WOODWORK | TURNING | TOOL TESTS | FEATURES

August 2024

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& Goodwoodworking

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- **CREATIVE COLLABORATION:** OAK & ALMOND * STOKES & CO. JOINERY

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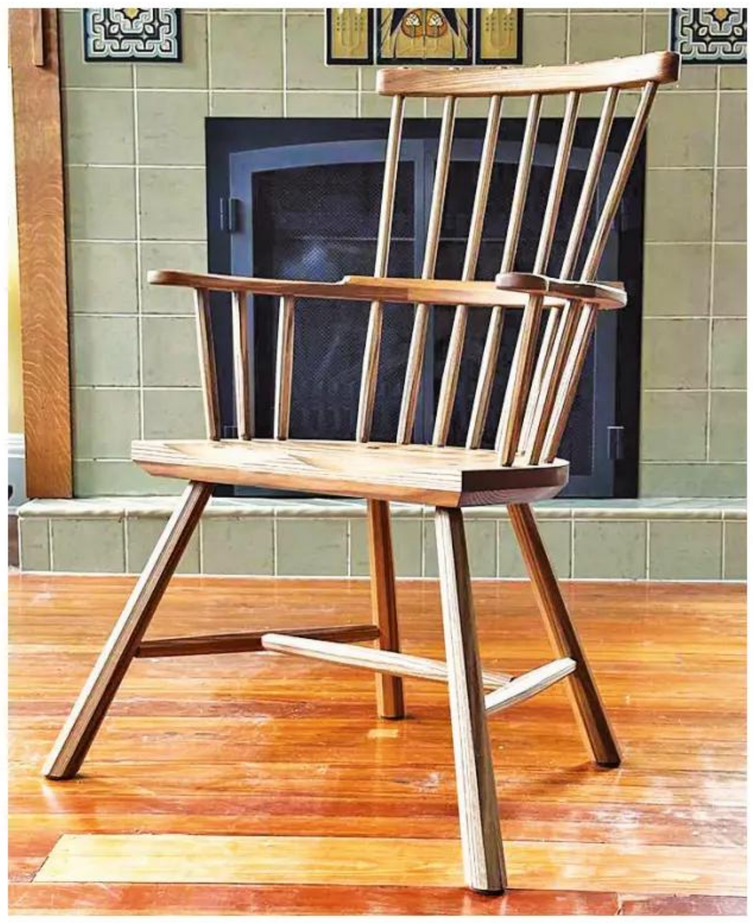
Simon Groves' winning chameleon chainsaw carving

Accredited conservator Yannick Chastang will be one of the guest speakers at the LIWF 2024



Build a comb-back stick chair with Christopher Schwarz over five days as part of LIWF 2024

Welcome

With woodworking events, shows and exhibitions taking something of a back seat during the COVID-19 pandemic, and many either being postponed or cancelled altogether, it's great to see so many back on the calendar. There's certainly much going on, with crafts in general enjoying a resurgence and rejuvenation, which is fantastic to see.

Overcoming & adapting

As we experienced ourselves during these strange times, planned events had to be moved to online formats and organisers forced to adapt to enforced rules if they were to go ahead. Here, I'm specifically thinking of The Alan Peters Online Furniture Award 2021, the format of which had to be rejigged and a virtual exhibition of winners' work created as opposed to the physical one originally planned. While adapting to change can require some lateral thinking, keeping to plans and honouring the hard work of all those participants was worth its weight in gold. Don't forget, there's still time to apply for this year's award, which also adopts an online format. The entry deadline is 31 July and all the information you need can be found here: **www.jeremybroun.co.uk/alanpetersaward**.

Similarly, the 'Harrogate' show was given a two-year break for a variety of reasons, the main ones being the fact that social distancing was very much still enforced, public gatherings weren't permitted and also due to the event's typical demographic. While everyone very much missed attending this much-loved show, it just meant that the 2022 instalment was bigger and better than ever: visitors were extremely excited to get back out out there, see demonstrations, and, importantly, eager to spend their hard-earned cash! We're pleased to announce that advance tickets for the 2024 event are now on sale; see **www.harrogatewoodworkingshow.co.uk** for further details.

Dragon by JC Chainsaw Sculptures & Furniture

West's Wood Fair 2024

A woodworking event that's already caused quite a stir this year is West's Wood Fair, which took place from 21–23 June, in East Dean, West Sussex. Showcasing wood in its various forms, visitors could browse the different exhibitor trade stands as well as enjoying demonstrations of sawmilling, pole lathes and hurdle making, not to mention the much-anticipated Chainsaw Carving Competition. With entrants given six hours in total to complete their pieces, this year revealed some great skill, with first prize being awarded to Simon Groves for his fantastic chameleon chainsaw carving, and second prize scooped up by JC Chainsaw Sculptures & Furniture's wonderful dragon, both of which are pictured here. We look forward to seeing what next year's event has in store, and judging by the positive comments echoed by all those who attended this one, it was undoubtedly a resounding success.

London International Woodworking Festival 2024

Another exciting woodworking event for 2024 is the London International Woodworking Festival, which takes place over six days – from 28 October to 2 November – at London Design & Engineering UTC. Badged as 'the must do event for hand tool woodworkers', the event kicks off with a range of practical, hands-on short courses, which are delivered by some of the world's leading experts on furniture making, tool maintenance and design presentation. The festival culminates in a one-day show, which is centred around a lively bazaar staffed by representatives of leading hand tool brands from around the world. Visitors will also have the opportunity to attend seminars and demonstrations to further their knowledge and appreciation of the craft in one of the designated learning zones. Tickets for LIWF courses, the LIWF Bazaar and car parking are now available to purchase via the website: **www.londoniwf.co.uk**.

