WOODWORK | TURNING | TOOL TESTS | FEATURES

June 2022

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& Good woodworking

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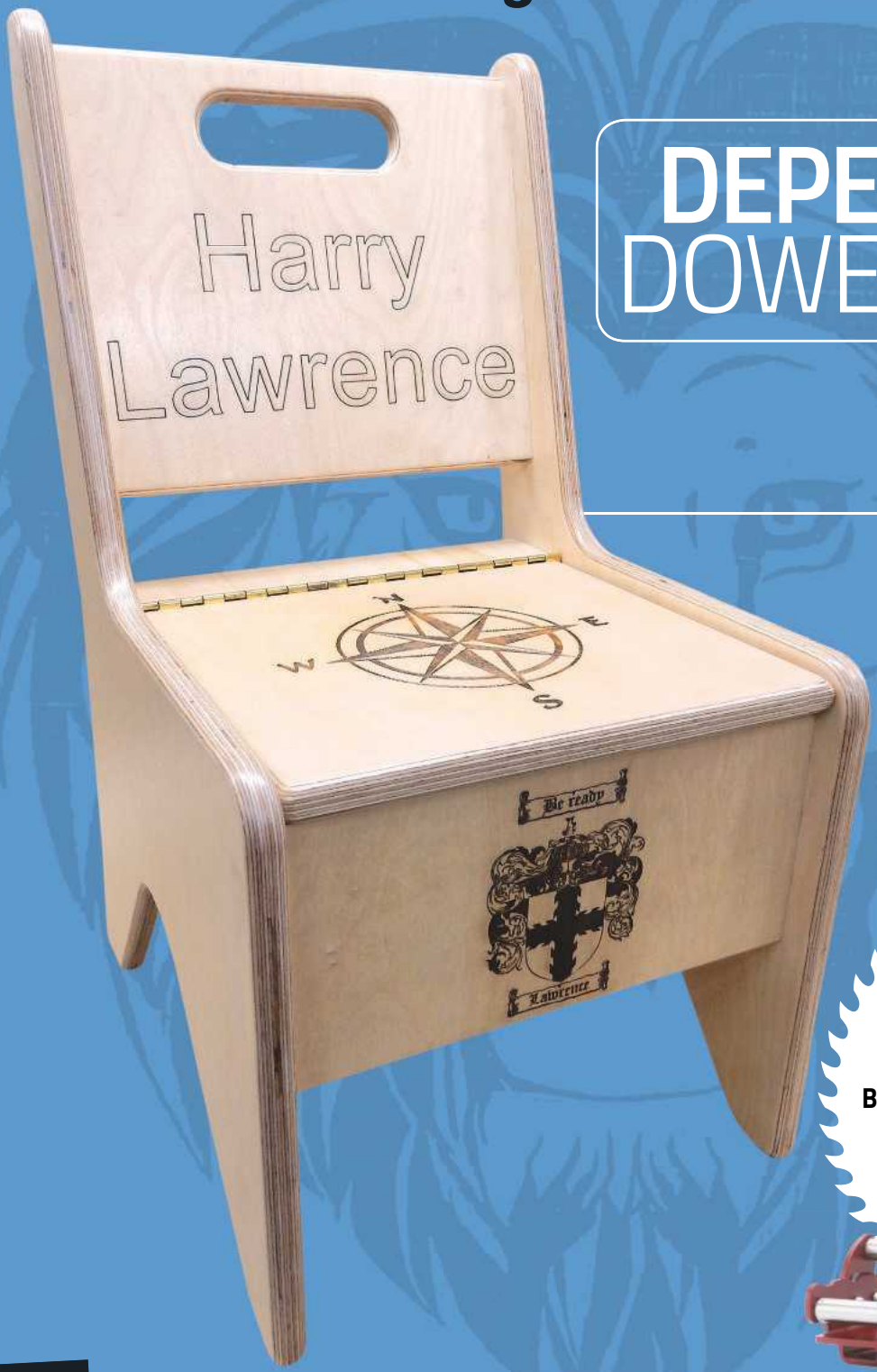

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PLUS...

- **PROFILE:** ERIC SIMMONDS' UNIQUE BIRD BOXES
- **TURNING:** COG BOX INSPIRED BY THE INDUSTRIAL REVOLUTION
- **SUMMER PROJECT:** ORNAMENTAL WISHING WELL GARDEN PLANTER

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Welcome

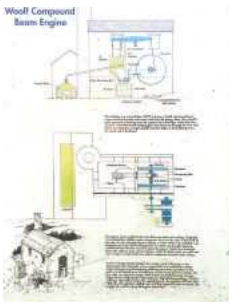
During the recent Easter Bank Holiday, I was lucky enough to spend a few days with family in Cornwall. Making a last-minute decision to travel on Easter Sunday, I was relieved to discover that most people had done so the day before. As such, the train was virtually empty and I was able to sit back, relax and enjoy the beautiful scenery.

Living in the city, it's always refreshing to escape to the countryside once in a while. My mum, having lived in Cornwall for so many years, has amassed a good knowledge of local hidden gems, which, as it stands, have yet to be 'discovered' by tourists!

Prince of Wales Slate Quarry

With dog in tow, we set off in search of the Prince of Wales Slate Quarry and engine house – situated just outside Tintagel, which has stunning panoramic views of nearby Trebarwith Strand and far beyond. Rich in history, the engine house, built in 1870, is the only one of its kind in North Cornwall and the site is home to a wide range of unusual plants and birds. The quarry went on to open a year later, in 1871, and would've provided jobs for many local residents and distributed slate all over the world, thus adding to the local economy. Sadly, 20 years later, it closed down and the site fell into disrepair.

A prominent feature on the landscape, the engine house, owned by the Duchy Of Cornwall, is easily reached via a path leading from the car park. Housed on a plinth, the rectangular building features a gable end on its front and 35m high chimney stack, which provides a hint to its past. Formerly comprising a Woolf Compound Beam Engine, steam-powered pumps hauled slate and pumped water as part of the open cast mining of blue slate from the Upper Devonian Penpethy Beds. The engine itself was removed for scrap during World War I, although parts of the building still remain. However, some 80 years on from the quarry's closure, residents and members of the Prince of Wales Engine House Society painstakingly restored the building, and this is the last known work conducted on site.



For any readers with a historical interest in slate quarries or tin mining, Cornwall certainly has its fair share, and the north coast in particular never fails to both surprise and intrigue me in equal measure.

The Alan Peters Furniture Award 2022 – important updates

So, having looked back, let's now refocus on the present and in particular, the upcoming Alan Peters Furniture Award 2022. We have two important pieces of news to deliver: firstly, the deadline for entry has now been extended to 31 August; and secondly, once winning pieces have been chosen by the judges, a prize-giving ceremony and subsequent exhibition of work will be held at Axminster Tools' Nuneaton branch on 12 October.

The decision to extend entry deadline by a month has a number of advantages. As well as giving entrants more time to work on their pieces, this also provides greater scope for award promotion – allowing us to broaden our reach, discover potential new talent, as well as spreading the word to those not already familiar with the award who may therefore go on to enter.

Due to COVID-19 restrictions, last year's award was moved to an online-only platform; however, for 2022, we're excited to finally be able to hold a physical event, with help and support from Axminster Tools.

Personalised projects

So what else does the June issue have in store? You can expect to find a selection of outdoor projects, which can be made in a weekend using just a few tools and materials, a range of interesting new techniques as well as Geoff Ryan's child's chair build. If you're not already familiar with dowel joints, why not have a go at making your own personalised project as he did? Enjoy!

Tegan

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Technical & Consultant Editor

90 SOLID & RARE

Andrew Lawton – one of our three expert judges for **the Alan Peters Furniture Award 2022** – presents an exhibition piece made using a very rare material

DOUBLE WIN!

A Robert Sorby SteadyPro turning system with stem

We're giving one lucky reader the chance to get their hands on this **versatile woodturning jig** from **Robert Sorby** – see **page 22** and follow the instructions given – good luck!

A Trend T18S 18V cordless biscuit jointer kit

Part of the new T18S range, in conjunction with **Trend** we're giving one lucky reader the chance to win this **cordless biscuit jointer kit (with 1 × 4Ah battery and Fast Charger)** – see **page 60** and follow the instructions given – good luck!

AXMINSTER TOOLS

SEND IN YOUR TOP WORKSHOP HINT/TIP/POINTER OR PIECE OF ADVICE & YOU COULD BE IN WITH A CHANCE OF WINNING AN **AXMINSTER RIDER NO.5½IN JACK PLANE** – see page 59 for details

The Woodworker & Good Woodworking
JUNE 2022

PROJECTS & TURNING

TECHNICAL

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FEATURES

ON TEST

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"Quality products, great price and quick delivery well done again."

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DICKIES celebrates 100TH ANNIVERSARY with 'Made in Dickies' campaign

Michelle Cross – long-haul truck driver

LuLu Salas – farmer

Dickies, the world's leading workwear brand, turns 100 with the launch of a new marketing campaign, 'Made in Dickies'. For a century, the Dickies brand has been worn around the world by ordinary people making extraordinary things. The artists, builders, farmers, plumbers, skaters, welders – makers – deserve to be celebrated. The new campaign sets out to show the world that these people, their work and stories, often left untold, can be iconic.

Honouring Dickies' blue collar American roots, which have allowed the brand to be readily adopted globally, the campaign will consist of various digital, social and short-form video content on multiple platforms throughout North America, Asia-Pacific and Europe. Content will feature four real world individuals that encapsulate the Dickies brand. The campaign's creative elements are geared towards celebrating 100 years of Dickies through the individuals that not only built the brand, but the world in which we live.

"Reaching this major milestone has led us to evaluate and examine what has made Dickies a household name for 100 years," said Denny Bruce, Global Brand President for Dickies. "Dickies represents more than just clothing; the brand embodies hard-working people around the world and has transcended into a unique position of cultural relevance. This anniversary represents not only the evolution of Dickies thus far, but the people who've made the brand what it is today."

To amplify the Made in Dickies campaign, the company will launch several global consumer activations throughout 2022, marking the brand's heritage in workwear and its adoption into the lifestyle market through a 100th celebratory collection, a documentary, limited-edition collectible, and premium digital shopping experience.

Further information regarding the new campaign will be made available over the coming months. For more information on Dickies, visit **www.dickieslife.com**.

CLARKE boltless shelving range

With over 40 models available, in a variety of sizes and colours, the range of Clarke boltless shelving combines tough steel construction with quick and easy set up for any garage, office, home or more.

These boltless shelving units can be constructed using only a hammer, allowing for quick and easy assembly. The units feature adjustable shelf heights and can be put together as a bench or corner unit, which means they're suitable for any size of room/workshop. Once assembled, depending on the shelving model weight capacity, the maximum weight per shelf is between 100-1,000kg.

The units come in a choice of colours, with an option of fibreboard, chipboard or polymer shelves. A durable powder coat finish helps to protect shelves from damage. Models in the range start from £40.79 (inc VAT) and can be viewed via **www.machinemart.co.uk**.

Clarke CSM5150S heavy-duty 150kg boltless shelving (silver)

Clarke CS5265S 1.2m wide span boltless shelving (silver)

Timber Suppliers Directory – June 2022

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Waterloo Timber Ltd (Lancashire)
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MAKITA adds new circular saw & LED flashlight to XGT 40VMax range

Makita UK has expanded its powerful XGT 40VMax range of machines with the launch of the new HS009G 235mm circular saw along with ML006G flashlight.

HS009G 235mm circular saw

The HS009G is a fantastic tool for anyone looking to reap the benefits of cordless, while still experiencing the power associated with corded models. Thanks to a large brushless motor and XGT battery technology, this circular saw can deliver the same – or higher – performance than that of corded alternatives. As such, the HS009G is ideal for higher demand applications.

For precision cutting, the HS009G is compatible with the new 191141-8 guide rail and can produce bevel cuts up to 1° left and 60° right, with positive stops at 22.5° and 45°. It offers a maximum cutting capacity of up to 61mm and a cutting speed of 4,000rpm, making light work of any cutting task. The HS009G also features an LED job light to keep the workpiece clearly visible, regardless of site conditions.

To improve user safety, the HS009G features Makita's Auto Start Wireless System (AWS). When fitted with an optional AWS chip, the HS009G can be wirelessly connected to compatible dust extractors via Bluetooth, which ensures that when in use, the extractor automatically engages. Makita has also launched a range of accessories for the HS009G, including the 191141-8 guide rail and E-05664 guide rail holder, 196664-7 bevel guide set, 194385-5 clamp set and E-01909 Efficut saw blade.

ML006G LED flashlight

This XGT 40VMax flashlight is the ideal site companion, featuring 18 extra bright LEDs that can deliver up to 500 lumens – depending on chosen setting. The specially designed light diffusing lens softens the LED to prevent glare and provide widespread illumination. What's more, the ML006G offers an impressive 82 hours of continuous illumination – when used in low mode – and the flashlight head can be easily adjusted to ensure the work area is always lit.

For ease, the ML006G features a battery capacity warning system, so users aren't unexpectedly left in the dark. It's also compact, lightweight, and features an ergonomic design and rubberised soft grip, making it comfortable to hold and transport around site. To find out more about Makita and its XGT range, see **www.makitauk.com**.

KSC 60 cordless sliding compound mitre saw from FESTOOL

What do floor laying, exterior construction, timber construction and interior finishing have in common? The answer is simple: all trades need a compact saw that's precise, reliable and, most importantly, completely flexible. With the new KSC 60 cordless sliding compound mitre saw, Festool has created a handy all-rounder, featuring Li-ion battery power and latest generation brushless motors, all of which make it a real front runner. The brushless EC-TEC motor, combined with dual battery system, ensures maximum power that lasts the whole day.

Festool continues to further add to its extensive range of cordless tools: the battery-operated KAPEX KSC 60 is as strong as an ox, yet ultra-flexible in operation thanks to mitre angles of up to 60° on both sides and a bevel angle of up to 46° – on the right-hand side – or 47° – on the left-hand side. The twin-column guide with two bearings ensures the saw blade is guided smoothly and with precision. This ensures that every cut made is perfect, free of wobbles or juddering. The LED spotlight transfers the shadow of the saw blade onto the material, which acts as a precise cutting line, while also providing optimum scribe mark visibility. The KSC 60 is supplied with a dust collection bag, making it ideal for portable use and smaller sawing jobs. A handy bevel is also included as standard. This makes the rapid

Nail down your next DIY project with RYOBI'S tool collection

Ideally suited to a variety of garden and DIY projects, Ryobi's enhanced tool collection will certainly help when it comes to upgrading patio furniture, installing new storage cabinets as well as a wide range of tasks around the home. The company has recently launched a new range of products, which are designed to allow the user to effectively nail down any DIY endeavour. The collection features the following power tools:

ONE+™ 18V cordless R15GN18-0/16G, R16GN18-0/18G & R18GN18-0 15G Airstrike nailers

All three Ryobi nailers feature Airstrike technology, which eliminates the need for a compressor and bulky air hose. Tool-less depth and pressure adjustment allow the user to pre-set optimal nail firing depth, which ultimately protects all working surfaces.

The Ryobi ONE+™ Airstrike 18G and 16G nailers are more compact than previous models, ensuring improved control

measurement of interior and exterior angles and subsequent transfer to the saw simple and precise. The additional feet allow the KSC 60's workbench to be raised to the exact height of the SYS 3 M 112 or SYS 1 Systainer in just a few steps. Doing so then facilitates use as a workbench in order to support long workpieces safely and securely. This level of precision is no accident, it's a matter of certainty – every step of the way.

Brushless motor – battery power that lasts all day

When it comes to power and performance, the Kapex KSC 60 doesn't fall short of its corded sister, the KS 60. This is down to the perfectly harmonious interplay between battery and motor. "The KSC 60 features the latest generation brushless EC-TEC motors. It's characterised by a compact design, low weight and high efficiency," explains Boris Seyfried, Product Manager for Saws at Festool. This, together with variable speed pre-selection, means the saw can adapt to suit the material. Combined with high-quality saw blades for wood materials, laminate or aluminium, the resultant precision is no coincidence. The intelligent dual battery system provides greater torque and range, which allows the KSC 60 to be operated with either one or two 18V Festool battery packs, offering enough power for the entire working day. The compact design incorporating flush-mounted guide rods, ergonomically positioned carry handles and convenient transport safety device, gives the new KSC 60s unrivalled portability, making it ideal for use on construction sites.

A clever system

The whole package is neatly rounded off with system accessories perfectly matched to the KSC 60. These include saw blades for every application, which – when combined with the speed pre-selection – guarantee a perfect cutting result and sawing that adapts to suit the material. The KSC 60's underframe combines a stand and transport frame, allowing for even easier transportation. This takes the Kapex KSC 60 up to a working height that makes it easier on the back and can be set up quickly and easily using a cleverly designed folding mechanism. The KSC 60 is supplied with two 5.2Ah battery packs and dual charger, all in a new Systainer³. Using this, two batteries can then be charged simultaneously.

Completely covered

All Festool chargers and battery packs, as with the entire range of Festool tools, are completely covered by Festool SERVICE, giving users peace of mind for their day-to-day work. The new KSC 60 cordless sliding compound mitre saw is available via authorised dealers; for further information visit **www.festool.co.uk**.

From her Edinburgh studio, Isabelle Moore offers various in-house short courses

Woodworking & furniture making courses with **ISABELLE MOORE DESIGN**

Based in central Edinburgh, Isabelle Moore offers evening classes, short courses and master-classes in woodworking techniques and furniture making. All skill levels are catered for and group sizes are kept small in order to comply with current guidelines. To see the current course schedule and sign up for the newsletter and forthcoming dates, visit Isabelle's website: **www.isabellemooredesign.com/courses**.

'Elliptical Chair' by Isabelle Moore

and line of sight during use. The 15G angled nailer provides greater holding power and is ideal for heavy-duty interior structures, such as door trim, large casing and stair treads.

ONE+™ 18V RJS18-0 cordless jigsaw

This new jigsaw features a variable-speed trigger, making it easier to adjust cutting speed while ensuring precise cuts every time. With a more powerful and efficient motor, the RJS18-0 benefits from a fast no-load stroke rate of 3,000spm with 25mm stroke length.

A four-stage pendulum switch enhances tool performance depending on material type, and as such, can be easily utilised for either wood, metal or plastic.

ONE+™ 18V RPS18-0 cordless corner palm sander

With a new compact design and improved rubberised switch, the new cordless corner palm sander protects the tool from dust and guarantees prolonged life. From fine finishing to rapid stock removal, it can be used to smooth wooden surfaces or remove paint. Owing to its triangular point, this tool can easily access corners and other hard-to-reach areas.

RB360RLL & RB360GLL 360° line lasers

The 360° line laser provides vertical and horizontal lines, which can be activated individually to suit a wide range of applications. Whether that's installing new shelves, a window bay or hanging artwork, Ryobi's new line laser provides the accuracy required. Featuring green laser technology, which improves line visibility by up to four times, the laser lines are therefore enhanced to cover larger rooms up to 25m wide.

Part of the ONE+™ System

These latest additions to the ONE+™ range can all be powered using any ONE+™ battery. You can switch one battery between a range of over 150 tools, covering various DIY and garden needs.

ONE+™ has been powering Ryobi's tool range since 1996: that's over 25 years of ONE+™ innovation in one tool system, making it a market leader in the worldwide cordless DIY market.

RYOBI® tools are built to last, competitively priced and protected by a three-year warranty for further peace of mind. For more information on these and other tools, visit **www.ryobitools.co.uk**.

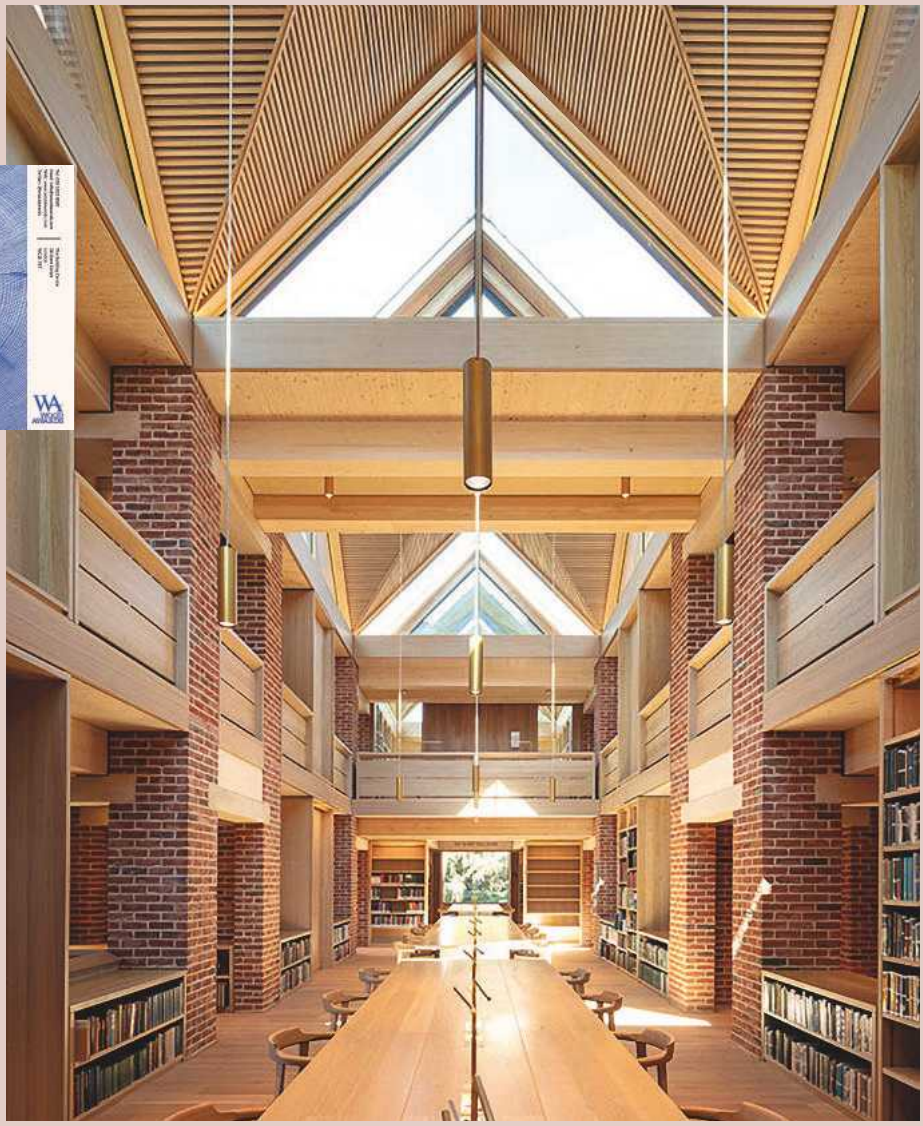
WOOD AWARDS announces 2022 call for entries

The Wood Awards: Excellence in British Architecture and Product Design, has launched its 2022 call for entries. Anyone involved in a UK-based wood project is invited to enter, with no fee required, and has until 1 July 2022 to submit their applications.

Established in 1971, the Wood Awards recognises, encourages and promotes outstanding design, craftsmanship and installation throughout the UK. The Wood Awards' elite independent judging panel not only judges all submitted entries but also visits the shortlisted projects in person, making the Wood Awards a uniquely rigorous competition.

The Awards are split into two main categories: 'Furniture & Product' and 'Buildings'. The Gold Award is given to the project that the judges deem to be the winner of winners.

This year, Jim Greaves of Hopkins Architects has been appointed Chair of buildings judges – he comments: "I'm pleased to be asked to continue chairing the judges for the buildings panel. As the construction industry seeks to work in greater harmony with our natural world, it's increasingly turning to wood as the material of choice. We see this reflected in the Wood Awards, where every year the standard for entries continues to climb. It's a great privilege to be able to assess, and learn from, the many exemplar projects being put forward for consideration."



Magdalene College Library – 2021 Gold Award winner

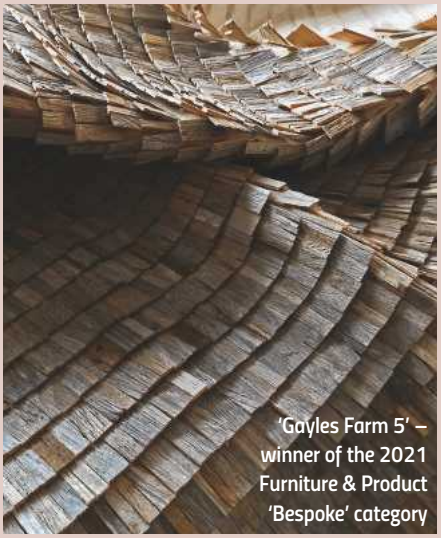
The 2022 buildings categories will be confirmed later this year, but are likely to be 'Commercial & Leisure', 'Education & Public Sector', 'Interiors', 'Private' and 'Small Project'. Other awards, such as 'Structural' and 'Existing Building' awards, can be given at the judges' discretion.

Design critic, curator and journalist, Corinne Julius, has returned as Chair of furniture judges. The 'Furniture & Product' competition will be split into 'Bespoke and 'Production Made'. The 'Student Designer' category is being reintroduced this year to celebrate the work of students after the disruption many experienced in previous years due to the COVID-19 pandemic.

With permission from the owner, anyone associated with a building or product completed in the last two years can enter. Buildings must be located within the UK while furniture and other products must have been either designed or manufactured in the UK. Fitted furniture must be located in the UK. There's no restrictions on project size or budget. Entrants may submit more than one project.

The 2022 shortlist will be announced in September. The Wood Awards has ambitious plans for a novel and exciting competition finale, details of which will be announced in due course. Enter your project via the website – **www.woodawards.com** – and to view last year's winners, see **www.woodawards2021.online**.

'Iso-Lounge Chair' winner of the 2021 Furniture & Product 'Production' category



'Gayles Farm 5' – winner of the 2021 Furniture & Product 'Bespoke' category

More choice, when you need it with **IRONMONGERYDIRECT'S** latest catalogue

Leading specialist trade supplier, IronmongeryDirect, has released its latest catalogue, showcasing key highlights from a range of over 18,000 in-stock products. Perfect for browsing while on the go, the 2022 Spring/Summer edition is available to order for free delivery, or to view directly from the retailer's website.

Packed with information on key product lines as well as new additions, there's a wide range for woodworkers, joiners and carpenters to choose from.

Carlisle Brass

IronmongeryDirect has added more products from UK designer, Carlisle Brass. The stylish range includes knurled radio cabinet knobs and further additions to the Serozzetta collection of door handles and escutcheons. These premium products are available in five different finishes, including polished chrome, matt black and antique brass.

Rothley hairpin legs

For cabinet and furniture making projects, a wide choice of hairpin legs from Rothley is now available to order. Modern, minimal and perfect for achieving an industrial, or mid-century modern look, these are available in a variety of sizes as two- or three-pin formats, with four finishes including polished copper and matt black.

Altro door hardware

The new catalogue also features a number of new products from IronmongeryDirect's exclusive Altro collection of door hardware solutions. This extensive range includes turn and release solutions suitable for every interior style, including antique brass, matt black and satin nickel.

Roland Etheridge, Category Manager at IronmongeryDirect, said: "We're pleased to introduce our latest catalogue as a useful tool for busy tradespeople to browse while on the go. With over 18,000 products in stock, the catalogue showcases some of our key ranges, as well as latest products that we've introduced to ensure we continue to help professionals meet the different demands of each job."

