which will make the perfect festive addition to any home

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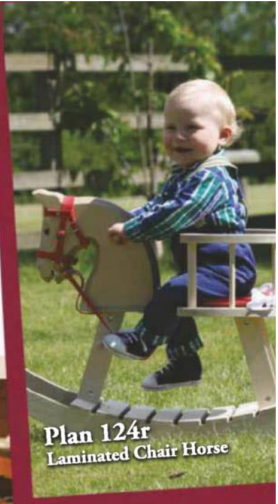

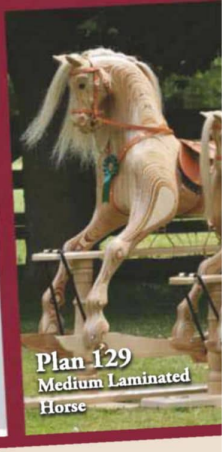

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(South Yorkshire)

DeWalt thicknesser – DIY use only & includes spare blades; £100
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(South Yorkshire)

Titan planer/thicknesser as shown in photo. Illness forces sale. Plugged in once when it arrived but never used. The protective paper on the bed is still intact; cost £159.99 but selling for £75. Buyer collects.
07936 124 950 (Merseyside area)

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TAKE 5

As another month passes, we bring you a new selection of woodworking greats from the online world of Instagram

1 'Petronius' sawhorse by **@apewood_PT** – reliable and sturdy, yet clean and elegant

2 Pair of beautiful carved barn owls in basswood and oak, by **orosora20**

3 Beech, cherry and walnut (with a marble) lidded vessel, 430mm tall, by **@kevinsheehanwoodturning**

4 Handmade 'Algonquin' rollerball-capped pen made with 'flame' boxelder, by **@bigwoodstudio**

5 Small feature cabinet in cluster walnut burl, suitable for use as a TV cabinet, wardrobe or chiffonier, with push-to-open doors that feature a large aged bronze circle pushplate, by **@antongerner**

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