So as you can see, there's lots going on in the world of woodworking and much to be celebrated. Stay tuned for various graduate and award winners' showcases, coming up over the next few issues. Enjoy!

Tegan

Tegan Foley
Group Editor

Rhona Bolger
Group Advertising Manager

Phil Davy
Technical & Consultant Editor

Email tegan.foley@dhpub.co.uk

WIN!

COMPETITION 1

WOOD WORKERS
WORKSHOP

1 of 2 Milescraft PocketJig400s – worth £99.95 each!

For those woodworkers looking to create accurate pocket hole joints, every time, the **Milescraft PocketJig400** is the ideal choice. In conjunction with **Wood Workers Workshop**, we're giving two lucky readers the chance to win one of these handy workshop aids

See page 31 for further details

COMPETITION 2

We've teamed up with wood care experts Liberon for a third time, giving more readers a chance to showcase their woodworking skills & win a fantastic prize bundle, worth over £300!

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DEPUIS 1912

PRIZES:
1st: £200 Amazon voucher, plus a Liberon woodcare product bundle – worth over £120
2nd & 3rd: A Liberon woodcare product bundle each – worth over £120
– see page 24 to find out more

Good luck!

veritas

SEND IN YOUR TOP WORKSHOP HINT/TIP/POINTER OR PIECE OF ADVICE & YOU COULD BE IN WITH A CHANCE OF WINNING A **VERITAS APRON PLANE**
– see page 71 for details

26 CREATIVE COLLABORATION

Despite running their respective businesses, Caleb Howard-Almond and Patrick Stokes recognise the benefit of collaborating on various projects, utilising individual skills and expertise

CHISEL RATING PROJECT DIFFICULTY 1-5

Each project in this issue includes a difficulty rating from 1-5, so you can readily see whether or not a particular one is suited to you. While it's good to try and push yourself and develop skills, workshop safety should always be a main consideration and we urge you not to attempt a project/use specified tools or machinery, if you're unsure how to do so in a safe manner. A wide range of safety information is available online and a good place to start is **www.hse.gov.uk**

1 **Very easy**; only requires basic tools
2 **Simple to make**; only a few tools required
3 **Aimed at beginners-intermediate**; some specific equipment/tools required
4 **Aimed at intermediate-advanced**; sound woodworking knowledge required in addition to a wide range of hand/power tools
5 **Advanced skills/knowledge required**; a wide range of specialist equipment is needed to complete the project

The Woodworker & Good Woodworking
AUGUST 2024

PROJECTS & TURNING

TECHNICAL

ON TEST

REGULARS

FEATURES

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BACK ISSUES & BINDERS
Contact: 01795 662 976
Website: www.mags-uk.com

EDITORIAL
Group Editor: Tegan Foley
Technical & Consultant Editor: Phil Davy

CONTRIBUTORS
Jonathan Salisbury, Cameron Sidgwick, Jack Hill, Michael Huntley, Shaun Newman, Colin Simpson, Mark Griffiths, Nick Webb, Donald Phillips, Phil Whitfeld, Stephen Simmons, Ken Jones, Phil Davy, Les Thorne, Peter Vivian

PRODUCTION
Designer: Nik Harber

ADVERTISING
Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@dhpub.co.uk
Tel: 0204 522 8221

SUBSCRIPTIONS
Marketing Manager: Beth Ashby
Email: beth.ashby@dhpub.co.uk

MANAGEMENT
Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@dhpub.co.uk
Chief Executive: Owen Davies

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CDE35B	750W	850m³/h	56L	£189.98	£227.98
CDE7B	750W	850m³/h	114L	£209.00	£250.80

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CTC800C	8 Dr Chest/Cab Set	£149.98	£179.98
② CTC700C	7 Dr Cabinet	£179.98	£215.98
CTC1300C	13 Dr Chest/Cab	£189.98	£227.98

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CIG81015	4.5x3x2.4m	£279.00	£334.80
CIG81216	4.8x3.7x2.5m	£329.00	£394.80
CIG81020	6.1x3x2.4m	£349.00	£418.80
CIG81220	6.1x3.7x2.5m	£399.00	£478.80
CIG81224	7.3x3.7x2.5m	£499.00	£598.80
CIG1432	9.7x4.3x3.65m	£1099.00	£1318.80
CIG1640	12x4.9x4.3m	£2599.00	£3118.80

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Clarke CBS2	1200W	480	£94.99	£113.99
Makita 9911	650W	75-270	£109.98	£131.98

Clarke 6" BELT / 9" DISC SANDER

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- Use vertically or horizontally

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CON185B*	1500W	63/43	£69.98	£83.98

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CVAC30SSR*	1400W	24/22L	£109.98	£131.98

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CDP102B

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F = Floor standing

Model	Motor (W) /Speeds	exc.VAT	WAS inc.VAT	NOW inc.VAT
CDP5EB	350/5	£99.95		£119.94
CDP102B	350/5	£115.95		£139.14
CDP152B	450/12	£209.00		£250.80
CDP202B	450/16	£269.00		£322.80
CDP352F	550/16	£329.00	£406.80	£394.80
CDP452B	550/16	£299.00		£358.80
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CON320

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Model	Sheet Size	Motor	exc.VAT	inc.VAT
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CON320	230x115mm	320W	£39.98	£47.98

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CWS200B

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CON950

Model	Width of Cut	Motor	exc. VAT	inc.VAT
CEP450	60mm	450W	£34.99	£41.99
CEP720B	82mm	720W	£44.99	£53.99
CON950	110mm	950W	£74.99	£89.99

1/3 SHEET SANDER

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CSM5350BP 350kg#	900x400x1800	£56.99	£68.39

* WAS £51.59 inc.VAT
# WAS £71.98 inc.VAT

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CROS3

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- Dual purpose, for both finishing & sizing of timber