IronmongeryDirect is the UK's largest online supplier of ironmongery to the trade. With over 18,000 products in stock including everything from cabinet hardware to sliding door gear. Woodworkers, carpenters and joiners can choose from a range of flexible delivery options to meet the needs of their busy schedules, including free next day delivery on orders over £45 (ex VAT), same day delivery to postcodes in selected areas of London and East of England, as well as click and collect from 6,500 pick-up points across the UK. For further information, see **www.IronmongeryDirect.co.uk**.

What's new from

'THE' TOOL SPECIALISTS ● WWW.DM-TOOLS.CO.UK ● 0208 892 3813

D&M TOOLS

MAFELL A 12 12V DRILL DRIVER WITH 2 × 4.0AH BATTERIES, CHARGER, CARRY CASE & 90° RIGHT ANGLE

MANUFACTURER: Mafell
D&M GUIDE PRICE: £309.95 (inc VAT)

mafell creating excellence

Mafell's latest cordless drill driver – the A 12 – features an ergonomic design along with extreme power. Manufactured using the best materials and first-rate workmanship, the A 12 cordless drill driver is therefore extremely rugged. Tipping the scales at around 1kg, including battery, the tool is also very light in use. Brushless motors give this latest model even more power than its predecessor as well as exceptional torque.

Enhanced by soft surfaces, the A 12's feel together with perfect balance facilitate fatigue-free operation. Mafell ErgoBalance design makes all the difference when working for extended periods or reaching above head height. Not only does this provide greater accuracy, but also ease of use and control, thus effectively helping to prevent fatigue, pain and cramps.

The upgraded PowerTanks for Mafell cordless tools feature advanced processor-controlled battery technology. A key advantage lies in continuous monitoring of all relevant parameters of the individual battery cells, including temperature and charge. The floating battery cells are also ideally protected against mechanical influences, which ensures prolonged service life and less downtime.

RECORD POWER 103730 SIX-PIECE HSS TURNING TOOL SET (BOWL & SPINDLE SET)

MANUFACTURER: Record Power
D&M GUIDE PRICE: £229.99 (inc VAT)

This UK-made set from Record Power contains all the essential tools required for both bowl and spindle turning. These tools are manufactured to a standard that makes them perfect for use by demanding professionals, while also being competitively priced, meaning they're also ideal for the novice turner.

Designed in consultation with and rigorously tested by professional woodturners, this set represents a new standard in terms of both quality and value.

HSS blades allow the turning tools to keep their cutting edge for longer and the handles are made using close-grained, stable, heavy beech. The shape of the handles has been specially designed, based on requirements of experienced turners, to provide a strong and comfortable grip, leaving the user free to concentrate on turning.

Contents – note all tools feature a 305mm (12in) handle:
25mm spindle roughing gouge; 10mm spindle gouge; 3mm parting tool; 10mm bowl gouge; 12mm domed scraper; 20mm skew chisel.

PLEASE CHECK OUR WEBSITE – WWW.DM-TOOLS.CO.UK – FOR THE LATEST PRICES AND DEALS

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WNEW 3-IN-1 DOWEL JIG & MULTI ROW PUNCHER

Following reputable advice regarding Chinese tooling, **Geoff Ryan** purchases a **Wnew dowelling system**, consisting of two parts, and achieves excellent results

My first foray into woodworking was back in 1976. Newly married, rather than a hobby, this was more out of necessity. Armed with only a cheap jigsaw, tenon saw, some chisels and plane, I had little experience and no one to guide me. Wishing to make items such as bedside cabinets and kitchen cupboards, I purchased a basic dowelling jig (**photo 1**), and used it to build a number of projects. The results were somewhat mixed as the device was awkward to use and required care in order to achieve acceptable results. I eventually gave up using dowels, the jig consigned to the back of a cupboard, but I could never bring myself to part with it.

Self-centring dowelling jig

Some years later, I bought a second-hand biscuit jointer and this became my go-to method of jointing along with using pocket-hole screws, router-cut dovetails and finger joints. Early last year, I watched a YouTube video comparing the use of dowel joints to those of loose tenons, made using the Festool Domino jointing system, and was surprised to see that under load tests, the dowel joints performed very well. This made me reconsider using dowels, and as such, I bought a self-centring dowelling jig (**photo 2**), which I've since used to make a variety of projects. Limited to edge jointing, which it does fairly well, the system doesn't present a complete solution; as such, I was on the lookout for something more versatile. The 'Hooked on Wood' YouTube channel, which I subscribe to, is run by a chap named Dennis, based in the Netherlands, who specialises in reviewing tools from China. He also has a website: **www.hookedonwood.online**. In August 2021 Dennis reviewed a new jig system, and the results achieved were so impressive that I found myself ordering one straight away.

WNew dowelling system

The important thing to note is that this system consists of two separate components, which are purchased separately. Shown on the right of **photo 3** is the dowelling jig – 'Three in one Punching Locator' – and on the left, a long 'Multi Row Puncher'. Both devices provide a dowel spacing of 32mm between centres.

The dowelling jig (**photo 4**) is supplied with everything you need to install 8mm dowels as well as knock-down furniture cam-lock fittings. Guide bushes can be purchased separately for 6mm and 10mm dowelling, and all jig components are made and finished to a very high standard. The supplied brad point drill bits are also good quality and the drill stops substantial. A stainless steel pin and hard plastic alignment bar facilitate easy spacing of holes across wide boards, and there's also plastic alignment pins and spare grub screws for drill stops. An instruction booklet – in both English and Chinese – is simple but adequate.

Top & side plate

The jig body (**photo 5**) consists of two parts: a top plate and side plate, which are joined using thumbscrews. The top plate is clearly marked in 0.5mm increments from 15mm up to 23.5mm, and with the side plate, appropriate 'A' or 'B' sides and offset holes are used to join the two halves. This system doesn't ensure the holes will end up exactly central to the board being joined, and although not essential, you must ensure the orientation of components is correct when clamping the jig in place. In order to achieve an offcentre result, however, you could shim the jig using paper or card, in order to compensate for the less than 0.5mm discrepancy. Boards thicker than 23.5mm can, of course, be jointed provided you can accommodate holes offset from the centre. For wide boards, you could produce two rows of dowels by referencing off both sides of the workpiece. The top plate can also be used in isolation on a flat surface and the alignment points allow easy setting to a line drawn on the board you're drilling.

A variety of projects

Setting drill depth (**photo 6**) is easy as the guide bush thread is only a fraction short of the jig thickness and can be used to set the drill stop position. The drill shown in the photo is different to that supplied – this one has been ground to a shallow angle, thus facilitating maximum hole depth in 19mm plywood.

The first project I made using the jig was a large mirror frame in laminated oak. As shown in **photo 7**, the stainless steel alignment pin has been used to provide reference from the end of the component, with two holes drilled in the frame's inside face. Similarly in **photo 8**, two holes are drilled in the ends of mating frame pieces.

1 The first basic dowelling jig I purchased many years ago

2 This self-centring dowelling jig has been used to make a number of different projects

3 Shown on the right is the new dowelling jig – 'Three in one Punching Locator' – and left, the long object is a 'Multi Row Puncher'

4 The dowelling jig is supplied with everything you need to install 8mm dowels as well as knock-down furniture cam-lock fittings

Care must be taken to ensure the jig is always clamped to the front face of the frame components. **Photo 9** shows application of varnish to the inside edges of four sides prior to assembly, and once completed, I was pleased to find all joints perfectly flush.

Using the new jig, the biggest project I've constructed thus far, using melamine-faced chipboard, are two large wardrobe internal shelving units – 1,930mm high × 600mm deep × 470mm wide. Prior to this, I built nine similar units using a biscuit jointing method to fix shelves to the sides; however, I always found glue-up stressful and difficult in terms of trying to keep the units square. **Photo 10** shows one of the 600mm deep shelves being drilled and the stainless steel alignment pin inserted into a hole to ensure exact spacing. Alternatively, the spacer bar provided can be used in one of the jig holes instead of the stainless steel pin (**photo 11**); this is ideal for spacing out holes greater than 96mm.

The jig in use

Another point to note is that unused holes in the side plate (**photo 12**) tend to fill up with sawdust. This needs to be cleared as you work, otherwise you'll have difficulty tightening the thumbscrews when adjusting the jig for various widths.

The top plate can be used to drill holes

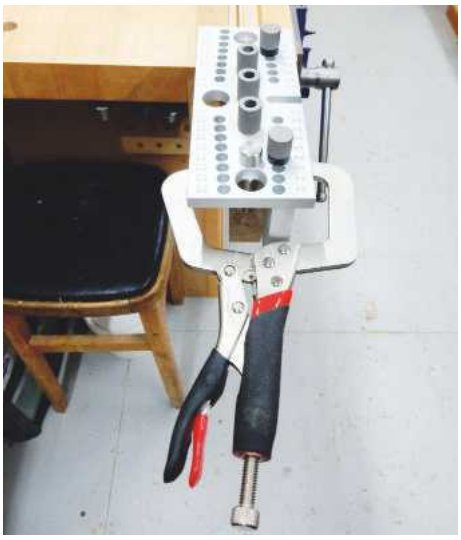
5 The jig body consists of two parts: a top plate and side plate, which are joined using thumbscrews

6 Setting drill depth is a simple task

across the face of a board (**photo 13**), but this has its limitations. As such, it's not always possible to clamp the jig in place and the plastic alignment pin, shown, is only effective on thinner boards. When using thicker material, the plastic pin is too high and, as such, doesn't sit as it should inside the groove located in the jig plate. However, this is where the second component comes into play.

The 670mm long Multi Row Puncher (**photo 14**) is supplied with six 8mm and three 10mm bushings, which can be used with the

8 Two holes are drilled in the ends of mating frame components

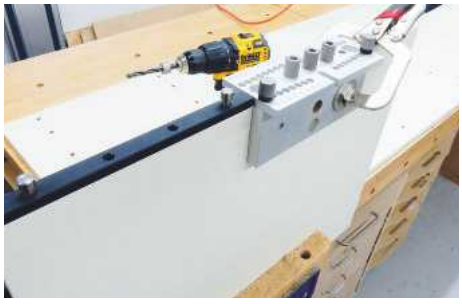


7 Using the stainless steel alignment pin to provide a reference from the component's end; two holes can then be drilled in the frame's inside face

other jig. Also supplied are two shorter stainless steel alignment pins, which provide an edge reference when required. Due to its length, the jig can be easily clamped for most situations although once the first hole has been drilled, in order to maintain a reference point, the long stainless steel pin must be inserted. The centre end pin hole (**photo 15**) is used for alignment when the device isn't being used at right angles to the edge.

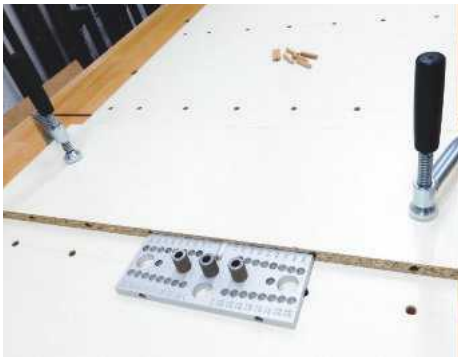
9 Applying varnish to the inside edges of four sides prior to assembly

10 Drilling a 600mm deep shelf with the stainless steel alignment pin inserted into one of the holes, to ensure exact spacing



11 Alternatively, rather than the stainless steel pin, the spacer bar provided can be used in one of the jig holes

12 Unused holes in the side plate need to be cleared of sawdust as you work



13 The top plate can be used to drill holes across the face of a board, but this has its limitations

Four sets of alignment points (**photo 16**) allow the Puncher to be set to a line drawn on the board to be drilled. This jig can also create equally-spaced holes for shelf supports, and I've actually bought some 8mm versions for this very purpose.

In total, each of the wardrobe units required 104 dowels (**photo 17**). I first glued these into the sides before adding shelves. Clamping up was a success (**photo 18**) and the structure pleasingly square. Note: some pocket-hole screws were still required in the bottom plinth – notches at the rear ensure the unit clears the skirting board.

15 The centre end pin hole provides alignment when the device isn't being used at right angles to the edge

17 In total, each of the wardrobe units I built required 104 dowels

14 The 670mm long Multi Row Puncher is supplied with six 8mm and three 10mm bushings, which can be used with the other jig

Conclusion

Although the two jig components can be purchased separately, the system only comes into its own when these are used together, so therefore, my overall verdict reflects this. Also bear in mind the materials used during testing of the jig – chipboard, oak-veneered MDF, birch ply, laminated oak, beech panels, softwood and solid hardwood – and performance rating given is based on results achieved using these. With this in mind, it's fair to say that the system has been thoroughly put through its paces.

16 Four sets of alignment points allow the Puncher to be set to a line drawn on the board to be drilled

18 Clamping up was a success and the structure pleasingly square

SPECIFICATION

3-in-1 Dowel Jig

Suitable thickness for drilling in wood: 15-30.5mm

Contains: Dowel jig body; 253mm extension rod; locking handle; 8mm locating rod; 15mm hole knife; M18 5/10mm & M14 7/8/10mm drill bushing; 3mm Hex socket wrench; 8mm POM & 8mm to 7mm POM locating rod; 7/8/8/10mm limiting rings; 7/8/8/10mm three-point drill bit; 20 × round wood tenons; 5 × No.268 mounting screw set; 5 × No.1518 mounting screw set

Multi Row Puncher

Contains: 6 × M14 8mm drill bushings; 3 × M14 8mm drill bushings; stainless steel locating rod

Typical prices: Wnew 3-in-1 Dowel Jig – currently available for £37.37 under a 'flash deal'. The jig can also be purchased in a black anodised finish or in either finish including a C-type clamp, although these options are more expensive. Versions of the jig are also available via Amazon but are either smaller or, for the same model as mine, priced at well over £100. **Multi Row Puncher** – currently £37.59. Note: prices can be selected and shown in either GBP or US$. Products are shipped from China and various options are available. Check website for shipping costs

Web: uk.banggood.com – for both components and spare parts

THE VERDICT

PROS

- Simple to set up and use; very well made; versatile; good value for money; can be securely clamped in position, thus ensuring accuracy; contains everything you need for 8mm dowels – and 10mm dowels if you have both components – as well as knock-down furniture cam-lock fittings; supplied with spare 6mm, 8mm and 10mm bushes – stainless steel pins are available separately; the Multi Row Puncher can also be used for drilling shelf pin holes

CONS

- If you require dowel holes to be centred exactly on the edge of a board, unless willing to use shims, some users may not be entirely happy with results

RATING :
PERFORMANCE: 5 OUT OF 5

RATING:
VALUE: 5 OUT OF 5

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ROBERT SORBY STEADYPRO

Solidly built and a handy hollowing aid, **Bob Chapman** takes a closer look at the **SteadyPro system** from **Robert Sorby**

The Robert Sorby SteadyPro is an impressive piece of kit. It's solidly made from 5mm steel plate with two polished rollers, which ensure the tool moves smoothly. Included is an Allen key to adjust the rear roller and a well-written and illustrated user guide. Stems are available in several diameters and lengths – purchased separately – to suit various lathe banjos.

Essentially, the SteadyPro is a deep-hollowing rig for use with scrapers and hollowing tools and, not unexpectedly, Robert Sorby recommend their own brand tools. Over the years, I've acquired a collection of hollowing tools and scrapers, many of which are home-made, but the SteadyPro accommodates all-comers easily. The tool passes under the upper, rear roller and rests on top of the lower, front roller. The position of the rear roller dictates tool angle and can be adjusted to suit each turner's individual requirements. This arrangement keeps the tool steady and prevents troublesome catches and dig-ins, which can occur when reaching the bottom of a hollow form.

Outside shaping

The user guide shows the SteadyPro being used to shape the outside of what appears to be a bowl, but it strikes me as unnecessary for this purpose. I gave it a try, using a scraper, as recommended, and if you habitually use a scraper for this sort of shaping, you'll likely find the SteadyPro useful. However, it's easy to position an ordinary toolrest close to the work, so with this in mind, using a scraper, or any other tool on the outside, shouldn't pose a problem, even without the SteadyPro. This was my first attempt at cutting the wood and, to begin with, I have to say that it did feel distinctly odd. During turning, the conventional method is to exert downward pressure on the tool, and thus the toolrest, but here the tool must be lifted upwards under the rear roller. If it drops, a catch is therefore likely to occur. This upward pressure feels strange from the outset and does take some getting used to. The rollers rotate very smoothly and allow easy movement of the tool around the work.

Stem length

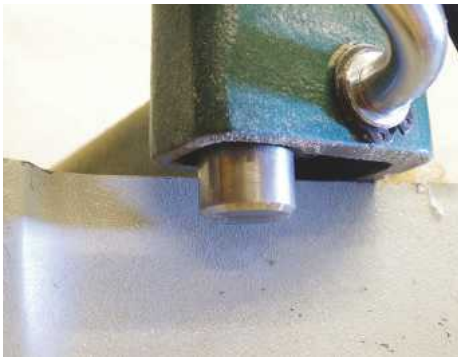
Positioning the SteadyPro across the end of a workpiece requires the banjo to be moved across the lathe bed, and this is where I came unstuck. When discussing requirements prior to testing, I quoted the diameter of the necessary stem but didn't consider its length. As such, I soon realised the stem was too long and wasn't able to move the banjo across the bed. My own fault, to be sure, but something to be aware of if ordering one yourself. I remedied this by manoeuvring the banjo round the end of the bed, so the over-long stem was located in a gap in the middle of the lathe bed. A more convenient and permanent solution would be to cut off a couple of inches.

Hollowing

Next, I adjusted the SteadyPro in order to use a spindle gouge to bore a hole in the end of a piece of ash. This involved two adjustments: firstly, the height of the SteadyPro so the cutting tip was on the centre of the workpiece, and also to the rear roller, to ensure the gouge was perfectly horizontal. While the guide made this sound fairly straightforward, I struggled. Adjusting the height correctly involved supporting the – not trivial – weight of the SteadyPro while also holding the tool horizontally, then tightening the toolpost locking lever. An extra hand would've been useful here! I found that by first adjusting the rear roller, I could then support the weight while holding the tool horizontal with one hand, thus leaving the other free to lock the SteadyPro in place. Once adjusted, hole boring was a simple task, opening it out further with the gouge held securely between rollers.

Over and under – how the tool should be held

Use on the outside – unnecessary, really?



When ordering a lathe stem, ensure to quote the correct length and diameter

The rollers make sideways movement easy and incredibly steady

Any hollowing tools or scrapers can be used with the SteadyPro

Next, I tried my Rolly Munro mini hollowing tool, which features a slightly bigger shaft than the spindle gouge, and as such, the rear roller had to be adjusted upwards until I reckoned the cutting edge was at the correct height and angle. I didn't get it right at first and had to further adjust roller height a few times before the tool would cut efficiently. This was helped by being given a clear view of the tool's cutting tip. Since the SteadyPro is designed to allow safe working inside a deep hollow vessel, I extended the tool shaft and moved the SteadyPro until it was around 20cm from the workpiece. Even at this distance from the front support roller, the tool cut well although I did experience some vibration, which was caused by the tool shaft flexing. I think this is somewhat inevitable with such an overhang, but the SteadyPro allowed me to hold the tool securely and with ease.

Next, I tried one of my home-made hollowers, consisting of a broad scraper head mounted on a 15mm steel shaft. After adjusting the rear roller once more, I gave it a try. As before, I experienced some vibration, possibly due to the scraper's broader contact cancelling the effect of the thicker shaft. However, despite that, the scraper cut well and smoothed out the surface with no tendency to catch.

For the final test, I used the Robert Sorby multi-tip hollowing tool fitted with a round end scraping tip – the only Sorby hollower I own. The tool features a flat on one side of the shaft and is used with this side placed on the toolrest – or front roller in this case. Unfortunately, using this tool, the rear roller required further adjustment, but once set up correctly, I was able to remove wood quickly and easily.

The half-round multi-tip hollowing tool in use...

... which I found to produce excellent results

Conclusion

The SteadyPro is a solidly built, sturdy tool that does everything promised by the manufacturer. Professional turners are unlikely to need it, but for beginners, due to the security offered as well as protection from catches, it'd be a definite aid. The fact it requires readjustment almost every time you change tool does, in my opinion, become fairly tedious, but other turners may disagree.

Simulating hollowing a deep vessel using the Robert Sorby system

In the case of a large overhang, the SteadyPro doesn't prevent tool vibration

SPECIFICATION

- Easy to set up and use
- Fits a wide range of woodturning lathes
- High quality components ensure smooth operation
- Suitable for all levels of woodturning
- Unique design ensures positive tool support
- Helps reduce tool vibration and chatter
- Cantilever roller positioning for optimum tool support
- Heavy-duty construction
- Quick and easy to adjust
- Maintenance free
- **SAFETY NOTE:** The SteadyPro must be used with care and appropriate PPE worn during use

Typical prices: SteadyPro without lathe stem – £106.98; with lathe stem – £119.12. A large selection of stem sizes is available, all priced at £119.12
Web: www.robert-sorby.co.uk

THE VERDICT

PROS

- Well built; does what it says on the box; good user guide supplied

CONS

- Adjusting can be tedious; maintaining upward pressure on the rear roller is counter-intuitive

RATING : PERFORMANCE: 4 OUT OF 5

RATING: VALUE: 4 OUT OF 5

WIN! A Robert Sorby SteadyPro turning system with stem

We're giving one lucky reader the chance to get their hands on this versatile woodturning jig from **Robert Sorby**

As reviewed by Bob Chapman on pages 20-21, the Robert Sorby SteadyPro turning system is an easy-to-use jig that provides additional tool support during hollowing, as well as for a variety of other woodturning tasks.

The versatile SteadyPro fits a wide range of woodturning lathes and utilises stems from Robert Sorby's modular toolrest system.

Recommended stems

The easy-to-adjust cantilever action of the clamping rollers ensures optimum control for a large selection of tool sizes.

Features & benefits

- Easy to set up and use
- Fits a wide range of woodturning lathes
- High quality components ensure smooth operation
- Suitable for all levels of woodturning
- Unique design ensures positive tool support during use
- Helps reduce vibration and chatter
- Cantilever roller positioning for optimum tool support
- Heavy-duty construction
- Quick and easy to adjust
- Maintenance free

The SteadyPro system can be used with recommended Robert Sorby turning tools – see website – as well as a wide range from other manufacturers.

Robert Sorby SteadyPRO Turning Made Easy

Safety warning

This product must be used with care and appropriate PPE worn during use. Ensure to read the supplied user guide prior to use. The SteadyPro system also benefits from the world-renowned Robert Sorby lifetime guarantee.

In order to keep the rollers in perfect condition, the manufacturer recommends an application of light oil when the system isn't being used.

To find out more about products offered by Robert Sorby, see **www.robert-sorby.co.uk**.

HOW TO ENTER

To be in with a chance of winning the **Robert Sorby SteadyPro turning system including lathe stem**, visit www.thewoodworkermag.com/category/win and follow instructions given. Please note this competition involves two-part entry, requiring you to sign up as a member of our website and forum – see **www.thewoodworkermag.com/forums**

QUESTION: What is the SteadyPro's primary purpose?

A: Hollowing **B: Thread-chasing**
C: Scraping

To enter, visit www.thewoodworkermag.com/category/win and select the correct multiple choice answer – either A, B or C – then follow instructions for the second part of entry: visit our forum thread and tell us why you'd like to win this particular prize

The winner will be randomly drawn from all correct entries. The closing date for the competition is **17 June 2022**. Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Robert Sorby are not eligible to enter this competition

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Brassed off

Trouble with his butt hinges sends **Robin Gates** to *The Woodworker* of March 1927 for advice

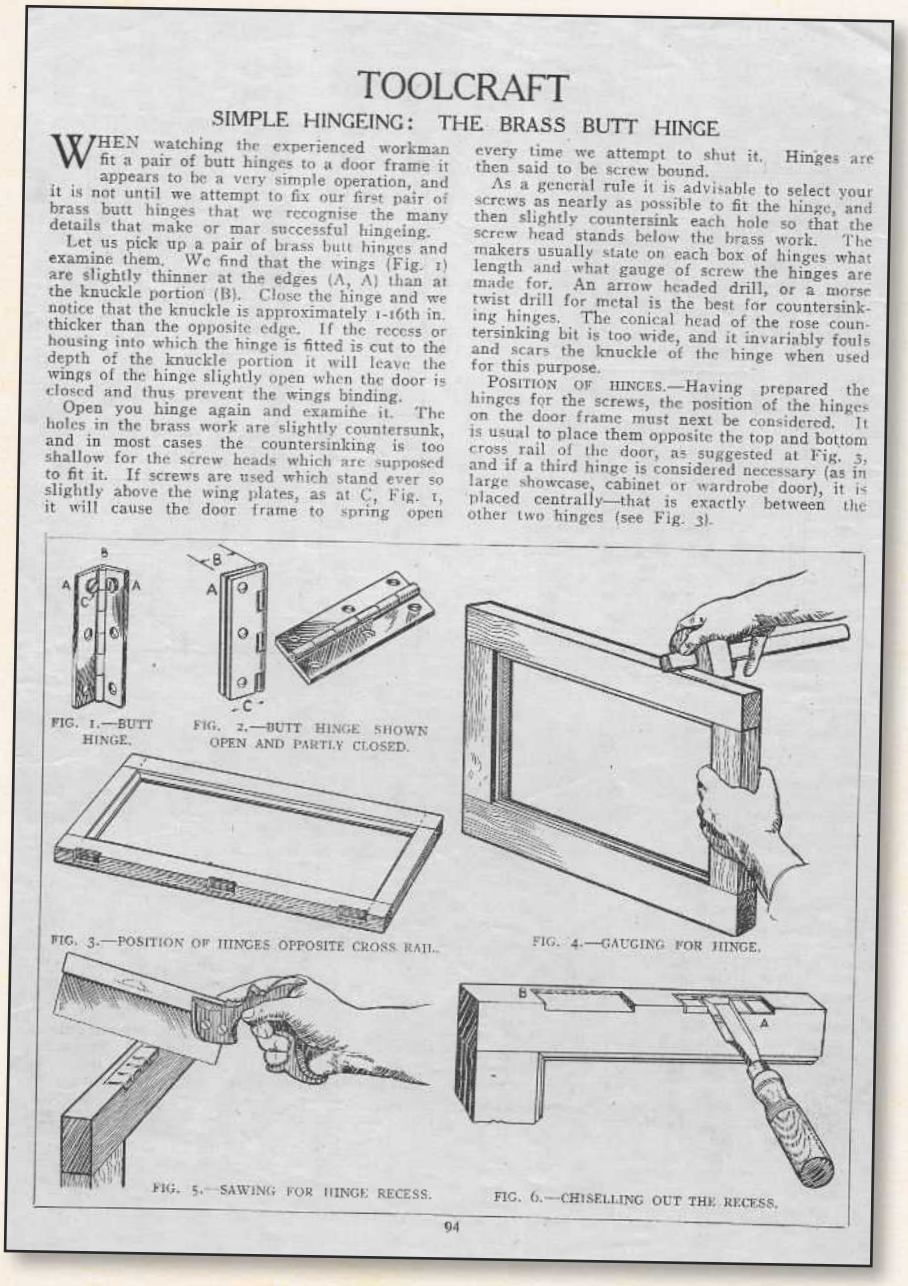
There's nothing like a door hung badly to set the seal on a difficult day, but a mug of tea and a vintage copy of *The Woodworker* from March 1927 was proving an effective remedy. I'd been attracted by its story of a chest of drawers – the third in a series on English domestic furniture. Apparently it all began with drawers installed at the bottom of a six-board chest – you know the sort, with hinged lid – the advantage being that you wouldn't have to turn over the entire contents to reach things lower down. From such a chest with drawers, so we arrived at the entire volume of the piece becoming a chest of drawers, and it was goodbye to the hinged lid. An illustration showing details of drawer construction explains how these provide clues to dating an antique. Simple rebated joints suggest a Jacobean piece, for example, while half-blind dovetails became the norm for drawer fronts in a chest of the late 18th century – as they remain to this day.