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CPT800	8" (204mm)	120mm	£299.00	£358.80
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CWL1000CF

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CBS205

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‡ WAS £299.98 inc.VAT
* WAS £694.80 inc.VAT
# WAS £838.80 inc.VAT

Model	Throat Depth	Max Cut 90°	Max Cut 45°	exc.VAT	inc.VAT
CBS250C ‡	245mm/10"	115mm	65mm	£239.00	£286.80
CBS300*	305mm/12"	165mm	115mm	£549.00	£658.80
CBS350#	340mm/14"	225mm	160mm	£679.00	£814.80

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Tiger 8/550	2	7	50L	£149.98	£191.98	£179.98
Tiger 11/550	2.5	9.3	50L	£169.98	£215.98	£203.98
Tiger 16/550	3	14.5	50L	£239.00	£298.80	£286.80
Tiger 16/1050	3	14.5	100L	£299.00	£370.80	£358.80

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230 VOLT

CBM1C

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CR4

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CR4	2000	0-66	£94.99	£113.99

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CBG6250LW	HD	150mm	£69.98	£83.98
CBG6250L	HD	150mm	£72.99	£87.59
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CBG8370LW	HD	200mm	£96.99	£116.39

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WV7

Model	Mounting	Jaw (Width/Opening/ Depth) mm	exc. VAT	inc. VAT
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Record TV75B	Clamped	75/50/32	£25.99	£31.19
Clarke WV7	Bolted	180/205/78	£39.98	£47.98

Clarke JIGSAWS

Clarke CONTRACTOR

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CON750	750W	80/10mm	£31.99	£38.39
Bosch PST700E	500W	70/4mm	£56.99	£68.39

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CSS400C

* WAS £149.99 inc.VAT
# WAS £185.99 inc.VAT

Model	Motor	Speed RPM	exc.VAT	inc.VAT
CSS400D	120W	400-1600	£99.98	£119.98
CSS16VB*	90W	550-1600	£119.95	£143.94
CSS400C#	90W	550-1600	£139.95	£167.94

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*Black & Decker

Model	Motor	Belt Size (mm)	exc.VAT	inc.VAT
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KA900E*	350W/230V	13x455	£59.98	£71.98

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LASER GUIDE

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CMS10S2B	255/30	90/340	£169.00	£202.80

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CAMBRIDGE 181-183 Histon Road, Cambridge. CB4 3HL	01223 322675	**LEEDS** 227-229 Kirkstall Rd. LS4 2AS	0113 231 0400	**SHEFFIELD** 453 London Rd. Heeley. S2 4HJ	0114 258 0831
CARDIFF 44-46 City Rd. CF24 3DN	029 2046 5424	**LEICESTER** 69 Melton Rd. LE4 6PN	0116 261 0688	**SIDCUP** 13 Blackfen Parade, Blackfen Rd	0208 3042069
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COVENTRY Bishop St. CV1 1HT	024 7622 4227	**LONDON** 503-507 Lea Bridge Rd. Leyton, E10	020 8558 8284	**SWANSEA** 7 Samlet Rd. Llansamlet. SA7 9AG	01792 792969
CROYDON 423-427 Brighton Rd, Sth Croydon	020 8763 0640	**LUTON** Unit 1, 326 Dunstable Rd, Luton LU4 8JS	01582 728 063	**SWINDON** 21 Victoria Rd. SN1 3AW	01793 491717
DARLINGTON 214 Northgate. DL1 1RB	01325 380 841	**MAIDSTONE** 57 Upper Stone St. ME15 6HE	01622 769 572	**TWICKENHAM** 83-85 Heath Rd.TW1 4AW	020 8892 9117
DEAL (KENT) 182-186 High St. CT14 6BQ	01304 373 434	**MANCHESTER ALTRINCHAM** 71 Manchester Rd. Altrincham	0161 9412 666	**WARRINGTON** Unit 3, Hawley's Trade Pk.	01925 630 937
DERBY Derwent St. DE1 2ED	01332 290 931	**MANCHESTER CENTRAL** 209 Bury New Road M8 8DU	0161 241 1851	**WIGAN** 2 Harrison Street, WN5 9AU	01942 323 785
DONCASTER Wheatley Hall Road	01302 245 999	**MANCHESTER OPENSHAW** Unit 5, Tower Mill, Ashton Old Rd	0161 223 8376	**WOLVERHAMPTON** Parkfield Rd. Bilston	01902 494186
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THE NORTH OF ENGLAND WOODWORKING & POWER TOOL SHOW: 15–17 NOVEMBER 2024

Last year's event attracted visitors from all over the UK and beyond

Professional woodturner Les Thorne will be in attendance again this year

Considered the highlight of the annual woodworking calendar, we're pleased to announce the return of the 2024 North of England Woodworking & Power Tool Show, affectionately known as the 'Harrogate' show by many. Taking place over the weekend of 15–17 November, the event will once again be held at the Yorkshire Event Centre, Harrogate, from Friday until Sunday. Gates will open at 10am and close at 4pm across all three days.

Last year's event was declared a resounding success by exhibitors, demonstrators and visitors alike, all of whom very much enjoyed getting together and celebrating woodworking across a multitude of disciplines. Attracting around 8,500 visitors over a three-day period, people travel from all over the UK and further afield to attend this much-loved show, which prides itself on being the country's longest established, highest attended retail woodworking event.

Demonstrators for 2024

The 2024 demonstrator line-up is being announced as we speak, and below you'll see a selection of names that have now been confirmed:

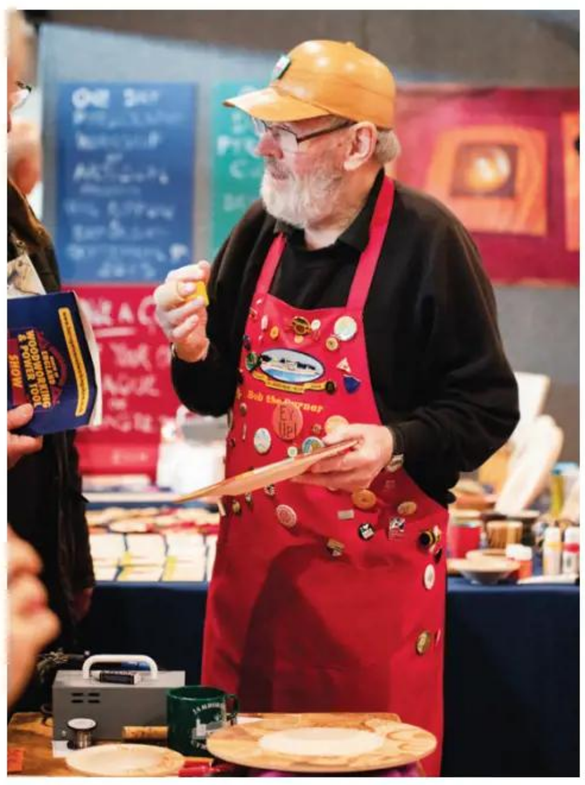
- **Andrew Hall** – *Woodturning*
- **Brian Walsh** – *Japanese saws*
- **Curtis Turner** – *Lie-Nielsen Toolworks*
- **Emma Cook** (AKA Tiny Turner) – *Woodcarving & woodturning*
- **Ian Parker** – *Hand sketching (woodworking & cabinetmaking techniques)*
- **Les Thorne** – *Woodturning*
- **Lorna Kartacayen** – *Woodcarving & woodturning*
- **Mike Tupper** – *International Boat Building Training College (IBTC)*
- **Nathanael Griffiths** – *Woodturning*

Exhibitor trade stands

As is the usual event format, as well as a packed schedule of demonstrations, there's also the opportunity to visit one of over 80 exhibitor trade stands. As well as some of the most well-known names and companies from the world of woodworking, a host of newcomers will also be in attendance this year. Not only will visitors have the chance to see the latest kit, tools and woodworking gadgets in the flesh and try them out before buying, but there'll also be various show deals and special offers to take advantage of. As before, the most up-to-date exhibitor list can be found on the show website and is being added to as new names are confirmed.

New for 2024

- D J Evans supporting Klingspor Abrasives Ltd
- Harvey Supplies T/A Crafty Products
- Liberon UK
- Odies Oil UK
- Simon Stevens Canes
- The Bandsaw Shop
- The Durham Leatherworker Ltd



Bob Neill will be demonstrating pyrography across the three days

Advance tickets

This year, advance tickets will be available to buy in the form of e-tickets, which will be sent to you electronically. If you wish to receive your tickets by post, however, an extra £2.50 will be added to your order at check out. This year, advance tickets are priced at £13 for adults and £12 for adult concessions (60+). Save £3 per ticket on the gate price charged by purchasing tickets early, either via the event website – **www.harrogatewoodworkingshow.co.uk/buy-tickets** – or by calling the ticket hotline: **01749 813 899**.

Undoubtedly the UK's most extensive woodworking event, the North of England Woodworking & Power Tool Show will return again for 2024, taking place from 15–17 November in Hall 1 of the Yorkshire Event Centre. We look forward to seeing you all then! Don't forget to secure your advance tickets now and if you have any questions, please email **exhibitions@dhpub.co.uk**. For general information and to find out more about the show, visit the dedicated website: **www.harrogatewoodworkingshow.co.uk**.

Timber Suppliers Directory – August 2024

Adhectic Ltd (Berkshire)
Tel: 01235 5
Web: www.adhectic.co.uk

A Harrison (Northants)
Tel: 01536 725 192
Web: www.aharrisonwoodturning.co.uk

Albion Timber (Sheffield)
Tel: 07580 627 921
Web: www.albiontimber.co.uk

Bennetts Timber (Lincolnshire)
Tel: 01472 350 151
Web: www.bennettstimber.co.uk

Black Isle Woodturning (Scotland)
Tel: 07842 189 743
Web: www.blackislewoodturning.com

Brodies Timber (Perthshire)
Tel: 01350 727 723
Web: www.brodiestimber.co.uk

Brooks Brothers Timber (Essex)
Tel: 01621 877 400
Web: www.brookstimber.co.uk

C&G Barrett Ltd, Cilfiegan Sawmill (South Wales)
Tel: 01291 672 805
Web: www.cilfiegansawmill.com

Clive Walker Timber Ltd (West Yorkshire)
Tel: 01132 704 928
Web: www.clivewalkertimber.co.uk

D Emmerson Timber (Lincolnshire)
Tel: 01507 524 728
Web: www.emmersontimber.co.uk

Earlswood Interiors (West Midlands)
Tel: 01564 703 706
Web: www.earlswoodinteriors.co.uk

English Woodlands Timber (West Sussex)
Tel: 01730 816 941
Web: www.englishwoodlandstimber.co.uk

Exotic Hardwoods (Kent)
Tel: 01732 355 626
Web: www.exotichardwoods.co.uk

EO Burton, Thorndon Sawmills (Essex)
Tel: 01277 260 810
Web: www.eoburton.com

Eynsham Park Sawmill (Oxfordshire)
Tel: 01993 881 391
Web: www.eynshamparksawmill.co.uk