Beginners' guide

There's a brief but fascinating biography of pioneering English printer William Caxton (1422–1491), here described as a 'shrewd, capable business man with a wonderful grasp of affairs' who, in the 1470s, founded England's first printing press within the monastic bounds of Westminster Abbey. The merchant adventurer Caxton had learned how to use the press while living among the 'authors, scribes, translators and illuminators' of Bruges.

On the practical side we're shown how to make a folding clothes airer, newspaper rack, cutlery cabinet, kitchen dresser, and a shapely spokeshave for the toolbox. The second of an ambitious series on building a Chesterfield suite sees the framing of an easy chair. Hmm, well at least it doesn't require hinges.

And it was just as the discomfort of my cringeworthy hingeing had subsided that I turned the page to discover the month's last feature – a beginner's guide to 'Simple Hingeing: The Brass Butt Gauge'. Oh well, better late than never.



TOOLCRAFT

SIMPLE HINGEING: THE BRASS BUTT HINGE

WHEN watching the experienced workman fit a pair of butt hinges to a door frame it appears to be a very simple operation, and it is not until we attempt to fix our first pair of brass butt hinges that we recognise the many details that make or mar successful hingeing.

Let us pick up a pair of brass butt hinges and examine them. We find that the wings (Fig. 1) are slightly thinner at the edges (A, A) than at the knuckle portion (B). Close the hinge and we notice that the knuckle is approximately 1-16th in. thicker than the opposite edge. If the recess or housing into which the hinge is fitted is cut to the depth of the knuckle portion it will leave the wings of the hinge slightly open when the door is closed and thus prevent the wings binding.

Open you hinge again and examine it. The holes in the brass work are slightly countersunk, and in most cases the countersinking is too shallow for the screw heads which are supposed to fit it. If screws are used which stand ever so slightly above the wing plates, as at C, Fig. 1, it will cause the door frame to spring open every time we attempt to shut it. Hinges are then said to be screw bound.

As a general rule it is advisable to select your screws as nearly as possible to fit the hinge, and then slightly countersink each hole so that the screw head stands below the brass work. The makers usually state on each box of hinges what length and what gauge of screw the hinges are made for. An arrow headed drill, or a morse twist drill for metal is the best for countersinking hinges. The conical head of the rose countersinking bit is too wide, and it invariably fouls and scars the knuckle of the hinge when used for this purpose.

POSITION OF HINGES.—Having prepared the hinges for the screws, the position of the hinges on the door frame must next be considered. It is usual to place them opposite the top and bottom cross rail of the door, as suggested at Fig. 3, and if a third hinge is considered necessary (as in large showcase, cabinet or wardrobe door), it is placed centrally—that is exactly between the other two hinges (see Fig. 3).

FIG. 1.—BUTT HINGE.

FIG. 2.—BUTT HINGE SHOWN OPEN AND PARTLY CLOSED.

FIG. 3.—POSITION OF HINGES OPPOSITE CROSS RAIL.

FIG. 4.—GAUGING FOR HINGE.

FIG. 5.—SAWING FOR HINGE RECESS.

FIG. 6.—CHISELLING OUT THE RECESS.

94

Butt hinge checks

As it turned out, I might have hinged more successfully had I studied the butt hinges themselves more closely. As you might just be able to make out from **Fig.1**, the hinge's wings are thinner at the edges than at the knuckle, which is designed to prevent the hinge binding – i.e. not closing fully. Armed with this nugget, I shot outside to the shed and subjected my hotchpotch of butt hinges to examination by Vernier gauge. Sure enough, some big old brass hinges I'd salvaged from a rotten front door were thicker at the knuckle – 3mm – than at the wing's trailing edge – 2mm – but an equivalent pair of new butt hinges – waiting until now to be surgically removed from their hideous plastic packaging – were the same thickness in both areas. Evidently not all butt hinges have been created equal; in future I must remember to check for tapering wings. And another thing: are the countersinks for screw heads sufficiently countersunk? If not, clearly the heads will stand proud, once again preventing the hinge from closing. Better keep the countersink bit standing ready.

The article goes on to explain recessing of the hinge's full thickness in the door stile, first gauging the face of the piece for wing width as far as the pivot pin's centre, next gauging the edge to thickness of the knuckle, thence removing waste using dovetail saw and chisel. For a heavier door, steps are shown for recessing the hinge partly in the carcass, so that the screws don't bear all the weight. One more thing to remember is allowing for thickness of the marking gauge pin – I'm sure I forgot to do that!

18+

WHAT IS AVAXHOME?

NEW ENTRY DEADLINE:
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A £20 entry fee applies and a maximum of two entries can be made **(£20 per entry)**

THE Alan Peters FURNITURE AWARD 2022

For the second year running, this is your opportunity to be part of a prestigious annual award, which champions UK furniture design and making talent while celebrating the life and work of the late **Alan Peters** OBE

Woodland Heritage – Patron of The Alan Peters Furniture Award 2022

Woodland Heritage was established as a charity 27 years ago, in 1994, by two cabinetmakers keen to 'put something back'.

A membership-based organisation, the charity supports the resilient management of woodlands, development of the timber supply chain, furthering of knowledge and skills within the forestry and timber sectors as well as within the general public, and tackling of threats to the future supply of high-quality UK timber.

As well as running the popular 'From Woodland to Workshop' courses and a Field Weekend each year, Woodland Heritage produces an annual Journal for its members.

For many years, the charity sponsored the 'Best use of British Timber' award at the Celebration of Craftsmanship & Design exhibition in Cheltenham, which recognised the creative talents of both established woodworkers and those relatively new to making.

Since 2016, Woodland Heritage has owned Whitney Sawmills in Herefordshire, with its support for research into Acute Oak Decline dating back to 2009, since which time £2.5m has been raised to tackle this threat to our most popular tree.

HRH The Prince of Wales has been Patron of Woodland Heritage since 2005. For more information, see **www.woodlandheritage.org**

2019 winner of Woodland Heritage's 'Best Use of British Timber Award' – Adrian McCurdy's 'Ark'

WOODLAND HERITAGE

The Woodworker & Good Woodworking

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

Both one-off designs and potential batch-produced designs are encouraged and the piece(s) doesn't 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 e-book, which is offered free-of-charge here: **www.woodomain.com/alanpetersaward2022** .

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, while moving tradition forward, resulted in the creation of many timeless pieces. He created affordable, functional furniture, which was built 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 event in Cheltenham. The award ran for eight years and the judging panel comprised of Jason Heap, Keith Newton and Jeremy Broun.

Following the success of the 2021 online award, this year a physical exhibition, plus prize-giving ceremony, will take place at Axminster Tools' Nueaton branch on 12 October.

Expert judging panel

Jeremy Broun (Organiser) – designer-maker and co-exhibitor with Alan Peters from 1978–2002

Andrew Lawton – designer-maker who worked with Alan Peters as well as on his last commission

Freya Whamond – Yorkshire-based woodworker and furniture designer-maker.

2021 AWARD WINNERS

1ST PRIZE

Overall winner of The Alan Peters Online Furniture Award 2021: Andrew Lapthorn's 'Remnant' table

2ND PRIZE

Aidan Donovan's 'WAGA' table in English elm

3RD PRIZE

Nick Newlands' 'Art Chest' in cherry and sycamore

PRIZES OFFERED

1ST PRIZE £1,000 Axminster Tools voucher

2ND PRIZE £500 English Woodlands Timber voucher

3RD PRIZE £300 Judges' prize

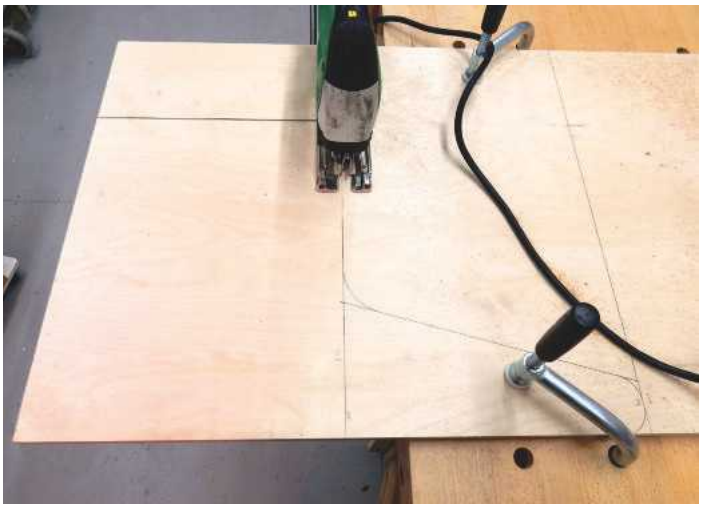
This award is open to any resident citizen of the British Isles, aged over 18, who has an enthusiasm and flair for woodworking. A piece of furniture – indoor or outdoor – is to be made and six high resolution JPEG images submitted, together with a Word document description. Shortlisted applicants will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

Judging of entries will take place in September followed by a judging ceremony and exhibition on 12 October

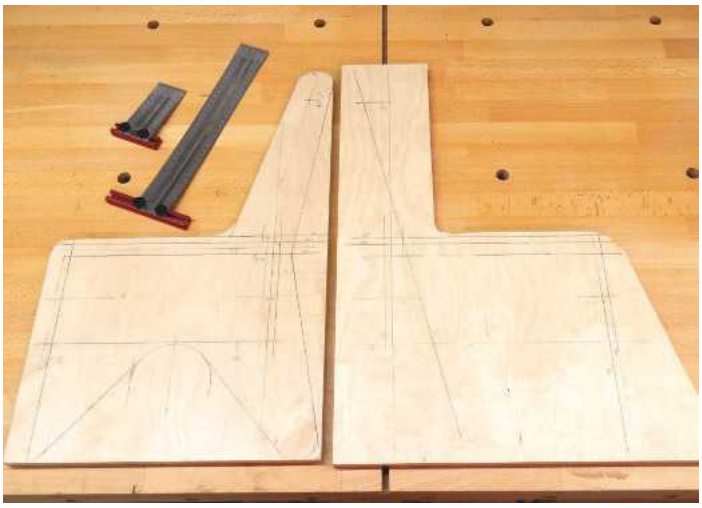
Despite the award deadline having been extended to **31 August 2022**, it's still important to get designing and making as soon as possible. To download an application form and view the free e-book, visit **www.woodomain.com/alanpetersaward2022**. The entry form can be found at the right of the page. Payment for entry can also be made securely via the website. For further information, contact Tegan Foley **tegan.foley@mytimemedia.com**), or Jeremy Broun (**jezbroun@gmail.com**)

Using birch ply offcuts and the **WNew dowelling system** previously reviewed, **Geoff Ryan** makes a chair for his grandson complete with various laser-engraved details, which add a personal touch to the project

HARRY'S SEAT



1 After drawing one of the sides onto plywood, I roughly it cut out using a jigsaw



2 The second side is left oversize for now

I've already made a number of items for my granddaughter, so, with Harry, my two-year-old grandson in mind, I set about making a personal piece for him. I saw this as a good opportunity to put my new WNew dowelling system through its paces – as reviewed on pages 16-18 – as well as getting some practice using my upgraded laser engraver.

Harry is fascinated by cupboards, boxes with lids and any type of lock mechanism, so I decided to build a simple seat with storage space under the lid and an inner, locked, 'top secret' area. I already had everything required – 18mm, 12mm, and 3mm birch ply offcuts left over from a previous project – plus a length of solid brass piano hinge. I bought the lock for £2 from a local locksmith who was selling off some old, reduced price stock.

Building the seat

Carrying out an online search for 'children's chair dimensions' turned up some useful guidance in terms of heights suitable for a range of ages and sizes, and I eventually settled on a seat height of 300mm. Harry is growing up fast, so my aim was to ensure he'd be able to enjoy the chair for as long as possible. The overall dimensions of the project are 600mm high × 315mm wide × 380mm deep. All components are made from 18mm ply except for the seat box bottom – 3mm ply – and inner box lid – 12mm ply.

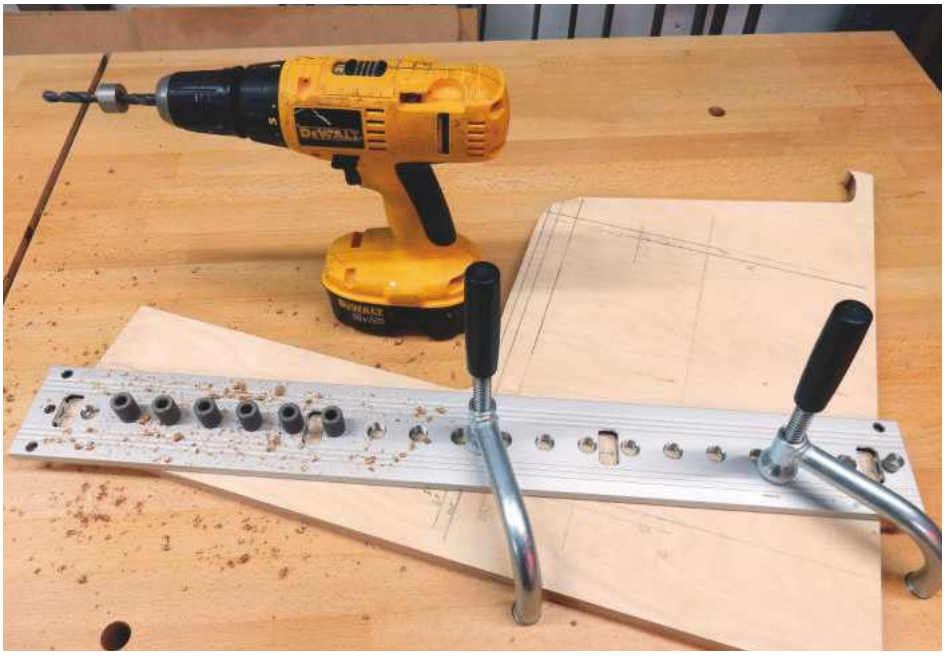
After drawing one of the sides onto a piece of plywood, I roughly cut it out using a jigsaw (**photo 1**). The second side was left oversize for now (**photo 2**). An important point to note is that the bottom rear corner of both side pieces needs to be accurately cut at 90° as the bottom and rear edges are used as reference surfaces for all measuring and marking out for dowel positions. I used my Incra 'T' rules to ensure accuracy here.

To drill dowel holes for the backrest, I inserted a single alignment pin into the end of the jig and married up alignment points with the line drawn (**photo 3**). After drilling the first hole, although careful clamping should ensure the jig doesn't move, a stainless steel alignment pin or dowel can be inserted prior to drilling further holes.

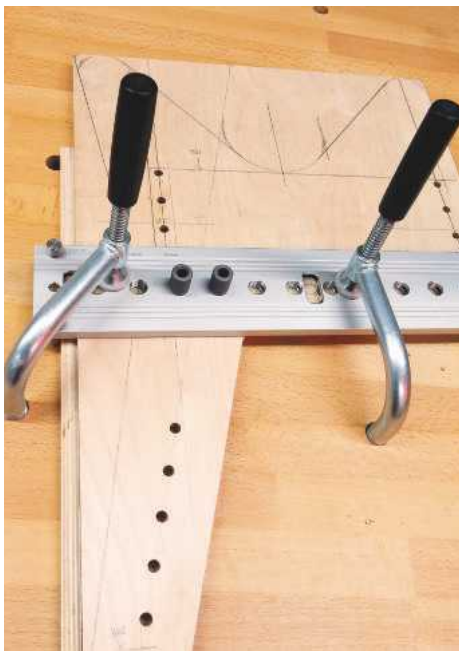
The rear edge of the seat is made using a narrow piece of ply with two dowels located at each end (**photo 4**). Note the scrap of plywood between the seat side and jig alignment pins. The rest of the seat panel will be attached to this component using a piano hinge.

Once all the dowel holes were drilled in both sides, I sanded one of these down to the outline before rounding over the corners. A fixed belt sander (**photo 5**) and oscillating drum sander (**photo 6**) help to keep all edges square.

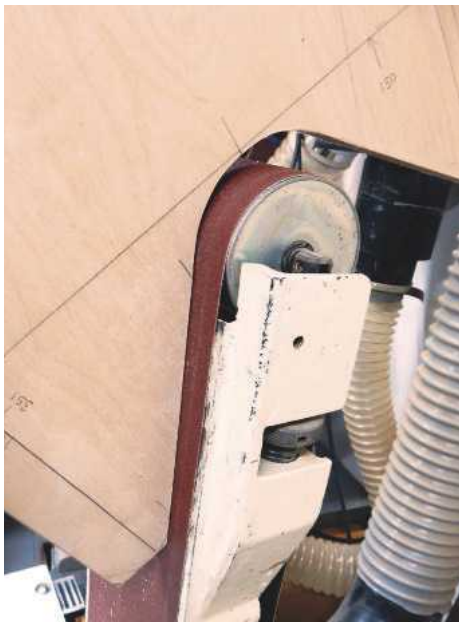
So how accurate was my marking out and hole drilling? The dowels were all 40mm long and holes drilled 12mm deep, so I cut some dowels in half (**photo 7**) and chamfered the ends with a pencil sharpener. When both sides were pressed together (**photo 8**), I was pleased and amazed to find that the dowels lined up perfectly.



3 When drilling dowel holes for the backrest, I inserted a single alignment pin into the end of the jig and married up alignment points with the line drawn



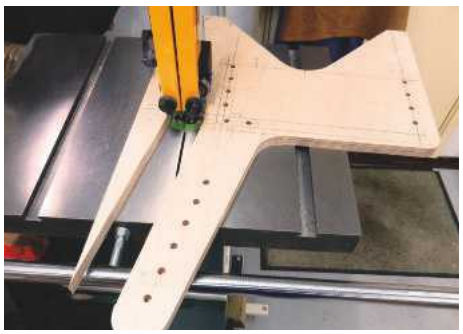
4 Two holes are drilled in each side for the seat rear support panel



5 A fixed belt sander...

After drawing round the shape of the finished side, using a bandsaw, I was able to cut around the outside of the line on the second side (**photo 9**). Then, as before, with both halves locked together, I used a bearing-guided straight bit in a router table to bring these to the same size (**photo 10**). The end result was two identical sides, with perfectly positioned dowel holes (**photo 11**).

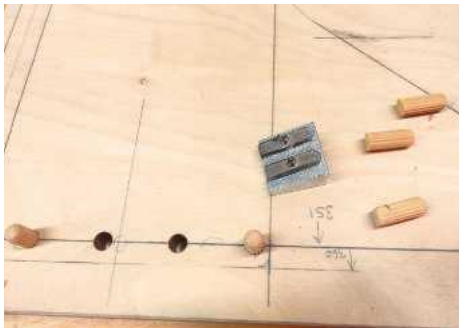
The only other components that required careful alignment were the seat front and back panels. With the seat panel located on its two dowels, the rear panel was butted up against it and hole positions on the side carefully transferred to the edge (**photo 12**).



9 After drawing round the shape of the finished side, using a bandsaw, I cut around the outside of the line on the second side

10 As before, with both halves locked together, a bearing-guided straight bit mounted in a router table is used to bring these to the same size

6 ... and oscillating drum sander help to keep all edges square



7 Dowels are cut in half and the cut ends chamfered using a pencil sharpener

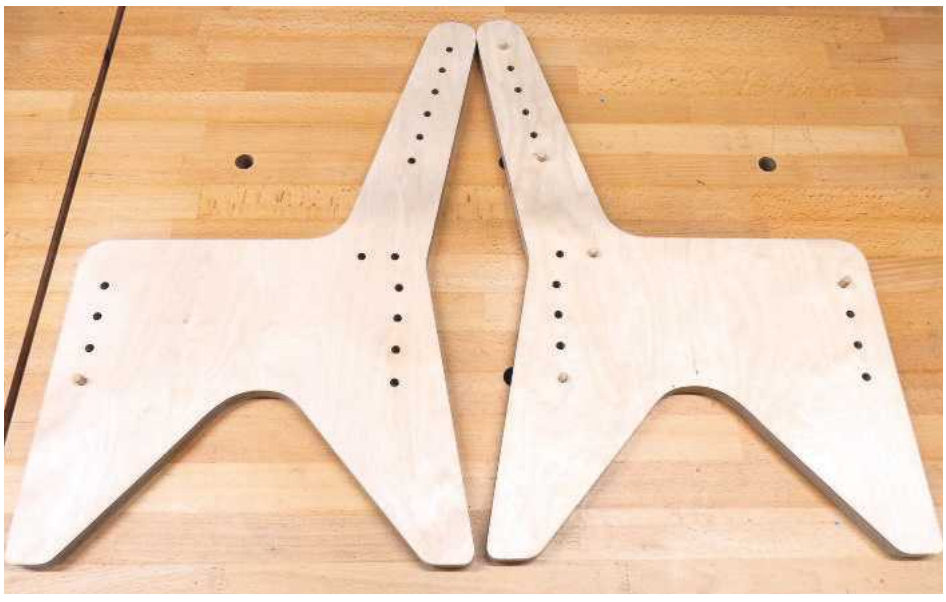
These marks were then extended across the edge of the panel (**photo 13**). With the dowel jig in place (**photo 14**), I sighted the marked lines down the drilling guides and added plastic shims between the panel's edge and stainless steel alignment pin, until everything lined up. I drilled one hole and checked it for alignment (**photo 15**). I used the shim to ensure holes were drilled at the same spot on each end of both panels. Once one hole had been drilled, to ensure correct spacing, I could then choose whether to use the stainless steel alignment pin or a dowel.

The bottom of the seat box was made from 3mm ply. Using my table saw fitted with a flat-top toothed blade, which is faster and easier than a router, I cut a slot in both the front and back panels (**photo 16**). Although the slot coincides with the position of the bottom dowel holes, this didn't affect the strength of the joint. Creating matching slots in the two sides, however, did require use of a router (**photo 17**). I used the front and back panels to mark the slot's position and clamped a straightedge an appropriate distance away. Then, using a 3mm bit, I proceeded to cut the slot in several passes.

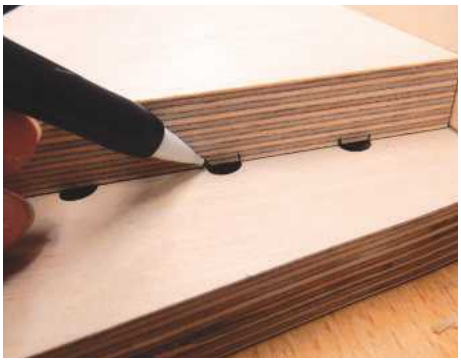
8 When both sides are pressed together, if all goes according to plan, dowels should line up perfectly

It was then time for me to carry out a 'dry run' (**photo 18**). With dowels in place, I was pleased to find that the whole structure came together perfectly, dead square, with no gaps. To help decide where the seat hinge should be placed, using a ruler, I extended the face of the back panel (**photo 19**). To ensure the top opened without fouling the bottom edge of the back, I had to place the hinge forward of this position.

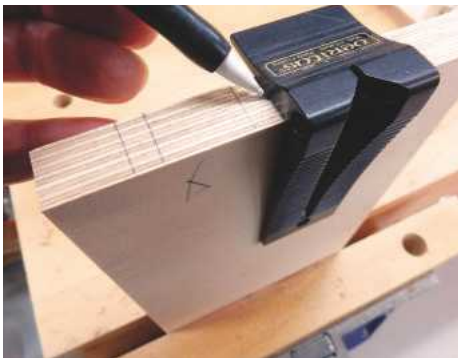
For the final shaping, I rounded over all edges using a bearing-guided bit (**photo 20**) followed by some hand sanding to remove any rough edges as well as softening the corners (**photo 21**).



11 All being well, this should result in two identical sides with perfectly positioned dowel holes



12 With the seat panel located on its two dowels, I butted the rear panel up against it and carefully transferred side hole positions to the edge



13 Extending these marks across the panel's edge

14 With the dowel jig in place, I sighted marked lines down the drilling guides and added plastic shims between the panel's edge and stainless steel alignment pin, until everything lined up

Engraving, finishing & glue-up

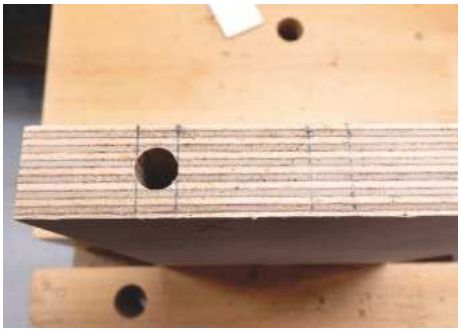
A couple of years ago, I bought a cheap Chinese laser engraver fitted with a half-Watt diode laser. The software provided was next to useless and it took a long time to burn anything. I've since purchased an upgraded software package and fitted a 30W diode laser, which is significantly faster and capable of cutting through thin plywood with ease. I've even started engraving glass and mirrors by coating the surface with a thin layer of black paint – the laser beam burns the paint and heat generated causes micro-fractures on the glass' surface. Once the remaining paint is cleaned off, the surface appears as if etched. Lasers are potentially very dangerous and can cause instant blindness; firing a laser at a mirror in particular can result in scattered reflections, so wearing the correct colour protective glasses and keeping others out of the area is essential. Another issue is the fumes produced, so ventilation's also a very important consideration.

Photo 22 shows a selection of engravings I produced. The laser burns deep and pieces need to be brushed and vacuumed to remove any soot, as this will spoil the finish. Prior to assembly, I applied three coats of water-based satin polyurethane varnish to all components.

When it came to the glue-up (**photo 23**), all went according to plan and everything stayed nice and square. Brown streaking on the seat's underside, around the lion's head (**photo 24**), was a result of natural discolouration on the plywood's surface, which only became apparent once I'd applied the finish. I chose this particular motif as I've been a Lions Club member for many years and volunteer at a charity shop.

The front seat panel also features the Lawrence coat of arms – you can find images of these online for almost any name.