FH Ives (Essex)
Tel: 01268 732 373
Web: www.fhives.com

Fulham Timber (London)
Tel: 0208 685 5340
Web: www.fulhamtimber.co.uk

G&S Specialist Timber (Cumbria)
Tel: 01768 891 445
Web: www.toolsandtimber.co.uk

Good Timber (Northamptonshire)
Tel: 01327 344 550
Web: www.goodtimber.com

The Hardwood off cut shop (Essex)
The Wood Yard, Canterbury Tye Farm,
Doddinghurst road, Brentwood, Essex,
CM15 OSD
Tel: 01277 205990
Web: www.hardwoodoffcuts.co.uk
sales@hardwoodoffcuts.co.uk

Horndon Timber Products
Unit 8-9 Orsett Industrial Park
Stanford Road, Orsett, Grays
Essex. RM16 3BX
Tel: 01375 679 999
Web: sales@horndontimber.co.uk

Interesting Timbers (Somerset)
Tel: 01761 241 333
Web: www.interestingtimbers.co.uk

ISCA Woodcrafts (South Wales)
Tel: 01633 810 148/07854 349 045
Web: www.iscawoodcrafts.co.uk

Joyce Timber (London)
Tel: 0208 883 1610
Web: www.joycetimber.co.uk

Lincolnshire Woodcraft (Lincolnshire)
Tel: 01780 757 825
Web: www.lincolnshirewoodcraft.co.uk

Nottage Timber (South Wales)
Tel: 01656 745 959
Web: www.nottagetimber.co.uk

Ockenden Timber (Powys)
Tel: 01588 620 884
Web: www.ockenden-timber.co.uk

Olivers Woodturning (Kent)
Tel: 01622 370 280
Web: www.oliverswoodturning.co.uk

Oxford Wood Recycling (Oxfordshire)
Tel: 01235 861 228
Web: www.owr.org.uk

Stiles & Bates (Kent)
Tel: 01304 366 360
Web: www.stilesandbates.co.uk

Scadding Timber (Avon)
Tel: 01179 556 032
Web: www.scadding-son-ltd.co.uk

Scawton Sawmill (North Yorkshire)
Tel: 01845 597 733
Web: www.scawtonsawmill.co.uk

S.L. Hardwoods (Croydon)
Tel: 020 3051 4794
Web: www.slhardwoods.co.uk

St. Andrews Timber (Scotland)
Tel: 01316 611 333
Web: www.standrewstimbersupplies.co.uk

Surrey Timbers Ltd (Guildford)
Tel: 01483 457 826
Web: www.surreytimbers.co.uk

Sykes Timber (Warwickshire)
Tel: 01827 718 951
Web: www.sykestimber.co.uk

The Timber Mill (Cornwall)
Tel: 07966 396 419
Web: www.thetimbermill.com

The Wood Recycling Store (East Sussex)
Tel: 01273 570 500
Web: www.woodrecycling.org.uk

Thorogood Timber Ltd (Essex)
Tel: 01206 233 100
Web: www.thorogood.co.uk

Timberman (Carmarthenshire)
Tel: 01267 232 621
Web: www.timberman.co.uk

Tree Station (Lancashire)
Tel: 01612 313 333
Web: www.treestation.co.uk

UK Timber Ltd (Northamptonshire)
Tel: 01536 267 107
Web: www.uk-timber.co.uk

Waterloo Timber Ltd (Lancashire)
Tel: 01200 423 263

Wenban Smith (West Sussex)
Tel: 01903 230 311
Web: www.wenbans.com

Wentwood Timber Centre (South Wales)
Tel: 01633 400 720
Web: www.wentwoodtimbercentre.co.uk

W L West & Sons Ltd (Surrey)
Tel: 01798 861 611
Web: www.wlwest.co.uk

Yandle & Sons Ltd (Somerset)
Tel: 01935 822 207
Web: www.yandles.co.uk

NEWS In brief...

Festool's Granat starter sets allow users to experiment with different grit sizes from coarse to fine. There's 10 abrasive wheels, available in P60, P80, P120, P180, P220 and P320

Everything in its place: the new abrasive Systainer comes pre-loaded with a selection of different grit sizes

Festool launches new **GRANAT** starter set & abrasives Systainer

When it comes to abrasives, quality and efficiency are key. And that's precisely what Festool delivers with its premium Granat abrasive: from coarse to fine sanding, there's an optimum solution for virtually every application.

In everyday applications, it's particularly important that high-quality abrasives offer a long service life as well as fast and efficient sanding. Festool delivers just that with its Granat abrasive since the special non-stick coating greatly minimises abrasive clogging. What's more, the unique hole pattern of the Multi-Jetstream 2 system (D150) ensures optimised extraction. In practice, this means virtually dust-free sanding and reduced clogging on the abrasive sheet. The results are clear to see: the desired surface is achieved quickly and effectively. This way, Granat ensures work can continue without constantly having to stop work and change abrasives, which increases productivity. Changing abrasives, however, is a quick process, thanks to the hook-and-loop fastener, which allows the abrasive sheet to easily attach to a user's sanding pad.

A special hole pattern prevents the Granat abrasive wheels from becoming clogged, allowing for virtually dust-free sanding

Perfect sanding finish & long service life

It's all in the mix: with Granat, the innovative mixed grain of ceramic and aluminium oxide ensures a high material removal rate. This prevents the abrasive from clogging, even during long sanding processes. The self-sharpening ceramic grit ensures an impressive service life beyond that of conventional paper abrasives, which saves time and money.

Clean working environment

Abrasives and sanding pads with optimum dust extraction and a compatible hole pattern put an end to the problem of dust accumulating on the sanding area. This prevents you from breathing in hazardous dust and the abrasive clogging up too quickly, so sanding tasks can continue without interruption while resulting in a clean working environment.