The interior lettering (**photo 25**) was coloured in using various permanent markers. The ink tends to leach into the grain but the laser burn's depth forms a barrier, which stops it spreading outside the letters. To ensure the key to the lock isn't mislaid, it's attached to a cord, along with a spare key screwed to the box's interior. I drilled a hole in the box's lid, then epoxied the lock in



15 Drilling a hole and checking for alignment

16 Using a table saw fitted with flat-top toothed blade, which is faster and easier than a router, I proceeded to cut a slot in both the front and back panels

17 Using a router, matching slots are cut in the two sides

18 I was then ready to carry out a 'dry run', with all components assembled

19 To help decide where the seat hinge should be placed, using a ruler, I extended the face of the back panel

20 For final shaping, all edges were rounded over using a bearing-guided bit...

21 ... followed by some hand sanding to remove any rough edges as well as softening the corners

22 Various laser-engraved seat components

24 Brown streaking on the seat's underside, around the lion's head, was a result of natural discolouration on the plywood's surface, which only became apparent once I'd applied the finish

23 When it came to glue-up, all went according to plan and everything stayed nice and square

place after adding a block of plywood to ensure the overall thickness was equal to that of the length. Opening the lid reveals further interesting images (**photo 26**) – yin yang, tree of life, the alphabet and numbers. The lock mechanism engages into a slot cut inside the seat's front panel, which isn't visible from this angle.

The engravings on the seat's reverse (**photo 27**) were inspired by my granddaughter, who's at the age where she thinks 'trumping' is the funniest thing in the world! Due to the chair's overall weight, a hand-hold positioned on the back of the chair makes it easy for an adult to lift and carry. I engraved a compass rose on the seat's lid and a Celtic design underneath, which I thought appropriate as my daughter's family live just inside the North Wales border, and the children will learn Welsh at school. Overall, this small project was a success and interesting to make. It's also given me confidence in dowelling being a strong and accurate jointing system.

As mentioned in the test of this dowelling system on pages 16-18, I'm currently building some internal wardrobe storage units using melamine-faced chipboard and dowels. I'd previously relied on a biscuit jointer, but as I gain more experience, I'm beginning to find that dowels prove easier in terms of assembly and the alignment of components.

25 Interior lettering was coloured in using various permanent markers

26 When the lid is opened, further interesting images are revealed – yin yang, tree of life, the alphabet and numbers

27 Engravings on the seat's reverse are inspired by my granddaughter! Due to the chair's overall weight, a hand-hold positioned on the back of the chair makes it easy for an adult to lift and carry

28 Harry loves his specially-designed seat!

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CON400 (110V)	16"	7200m³/hr	£319.00	£382.80
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CIG81020	6.1 x 3 x 2.4m	£359.00	£430.80
CIG81220	6.1 x 3.7 x 2.5m	£399.00	£478.80
CIG81224	7.3 x 3.7 x 2.5m	£499.00	£598.80
CIG1432*	9.7x4.3x3.65m	£1159.00	£1390.80
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CBS1-5B

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CS48

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CONTRACTOR
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CONTRACTOR
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LASER GUIDE

Model	Blade Dia/Bore (mm)	Max Cut Depth/ Cross	exc.VAT	inc.VAT
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CARVE YOUR FRAME WITH PRIDE

Peter Scaife presents an ideal project for those looking to use up leftovers, who may wish to practise or learn a few new woodworking skills

Detail showing gilt cream and red paint

Would you like a job where you can't go wrong? No measurements, no joints to fit, no face side or edge to plane square; one where if you do take a bit too much off it can easily be rectified; any gaps invisibly filled and finishing is simple? Welcome to an aspect of woodcarving.

Not all carving, admittedly: no anatomical detail that requires artistic training, no repetitive moulding where every detail is visible, no trying to copy the great past masters. That said, this method can be satisfying and, if not exactly spectacular, when it's finished you can say with pride, I did that.

The roughly heart-shaped design at the top of the mirror frame wasn't intentional

I made this mirror frame after I'd fallen prey to arrogance and ignorance in attempting an earlier job – a 4ft high statue of Christ – where I should've had more knowledge of the human form. But using the tools, creating nicely flowing lines, is in itself enjoyable work.

Some lime was left over from that particular job – 25 × 75mm in varying lengths – and we needed a mirror in the hall, so I made a frame. OK, cut joints are required for the four corners, but they can be as simple as being dowelled. Timber? Lime is traditionally the best but anything fairly closed-grained and not too hard will suffice. The one I made is about 790 × 430mm overall, but the choice is yours. And then you can begin.

A selection of carving gouges will create the desired effect

Well, that is, if you have the gouges. What will you need? I'll start by telling you what you don't want: front-bent, back-bent, skews and definitely not chip carving tools because you're going to give them a good thump with a mallet on the end of the handle. As usual, you get what you pay for. Three, maybe four, narrow to medium width, nothing too dramatic in the way of a sweep – or curvature – and one of them a small V-tool. That should do you in terms of a first attempt, and such tools can be readily found online.

Next, apply cutting edge of gouge to wood surface, take mallet and hit. Then, stop, look and think. How has the grain reacted? Does it make sense to continue in this direction? Does it look good? Shall I repeat with the same tool or change? Deeper? Or not? Some element of chance creeps in. At the top of my frame is a roughly heart-shaped design. I didn't intend this when starting out and didn't really think about it until after the project was well under way.

Finishing was simple: one coat of red paint, whatever was in the workshop at the time, and one coat of Liberon gilt cream. The mirror is fixed with four small brackets.

Faults? As if! OK, the inside bottom left corner is a bit dodgy but you'd really have to be rather pernickety to comment.

Corner detail of mirror frame

Lime is an ideal material for carving, so therefore works very well for a project such as this

On reflection, it's a touch of glass: the full frame

TIPS

1. My advice is to start with an existing mirror rather then buying one specifically
2. This idea can also be adapted for a picture frame, or as decorative edging on shelves

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- Supplied with an HSS plunge saw blade (width 14mm) and 10 each sanding pads of 80, 150 and 240 grit

PROXXON BS/E BELT SANDER*

Some key features...

- 80W powerful motor
- Variable speed 300 - 700 m/min
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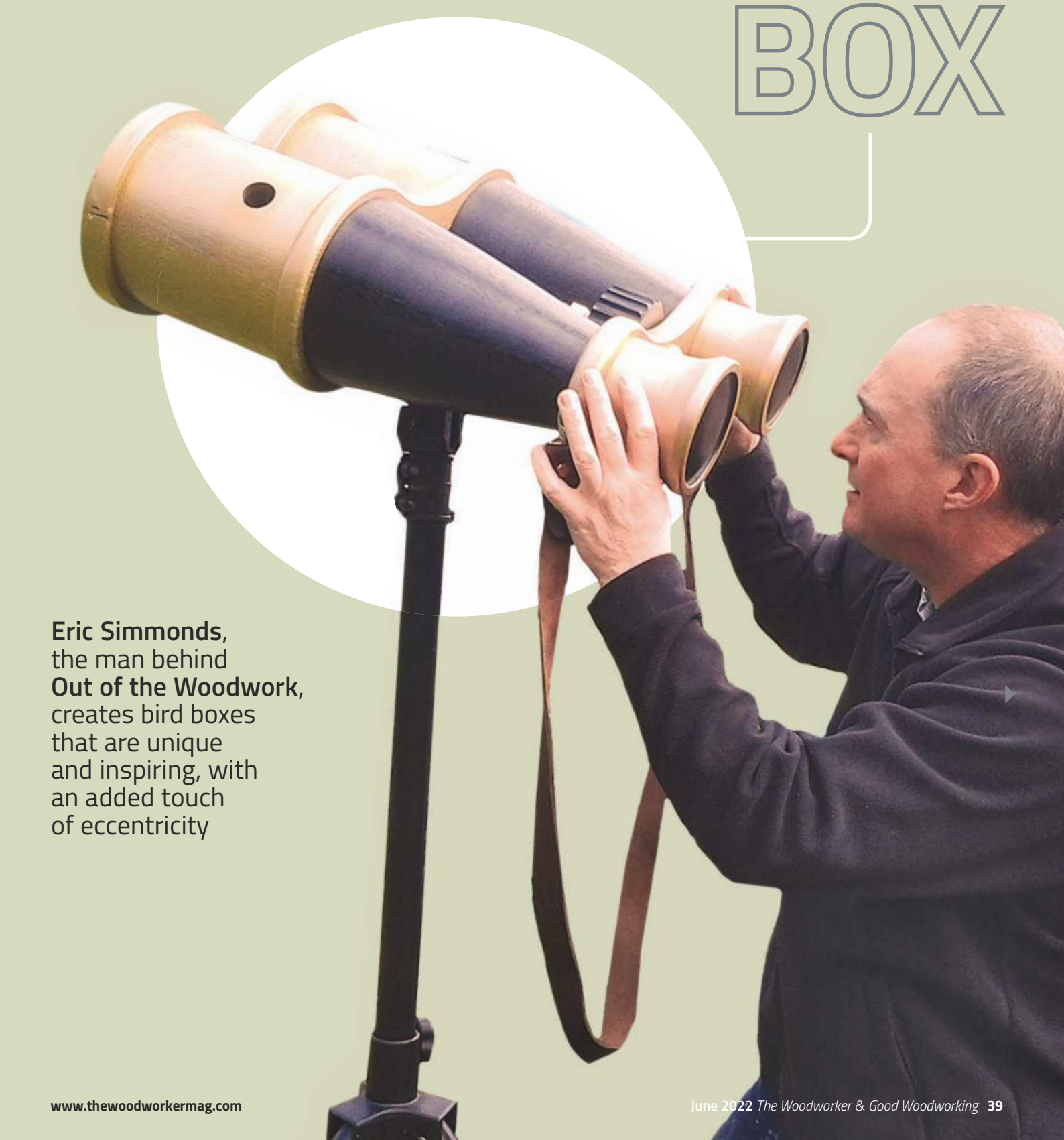
Eric with his 'Binoculars' bird box

WW PROFILE

THINK OUTSIDE THE BIRD BOX



Eric Simmonds, the man behind **Out of the Woodwork**, creates bird boxes that are unique and inspiring, with an added touch of eccentricity


One of Eric's bird boxes, laminated up, ready to turn


Once turned, the project is spherical in appearance


Eric drilling a fixing hole

Prior to the COVID-19 pandemic, Eric Simmonds was a regular exhibitor and demonstrator at many woodworking events and woodturning clubs up and down the country, and his wooden creations really do get you thinking outside the box! Seeing Eric's pieces, you can't help but smile – they're definitely eye-catching! Made using British hardwoods and reclaimed timbers, they're ideal for the home and garden, or an upcoming special occasion that you may wish to mark with a bespoke, themed piece.

Eric's unique turned creations are designed to appeal to those with a specific interest, hobby or pastime. To date, they've certainly captured the public's imagination and always create a stir wherever he takes them. Remove that image of a traditional, boring bird box from your head as we get wacky with Out of the Woodwork!

Starting a business

Otherwise known as 'Simmo', Eric found himself starting his business, which is based in Suffolk, somewhat by accident. In terms of his passion for woodworking, as many readers will no doubt relate to, this began early while at school. As a result, Eric has always had a small workshop – back when he lived at home, then once he'd bought his first house. Choosing to go his own way and not make things in the usual fashion, Eric began making bird boxes with one of his close friends. The designs produced included a wide range of shapes and sizes, and as he progressed, they also became increasingly unusual and unique. "The more I made, the more outlandish they became," Eric confirms. "I showed them to a few people and their reaction surprised me. Appearing excited and interested, it was obvious to me that my designs had great appeal." Eric went on to make a few commissions, demand grew as a result, and so the business was born.

A passion for woodworking

The youngest of six siblings, when it comes to Eric's background, he explains that he left school to become an apprentice with British Telecom (BT). When he turned 23, Eric and his would-be wife, Donna, were married and the couple went on to have three children together. "We set up home in North Essex but have lived in Suffolk for the last 35 years, or so" says Eric. "I've always had a wide range of interests with my main line of work being Commissioning Manager for a large integrated security company." With other hobbies and pastimes including cooking, wildlife, electronics and all things DIY, woodworking is Eric's greatest passion by far, closely followed by birdwatching.

Bird boxes for all

Having a vivid imagination and choosing to think outside the box – the bird box, in this case – Eric tries to link interests and pastimes as subject matter – such as sport or general hobbies like gardening – to his finished pieces. When exhibiting at shows and events, he takes many of his bird box designs with him, which allows him to demonstrate to visitors just what he can do. Eric says that suggestions made by the public never fail to surprise him, either in passing or by way of commissions placed.

According to Eric, special commissions make up the bulk of the business, and any offcuts left over are used to create other pieces, such as chopping boards and kitchen platters.

In terms of the most unusual commission he's received, Eric says this has to be 'The Grist Mill', which was made as a Christmas present for someone renovating an old mill, based on the workings of a water mill. Looking at the photo shown below left, the complexity of the piece becomes clear, and the cogs are actually reminiscent of Les Thorne's turned box featured in this issue. Comprising a multitude of components, it's amazing – extraordinary, even – how such an unusual shape can be utilised to function as a bird box. Some people would assume the piece is purely decorative, but no – this wonderful wooden item also doubles-up as a cosy home for feathered friends!


A close-up view of Eric's 'Binoculars' bird box


'Camera' bird box

'Grist Mill' bird box

'Guinness can' bird box

Eric turning on his Nova DVR 3000 lathe, wearing the appropriate PPE

'Signs of Life' bird box

To make his pieces, Eric prides himself on the fact he uses only British hardwoods and reclaimed timbers: "Somehow it wouldn't seem right to use anything else," he comments. And although many of the bird boxes are vibrantly and colourfully painted, many are left untreated, which allows the raw material's true beauty to shine through.

Design process

The biggest inspiration behind the pieces Eric makes are birds and wildlife in general, which was undoubtedly the deciding force in him starting up the business: "I've been a supporter of the Suffolk Wildlife Trust for decades," he says, "and I donate pieces to them to help raise money; this is by far the greatest drive behind what I do." The fact that Eric has single-handedly given hundreds of birds around the UK the most comfortable and unique of homes must be immensely rewarding.

Given the enormity and breadth of design commissions, the making of Eric's bird boxes is a very skilled exercise. Obviously the notion of a 'traditional' bird box goes out the window as he could be asked to create any manner of design, from a pair of binoculars, to a motorcycle helmet, to a giant tennis ball! But for every commission, regardless of shape or size, Eric begins with a scale technical drawing, which gives him all the dimensions and angles required to then create a cutting/construction list.

"For a commission, I start by submitting a sketch to the customer for approval," he explains. "Although I produce drawings of my pieces, I never reproduce anything exactly. Rather, I like to keep each one unique." From rough-sawn plank to finished product, Eric typically spends 3-4 days working on a bird box before its delivered to the customer.

While he certainly enjoys the variety of work, Eric says that making his own pieces involves a much more relaxed process. "While commissions are very interesting and great fun to make, they're also the most challenging," he explains.

And for those readers inspired by his work, Eric has some good advice for fellow makers:

Garden tree seat with hand-carved inscriptions

Eric's infamous 'Flat Tyre' bird box

'Windmill' bird boxes

Bird box design based on a tennis ball

Wedding book and greetings cards

"Invest in some good quality angle measuring equipment and learn how to use it properly. "Also, don't rely on angle gauges found on saws and other machines; these pieces of equipment aren't expensive and can save you a lot of time and incorrectly cut pieces of wood, which have no other use than for keeping you warm!"

Other completed bird boxes include a giant trowel for a customer who previously purchased a giant fork – well, you have to have a matching pair – as well as a range of windmills inspired by a donation made to a local primary school's Eco Club. The children wrote letters to ask if Eric could make some bird boxes in the shape of their school logo, and he duly obliged.

But what inspires him to keeping doing what he does? Eric explains that his passion for making bird boxes is borne out of a desire to encourage people, who wouldn't necessarily have one in their gardens, to think about the possibility of using it as a design feature, either as a focal or talking point: "My bird boxes also encourage wildlife into the garden and therefore become an important part of the overall design, rather than just an afterthought," he says.

Working space

During his time spent in the garage workshop, Eric, quite rightly, cites the importance of dust extraction, commenting that these are the most important pieces of equipment he owns. Eric takes dust very seriously, choosing to wear a full-face respirator when turning. And when it comes to creating projects, his favourite piece of kit is the Nova DVR 3000 lathe and, equally, he can't do without the DeWalt 305mm radial arm chop saw.

Being of a modest size, Eric does his best to ensure the workshop is kept tidy and organised, or at least that's the idea! During turning, he's also able to watch birds in the garden, which he loves, and no doubt provides a fair amount of design inspiration.

While he couldn't do what he does without a selection of power tools and machinery, Eric still enjoys elements of hand woodworking as well as carving, evidence of which can be seen across a wide range of his work. "Carving is a very satisfying process that you can just lose yourself in," he comments.

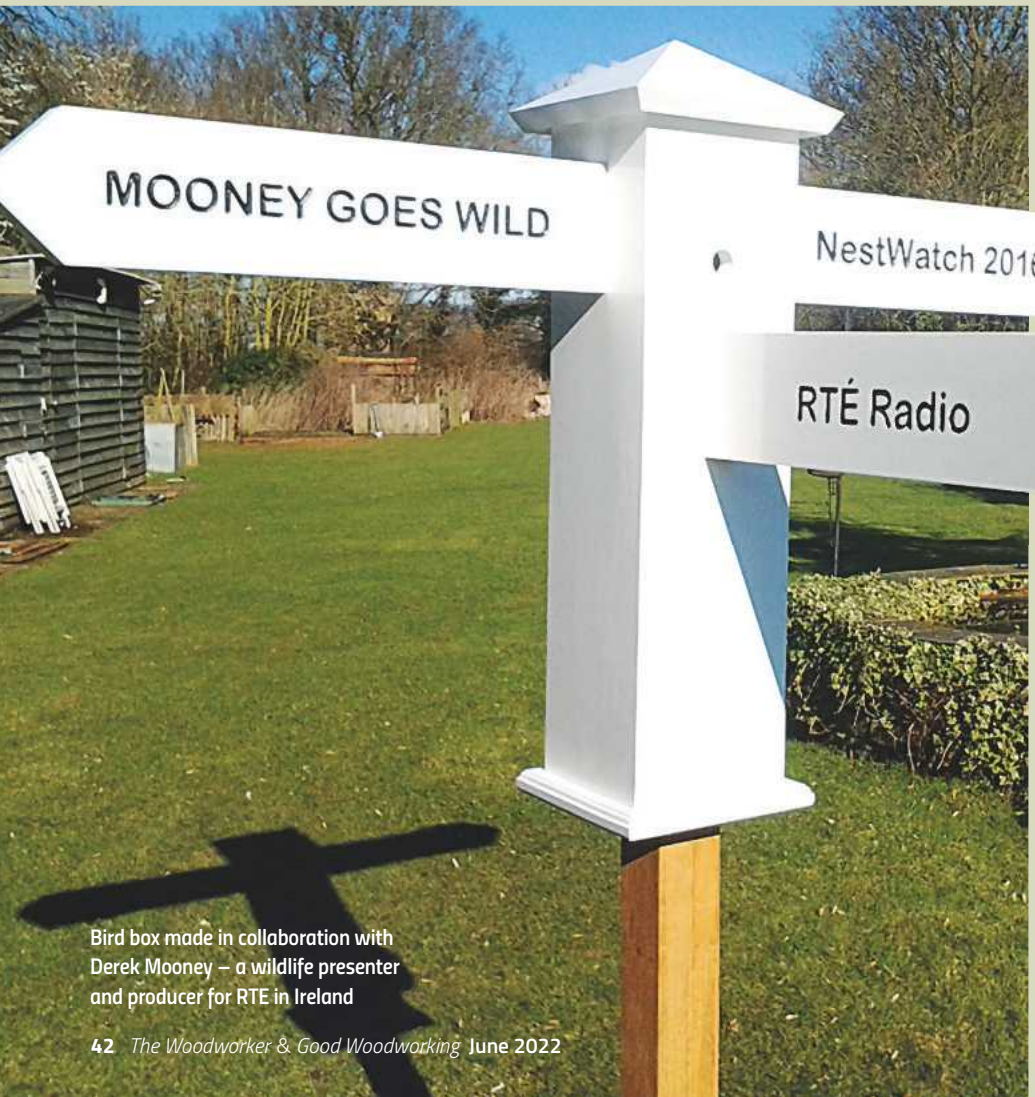
Future plans

Historically, woodworking shows have formed an integral part of Eric's business calendar in addition to demonstrations at various woodturning clubs. Now that such events are finally beginning to take place once again, you can see Eric out on the road with his 'Bird Box Boutique'.

As well as shows allowing Eric to maintain contact with key suppliers, they're also important in terms of forging strong social connections with other craftspeople, which has certainly been missed by many over the past few years.

So what does the future hold for Eric and his bird boxes? His plan is to continue making pieces that aren't only functional, but also go on to become an important design feature in the garden – something he's already mastered.

Loved and admired by the woodworking community, Eric's designs will no doubt continue to develop, becoming even more whimsical and fun. After all, being able to create something that makes someone's day is surely the ultimate goal for any maker.



Bird box made in collaboration with Derek Mooney – a wildlife presenter and producer for RTE in Ireland

FURTHER INFORMATION

See more of Eric's designs on his website – **www.outofthewoodwork.co.uk** – as well as checking the events section to see which woodworking shows and events he'll be attending along with his bird boxes

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WELL PLANTED

EASY TO MAKE IN A WEEKEND

Using standard size timber and a few basic tools, **Peter Dunsmore** makes an attractive decorative planter, which will provide a focal point for any garden or outdoor space

This project is aimed at anyone looking to make an attractive garden ornament using standard size timber readily available from a local builders' merchant, in addition to some basic woodworking tools. The entire project can be made using just hand tools, although a router makes light work of the half-lap joints and a disc sander helps speed up the process of cutting an accurate 45° joint. Other than that, this garden planter is straightforward to make and can be easily completed in a weekend. Aside from the base, all other components are made from what used to be known as '3×1in' timber, which finishes at 70 × 20mm. To complete the upper part of the well and plinth around the base, four lengths of 2.4m provide sufficient timber. The base is made up from two 1.5m long boards, plus two 1.2m long × 125mm wide boards, which are glued together to provide the widths required. For the roof, I used some leftover feather-boarding fence panels, which I'd previously used for some garden repair work. And for the dowel, I used an old curtain pole that had been in the wood pile for a number of years, although this material can be easily obtained from various sources.

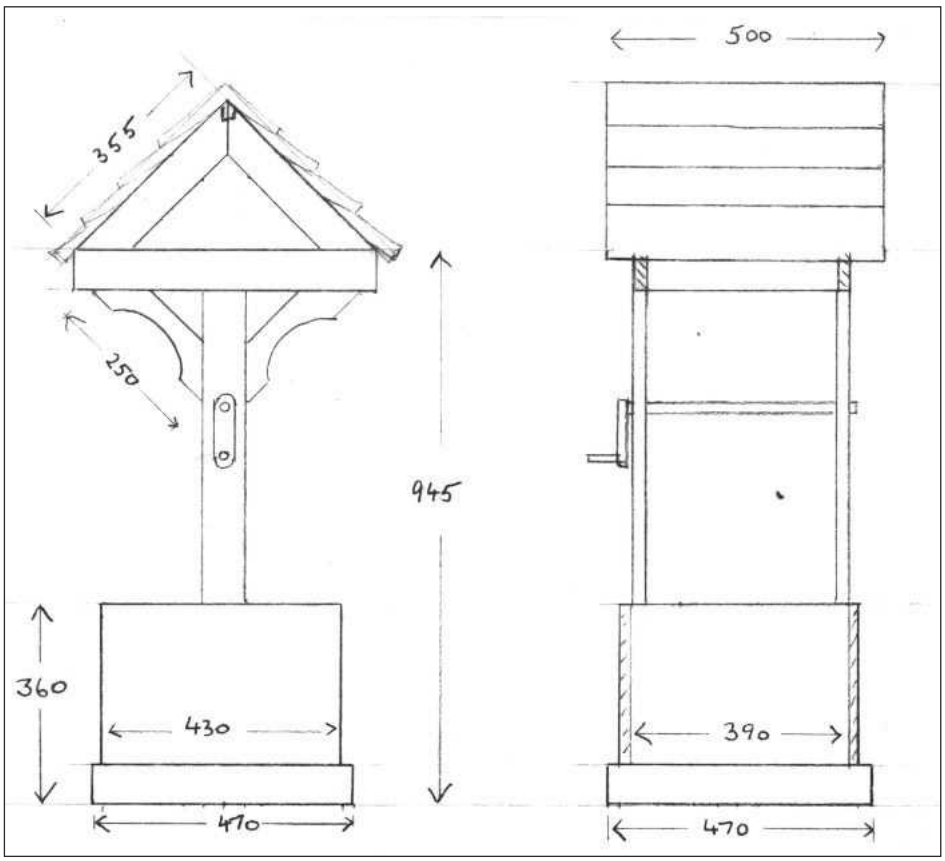


Fig.1 Planter dimensions and construction

We'll start by making the hood part of the well. As shown in **Fig.1**, the construction is very much a matter of accurate 45° mitre cuts and simple butt joints, which make up the majority of the project work.

Making a start

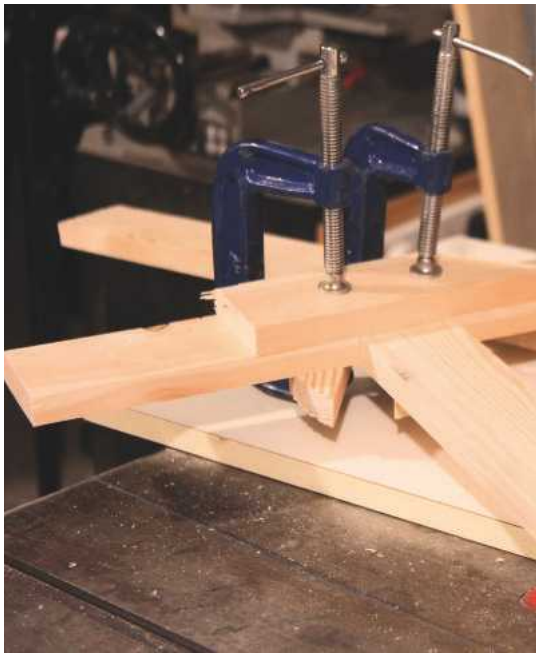
Using a sharp pencil, begin by marking the half-lapped joints; these secure the post to the top horizontal rail. If you have one available, a router fitted with straight cutter makes light work of creating this joint, but if you prefer to use hand tools, a tenon saw and chisel will also suffice, although this method takes a little more time. Set up the router by plunging it so that the cutter touches the surface of the wood and the cutter edge touches the pencil line. Next, clamp a scrap piece of MDF square to the edge of the wood, so that it butts up against the router base's edge. Repeat this for the other pencil line.

To further support the router base, it's helpful to place a spare piece of timber (**photo 1**). Set the depth of cut to 10mm and taking shallow passes, cut the recess and repeat this step for the ends of the vertical posts. Once completed, you should be left with two pieces, which make up the roof's T-shaped support (**photo 2**). Glue these together using a suitable exterior grade adhesive (**photo 3**). Clamping between scrap keeps the timbers level with one another.


WW
PROJECT

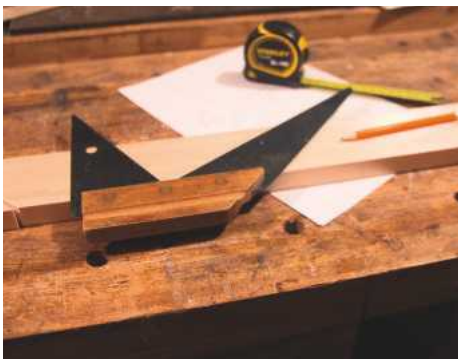
1 Note support piece to the recess' rear

2 The half-lap joint ready for gluing



3 Scrap wood keeps both timbers level

A useful tool here is the carpenter's square – I've had mine for many years – which is ideal for marking the 45° mitre required for the roof support (**photo 4**) before cutting with a saw. To ensure a neat joint, smooth sawn edges with a plane and simple jig – as shown in the March 2022 issue – or using a disc sander. Once you've applied some adhesive to the joins, use masking tape to pull the mitres together on the outside edges (**photo 5**). Clamp the timbers level between some scrap (**photo 6**) and once you've drilled a suitable pilot hole, drive in a 50mm screw. This piece can then be glued and screwed to the upper T (**Fig.1**). To ensure good assembly, I find that working on a flat surface, such as an old piece of melamine-faced chipboard, is a great aid and any spilt adhesive can be easily wiped up afterwards.



4 Mark the 45° bevels required onto the timber

Making the support brackets

The next task is to make a pair of decorative support brackets, which strengthen the roof structure, and these timbers need to be cut to length. Using a guide such as a paint tin or similar, start by drawing a suitable curve on the outside edge (**photo 7**) before cutting away the waste using a small coping saw (**photo 8**). The saw marks can be easily removed using some abrasive wrapped around a suitable former (**photo 9**). To prevent timber splitting, drill pilot holes in the support brackets, then screw these in place (**photo 10**). Sinking screw heads below the surface allows filler to be used at a later stage, prior to applying a finish.

5 Use masking tape to hold timbers in place

6 Clamp between scrap before screwing together

Assembling the top

The two completed frames need to be assembled between two battens and a roof ridge piece, in order to support the roof panels. Before starting this task, however, it's much easier to drill the holes, which will house the dowel required for the bucket rope. As I said earlier, I used an old wooden curtain pole from my offcuts pile, but a piece of 25mm dowel will also be suitable. Ensure to accurately mark out the dowel's position and drill holes in both pieces. An alternative method is to clamp the frames together and drill both holes simultaneously, ensuring to keep the drill perpendicular to the frame. Placing a piece of scrap timber underneath prevents any unsightly breakout.

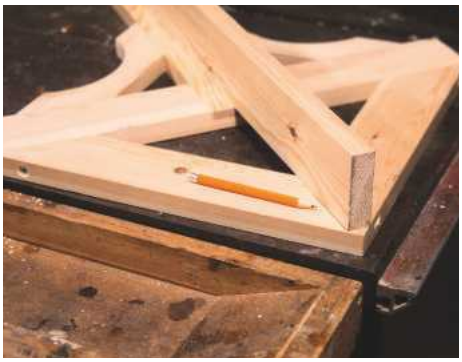
The next task is to cut a notch in the top of each frame; the roof ridge piece will then fit into this. Mark this by laying a length of wood down the centreline as shown in **photo 11**, and mark each side. Depth of cut required is 25mm. Remove the waste and use a sharp chisel to clean up the interior face – you're looking to obtain a sliding fit into the opening. For the roof ridge piece, plane a 45° bevel along the top edge (**photo 12**). A useful method here is to set a marking gauge to 10mm and score a centreline along the timber's top edge. Repeat this to score a 10mm line along both

7 A paint tin doubles up as a suitable template

8 Remove waste using a small coping saw or similar

9 Rough saw marks can be removed using abrasive wrapped around a suitable former

10 The support brackets are screwed in place



11 Mark out the notch's boundary using a piece of timber, ensuring it's centrally located

faces; this sets the two boundaries, using a hand plane to form the bevel.

In order to join the two frames together, three pieces of timber are required: two 350mm long and the other 480mm – to form the roof ridge – the lower section of which needs to be cut down to 350mm so that it matches the other two pieces (**photo 13**). To add detail to the underside of the roof panels, apply a curve to both ends of the ridge piece. The three pieces can then be glued and screwed in place, which completes the project's top frame. Even though these will be filled at a later stage, when drilling holes, it's always good practice to aim for these to be in line and suitably spaced; this can be achieved using a gauge to mark their positions (**photo 14**).

Holding the timbers in place can be a little tricky, and I found the following technique made this much easier. Clamp a scrap piece to the 350mm long timber so that it overhangs the end by about 20mm. Then, apply a bead of adhesive to the end of the timber and using a sash clamp, tighten the batten in place ensuring the wood is level with the frame's lower edge (**photo 15**). Once satisfied with the position, you can then drive in the 50mm screws. Next, screw the top in place in a similar way, using a sash clamp to pull everything together (**photo 16**).

Making the base

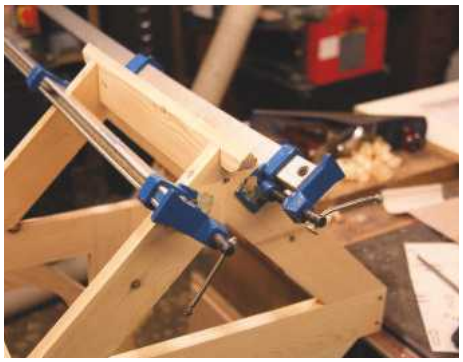
To form the base of the planter, you essentially need to glue and screw the four sides together, but it's worth mentioning a couple of points here. To make up each side, you'll need to use 125 × 20mm timber jointed together. To avoid splintering or breaking the joints as you near the end of the cut, clamp the timber to a bench top and saw close to the bench while supporting the cut piece with your other hand (**photo 17**). Timber sourced from a builders' merchant is usually of good quality, but the edges aren't always square; this can cause problems when it comes to glue-up as the board may not lay flat when joined. Cutting each board into three and laying alternative

12 Using a plane, form a bevel along the ridge piece

13 Curve the ends of the ridge piece to form a decorative shape

14 Mark positions for pilot holes prior to drilling

15 Note use of scrap piece to guide the timber

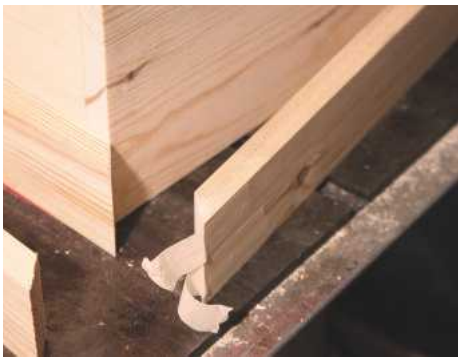


16 The ridge piece screwed into position

17 Support the board to prevent any splintering of the ends

18 Clamp the boards together in order to achieve the necessary width

19 Level top edges using a small plane



20 Masking tape helps to secure corner joints

21 To allow for shrinkage, avoid screwing through two boards

ways up has several advantages. Firstly, any natural stresses caused by the flow of growth rings will be evened out, but most importantly, if the timber happens to be planed slightly off square, this will be compensated for by assembling individual boards in this manner. Applying a bead of adhesive and several clamps will result in a perfectly flat board (**photo 18**). Once the adhesive has dried, cut the boards to length and smooth over using abrasive paper. Prior to screwing the boards together, drill and countersink pilot holes and use a suitable wood filler. Once glued and screwed, if required, plane top edges smooth (**photo 19**).

For the plinth, which will be placed around the base's lower edge, cut mitre joints at the corners and glue in place. As shown in the photos, masking tape is ideal for pulling joints together at the corners (**photo 20**). Once dry, drill four pilot holes in the plinth's undersides, then screw 40mm coach screws in place. As a result, the well stands on bolt heads, which can be adjusted to level the well and elevate the timber, thus preventing the base sitting in a puddle of water. If you have any timber left over, this can be used to create a shelf in the well, fixed in place to support plant pots.

Completing the project

Fill any remaining holes and sand using a range of abrasives, then you're ready to apply a suitable finish. I'm yet to find a product that works really well in terms of offering suitable protection to outdoor projects. I'm hoping for a reasonable result from Barrettine's clear oil-based shed preservative, but only time will tell. Apply three liberal coats of preservative, allowing plenty of time for it to soak in before screwing top to base. Once everything is dry, screw the eight 500mm long fence panels in place (**photo 21**). When drilling pilot holes, as before, take care to prevent any splitting, and also check to ensure you're only screwing through one of the boards. The overlap holds the lower board in place, but will also allow the timber to move as required. Making the handle is a straightforward task, using an offcut to join the two dowels together (**photo 22**). To create the 'floor', screw two strips of wood to the base's inside lower edge, along with timber battens, which also provide support for any plant pots placed inside. If so desired, these could even be positioned at varying heights to create an interesting effect. Either way, the result is an attractive wishing well planter, which will create an attractive focal point in any garden, especially if trailing fuchsia or similar are encouraged to tumble over the edges.

22 The handle is easy to make using 25mm dowel

23 The completed wishing well planter should look something like this

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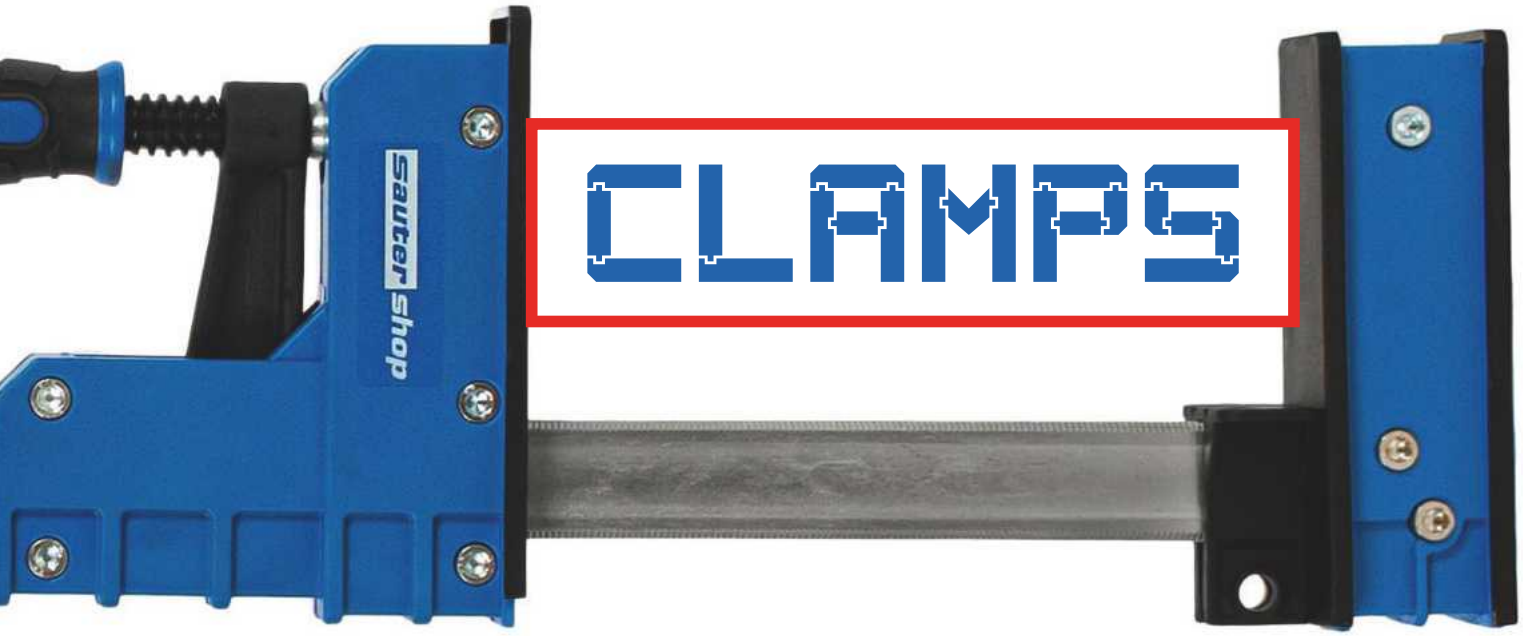

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WOODWORKER'S ENCYCLOPAEDIA A-Z PART 40

This month, **Peter Bishop** rounds off the Ts, breaks into and finishes the Us, before starting with a V

Wooden trestle tables

Pair of telescopic sawhorses from Draper

Trestle & trestle tables

A couple of simple trestles are handy to have in the workshop. They come in a variety of shapes and sizes and the smaller wooden ones are called sawhorses. If you buy a pair, first consider their intended use. Those that can be raised are also good for decorating. A heavy-duty trestle table can also be useful, especially if you require additional work area. As they fold away, little space is therefore required, and of course, you can also make your own.

Trim & trims

We 'trim', or cut bits off something to bring it to size and then use these 'trims' to finish off something else. The latter are small mouldings that might be used to finish an edge or simply used for decorative purposes.

Truing up

Preparing a planed surface or straightening with saw or plane is known as truing up.

True wood

This is the best stuff located between the sapwood and a tree's central pith, which is also called the heartwood.

Royal Sussex garden trug

Trug

As demonstrated in the last issue, these are shallow baskets traditionally made from strips of willow or hazel. I've made them from rejected, thin stuff in the past and they turned out fine.

Battle contemporary Sussex trug

Marples 22in wooden try plane

Clifton No.7 jointer or try plane

Try plane

The try plane is the longest of its kind you'll find – probably around 610mm (24in) in total. They're used for truing up, as above, or straightening joining edges, etc.

T-square

Although really a draftsman's tool, T-squares can prove extremely useful at times. I have one that helps me when it comes to marking out and sketching full-scale project drawings. Also, using one of these when cutting glass will ensure that it's square.

Woodpeckers TS-600 600mm woodworking T-square from Wood Workers Workshop

Tusk tenon

This tenon is used when cutting joint timbers at right angles. The tenon is usually elongated, so it protrudes through and past the mortise hole's outside face. Either way, the tenon's central part then has a bevelled hole, which is made to fit a wedge. The wedge then holds the joint together. This is an ideal method for knock-down furniture – just ensure you don't glue up the joints.

Making a wedge or tusk tenon

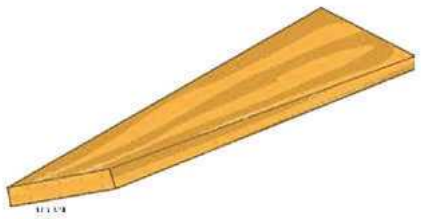
A selection of old drill bits

Twist bits

I suspect we could apply this name to any drill bit as they all have twists in them. However, a twist bit is one that fits into a hand drill brace. Most will have a round shaft with a squared off, tapering end, which goes into the chuck; others will be made of what appears to be flat steel. Lots of different types are available, and, if keen enough, you'll find plenty at car boot sales and antique fairs.

Twist

One of the wasteful defects in wood. When your board is twisted, it's difficult to get much usable stuff from it. As such, you have to go a lot thinner or chop it short.



Twist is a spiral distortion along the length of a board, which is also known as wind

Twist turning

Twist turning is usually produced on a lathe and also called 'barley twist'. This isn't an easy job if you only have a simple woodturning lathe, but there are rolling jigs available that enable the twist to be completed in one or a few goes.

Ernie Conover demonstrating turning a barley twist

A selection of twisted hollow forms complete with twisted finials, by Stuart Mortimer

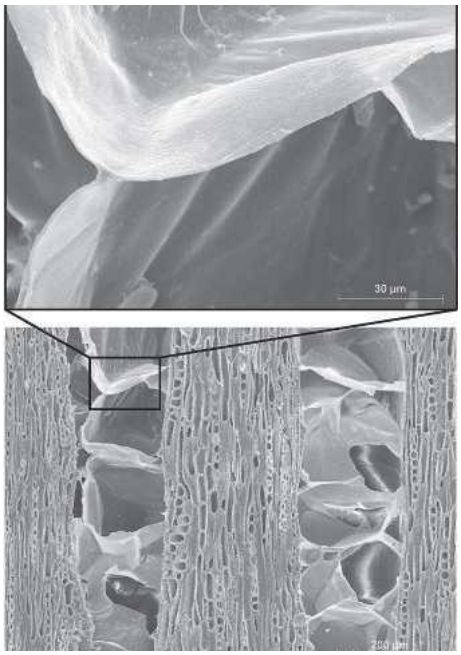
Two-handled saw

Sometimes called a two-handed saw, a two-person cross cut saw or, as I like to call them, a horrible pull saw! The most common of these is probably long with two vertical handles at each end. You do come across what appears to be long hand saws with a standard, open handle one end and a vertical one at the other. All these saws were the forester's favourites when no power alternatives could be sourced. The saw teeth are designed to cut in both directions. The correct way to use it is so that one of the operatives only pulls the saw through the cut. If you push, the saw will bend and won't run smoothly. A rhythm needs to be built up by both operatives, then it's a pretty efficient saw. I should know – as a young lad I spent hours on one end with my father at the other and recall really hating it!

A two-man saw in use

Tyloses

Tyloses, or tylosis, are found in the vessels, or pores, of hardwoods. It's a thin, bubble-like obstruction within the cell cavity. This obstruction is usually found in the tree's heartwood and not in all species. It can be another feature that helps with identification. Interestingly, American white oak invariably has tyloses present while American red oak doesn't. In the days when cigarette smoking was rife, you could puff smoke through the red but not the white; that then gave you a good indication as to which was which! Because tyloses can completely fill the pores, this therefore affects the wood's permeability.



Vessels of sessile oak (*Quercus petraea*) with tyloses

Undercut tenon

With an undercut tenon, the objective is to make a good tight joint on one or both faces. If only one face shows, you need to slightly trim off the back shoulder by a fraction; this forces the face side tight up against the mortise. When clamping up, you'll need to make sure that whatever you've applied this to doesn't twist out of shape. In order to get both faces tight, you need to trim tenon shoulders back from the outside edges with a tiny back bevel. Take care to ensure you don't then overtighten the joint during clamping as the leading edges might be driven into the mortise face, thus shortening the frame.

Undercutting tenon shoulders on a mortise & tenon joint

Uneven grain & uneven texture

Uneven grained wood is created by irregular growth patterns. Uneven texture is found on woods such as pitch pine and larch where there's a great deal of difference between the early and late wood.

Universal plane

These hand planes have a variety of functions. They can groove and mould and also have adjustable fences, which guide the body and cutter through the work. They're a favourite among hand woodworking advocates due to the infinite variety of moulding cutters available, or grind to pattern yourself.

Lewin Universal plane

Universal woodworking machine

For those of us with limited space, a universal woodworking machine is a gem. They combine a variety of functions, all of which are power driven. The first one I had could saw, plane both sides, cut mortise slots and holes, and also featured a small spindle moulder head. All functions were driven off one motor, attached via a series of pulleys and V belts. I was sad to see it go! Mine was tiny in comparison to some of the larger, cast-iron beasts available. These are equivalent to having the individual machines, but all located in one place.

Axminster Craft AC250CM four-function combination machine

Unsorted softwoods

One of many grades of softwood available to buy. Depending on source country, there might be some variation between them – 'unsorted' stuff should be fine to use for general joinery work. You may have to be a bit selective but, with care, the majority can be utilised.

Unsound knot

This is basically the same as a dead knot. It's loose and free to pop out and may be surrounded by some soft stuff.

Various knots can be formed according to different factors and these knots are often exploited for visual effect. In some cases, knots on trunks add to the aesthetic appeal of planks sawn from those trees

Unstable timber

Some timbers will vary in terms of size and shape depending on their moisture content – we call these 'unstable timbers'.

Unwrought timber

A little-used phrase that describes timber just off the saw, yet to be planed or finished.

SAGA high frequency vacuum wood dryer

A ventilated vacuum dryer in use at a French sawmill

Vacuum drying

Traditional methods of drying wood require natural air circulation – known as air drying – and through forced air circulation coupled with heat and steam. Vacuum drying involves sealed pressure vessels. Timber is stacked between 'platens' – metal heating plates – on bogies that then enter the chamber and are sealed inside. A vacuum is created and heat applied through the platens. Because a vacuum is present, no atmospheric pressure therefore exists, which allows the moisture to vaporise and be removed. This drying technique generally produces timber with less distortion – i.e. less warping, twisting and bowing – although shrinkage still occurs. As the vacuum chambers are smaller than larger heat, steam and fan-assisted versions, this method of drying is therefore more costly; however, if used for drying quality materials, they can also command quality prices.

NEXT MONTH

Peter further explores the Vs before moving on to the Ws, with a few lengthy descriptions along the way

PERFECT PATIO PAIR

Ideal for outdoor use as well as in a conservatory, **Ken Jones** takes us through the steps for making a pair of folding chairs

Having been caught out on several occasions with insufficient chairs in the conservatory or patio, I decided to do something about it. Not wanting to crowd the area further, I concluded that the best solution would be to make a pair of folding chairs that could be stood against the wall when not required.

A simple stacking chair that was popular some years ago seemed to fit the bill. These chairs were usually made of beech, but as I had some iroko offcuts available, I thought that I'd use these to make them. Iroko is a tough, resistant timber and an application of oiled finish means that a drop of summer rain won't do them any harm.

Preparing parts

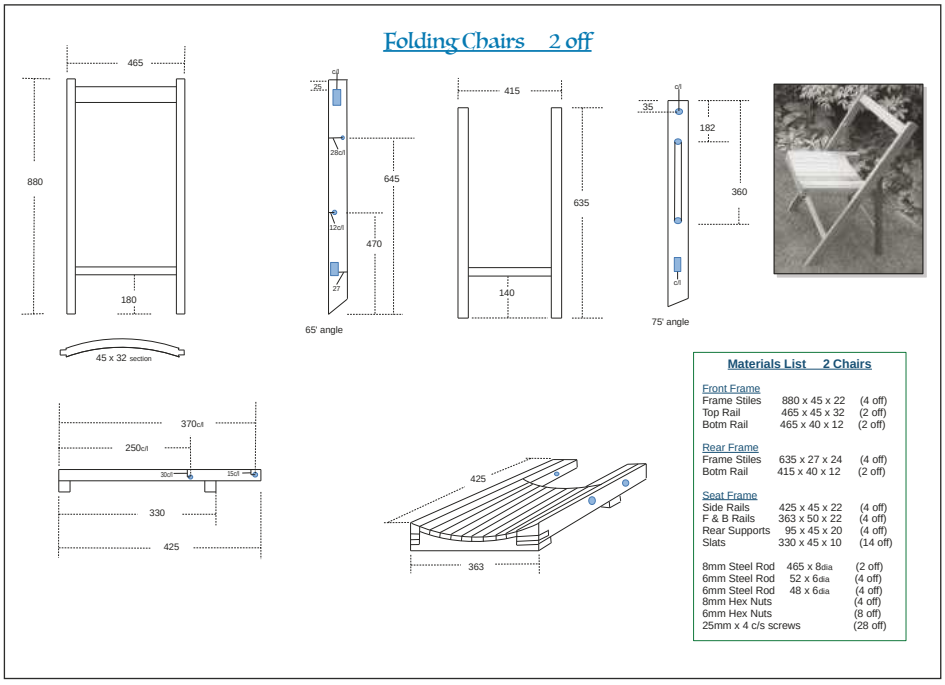
Having set out a rod, begin to cut out and prepare frame components for both chairs (**photo 1**). At this stage, I recommend waiting until the frames are assembled before cutting the seat slats; doing so will ensure you measure the correct widths.

Next, set out and cut angles on the bottoms of the legs: 65° for the front frame and 75° for the rear (**photo 2**). The positions of the mortises and pivot holes also need to be set out, but take care to ensure they're arranged in pairs. Then, using a counterbore to allow the nuts to finish flush, drill holes (**photo 3**) and cut the mortises. Owing to the width of mortise chisel I had available, I cut mine to ⅝

set out the slider grooves before cutting to a depth of 11mm (**photo 4**). Again, I used a ¼in (6mm) imperial cutter. This works well as it allows a little clearance with the 6mm rod.

Cutting & marking tenons

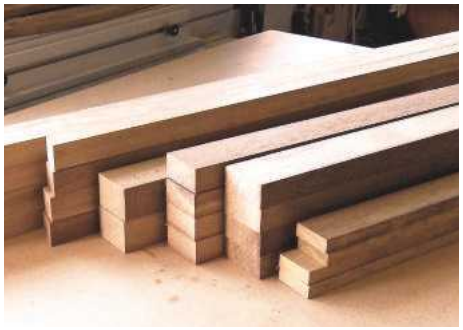
You can now mark out and cut the tenons. Note my use of barefaced tenons on the bottom rails (**photo 5**). For the top rail, cut tenons centrally before shaping to a curved profile (**photo 6**). Then using a router and rounding-over cutter, radius the top edge.



Materials List 2 Chairs

Front Frame		
Frame Stiles	880 x 45 x 22	(4 off)
Top Rail	465 x 45 x 32	(2 off)
Botm Rail	465 x 40 x 12	(2 off)
Rear Frame		
Frame Stiles	635 x 27 x 24	(4 off)
Botm Rail	415 x 40 x 12	(2 off)
Seat Frame		
Side Rails	425 x 45 x 22	(4 off)
F & B Rails	363 x 50 x 22	(4 off)
Rear Supports	95 x 45 x 20	(4 off)
Slats	330 x 45 x 10	(14 off)
8mm Steel Rod	465 x 8dia	(2 off)
6mm Steel Rod	52 x 6dia	(4 off)
6mm Steel Rod	48 x 6dia	(4 off)
8mm Hex Nuts		(4 off)
6mm Hex Nuts		(8 off)
25mm x 4 c/s screws		(28 off)

Fig.1 Dimensions and cutting list for folding chair pair



1 Having set out a rod, begin to cut out and prepare components required for the frames

2 Set out and cut angles on the bottoms of the legs: 65° for the front frame and 75° for the rear

3 To allow the nuts to finish flush, drill holes using a counterbore

4 You can then set out slider grooves before cutting to a depth of 11mm

5 For the bottom rails, I decided to use barefaced tenons

6 For the top rail, cut tenons centrally before shaping to a curved profile

7 Both frames can now be assembled...

Seat frames

Next, round over the tops of both front and rear legs before cleaning up, ensuring to remove all sharp arrises. You're then ready to assemble both frames (**photo 7**), checking for squareness, and inserting wedges into the tenons (**photo 8**). Once the glue is dry, trim wedges flush and clean up the frames ready for finishing. The next task is to make the seat frames.

Use a double bridle joint for front corners and twin mortises for the rear rail (**photo 9**). Remember to set front and rear rails 10mm below the side members, to allow for the slats. Next, mark out and drill pivot holes. Using a bandsaw, apply a curve to the top edges of both front and rear rails (**photo 10**), then tidy up with a spokeshave. You can now glue up the frames and glue support blocks in place.

Once dry, extend pivot rod holes through the support blocks and clean up joints ready for the slats. Next, prepare the seat slats and drill to accept 4 × 25mm countersunk screws, then screw in place (**photo 11**). **Photo 12** shows the completed seats.

At this stage, for protection, apply two coats of external finishing oil to all seat components.

Metalwork

You're now ready to tackle the metalwork. For the seat pivots, begin by cutting two pieces of 8mm round steel rod to length, and 6mm rod for the top pivots and sliders. Ensure ends of the 8mm rod are threaded long enough to allow the nuts to enter the counterbores to full depth.

For the 48 × 6mm top pivot rods, you need to carry out the same procedure. I decided not to thread the 52mm rear slider rods, instead choosing to insert them using a smear of epoxy resin glue to hold them in place. **Photo 13** shows all rods ready for assembly.