Thanks to the Multi-Jetstream 2 system and optimised extraction, work can be carried out with minimal dust

Festool recommends Granat abrasives for painters, varnishers and carpenters when working with the latest paint systems, such as VOC varnishes as well as the hardest substrates and plastics, mineral materials, acrylics, putties and fillers. The Festool Granat starter set and handy abrasives Systainer is available from **www.festool.co.uk** and specialist dealers.

MICROJIG introduces two new products that redefine woodworking: **GRR-RIPPER+ & CNC Workholding Kit**

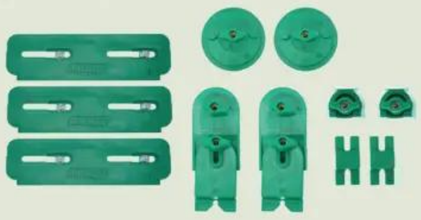
MICROJIG, the leading innovator in woodworking tools and accessories, has recently launched two new products that build on those ideals, each designed to make DIY and woodworking projects safer, easier and more precise than ever before. The GRR-RIPPER+ is available now and the MATCHFIT CNC Workholding Kit will be available to purchase soon.

GRR-RIPPER+

The GRR-RIPPER+ takes MICROJIG's award-winning GRR-RIPPER to the next level. This new product not only includes what's previously made the GRR-RIPPER a go-to tool worldwide for over 20 years and a No.1 product on Amazon, it also protects hands and fingers from the saw blade, gives the user control through the cut and prevents kickback. The new GRR-RIPPER+ now also features the new SafeRip Kit.

The rip width guides the centre leg setting to prevent users from cutting the GRR-RIPPER centre leg at the table saw. If the cut shows under the cursor, users simply move the centre leg. This upgrade means no more leaning over to check the cut settings and quicker set-ups with no check passes.

MATCHFIT CNC Workholding Kit

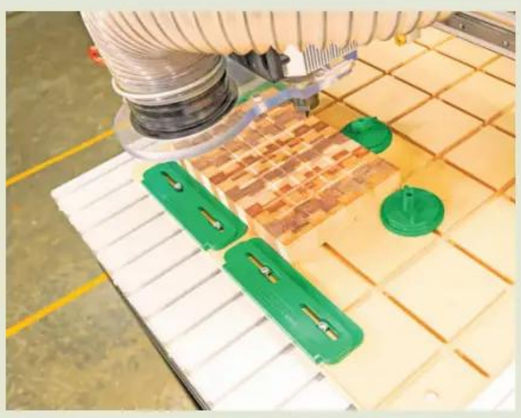


MICROJIG is taking its MATCHFIT clamping innovations to the fast-growing CNC space. The MATCHFIT CNC Workholding Kit is a complete and comprehensive system for quickly and securely holding work on the CNC machine for any and all cuts. The system includes:

- **Three edge guides** – consistently locate the stock and provide a known X0, Y0 origin for running programs.
- **Two ring clamps** – apply quick clamping force on part edges with just a twist of the wrist, allowing for fast loading and unloading of parts.
- **Two ramp clamps** – apply clamping pressure both down and to the side of parts to hold and keep them flat on the machine bed.
- **Four U-Pad hold down clamps** – press parts down on the table and hold them from the edge to prevent movement under cutting loads.

All of the CNC Workholding Kit's components work with a dovetail spoilboard, which protects the machine bed while providing a grid system to place clamps wherever needed. This means the system is compatible with all MATCHFIT sleds, jigs, workbenches and fixtures, thus giving the kit even broader use.

Both of MICROJIG's newest products have been meticulously engineered and rigorously tested, representing the company's dedication to providing innovative solutions that address the evolving needs of DIY and woodworking enthusiasts as well as professionals. For further information on these new products, visit **www.microjig.com**.



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Unique course links **tree owners** with **wood users**

A unique 'Woodland to Workshop' course from the charity Woodland Heritage, which is due to be held from 24–26 September 2024, will bring together tree growers, wood users and beyond to learn how to make the most of vital connections between our woodlands and workshops.

This ground-breaking course is supported by knowledgeable practitioners from the forestry and timber industries and is based at The Duchy of Cornwall's woodland, Whitney Sawmills and at the New Model Institute for Technology and Engineering (NMITE), all in Herefordshire.

The Duchy's woodlands at Shenmore was a great day; the insights on the woodland were top notch and the amount of information passed on was mind blowing!"

Attendee numbers are restricted to enable a 'hands on' and highly interactive approach, ensuring a learning opportunity of enduring quality that's been enjoyed by hundreds of passionate people over the years.

Three key audiences

'Woodland to Workshop' has three key audiences. The first is growers such as woodland owners, foresters and nurseries; the second is processors and users of wood, such as makers, architects, artists, renovators and those in construction, hobbyists, millers, buyers, arborists and sustainability experts; and finally, with woodlands and wood being so well loved, the course also appeals to those in education, campaigners, scientists and those working in the public and third sectors.

Woodland Heritage is a charity creating a thriving UK wood culture that benefits our environment, all people and our economy. It champions the good use of home-grown timber from sustainable, productive woodlands for the benefit of present and future generations.

Through a combination of demonstration sites, research, education, membership and outreach, the charity builds on the wisdom and skills of the past to weather the challenges of tomorrow.

Kester Hoefkens is a trained cabinetmaker and furniture designer and manages Woodlab – a makers' space and workshop focused on using locally grown sustainably sourced timber. Having attended the most recent course, Kester commented: "I loved the class introduction; breaking the ice and getting a broad view of what the attendees were about. It was great to see the different ends of the industry come together.

Woodland Heritage & NMITE – a perfect partnership

NMITE, which already has a strong reputation in the timber industry through its Timber Technology Engineering Design (TED) courses, was delighted to partner with Woodland Heritage in 2023 and is looking to replicate its teaching success again in 2024.