Final assembly

All components can now be assembled for both chairs. Start by laying down the front frame with the front surface downwards. Next, place the rear frame in position, ensuring it's the right way around. Fit pivot rods in place followed by the nuts. To prevent them coming loose, I recommend applying a trace of epoxy to the threads.

8 Check for squareness and insert wedges into the tenons

Next, turn the assembly over, place the seat in position between the legs, then slide in the 8mm seat pivot rod. Apply the nuts as before, again with a trace of epoxy. The final step is to tap the slider rods into position, checking they don't quite bottom in the grooves. I tapped mine in to within 10mm of home before applying a trace of adhesive.

All you need to do now is check that the sun is shining, place the chairs on the lawn or patio, and enjoy a well-earned drink (**photo 14**)!

9 Use a double bridle joint for front corners and twin mortises for the rear rail

10 Using a bandsaw, apply a curve to the top edges of both front and rear rails

11 prepare the seat slats and drill to accept 4 × 25mm countersunk screws, then screw in place

12 The completed seats

13 8mm and 6mm rods ready for assembly

14 The completed folding chairs should look something like this. You could even make a table to match, using the same principle

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LETTERS

★LETTER OF THE MONTH

LAND ROVER – REBORN & READY TO GO!

The completed project, named Lilibet, after Queen Elizabeth II's great-granddaughter, in honour of her Platinum Jubilee

Hi Tegan,
It's not very often I do any woodworking on small projects, but having read Peter Dunsmore's excellent article – Dec/Jan 2021 edition – I decided to have a go at my version of his Land Rover model.

I'm very involved in Scouting and we're always looking for something different for our various events and competitions. As woodworkers, we all have that pile of bits and pieces put aside, thinking they'll come in useful one day. In my pile – or stock – I had bits of batten, thin plywood sheet, small hinges, clear 2mm plastic sheet and a couple of cans of spray paint; the only thing I needed was an old radio controlled chassis. I did a shout-out on the local Scout website, received a number of offers, and as a result, chose the one pictured opposite.

Using Peter's drawings, I was able to enlarge these to produce the required templates, then the fun really began: dusting off skills, machinery and tools that I don't regularly use – the jigsaw, lathe for turning head lamps, scrollsaw, router table, Dremel, bandsaw, mitre saw, soldering iron, as well as testing and setting the RC gear – thank goodness for YouTube!

A few challenges occurred, the chassis and RC equipment were over 10-years-old, so a number of components therefore required updating or changing; the suspension needed adjusting to give more ground clearance and easy access to batteries – all had to be worked out. It was also necessary to slow down the motor to allow hill climbs – not the 20mph it was capable of in its former life. I also fitted a camera to the front in order to provide a driver's experience. The biggest problem was knowing when to stop, especially with well meaning friends suggesting ideas for various additions.

We've had a few test runs, carried out some fine-tuning, but as they say, it'll be alright on the night! Just one last thing: we were going to name her Tegan, but as 2022 marks the Queen's Platinum Jubilee, we decided to call her Lilibet instead.
Best wishes, **Ian Wood**

SCREW LUBRICATION & EXTRACTION

Dear Tegan,
In the March 2022 edition, David Gibbard makes some interesting comments relating to the lubrication of wood screw shanks prior to driving them in with a screwdriver. In the long run, doing so lessens the development of rust and makes screw extraction easier. Clearly, the depth of slot in the head of a wood screw plays a small part in the extent to which pressure and twist can be applied in order to loosen and remove the screw. A sharp hammer blow on the screwdriver, while engaged in the head slot, can assist in screw movement. The best screwdriver to use is a steel one, designed for such work. Sadly, old age rears its ugly head again and I can't recall the name of this particular type, although they can occasionally be found offered at car boot sales and similar.

My working career began in a vehicle repair shop, which was owned by a chap who took snuff – a smokeless tobacco – and he was always immaculately dressed in a white overall. His standards were very high. Vehicles, repaired over a period of six weeks, were stripped bare of metal, given two coats of red oxide to remove rust, followed by two coats of grey filler primer. Bonnet and doors were removed and chassis coated in bitumastic paint. Another 19 coats were applied before compounding with cutting-in paste. Mud guards and wings were also removed. This usually involved unscrewing 2BA screws, which held the wings to the vehicle body.

Before attempting to extract the screws, each was coated with a penetrating 'oil' – usually diesel oil. This was a time when WD-40 was but a mere dream – instead, lining was carried out using a fine brush, as transfers would've been regarded as cheating. It was also a time when the blacksmith sucked on an upside-down clay pipe. Doing so helped to ensure that it wasn't extinguished by a sudden rain shower!

Since this early training, I always grease every screw and bolt I use. The most effective grease for wood screws is one containing PTFE – the non-stick plastic – and for metal bolts and nuts, a molyslip or copper-based grease is recommended, depending on whether the bolt/nut is situated in a heated environment.

A collection of 17 vintage screwdrivers, including a 20in long London pattern version

The availability of stainless steel nuts, screws and bolts has enabled many attitudes and worries in relation to dismantling and extraction.

Thank you for covering so many topics, which generate a variety of relevant debates.
Yours sincerely, **David Girdler**

Hi David, I'm so pleased to hear that the magazine continues to provide interesting themes, many of which conjure up memories of the past. I believe you're referring to an older slotted head screw, and as such, this could therefore be either a London pattern screwdriver, featuring a sturdy wooden handle and thick, heavy blade, which can be hit with a hammer if necessary; or, perhaps an engineer's screwdriver, which is made entirely from steel with a wood insert in the handle. Whichever it is, you paint a wonderful picture of your time working in the vehicle repair shop and we're grateful to you for providing such a valuable insight.
Best wishes, **Tegan**

The old radio controlled chassis prior to receiving its Land Rover casing

Hi Ian, thanks so much for sharing the story and photos of Lilibet with us! The fact you considered naming her after me in the first place is honour enough! It sounds like you had a lot of fun with this build, despite a few challenges and set-backs, but as you say, all came together in the end! I'm sure Peter will be very happy to see his plans modified in such a way, and the fact his article has appealed to so many readers, all of whom have commented on the fun they've had such making their own versions, which is wonderful. Best wishes, **Tegan**

DANISH OIL: A CENTURIES-OLD, TRIED & TESTED FINISH

Hello Tegan,
I spotted my article in the March 2022 issue, and was also pleased to have my name featured on the front cover. At the end of the article, regarding the finish required, I wanted to further explain my use of Danish oil for the piano stool replica. Danish oil is made from walnuts and seems to yield a good walnut colour. I did read an article on how the Vikings using linseed and walnut oil on furniture all those years ago. I can't find a connection to modern-day Danish oil, but it seems to be made from synthetic chemicals. Using a rag, it's easy to apply several coats.
Best regards, **Stephen Holliday**

Hi Stephen, thanks for getting in touch and providing more detail on this aspect of your project. Danish oil is indeed a popular finish to use and was clearly a perfect choice for your piano stool replica. I'm sure many readers share your enthusiasm in terms of its usage. The Rustins brand is tried and tested and still as popular today as when it was first introduced. Best wishes, **Tegan**

Danish oil was Stephen's finish of choice for his piano stool replica, featured in the March 2022 issue

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!

READERS' HINTS & TIPS

AXMINSTER TOOLS
We share your passion

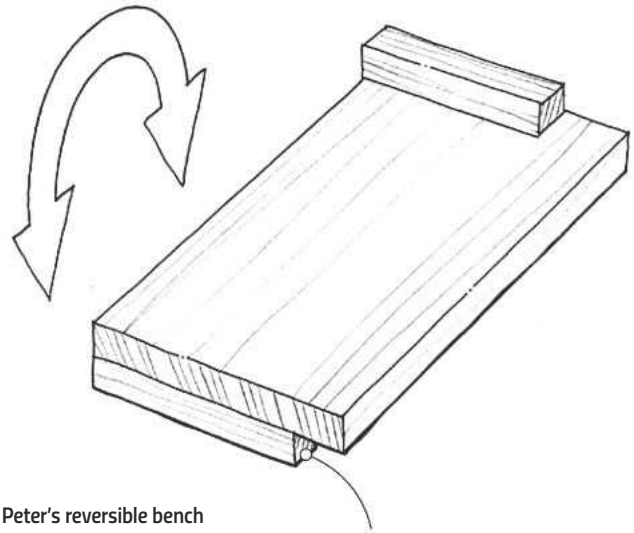
Due to major stock issues with the Veritas range, a decision has been made, in conjunction with Axminster Tools, to substitute the original prize for a similar one within Axminster's Rider range. Rider planes represent traditional, quality plane manufacture and feature a ductile iron alloy body, accurately ground sole and carbon steel blade. The new prize – the **Rider No.5½in Jack Plane** – is not only versatile, but also perfect for flattening, jointing and general preparation.

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. For more information on Axminster Tools, see **www.axminstertools.com**

REVERSIBLE BENCH HOOK

Like many woodworkers, I use a bench hook to support small pieces on the bench while hand sawing. A typical bench hook is just a small panel with a shortened topside fence at one end – for supporting the workpiece – and a full-length underside fence on the opposite end, which 'hooks' against the edge of a workbench. The topside fence stops short of the panel edge to create a landing for the saw teeth at the end of the cut. Eventually, of course, the panel gets too scarred to use. My trick is to simply stop the underside fence short of the end, as with the topside fence; this way, the bench hook can be used in either orientation, thus doubling its life.

Peter Giolitto



Peter's reversible bench hook design can be used with either side facing up

WIN! A Trend T18S 18V cordless biscuit jointer kit – worth £351!

trend tool technology

Part of the new **T18S range**, in conjunction with **Trend** we're giving one lucky reader the chance to win an **18V cordless biscuit jointer kit (with 1 × 4Ah battery and Fast Charger)**

The new T18S/BJK 18V biscuit jointer – part of Trend's new cordless range – features a high performance motor, which is built for power and endurance. Benefitting from six cutting depths for No.0, 10 and 20 biscuits, there's also additional 'Maximum' Duplex and Simplex settings. 0-90° cutting angles cover multiple jointing applications and 35mm fence adjustment allows cutting up to 35mm from an edge for setting biscuits into thicker stock. There's tilting fence indents at 0, 45 and 90° settings, which allow for fast positioning on common angles. Milled reference faces ensure accurate positioning on all jointing styles and an anti-slip rubber cutter aperture prevents slippage as the cutter engages the workpiece. The top-mounted sliding switch is easily accessible for left- or right-handed operation and it's supplied with CR/BJB100T biscuit jointer blade, attachment plate, dust bag and adaptor, plus vacuum adaptor, which fits T35 and T32 dust extractors.

In terms of runtime claim, the T18S/BJK can machine up to 731 No.20 biscuits, 121 fitted worktops or make 10 cupboards – based on a 4Ah battery in chipboard.

FEATURES

- **TREND HIGH PERFORMANCE MOTOR** – Built for power and endurance
- **SIX CUTTING DEPTHS** – For No.0, 10 and 20 biscuits plus additional 'Maximum' Duplex and Simplex settings
- **0-90° CUTTING ANGLES** – Covers multiple jointing applications
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- **SIMPLEX & DUPLEX COMPATIBLE** – Extra plunge settings for specialist Duplex hinges, plus Simplex knock-down and rigid assembly fittings
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- **FAST RELEASE BASEPLATE** – Quick-release hinge baseplate for fast cutter changeovers
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- **FAST & EASY** – The quick and easy way to make solid joints in multiple materials including hard and softwoods as well as sheet materials
- **TREND TOOL CONNECTION** – Designed to accept all Trend 18V Li-ion batteries.

For further information on Trend's new T81S cordless range, see **www.trend-uk.com**.

HOW TO ENTER

To be in with a chance of winning this **Trend T18S 18V cordless biscuit jointer kit (with 1 × 4Ah battery and Fast Charger)**, visit www.thewoodworkermag.com/category/win and follow instructions given. Please note this competition involves two-part entry, requiring you to sign up as a member of our website and forum – see **www.thewoodworkermag.com/forums**

QUESTION: Name one of the biscuit sizes this tool can be used for

A: FF **B: No.20** **C: S6**

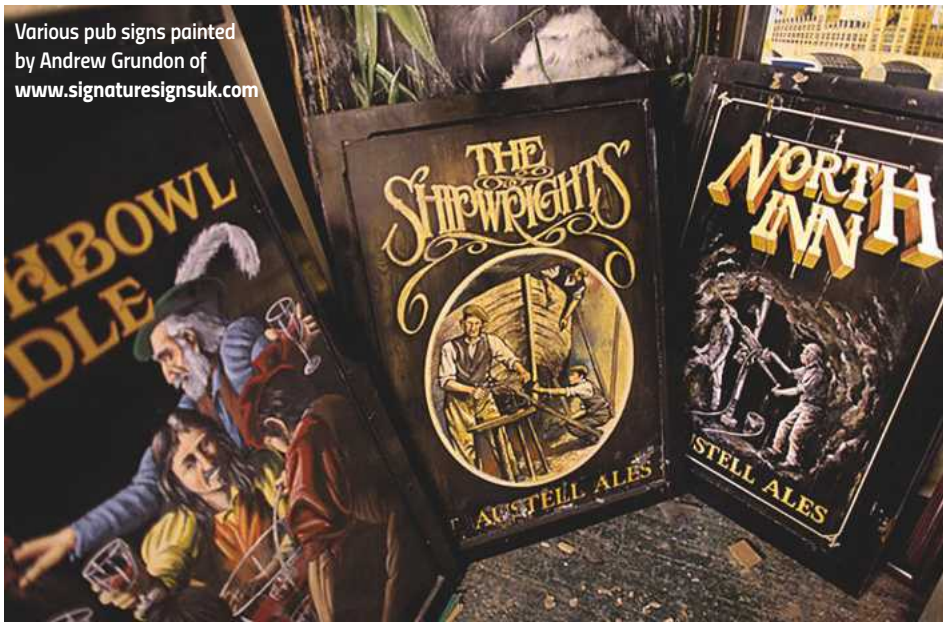
To enter, visit www.thewoodworkermag.com/category/win and select the correct multiple choice answer – either A, B or C – then follow instructions for the second part of entry – visit our forum thread and tell us why you'd like to win this particular prize

The winner will be randomly drawn from all correct entries. The closing date for the competition is **17 June 2022**. Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Trend are not eligible to enter this competition

WW PROFILE

A SIGN OF THE TIMES

Pub sign painter Andrew Grundon, of Signature Signs, in his Cornish studio
Photograph courtesy of **www.robscottphotography.com**



Various pub signs painted by Andrew Grundon of **www.signaturesignsuk.com**

Pub signs bear their names for sound – if sometimes obscure – reasons, and in total offer a fascinating reflection of English history and social change, as **Paul Greer** goes on to demonstrate

The earliest signs denoting a drinking establishment were made by the Romans. In the empire's warmer countries, this was achieved by hanging vines outside, but in Britain – normally too cold to grow these – a bush would instead be placed at the door. Today, pubs called 'The Bush' or 'The Holly Bush' recall this practice.

A grape vine, which used to hang outside Roman drinking establishments

In the UK, owing to the colder climate, holly bushes were placed outside ale houses and taverns

Portrait of King Richard II, at Westminster Abbey, mid-1390s

The White Hart was the heraldic emblem of Richard II Photograph courtesy of Inn Sign Society/Martin Norman

Illustrated signs

In medieval times, alehouses were ordinary homes where the occupant both brewed and sold ale and beer. Taverns sold wine, which was more expensive, and were patronised by a richer clientele. In time, alehouses became public houses, and taverns, coffee houses; however, alehouses, inns and taverns all displayed wooden signs.

In establishments where ale and beer were drunk, landlords placed a wooden hop pole or ale stake over their doors. Some were unduly long, however, and could constitute an obstacle. This gave rise to a short projection, on which a sign could then be hung.

In 1393, King Richard II made ale signs compulsory, and, to attract business – and as few people then could read – proprietors had these illustrated. Richard's own emblem was the white hart, with other regal examples being the white lion (Edward IV) and white boar (Richard III).

Royal & religious origins

Hardly surprisingly, undoubtedly the most common British pub sign, 'The Red Lion', was also of royal origin. When James VI of Scotland assumed the English throne in 1603 as James I, he decreed that the red lion of his home country be displayed on all important buildings in England, including drinking establishments.

Up to the 16th century, with an eye to the then considerable custom from people travelling on pilgrimages, innkeepers choosing signs often favoured religious images. One such example was 'The Mitre', which reflected the hat of a bishop or senior abbott; 'The Ship' was a reference to Noah's Ark; while 'The Crossed Keys' called to mind those by which St Peter could unlock the gates of Heaven.

In the 18th century, increased popular transport was reflected in pub signs, such as 'The Coach and Horses', and 'The Station Arms'. In Stony Stratford – near modern Milton Keynes – coach passengers bound for Birmingham, and others for London, used to drink and talk together while their horses were changed. They did so at neighbouring pubs called 'The Cock' and 'The Bull', thus giving rise to the phrase 'a cock and bull story'.

The sign making process

Until largely supplanted by digitally-screened images during the 1990s, hand-painted pub signs in England enjoyed a strong tradition. The well-known brewer, 'Whitbread', had its own art department, whose studios occupied a former malthouse at Cheltenham. In time, it was renamed 'Brewery Artists' and relocated to Gloucester, but also closed down in the early 1990s. Besides 'Whitbread', it undertook commissions for brewers such as 'Ansells', 'Brains', and 'Eldridge Pope'.

In making a pub sign, the first stage is to obtain an appropriate base for the design. This would normally be made of exterior or marine ply, by a professional joiner, and with a softwood or hardwood frame. The bare board is then sanded down, and at least two coats of aluminium primer applied, followed by two of undercoat, and two of gloss.

Next, an outline of the motif is made on the surface in chalk or pencil. The design itself is

'The Red Lion' in Little Tingewick, Buckinghamshire

Royal Banner of Scotland being flown above Holyrood Palace

'Cross Keys' pub sign, York

Whitbread Stables, Garrett Street, London


Model Whitbread Brewery trucks by Metcalfe


A Mahlstick is used to steady the painting hand

then painted on, using a special oil-based enamel employed by signwriters in general. One of the tools used – a 'mahlstick' – is centuries-old and comprises of a stick with a pad for steadying the artist's painting hand.

Modern paints are more weather-resistant than their predecessors, and most signs last between 5-15 years. Wear is quickest in coastal settings, where salt in the air eats at the paint surface, combined with seagull droppings, which are very acidic. Old signs often attract ready buyers, as many people admire the patina that develops on them over time.

A selection of Andrew Grundon's signwriting paints

Andrew Grundon – sign painter

Andrew Grundon is an artist prompted into sign painting to ensure regular work, which commissions in wildlife, landscape and portrait painting alone had denied him. After gaining useful tips – such as gilding with gold leaf and font styles – from the then soon-to-retire resident sign painter at St Austell Brewery, he went on to form his own company, 'Signature Signs', which is based on Bodmin Moor, in Cornwall. A bonus lay in the brewery becoming a client.

Some of Andrew's designs are very traditional, having been established centuries ago. Though not short of imagination, he doesn't hesitate to use literary sources for ideas, for example. A fair proportion of pub signs celebrate an occupation, and here careful checks are required to ensure historic accuracy, especially when it comes to mining and blacksmithing.

Roman ingenuity

Even prior to Roman invasion, wine was being imported to Britain, and large storage jars – called amphorae – excavated at Roman sites suggest the sources were Italy and Spain. Civil war in the latter disrupted trade around AD 200, but the empire's geographical reach meant alternatives, notably France and Germany, could be relied on.

An example of Roman ingenuity was the screw press, employed to squeeze olives for oil and grapes for wine.


Roman pottery amphora for transporting wine


Roman wooden screw press


Portrait of Chaucer, 19th century, held by the National Library of Wales

Andrew Grundon at work

Making one in wood is very challenging: to do so, a thread must be cut on the vertical screw as well as within the hole into which it fits.

Literary signs

A few pub signs stand out in literature: *The Canterbury Tales*, by Chaucer, opens with the would-be pilgrims to that city assembling in London, at 'The Tabard' inn, in Southwark.

Modern dictionaries describe this garment as a sleeveless jerkin, but in Chaucer's day, it was a herald's official coat, emblazoned with the arms of the sovereign, so this sign would therefore have been bright and easily spotted.

Robert Louis Stevenson's *Treasure Island* is another classic to feature inns. Much of the story takes place on or near the sea, and from the beginning, narrator Jim Hawkins mentions two, which prove to be significant locations – 'The Admiral Benbow', and 'The Spy-Glass' – each name reflecting the maritime setting.

Early in *Moby Dick*, Herman Melville's famous novel on whaling, the narrator, Ishmael, seeking a place to stay, comes across a tavern: '... and, looking up, saw a swinging sign over the door with a white painting upon it, faintly representing a tall straight jet of misty spray, and these words underneath – 'The Spouter-Inn.''

The green man

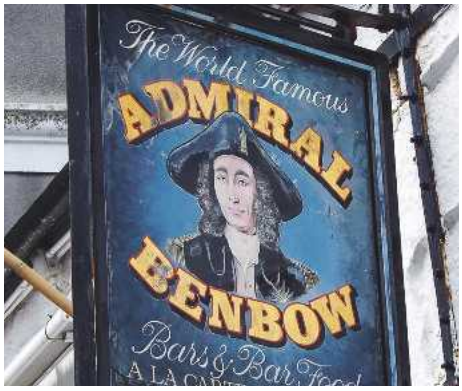
Though fairly common in certain parts of the country, some pub signs invite explanation. One such is 'The Green Man', usually represented as a face composed of – or surrounded by – leaves. Though invoking an ancient tradition, the term itself was only coined in the 1930s, before which they were called 'foliate heads', and appeared as carved features on old churches. The Green Man is often portrayed with acorns and hawthorn leaves – symbols of fertility in the medieval period – and the renewing of life in Spring. This constitutes a notable instance of how Pagan symbols of nature and tree worship were incorporated early on within Christianity.

As a pub sign, the image is probably most commonly found in Devon and Somerset, but also appears elsewhere. 'The Green Man', in the Putney area of London, dating from 1700, was notably a highwayman's haunt, and very old village establishments bearing the same name are also situated at Kings Stag, Dorset, and Long Itchington, in Warwickshire.

Pub signs bear their names for sound – if sometimes obscure – reasons, and in total offer a fascinating reflection of English history and social change.

The 'Blacksmiths Arms', Cumbria

Herald's tabard



'The Admiral Benbow' pub sign, Penzance...

... which is a historic smuggling establishment

Green man wall plaque

The 'Green Man' public house in Putney, London, situated on the edge of Putney Common, shown here circa 1900

Famously frequented by highwaymen, The 'Green Man', Putney, was also popular with participants looking to fortify themselves prior to or after a duel on nearby Putney Heath

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Machine description

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ENTER THE ECO-BARROW

Tony 'Bodger' Scott recycles a discarded recycling crate

1 A sturdy lapped dovetail keeps the nose rigid when the barrow's tipped up for emptying. It also discourages racking around the wooden axle

My North London council gave every household a green-topped wheelie bin a little while ago. Ostensibly so that we can all recycle more than used to fit in the council's green recycling crates; in fact, we suspect, so that the council can justify cutting bin collections from weekly to fortnightly.

Be that as it may, the green crate has become surplus to the council's requirements. But not, I decided, to mine. Enter the Eco-barrow, built around the crate, a puncture-proof green B&Q wheel, various offcuts, and pieces salvaged from skips.

I began by making two rectangular frames: one to go round the wheel; the other to hold the plastic crate. Any wood will do – mine happens to be teak and ash – though, if you plan to leave the barrow outside, it helps to have hardwood to minimise warping. The cross-struts of the wheel frame are dovetailed into the sides (**photo 1**) for rigidity, and I turned a small piece of yew to make the axle – a length of old broomstick would be a simpler alternative. A couple of wooden spacers made from drilled and bandsawed offcuts keep the wheel central in the frame, with lots of motor oil to ensure smooth running. Split-pins stop the axle falling out, and the long square nose provides a firm fulcrum for when you're tipping the barrow up to empty out a load.

The frame round the crate needed slots to allow for the plastic bracing under the crate's rim, and it's held together at the corners with simple glued comb-joints (**photo 2**), but it's not attached to the crate. That way, you can lift the crate out whenever you need to reach somewhere the barrow can't go.

Once you've made the two frames, it's merely a matter of fitting uprights between them to achieve two aims: get the crate high enough so that its bottom clears the wheel; and get the crate more or less centred over the back rim of the wheel. That way, the barrow will rest stably on wheel and legs when you put it down, but it'll also be easy to lift and steer because most of the load's weight will be over the wheel.

A couple of half-jointed diagonal struts glued and screwed across the back form the barrow's legs. The angle keeps the feet far enough apart both to stop you banging your shins and to stop the barrow tipping over sideways – though if I made it again, I'd extend the wheel frame backwards to get the feet sloping further back for even greater stability. Two long struts for handles – spokeshaved and sanded for comfort – and a couple of coats of teak oil completed the initial job.

I've added more bracing since then (**photo 3**), after exposure to winter weather and some rough handling made it clear that the barrow could otherwise twist out of true when heavily loaded. That apart, it's become the garden workhorse – and all for the cost of a single wheel.

2 The top frame is comb-jointed with waterproof glue, slotted and rounded to fit under the rim of the crate

3 After the barrow had spent a winter outside, I added extra diagonal bracing to protect the sides of the frame from racking even under rough handling

Diagonal legs stop the back frame from twisting under load. Rebates on all vertical struts serve a similar purpose for the front and sides

AROUND THE HOUSE WITH PHIL DAVY

Most of us appreciate good quality tools, no matter what they're designed for. I recently visited an upmarket garden centre in the Cotswolds and was drawn to the traditional hand implements on display. Many of these were made in the Netherlands, with elegant ash handles and equipped with the most incredible shaped prongs and claws, while some were more obviously spades with miniature blades. I couldn't help picking them up and trying to guess what some were actually intended for – I'm no gardener, though I'd never come across anything quite like these tools. Simply beautiful, and you just knew they'd last a lifetime if properly cared for.

And that's true of quality woodworking tools – specialist planes in particular – which you may never need to buy but can still appreciate for their design and engineering. Not that very expensive tools are essential for amazing craftsmanship, but they can certainly inspire you to do your best

To keep everything square, nail a batten across a lining near the bottom, plus diagonal corner braces at the top

Q&A
FRAME OR LINING?

Q: Can you explain the difference between a door frame and a lining? I'm renovating an old property, which includes improving door openings, but I'm not exactly sure what I need to fit where…
Ben Tompkins, via email

A: Frames are generally used for exterior doors, while linings are of lighter construction and used for internal work. A frame will usually have a hardwood threshold and is altogether heavier. Alternatively, mild steel dowels can be inserted at the lower ends of jambs and bedded into concrete to prevent movement. Traditional mortise & tenon joints are used and may be draw-bored for strength.