Describing this as a perfect partnership "where Woodland Heritage's remit finishes, NMITE's teaching takes over," NMITE Assistant Professor, Steve Bertasso, says: "Timber and woodlands need to sit at the centre of sustainable solutions now and in the future. The built environment is the world's largest producer and consumer of greenhouse gas emissions. Creating solutions through and from natural, renewable sources, like timber, produces fewer emissions than other building materials. The new partnership between Woodland Heritage and NMITE brings together the two ends of a circular building industry."

The course costs £600; to book your place and find out more, visit the website: **www.woodlandheritage.org/woodland-to-workshop**.

MAKITA partners with vehicle conversion specialist, **Shred & Butta**

Makita has worked closely with Shred & Butta to help the vehicle conversion specialist streamline its work and deliver the results its customers are looking for. Consequently, Shred & Butta has invested in a range of mains-powered and cordless Makita tools, including a number of 40VMax XGT machines.

Shred & Butta, based in Cobham, Surrey, specialise in custom vehicle conversions and build everything from unique camper vans and tour buses to eye-catching promotional vehicles and one-of-a-kind mobile catering units. The 15-strong team also turn their talents to building creative, eye-catching displays and other items for shops, offices and exhibitions and has worked with leading adventure sports brands as well as major food and drink companies.

Shred & Butta's work has been showcased on its own TV programme, *Full Metal Junkies*, aired on Quest and Discovery+, as well as featuring on *Johnny Vegas: Carry on Glamping*, in addition to *George Clarke's Amazing Spaces* for Channel 4.

Jim Stewart, Director of Shred & Butta and Founder of sports wax brand Butta, approached Makita about the possibility of working more closely together; he explained: "I've used Makita tools since starting the company almost 10 years ago, beginning with drills and drivers and steadily adding more to our kit as the business grew. With our work expanding to even more ambitious projects, we began looking at what other tools were available to help us get the job done. We could see clear advantages of collaborating with Makita as one of the leading manufacturers and our go-to brand over many years."

Following a discussion with Jim to establish what help could be offered, Makita agreed to provide tools for the team to trial, including some of the latest product launches. If the team finds the machine useful for the work they're doing, they can then go on to purchase the tool; if not, it can simply be returned after the trial.

Makita's high performance 40VMax XGT range

Shred & Butta has trialled, and subsequently invested in, a number of tools from Makita's high performance 40VMax XGT range – these include the JR001GZ reciprocating saw; LS002GZ01 216mm slide compound mitre saw; SP001GZ03 165mm plunge saw; and DK0114G202 combi drill and impact driver twin kit. The XGT tools have provided an alternative to the corded machines Shred & Butta had previously been using for many high demand tasks.

Jim commented: "Using mains powered tools is generally not an issue as we can get power to anywhere within our yard. However, we're often working inside vehicles and so having the flexibility that cordless tools provide, as well as the performance to match mains power, makes our work much easier. There's also a safety benefit to minimising the number of cables in our work area, as it removes potential trip hazards."

As a result of the collaboration, Shred & Butta has also invested in Makita 18V LXT tools and equipment including the DRV250Z rivet gun;

New Women's Jackets from **CARHARTT**

Wearing the right jacket on site provides vital defence against weather and work hazards alike. Carhartt's latest jacket line-up, designed especially for women, blends comfort, flexibility and style to ensure you can tackle any job.

The Carhartt Rain Defender™ Loose Fit Lightweight Packable Anorak (105861) Women's Anorak is a testament to style meeting functionality. Designed for those on the move, it features a loose fit cut, allowing for comfortable layering over your favourite sweatshirts and hoodies.

Lined with 100% polyester and mesh for extra comfort and ventilation, the jacket also comes with Rain Defender™ technology so water rolls right off and you stay snug and dry. It features an attached three-piece hood with adjustable drawcord, two secure zipper front pockets and a great packable design that folds into its own pocket when the sun comes out. Available in black, two-tone Malt Asphalt and Lilac Haze, this is the perfect lightweight rain jacket.

When you need something a little warmer, the Relaxed Fit Lightweight Insulated Jacket (105912), available in black or blackberry, combines the toughness of Cordura® Fabric reinforcement with the comfort of poly wadding insulation, offering essential warmth without the bulk, and perfect for staying active on cooler days. It has a Rain Defender™ durable water-repellent finish, to keep wearers dry during unexpected showers, along with a mock neck and fleece side panels, coupled with windproof technology.

And when the weather really is at its worst, the Relaxed Fit Canvas Detroit Jacket (106208) is warm and sturdy enough to withstand the wear and tear of outdoor activities. The tightly woven canvas material offers protection against unpredictable weather, blocking wind and resisting light rain while its natural breathability prevents overheating as temperatures rise. With a full zip, plenty of pockets and great insulation, this jacket also contains Rugged Flex™, a durable stretch technology built into the fabric for complete ease of movement.

Carhartt's women's workwear jackets are a blend of form and function, providing great protection against the elements, ensuring that women in trades are equipped, empowered and stylishly protected; for further information, visit **www.carhartt.com**.

DRT50ZJX3 router/trimmer; DCS552Z metal cutting saw and DML809 LED work light.

The tools' quality, as well as the service and support offered by Makita, are also important factors in Shred & Butta's continued investment. Jim added: "Using low quality tools is simply not an option for us as it impacts our productivity when something breaks down. Not only have the Makita tools proved very reliable, but the service and support we've received has been excellent. If there's ever an issue with a tool, someone from Makita will pick it up and ensure it's sorted. We believe it's worth the investment to get that level of support. It really feels like the Makita team is interested in us as a business and genuinely committed to helping in any way they can."

For more information on Makita's range, including its 40VMax XGT products, visit **www.makitauk.com**. To find out more about Shred & Butta, see **www.shredandbutta.co.uk**.