In modern houses, a lining simply covers the exposed studwork or brickwork around an opening, with jambs wide enough to allow for plasterboard thickness. Jambs are housed into the head and the lining nailed or screwed in place. A rebate is formed by planting or nailing on battens, known as stops. Whether you're installing a frame or lining, it's essential to keep everything square. Nail a batten across a lining near the bottom, plus diagonal corner braces at the top. In order to prevent distortion, linings and frames are often packed out with spacers when fixing. Jambs must be plumb, so a spirit level is therefore vital

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This eye loupe set from Axminster Tools consists of both 10× and 12× magnifiers

SUMMER PROJECT: SIDE GATE

WALK ON THROUGH

Phil Davy makes a sturdy side gate from scratch, using PAR softwood and featuring heavy hardware

Takes:
A weekend

Tools you'll need:
Circular saw, planer/thicknesser, mortiser, sliding mitre saw, jigsaw, drill, router, sander

Making a side gate is generally a fairly straightforward project, particularly when replacing an existing one. Unless purely ornamental, it needs to be sturdy and high enough to deter unwanted visitors from climbing over the top and gaining access to the rear of the property. If installing a gate from scratch, you'll probably need to fit a post on one side of the opening for attaching hinges. This can be a length of 100 × 100mm PAR softwood, either bolted to a wall or set into concrete, although it may be easier to use a Metpost driven into the ground.

When measuring up an existing gate and opening, you need to check the condition of timbers and replace where necessary. Don't forget to take into account post dimensions across the overall width. Drawing a setting-out rod is always recommended for joinery items. This ensures you don't cut rails too short and allows exact positions of mortise & tenon joints to be determined.

Timber dimensions

If you have access to a planer/thicknesser, it's far better to machine timber for a project such as this as you'll have much greater control. Although it's feasible to buy PAR softwood for the stiles and top rail, this may not be dead square or could be slightly bowed. Check face sides and edges and plane true and square if necessary. If you don't, you'll have problems gluing up once the joints have been cut. You'll also need to reduce the braces, mid and bottom rails, to thickness.

When marking out timber it's easier to establish the gate's reverse as the face side, as rail and stile surfaces are flush – unlike the front. Both mid and bottom rails are thinner to accommodate tongue & groove boards – matchboard – and are fitted to the stiles with barefaced tenons.

Mortise positions are determined by matchboard thickness, so buy this material first before marking and cutting any joints. Where there's a choice of thickness, opt for heavier matchboard, which finishes at around 15mm thick. Mortises are usually one-third of the timber thickness, though in reality either a 13mm or 16mm wide chisel will be fine for this. Tenons should be wedged for strength.

Stiles and top rail are made from 95 × 44mm softwood, while mid and bottom rails finish at 105 × 29mm. Both diagonal braces finish at 95 × 29mm. The top edges of all horizontal rails should be bevelled slightly so that rainwater doesn't accumulate. Plane these rails to around 5° or alternatively, round the edges. Both stiles extend past the top rail by 65mm.

Heavy hardware

A gate of this size is considerably heavy, even in softwood, so it's important to fit sturdy hinges. Hook and band hinges are designed for this job and come in straight or cranked versions, depending on whether the post on the hinged side is flush with the gate's reverse – if so, use cranked hinges. Available in several sizes, these should extend across half the gate width at least. Lockable pad bolts should ideally be fitted at top and bottom, though at the request of the elderly customer, I fitted one to the mid rail for convenience. Finally, fit a gate latch.

1 After ripping, plane timber to finished width and thickness, making sure you mark all face sides and edges

2 Cramp both stiles together and mark out joint positions for the rails. Repeat for rails, working from the face side

3 Set the mortise gauge to chisel width and mark out the joints on both stiles. Mark out matching tenons on all rails

4 Adjust your mortiser to suit the joints and cut just over halfway from either side. Alternatively, chop these using a registered mortise chisel

5 Check the blade depth and cut tenon shoulders with a sliding mitre saw. Alternatively, cut these with a handsaw

6 Clean up the tenon cheeks with a shoulder plane or wide chisel, making sure these are completely flat

7 Check that each tenon slides into its mortise snugly. If not, continue trimming to size using a shoulder plane

8 Measure 65mm up from the top rail, then draw around a suitable container in order to create a pleasing curve on each stile

9 Carefully cut around the radius using a jigsaw fitted with a narrow blade. Ensure to keep on the outside of the pencil line

10 Using a sanding drum mounted in a drillstand, clean up the shaped end of each stile. Check both stiles to ensure they match

11 To allow rain water to run off, plane a bevel along the top edge of each horizontal rail. This angle should be about 5°

12 Both outer T&G boards are rebated to ensure they slide in grooves on each stile. Form these grooves using a router fitted with a straight bit

13 Carry out a dry assembly of the gate to check everything fits correctly, then apply glue to joints with a suitable exterior adhesive

14 Check for square as you cramp the gate together, ideally measuring across the diagonals. Hammer wedges into each tenon

15 Use heavy-duty sash cramps when gluing up, ensuring your work surface is flat to avoid the gate twisting

16 Once the glue has dried, saw excess material from tenons and wedges, leaving the surface slightly proud

17 Trim tenons flush using a bench plane. Check both stiles with a long straightedge and true up if necessary

18 Saw the T&G matchboarding oversize. These will be cut again once you've nailed the boards to the gate

19 Fit offcuts together loosely and measure their overall width. Both outer boards will likely require ripping to size

20 Rout rebates along the outside edges of both outer boards so they match the grooves in the stiles. Ensure these aren't too tight

21 The top rail's underside is also grooved to accept the matchboard. Rout rebates along the top edge of each board

22 Before nailing boards to the gate, paint all tongues & grooves with a few coats of your chosen finish

23 Rout a matching chamfer along the inner edges of the stiles and top rail. Both outer boards will also need chamfering

24 Ensuring the gate is cramped securely, clean up both faces with a long bench plane, checking for true with a straightedge

25 Slide the boards into place and mark rail positions ready for nailing. Fix with lost head nails, punching these below the surface

26 Lay each brace across the door and mark the point where these meet stiles and rails. Check that braces slope the correct way

27 Mark both braces with a sliding bevel and cut to length. Saw slightly oversize so they can be trimmed to fit

28 Where necessary, use a block plane to trim the braces and check the ends are square. You'll need to notch out the bevelled rails

29 Mark out both brace positions across the matchboard. Nail through the boards into the braces and punch below the surface

30 Fill all nail holes and any timber defects. Sand both sides of the door before routing a small chamfer along the rails and braces

31 Position hinges on the top and bottom rails, then mark out. Drill and screw to the gate with 5.0mm screws

32 For additional support, each hinge has a M10 stainless steel coach bolt through the stile. Drill fixing holes and tighten in place

33 Wedge the gate in the opening and mark pin positions on the post. Drill and fix in place with 5.0mm screws

34 Hold the latch in place and mark screw centres. Drill and screw to the gate, then fix the keep to the post

35 Remove all gate hardware and brush on two or three coats of suitable exterior finish, such as Sadolin Classic

36 Refit all hardware and hang the gate in the opening. Add one or two pad bolts to the rails for extra security

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CREATIVE KOLROSING

Iain Whittington introduces a fascinating decorative woodcarving technique and applies it to the side of a wooden-bodied plane

Before edge tools were employed for carving, the ancients used various techniques to add simple designs to their artefacts, some of which are still in use today. Basic ornamentation of wooden objects goes back a long way, with the initial use of incised decoration developing into simple chip-carving. Once metal tools became available with a sharp cutting edge, this then gave rise to whittling, which in turn developed into woodcarving as we know it today.

Kolrosing & Scrimshaw

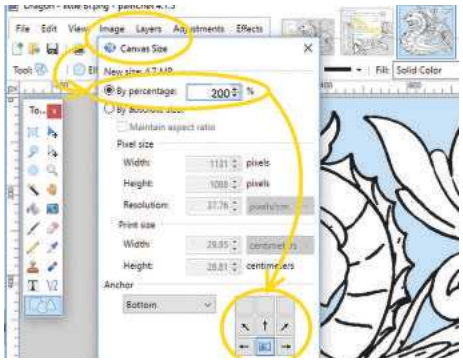
Needless to say, wood isn't the only material humans have taken to decorating. Looking back, these vary from wooden handles to animal tusks, horns and other by-products used for daily work, such as whalebone. Probably the most common artefact to survive in a maritime nation, such as the UK, is 'Scrimshaw' decorated whale ivory or bone from the 19th century whaling industry's heyday. Less well-known outside Norway – and the Norwegian-American communities – is that this technique originated back in the Viking period, as depicted by the 12th century Lewis Chessmen carvings featured in the last issue. This form of incised decoration is still practised in Norway and more widely by the Sami peoples as a 'folk art' throughout Nordic nations, where it's known as 'Kolrosing' – a reference to the 19th century sailors' use of coal dust or soot to colour their incised ornamentation.

The underlying technique for both decorations is the incision made by a sharp point, traditionally the artist's' own work-knife, which is highlighted by rubbing a contrasting powder into the cut – in the days of steam-ships and open fires, the omnipresent carbon from coal dust or soot was used. As Kolrosing was also practised by the Norwegian rural population and Sami people, ground birch bark was more traditionally used for illumination, although the modern by-product of the coffee boom – used espresso grounds – also works. This is, in effect, 'wood engraving' where the knife-point is utilised in order to highlight the required design, but like other forms of traditional incised work – such as stencil cutting – this has its limitations when following curves. A chip-carving knife was designed for this purpose, so works well and specialist Kolrosing knives are available online. Workable Kolrosing knife 'kits' – called detail carving knives – can also be purchased from a host of Chinese sellers on eBay – see sidebar. A 'cutting gauge' is ideal for framing lines.

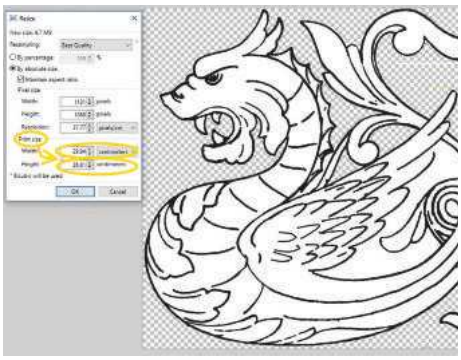
In Scandinavia, birch was traditionally used for utilitarian items such as small boxes and utensils and is one of the better woods for Kolrosing. However, any fine, light-grained wood is suitable, such as lime – basswood – in addition to many fruitwoods. Before transferring the pattern, the object's surface requires fine sanding, then sealing, which makes it impervious to the 'koling' application. Having sealed the surface, you then need to re-sand at 320-400 grit to a super-fine sheen. This is best achieved using clear French polish, which will also accept most other finishes applied to the completed artwork. The pattern is then drawn or transferred to the wood and traced with the appropriate 'knife'.

One benefit of using French polish as a sealant is that small errors can be 'patched' using an artist brush dipped in the polish, almost as a correcting fluid. I find the best knife for this task is probably the continental chip-carving knife, pulled towards

Scrimshaw whale's tooth by W.L. Roderick, 216mm long

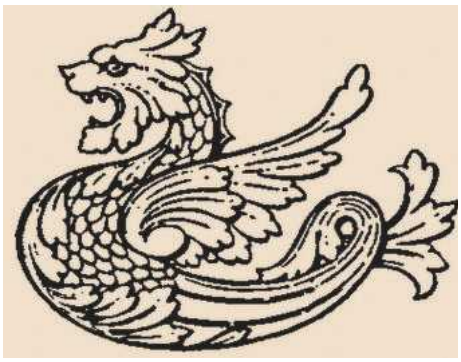


1 Having scanned and saved the design, adjust size to suit. This requires adjusting the canvas size so that the dragon is located at the bottom centre of the resized image – [Image>Canvas Size>By>Anchor/Bottom]



2 Next, use the rectangle select tool to capture the repositioned image and re-size it to the project's full width – [Image>Re-Size>Print Size] – then insert the relevant project dimension for 'Print Size'

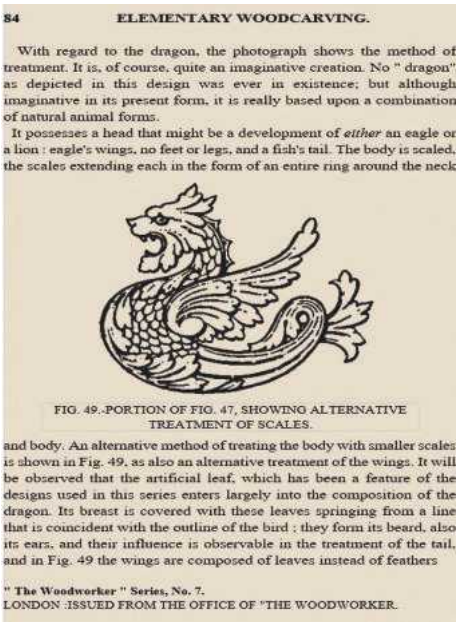
3 At this point, re-save the part image, as say, 'RHS', before re-selecting and flipping it to give a mirror image for the other side – [Image>Flip-Horizontal] – then save 'LHS'



4 With all computer graphics concluded, you can now print the pattern(s) and get started on adding the Kolrosing detail

you with care. However, for curved designs and free-hand work – such as Norsk Rosemaling patterns – a special 'pen' shaped knife is better suited, with the blade upright and pushed slowly away from you, under the control of your free hand with thumb placed on the blade's rear. Because only the blade's tip is used, it can therefore be controlled around curves while the shaft or object is carefully rotated.

The coloured 'koling' is mixed with a finishing oil of your choice and best applied as a slurry – rubbed well into the incision, before removing any surplus with a rag. Leave overnight to harden, then finish with furniture wax. A similar effect can be achieved using a punched pattern, which is then filled with 'koling' for effect.



84 ELEMENTARY WOODCARVING.

With regard to the dragon, the photograph shows the method of treatment. It is, of course, quite an imaginative creation. No "dragon" as depicted in this design was ever in existence; but although imaginative in its present form, it is really based upon a combination of natural animal forms.

It possesses a head that might be a development of *either* an eagle or a lion: eagle's wings, no feet or legs, and a fish's tail. The body is scaled, the scales extending each in the form of an entire ring around the neck

FIG. 49.-PORTION OF FIG. 47, SHOWING ALTERNATIVE TREATMENT OF SCALES.

and body. An alternative method of treating the body with smaller scales is shown in Fig. 49, as also an alternative treatment of the wings. It will be observed that the artificial leaf, which has been a feature of the designs used in this series enters largely into the composition of the dragon. Its breast is covered with these leaves springing from a line that is coincident with the outline of the bird; they form its beard, also its ears, and their influence is observable in the treatment of the tail, and in Fig. 49 the wings are composed of leaves instead of feathers

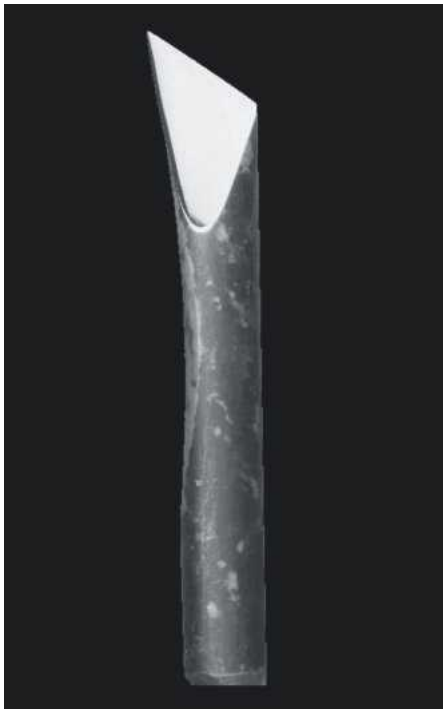
" The Woodworker " Series, No. 7.
LONDON :ISSUED FROM THE OFFICE OF "THE WOODWORKER.

Extract taken from *Amateur Woodcarving*

Kolrosing project

To demonstrate this technique, the project featured here is typical of Kolrosing's common use – turning a craftsman's hand tools into

MAKE YOUR OWN KOLROSING 'KNIFE'



Tip of a homemade Kolrosing knife

Set of three Chinese woodcarving tools

A Kolrosing 'knife' can be easily made. The form required is more akin to a pen with a sharp tip than a knife, as it needs to be able to glide round curves smoothly. A good source for a suitable start is the proliferation of inexpensive tools from China – their set of small carving tools feature a pen-like shaft. A suitable 'set' for conversion is the three-piece collection supplied with straight blade, skew blade and another tool, all in a plastic case. The first two can be used 'as is' and the 'other' blade replaced with a ¼in HSS drill bit

5 To get started, take the intended item and finish it with a very fine abrasive. Wipe clean with methylated spirits – denatured alcohol – and seal the surface. I used a coat of clear French polish. Using some carbon paper – I find Hand Copy (blue) Carbon Paper works best – transfer the pattern to your blank

6 Using your chosen scribing tool, etch the line-work into the wood by pushing the tip round the pattern. I found the 'scales' rather small to scribe in this manner, so resorted to tapping a suitable micro-gouge into them as opposed to trying to rotate the knife in such a confined space

7 When finished, take your chosen 'koling powder', mix it with a little oil, then rub it into the incised line-work, using a gentle, circular movement

8 Wipe off any surplus using a rag moistened with finishing oil. This will help the colour flow around the lines. Finally, leave the work overnight so that the oil sets, before finishing with a thin coat of clear wax polish

an individual item of beauty. The pattern, based on that of a traditional dragon, is superimposed onto the body of a No.3 'transition' plane – a wooden-bodied plane with metal Bailey-style frog. This dragon pattern, derived from a folio published in London at the end of the Victorian era from a 'pamphlet', includes a series of traditional drawings that were commonly found throughout Europe at the time, especially in the repertoire of Victorian revivalists. Adapted in order to make it symmetrical, it fits the wooden transition plane's side profile, with a mirror image used for the other side. The original pamphlet gives guidance on how to adapt the 'dragon' into either an eagle or a lion – see extract overleaf – but I've gone with the original version.

TIP

Laser printers 'heat-fuse' 'ink' – toner – to the paper, so as an alternative to carbon paper, if you print the image in reverse, then trim it to size, a hot iron can be used on the back – blank – side of the laser printer copy, in order to reactivate the toner before transferring it to the blank

For a full description detailing use of the free software, Paint.net®, described here, see book sidebar opposite.

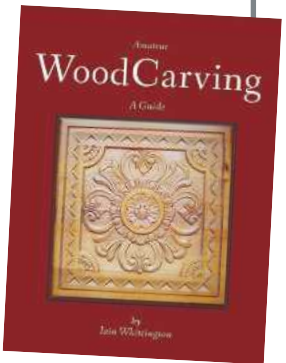
Norsk Rosemaling – Scandinavian decorative folk painting – patterns shown on both a round...

... and oval box

***AMATEUR WOODCARVING* – by Iain Whittington**

This article has been compiled from original information given in Iain's book. Here, you'll also find detailed instructions on the use of a computer and 'Freeware' for the preparation and manipulation of plans for Kolrosing, chip-carving and decorative carving.

Amateur Woodcarving was published with the support of GMC Publications, with all proceeds going to SSAFA, 'The Armed Forces Charity'. Available in most book shops or via **www.amazon.co.uk**



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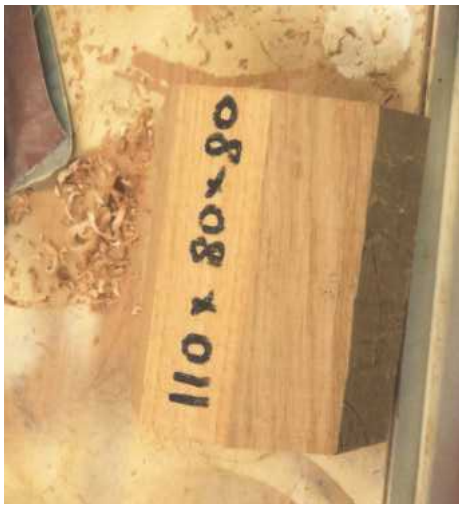
PUT THOSE COGS IN MOTION

Inspired by his love of the industrial revolution, its old cast-iron machinery and exposed gearing, **Les Thorne** turns a box that mimics one of the cogs that would've been on show

I've always loved the history of the industrial revolution with its old cast-iron machinery. The Victorians liked to make theirs beautiful as well as functional, choosing to use bright colours and adding brass trimmings. I like the dark colouring and smell of old gearing and this has formed the inspiration for the project shown here. At the family sawmill, I can remember a horizontal saw that was originally driven by steam, but when I was a child it'd been converted to electricity – as you can imagine, this was fascinating to a youngster.

The gearing was all on display back in those days: there weren't any guards in place to hide the workings' intricacies. This saw was in full production until the late '70s, when it was replaced with a modern band mill.

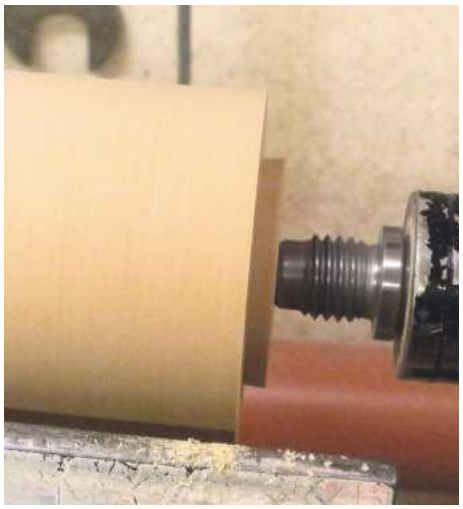
I struggled a little with the design of this piece as I wanted the outer surface to feature really deep cuts, but the downside is that you then have less diameter available to make it into a box. In hindsight, I should've used a larger diameter blank, which would've given the box a little more volume.



1 As this piece will be stained black, I recommend using European oak, which needs to be checked to ensure it's free of splits and knots. Removing the corners will make roughing-out quicker

2 Mark the centres to allow for accurate mounting on the lathe. A plastic gauge such as the one shown here is ideal for this purpose. If the wood isn't entirely square, you'll need to mark four times and take the middle average

3 Using a spindle roughing gouge, work the blank until round, then use a 10mm skew chisel to cut the spigot. It's worth practising using this tool one-handed, which will allow you to make the cut more easily

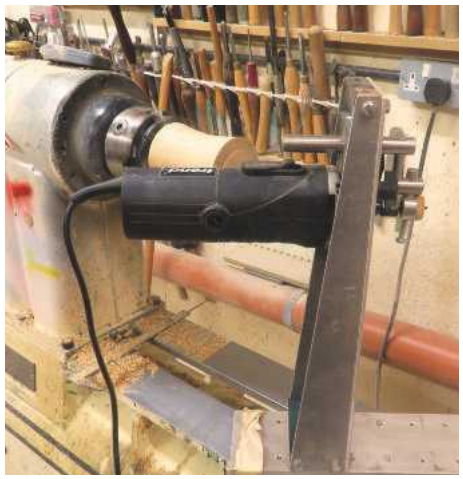


4 Next, cut a spigot on both ends. Making boxes requires a certain amount of accuracy, so the spigot therefore needs to be cut perfectly, of the correct diameter, with a small amount of dovetail to match the chuck jaws. It also needs to be cut down cleanly to ensure the top of the jaws locate onto the blank

5 It's not just the tool you use that's important, sharpening method also plays a big part. Here, I've ground my 13mm signature gouge to a fingernail profile, which, as you'll see, allows both push and pull cuts to be used

6 When it comes to effective shaping, my preferred method is 'push cut and bevel rubbing'. Here, the tool cleanly cuts the wood's fibres as opposed to scraping or breaking it away

7 Take the middle diameter down by around 5mm in order to create a waisted shape; this adds a little interest to the final box. Ensure the lid end is held in the chuck



8 This is the Paul Howard router jig. I previously used one I'd made myself, but Paul's version is fantastically engineered. It's fitted with a Trend T3 router, which isn't too heavy

9 Cutting depth is determined by a wooden insert on the adjustable depth stop. This particular cutter has a flat end, which is better suited to creating a cog effect as opposed to one with a point

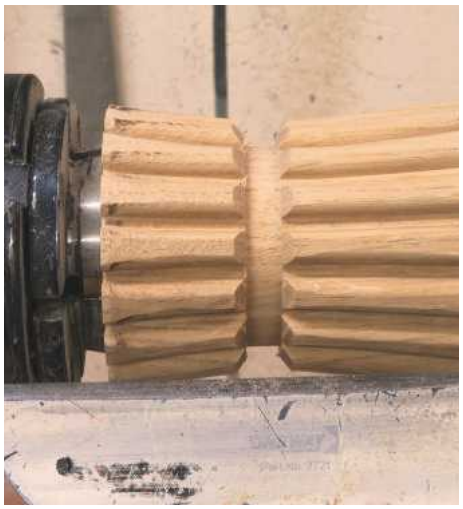
10 When routing, it's very important that the spindle is locked really tightly as any sideways movement will result in wobbly lines. The box will be cut 16 times, so, as I'm using a 48-point indexing wheel, the indexing is therefore 1, 4, 7, 10, etc.

11 I found that working from right to left produces cleaner cuts as opposed to the other way round. Set the cutter on the centreline and watch out for shavings building up in the depth stop

12 The nylon wheel I'm using here just happened to be of the correct width to fit in the grooves. Just sand roughly for now as you'll need to add further tooling to the outside

13 Begin by cutting a spigot for the base. Use a 10mm skew chisel to cut in 3mm below the bottom of the routed grooves; this will form the part the lid fits over

14 To chamfer or not to chamfer – that is the question! In the end, I decided it'd look better if I cut an angle between the box's two mating parts



15 The spigot must be parallel, so step back and take a good look at it. If it slants either way, you may experience some problems later on

16 Part off the base using a 2mm parting tool – using such a thin tool ensures you don't waste too much timber. Ensure to check that it goes in square

17 I'd usually part all the way through and just grab the bit as it comes off, but the uneven surface made it difficult to hold. So, I decided to stop the lathe and finished cutting it off using used a fine-toothed saw

18 When you part off, ensure to leave a tiny amount of spigot on the lid; this will become your guide for hollowing out. If you hollow to this line, the spigot should fit perfectly

19 Using the 13mm signature gouge as before, switch to pull-cutting mode. Ensure the flute isn't pointing upwards – position so that it's facing towards you, present the tool to the centre, then pivot in this direction, to create a dish

20 Once you've removed most of the wood, use a 10mm skew chisel to true up the sides. Line the tool up with the lathe bed and push it straight into the end-grain

21 Use the same tool to create a flat on the lid's interior. Placing your finger on the toolrest allows you to guide the tool depth as you go along. Check to ensure it's presented on the centreline

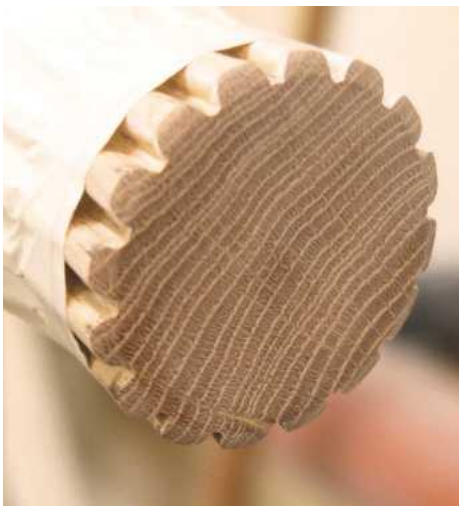
22 At this stage, you should've removed enough material to give the correct diameter – here you can just see the pencil mark remnants. Remember to take small cuts: the lid doesn't need to be tight, so you can turn the top

23 The easiest way to sand the flat inside the lid is to use a 30mm sanding pad mounted in a drill. Ensure you don't generate too much heat as the end-grain can crack

24 The base should fit perfectly onto the lid with a really tight fit, the two diameters coming together really well. At this stage, sand the box to a finish

25 Mount the base in a chuck and fit the lid in place, then proceed to turn the top. Masking tape can be used here for added security, or if preferred, use the tailstock if you're able to

26 Bevel position is important when it comes to removing the spigot. Tool angle must match direction of cut: if you present the tool's tip to the surface, it'll skate back



27 Chamfer the top to match the join. Ensure to cut a slight concave into the base; this allows the box to sit on its outer diameter, so that it doesn't wobble

28 Using the spindle gouge as before, you can now hollow out the base. You shouldn't need to drill a depth hole here, and until the overhang becomes greater than 75mm, then switch to a specialist hollowing tool

29 Due to the base's angle, it's advisable to undercut the inside. My rolled edge skew chisel has a 15° angle on the end, which perfectly matches the shape. Sand the spigot to ensure the lid fits snugly and isn't over-tight

30 Start by sanding the inside of the box at 180 and work through to 400 grit. When sanding through a small hole such as this, only place one finger inside the piece to ensure nothing gets trapped

31 The next step is to turn a jam chuck. Mount a piece of softwood and turn a taper on the end; the box can then be offered up to give you an indication as to the correct diameter required between it and the wood

32 Use a 10mm skew chisel to cut down the timber; this needs to be a tight fit into the base and the top of the box should come up against the shoulder

33 Whoops! I cut my jam chuck too small so had to use a piece of kitchen roll as a filler. Before you start turning, test the strength of the grip on the base

34 I got a bit carried away with the bottom detailing; this should've probably appeared on the top of the box where it could be seen

35 Black stain on oak always looks very effective; you can see how it hasn't penetrated into the oak's medullary rays and the contrast really shows off the grain

36 The completed cog box should look something like this

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FESTOOL

TIPS FOR CHOOSING THE RIGHT TOOL FOR SCREWDRIVING

DIFFERENCES IN FUNCTION

As shown in this exclusive guide from **Festool**, when it comes to screwdriving, the only way to achieve the best result is to work with a tool that's precisely matched to the application at hand

Cordless screwdrivers: always used in timber construction, interior finishing and dry mortarless construction and often carried on a tool belt, secured in place with a clip. But which screwdriver is best suited to a particular task or application? One with two or maybe even four speeds? 10.8 or 18V batteries? An impact screwdriver, drill, or percussion drill? A specialist tool or one for all applications? The variety of cordless screwdrivers can seem overwhelming, but one thing is clear: the only way to achieve the best result is to work with a tool that's precisely matched to the application at hand.

Torque setting and correct speed selection are the two most important factors when it comes to achieving the perfect screwdriving result. This is because they're used to precisely adjust the screwdriving process to screw properties, screw diameter and, most importantly, material.

Cordless impact screwdrivers

Those purely seeking a screwdriving solution – with optimum performance, endurance and no strength-sapping back torque – will gain most benefit from the TID 18 impact screwdriver. This tool enables screwdriving over long periods without tiring. Cordless impact screwdrivers are significantly lighter, more compact and enable comfortable working – especially for repetitive screwdriving tasks. The essential feature here is extremely low back torque, made possible by the tangential hammer mechanism, which minimises impact on the wrist during working. Georg von dem Bussche, Festool trainer and master carpenter, explains: "Smart T-mode is one of the TID 18 cordless impact screwdriver's most practical features. When fitting sheet metal to wood with self-tapping screws, the tool detects any transition between different materials and automatically adapts speed to suit. To drill into sheet metal as effectively as possible, the tool begins by driving the screw in using a high speed, low torque and without impact loading. Once torque increases as the screw is driven into the wood, speed is independently reduced and only then does impact loading begin."

Several speeds for greater variety

The range of applications made possible using the QUADRIVE TDC cordless drill and QUADRIVE TPC 18/4 cordless percussion drill with four-speed gearbox is extremely versatile. The four-speed powerhouses are both ideal for screwdriving tasks involving high torques and large diameters as well as quick and powerful drilling. As a rule of thumb, the larger the drilling diameter, the lower the speed required. Festool has developed a clever solution for switching between speeds, with both tools allowing users to seamlessly switch from one gear to another. Fixed stops ensure clear engaging, saving time and guaranteeing full control during use.

KickbackStop wrist protection

Tool jamming and resultant wrist/hand twisting are now a thing of the past using either the QUADRIVE TDC or TPC models, thanks to intelligent KickbackStop, which minimises the risk of this occurring. An in-built sensor detects a tool jam and stops the drive within a fraction of a second – before the force can be transferred to the user's wrist.

Drilling or screwdriving?

That's not a question you have to ask with cordless drills, which is why the 18V class all-rounder tools are so popular. The T 18+3 and C 18 cordless drills, featuring an ergonomic C-shape, are also equipped with fully electronic torque setting, Centrotec quick-change system, special attachments, brushless motor and high-performance battery packs, which makes them a universal solution for most screwdriving and drilling applications.

For screwdriving, many users often use maximum torque. With the T 18+3 and C 18 cordless drills, you can switch from maximum to a lower torque setting at the press of a button. Festool cordless drills feature fully electronic

The TID 18 cordless impact screwdriver

Using the TID 18 impact screwdriver, users can keep working for long periods without tiring

Cordless impact screwdrivers are significantly lighter, increasingly compact and allow for more comfortable working – especially where repetitive screwdriving tasks are concerned

Functions of hammer mechanisms for TID, TPC and BHC models

An essential feature is the extremely low back torque – made possible by a tangential hammer mechanism – which minimises wrist impact during screwdriving tasks

Smart T-mode is one of the TID 18 cordless impact screwdriver's most practical features

When fitting sheet metal to wood with self-tapping screws, the tool detects any transition between different materials and automatically adapts the speed in T-mode

torque setting and shut-off. This is particularly useful for screwdriving, as it allows for very precise adjustment of force and speed. If screws are overtightened or screw heads shorn off, this is usually due to the user mistakenly selecting maximum torque while in use, which damages both screw and drill bit.

Quick-change system for bits, drills & tool chucks

Precise screwdriving requires an ideal torque, high-quality bit and a tool chuck that can be changed quickly. Bits are very important when it comes to power transfer, which is why they need to be of a particularly high quality. Magnetic bits and bit holders are especially useful. Professionals appreciate the ability to change bits, drills and attachments quickly, which is why Festool has combined a chuck and bit holder in one with their unique Centrotec tool chuck. It's half the size and 80% lighter than comparable chucks, fits all Festool cordless drills and features a FastFix interface, allowing users to change tools in a matter of seconds, which, in practice, has proven to be a very popular feature.

Special attachments for efficient work

For screwdriving tasks close to the edge, Festool recommends its EX-UNI eccentric attachment. Using this special work aid, angle

Those purely seeking a screwdriving solution – with optimum performance, endurance and no strength-sapping back torque – will gain most benefit from the TID 18 impact screwdriver

The tool starts off driving the screw through the sheet metal with a high speed, low torque and without impact loading. Torque increases as the screw is driven into the wood, speed is independently reduced, and only then does impact loading begin

QUADRIVE TPC 18/4 cordless percussion drill

QUADRIVE TDC 18/4 cordless drill

If any hazards arise when drilling and screwdriving, the electronic KickbackStop function comes into play. This minimises wrist injury risk if the drill suddenly jams

Thanks to its excellent handle ergonomics and short design, the TPC 18/4 perfectly fits the hand, even during high speed drilling tasks

The CENTROTEC tool chuck unites chuck and bit holder in one: 50% smaller and 80% lighter than a standard drill chuck, the CENTROTEC quick-change system is perfect for changing tools in a matter of seconds and fits all Festool cordless drills with FastFix interface

adjustment is made easy and achieved by turning the ring. The same principle is used on the AN-UNI angle attachment. As such, users are no longer required to remove the attachment from the tool prior to use. The DC UNI FF depth stop is perfect for achieving reproducible screw fittings in façade cladding or patio flooring, for example.

The rubberised protective ring prevents undesirable, visible impressions in the material's surface. The DD-DC depth stop is perfect for fitting drywall panels, since it allows many screws to be placed with a uniform screwdriving depth. Owing to the tool's narrow design, users are also offered an optimal view of the screwdriving site.

A large number of attachments, combined with perfectly matched accessories, offer a wide range of possible uses

Using the CENTROTEC quick-change system and FastFix attachments, tasks are made quicker, requiring no additional equipment

EXTRA-SMALL CORDLESS DRILLS

When it comes to assembling carcasses, ceiling linings and wall cladding, compact cordless drills are particularly recommended. Owing to their very short design, balanced weight distribution and low weight of just 900g, working overhead and in hard-to-reach areas is therefore made easier. The TXS (T-shape) and CXS (C-shape) cordless drills have demonstrated their suitability in terms of assembly tasks for over a decade now. The powerful motor is driven by a 10.8V Lithium-ion battery and 12 torque settings allow for controlled power. As mentioned, Festool's TXS and CXS models have been designed for extremely precise work conditions.

Construction materials aren't easy to identify in a shell construction. As soon as the wall is plastered or covered, it's difficult to pin-point the exact construction material. Carrying out a test drill with a small drilling diameter can remedy this situation, making it easy to determine the material hidden under the surface

TECHNICAL DATA

	TID 18	TDC*1	TPC*2
Battery voltage	18V	18V	18V
Gears	3 + T-mode	4	4
No-load speed 1st/2nd gear (rpm)	–	0-500/0-800	0-500/0-800
No-load speed 1st/2nd/3rd gear (rpm)	0-1,200	0-2,000	0-3,200
No-load speed 3rd/4th gear (rpm)	4,500	0-2,350/0-3,600	0-2,350/0-3,600
Max. number of strokes (rpm)	4,895	–	57,600
Drilling diameter: wood/steel (mm)	–	70/13	70/13
Drilling diameter (mm)	–	–	10*4
Drilling diameter of drill bits max. (mm)	–	–	–
Torque setting 1st/2nd gear	–	2-20/2-20	2-20/2-20
Max. torque, wood/steel (Nm)	180	50/75	50/75
Max. screw size for softwood	8 × 220mm	10 × 300mm	10 × 300mm
Tool holder	⅛in	–	–
Chuck range (mm)	–	1.5-13	1.5-13
Battery capacity (Ah)	4.0	4.0/5.0	4.0/5.0
Weight with 4.0/5.0Ah (kg)	1.5	1.9/2.0	1.9/2.0
EC-TEC motor technology	Yes	Yes	Yes

*1 The TDC cordless drill is always used without hammer action
*2 Hammer action can be engaged on the TPC cordless percussion drill
*3 Use in masonry/tiles

18V cordless drills.
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FESTOOL

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At Festool you'll find a wide selection of cordless drills and screwdrivers, with models for industrial and construction environments, along with smaller devices that are ideal for professional home use. The appealing combination of lithium ion batteries together with the brushless EC-TEC motor combines all the advantages you need from a high-performing cordless tool.

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SCAN ME

SOLID & RARE

Andrew Lawton – one of our three expert judges for **the Alan Peters Furniture Award 2022** – presents an exhibition piece made using a very unique material

Created by Andrew Lawton – one of our three expert judges for the Alan Peters Furniture Award 2022 – this chest of drawers is made from solid blackbean – a rich, beautiful hardwood, similar in appearance to walnut, but denser, harder and heavier. A native Australian timber, blackbean exportation ended in the 1970s, but Andrew was lucky to acquire four 2,400 × 170 × 75mm planks from a long-retired maker, who was selling off his remaining stock. As such, this particular piece, British-made and contemporary in appearance, is very rare and unique.

The design

Intended to provide plenty of useful storage space with a small footprint, this particular design had existed in sketchbook-form for several years. The 'Chevron' theme is evident in many of Andrew's pieces, the first being a ripple sycamore desk made in 1993. Since then, he's gone on to create numerous others and the chest of drawers shown here features chevron-shaped sides. Andrew explains further: "I'd originally considered using English walnut, but having acquired the blackbean planks, I soon realised that in addition to colour and grain, their dimensions were also ideal for this project."

Stages of making

The first stage taken by Andrew was to prepare a full-size drawing of the piece, showing front and side elevations, plus a plan, which was drawn in pencil onto an MDF sheet. Any adjustments to dimensions and detailing were then carried out. "Looking at a full-size drawing from the normal viewing position can often suggest changes and improvements, which aren't always obvious on a paper drawing or computer screen," he comments. Next, each plank was examined and the one with the most interesting grain chosen for the drawer fronts and carcass top; the less highly figured boards were used for the sides. The full width drawer rails, made using ash and featuring 50mm wide blackbean lippings, are, in effect, shelves on which the drawers slide. Since the grain runs in one direction, any movement is therefore in the same plane.

For the two carcass sides, each was built up from six individual staves, tapered in length and shaped to a 30° bevel. This proved to be a fairly exacting operation, requiring a jig, which was achieved using a bandsaw, planer/thicknesser and tilt-arbor saw bench, followed by careful hand planing with a Record No.7 try plane. The butt joints were shot by hand and biscuit jointed for accurate alignment, and for the main carcass joints, Andrew chose housed stopped – blind – mortise & tenons.

"Considering the blackbean's density and in places, rippled and interlocked grain, it was relatively easy to work using both hand tools and machines," says Andrew. "It is, however, slightly oily, so as a precaution, all joints were degreased with cellulose thinners prior to assembly."

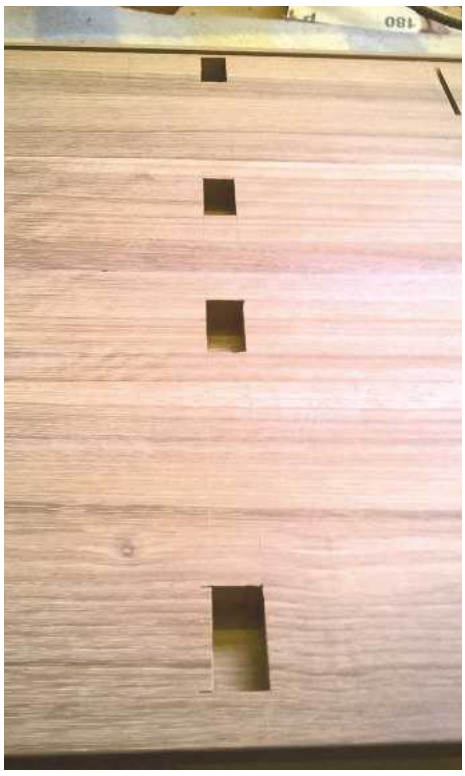
Once carcass glue-up was complete, it was then a matter of allowing the adhesive – Titebond Original – to set. Andrew could then carefully check internal faces with an engineer's straightedge to ensure that each surface was dead flat and the carcass wasn't narrower at the back than the front. "Accuracy of the carcass interior is vital if the drawers are to run smoothly and truly, so time spent here always pays off."

Carcass glue-up – note use of cauls or cramping blocks; these spread the cramps' pressure and MDF boards protect chevron apexes

For the drawer sides and back, quartersawn sycamore was chosen; it provides an attractive colour contrast to the blackbean, followed by cedar of Lebanon for the bottoms. As with all drawers produced by Andrew, the dovetails are hand-cut. Oak drawer pulls were ebonised using a home-made solution of vinegar containing old steel screws, which was left to soak for a few days prior to application.

Finding the right finish

Deciding on a suitable finish can sometimes be a challenge, but in this case and in view of the blackbean's oily nature, Andrew selected Danish oil, which brings out the sheer richness and variety of shades while providing adequate



The carcass top is offered up dry, which allows joints to be checked for fit

Carcass mortises prior to working the housing

surface protection. The drawer sides and backs were finished with clear wax and the bottoms left bare, so as to not impede the cedar's scent.

Measuring 1,350mm high × 550mm wide × 410mm diameter, the completed piece features a carcass back in sycamore veneer on an MDF core, which is slotted into a groove before being secured in place with brass screws.

ANDREW LAWTON

Andrew creates furniture that's fit for purpose, using high quality materials throughout and the best constructional methods for the job, with the joints themselves forming a decorative design element where appropriate. Much of his work has a geometric rather than organic feel, which is partly a result of Andrew's fascination with Art Deco and Modernist architecture.

The majority of Andrew's work is made to commission, although he also makes several speculative pieces every year, which are offered for sale at exhibitions and directly from his small showroom.

Enquires are invited for any single item or room scheme that requires distinctive and individual handling, for private homes, corporate clients and public buildings. To find out more, see the website: **www.andrewlawton.co.uk**

Coming up in the next issue...

The Woodworker & Good Woodworking July 2022 edition – on sale 17 June

WILD WOOD

Drawing on his seafaring and boatbuilding past, Roy Gollop of Lyme Bay Carvings depicts subjects from the animal kingdom, most notably sealife and birds

WIN!

trend tool technology

1 of 2 Trend T18S 18V sander kits – including ½ sheet, random orbit & detail sanders – complete with 2 × 4Ah battery & 6A charger – worth £169.99 per set!

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Exclusive sander test round-up by Phil Davy

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RIDER

WINDS OF CHANGE

Peter Dunsmore makes an attractive garden windmill ornament using standard timbers and recycled bicycle wheel hubs for pivots

COLOUR-CHANGING CHATOYANCE

Paolo Pisani takes a look at this natural wood surface property, which involves a shift in colour depending on lighting or observation direction

PLUS ▪ Rebuilding the famous Sutton Hoo Ghost Ship ▪ Make your own sawhorse
Seed tray stand ▪ Turned multicoloured lamp base ▪ Woodworker's encyclopaedia – part 41
Monster driftwood ▪ Beginners' guide: gluing up furniture

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WEB GUIDE

MUSICAL INSTRUMENT MAKERS

FOR SALE

Scheppach HM0 Solo planer/thicknesser – 10 × 4in throat with spare knives; new feed rollers fitted; £350
01237 479 245 (Bideford)

Ferm FLZ-275 bandsaw – old but very seldom used. Requires new rubber to top drive pulley; includes various spare blades; £25 – buyer to collect
07733 9822 477 (Bristol)

Draper WTL95 variable speed wood lathe – 2009, in full working order – 240V supply; £300
01686 640 205 (Welshpool)

Hope easy arm hollowing jig – the easy way to turn hollow forms; fits all flatbed lathes with centre height up to 12in (24in swing). The jig takes 19mm and 16mm round bar tools; used once – as new with original packaging; cost £245, selling for £145
07816 371 694 (Newcastle on Tyne)

Scheppach hms 2600ci planer/thicknesser – 2009, 240V supply; good working order; £650
01686 640 205 (Welshpool)

Hammer A3-26 planer/thicknesser – 260mm planing width with Silent-Power® cutter-block; excellent, clean condition; only used in home workshop; £2,500
01388 815 216 (Stanhope)

New, wrapped Axminster bandsaw blades – all 98in, 1 × ¾in (4tpi), 1 × ½in (10tpi), 3 × ¼in (6tpi), plus 1 × ⅛in (18tpi) – from Hamilton Beverstock; £30 plus postage
01279 722 469 (Herts)

Coronet Imp bandsaw – three wheel, three speed, tilting table – 12in throat; £100 ONO
07759 578 688 (Manchester)

Sealey SM1308 lathe – used twice, in excellent condition – 370W motor, four speeds, 1,000mm centres, twin bar construction – complete with woodturning tools; £120 – buyer collects
07952 326 181 (Berkshire)

Copies of *The Woodworker* – complete collection from January 1985–December 2019, except for 11 missing copies from 1985–1993; all boxed up and free to collector; collection only
01708 702 437 (Essex)

Perform MJ343C CCBB bandsaw – little used – with mitre guard & fence plus manual; 240V, 315mm wheel diameter; £30 – buyer collects
07981 267 171 (Essex)

Kity 1637 planer/thicknesser – 10 × 8in; 1994; needs new motor; 240V – lovely machine with manual – open to offers; buyer collects
07981 267 171 (Essex)

DeWalt DW1251 radial arm saw – 1980 – genuine machine, needs some TLC – open to offers; buyer collects
07981 267 171 (Essex)

Kity 1619 circular saw – 1994 – lovely machine with fold-up extension table & manual – 240V – open to offers; buyer collects
07981 267 171 (Essex)

JET JTS-600x circular saw bench – join blade; supplied with all accessories; little use & in excellent condition – buyer collects; £550
0161 224 2405 (Manchester)

Felder BF 6-31 pro-level combination machine – with wheel lift for easy manoeuvring; 300mm saw sliding table extension & hold down; spindle moulder, 30mm shaft & separate spindle for router bits; planer/thicknesser – 310 × 225mm, plus other bits – no mortiser; £4,250
07968 347 733 (Shropshire)

Sedgewick PT 255 2001 model planer/thickesser – single-phase; £950 – buyer collects
07939 357 953 (Cheshire)

Axminster ND16B drill press – little used – wood only with vice; £150
07708 663 689 (Somerset)

WANTED

Tenoning table/sledge for Axminster/Jet spindle shaper
07974 853 172 (Bristol)

Tyre for Tormek 2000/T8 drive wheel, or complete drive wheel
01793 771 898 (Wiltshire)

Kity combination machine (or similar) – must feature saw, planer, mortiser, spindle moulder, etc. Carriage paid
+087 2275266 (Ireland)

Australian-made Symtec woodturning lathe; in sound condition; must be complete with toolrest – excellent price paid
01454 260 395 (Berkeley)

Three-jaw chuck for mortiser attachment Kit K5. Attaches to planer cutterblock with left-hand thread – both 12mm
01302 817 889 (Doncaster)

Stanley No.1 plane & Stanley No.2 plane – one of each wanted by novice collector
01572 723 976 (Rutland)

Woodworking tools: planes by Norris, Spiers, Mathieson, Preston, Slater, etc. brass braces, interesting rules & spirit levels; top prices paid, auction prices beaten **01647 432 841** (Devon)

Woodworking hand tools, especially old wood & metal planes, wanted by collector. Write to Mr B Jackson, 10 Ayr Close, Stamford PE9 2TS or call **01780 751 768** (Lincs)

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TAKE 5

This month's selection includes exquisite furniture making with a sculptural feel, woodturning using unusual materials, and a series of stools inspired by Japanese Kumiko latticework

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1 Whiskey cabinet crafted in solid walnut with quilted maple interiors, Verde Fusion stone and yellow metal trims – designed by Philbe Design Furniture Makers – **@philbe_design** – and handmade in-house by Guillaume Angibert – **@gangibert** – metal work by Metalroom Ltd – **@metalroomltd** . Photo credit: **@simeonpatience**

2 Swan-inspired sculpted chair in maple and sycamore by **@masakikondo.woodworks**

3 Side tables/stools in ash and brown oak by Anthony Dain – **@anthonydainfurniture** – from a series of furniture exploring the construction of Japanese Kumiko latticework that was traditionally used in 'Shoji' sliding screens – 45cm long × 35cm wide × 35cm high – available from Derwent House – **@derwenthousewitney** – as part of their 'Table Manners' exhibition

4 Hygge-style carved raccoon in deep black with white accents used only on the head, as per the client's request. The piece is completely unpainted and made using black hornbeam and elm – by Sam Belugin – **@beluginsam**

5 Turned, lidded urn made using 20-year-old pearwood, by Klaus Kirchner – **@klauskirchnerinsta**

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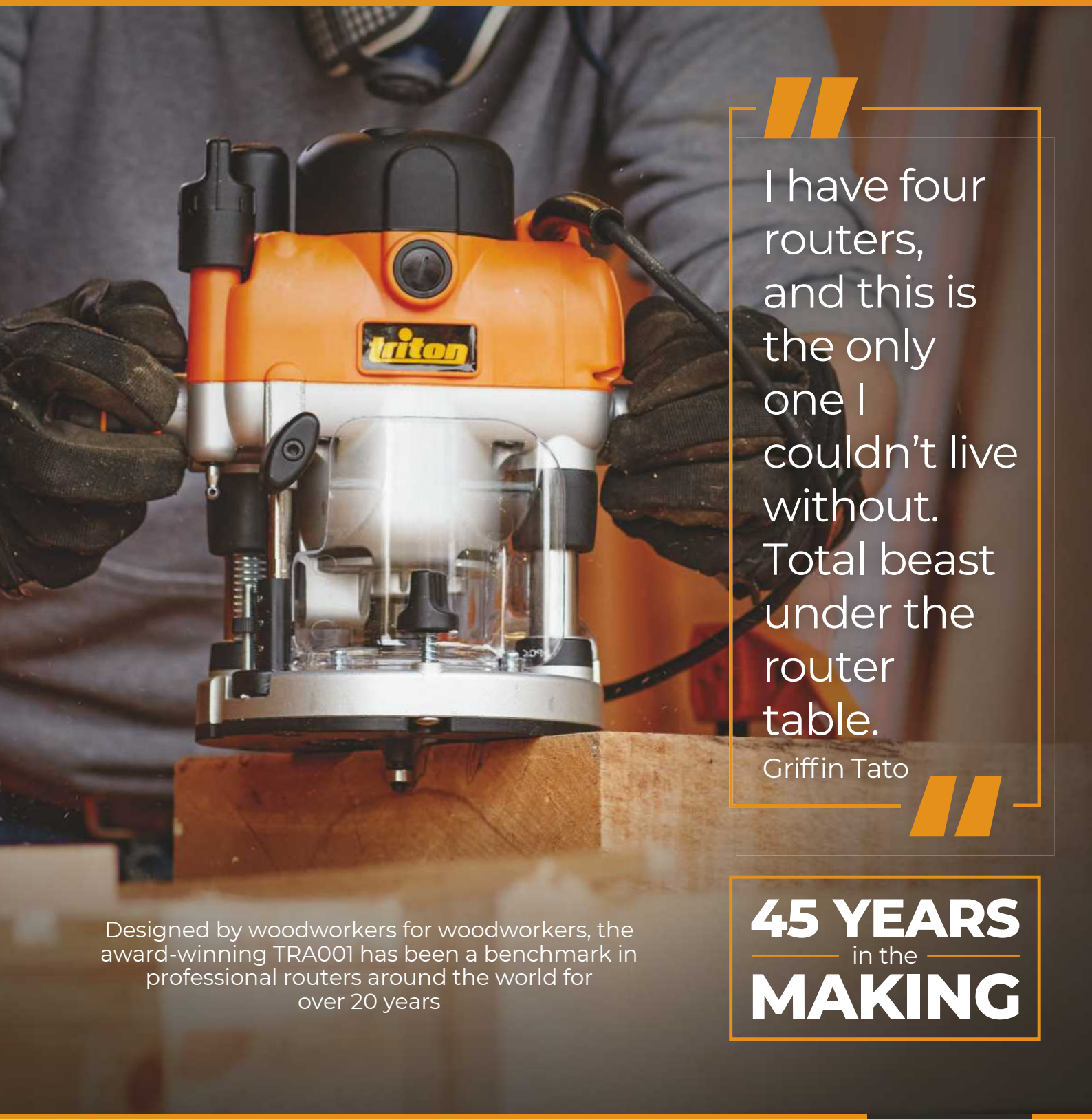

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