The unboxed items

MILESCRAFT POCKETJIG400 POCKET HOLE JIG

When it comes to pocket-hole jigs, there's plenty of choice but are they all the same? Having already tested jigs from several manufacturers, **Jonathan Salisbury** seeks to discover whether the **Milescraft PocketJig400** has anything new to offer

As a joining method, pocket holes are simple, strong – if carefully positioned and glued – quick and easy to cut – with a jig, of course. They can be located to keep them out of sight, but at corners they're strongest when cut so that the screw points in from the end-grain, especially with thinner sections. If the holes are on view, wooden plugs can be inserted to hide them. Most people would probably consider this an undesirable feature. Unless you can find a piece of well-matched timber, you'd have to be a functional purist to appreciate them!

There are two main types of jig; the simpler and cheaper ones clamp onto the wood and the more expensive have a base with a built-in clamp into which the wood is secured. The PocketJig400 is the latter. Which you use depends somewhat on personal choice, but also which is easiest at the time. Batch producing frames is quicker when done with the clamp-type, but the basic model is convenient for one-off jobs, especially when making a repair to an existing piece of furniture. Just type 'pocket hole jig' into a search engine and you'll find many models, but they all do the same job: cutting a 9.5mm hole at 15° to a certain depth and at a certain distance from the end of the wood, depending on its thickness. The drills are all the same size, the screws are standard, too; mix and match to your heart's content.

Unpacking

I've tested several Milescraft tools and they're always well made; this jig is no exception, apart from some incomplete knurling on the replaceable steel inserts, which screw into the frame; a very small and unusual oversight on their part.

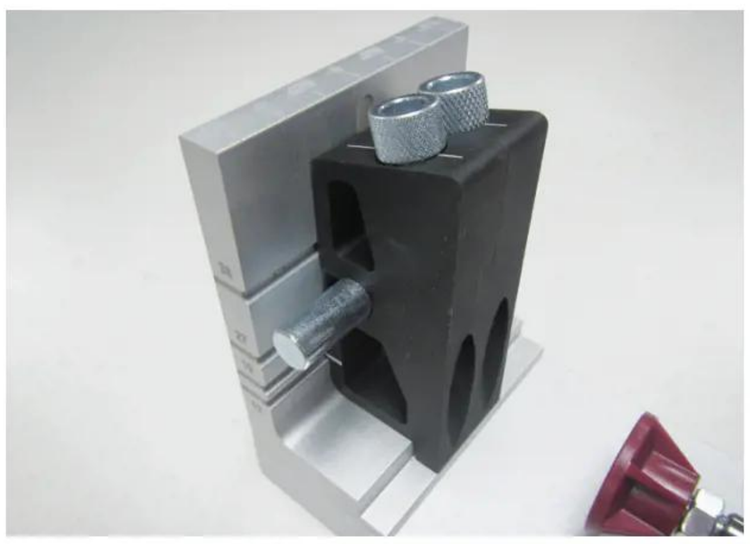
The box comes with everything you need apart from a clamp. The jig itself is neatly made, mostly from anodised aluminium extrusions. The hardened steel drill guides are removable, which is often the case with better versions of this type of jig. The base has countersunk holes for attaching it to a work top, but there's also a bolt-on plastic clamping platform if you want to attach it temporarily. It can be used without fixing down, but you have to hold on to it. The base has a built-in clamp for holding the workpiece tight up to the drill guides and a drawer, with a magnet to keep it shut, for storing the functional bits and pieces once you've recycled the box it comes in. The accessories include a Torx driver-bit, drill, depth collar, hex key, some screws and plugs, plus a dust extraction convertor.

Setting up to drill

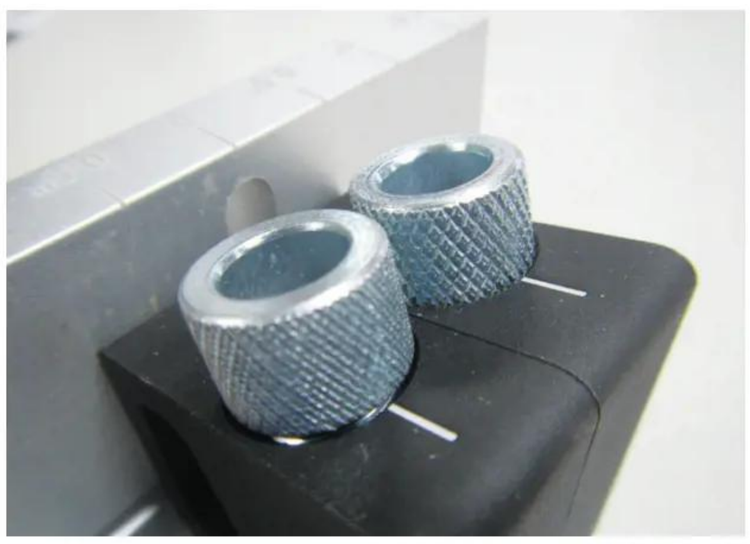
The angle of the holes is fixed, but the distance from the end of the wood that they're drilled needs to be matched to its thickness. The aim is for the screws to exit the end as close to mid-thickness as possible, so taking the closest setting to the measured dimension, you simply fix the guides at the height indicated on the frame, set up the drill using the guide inside the tray, clamp the wood, and away you go.

It's quite common for jigs to have pre-sets; this one has four, at 12, 19, 27 and 38mm; yes, the classic ½in, ¾in, 1in and 1½in – except that 27mm isn't 1in, of course. This jig is particularly good, as the guides lock into grooves in the upright so they can't move during use. I use a lot of 2×1, which ends up planed down to about 44 × 22mm. I can set up the drill for 19mm or 27mm, but not between, so therefore have to decide between the screws coming out too high or too low.

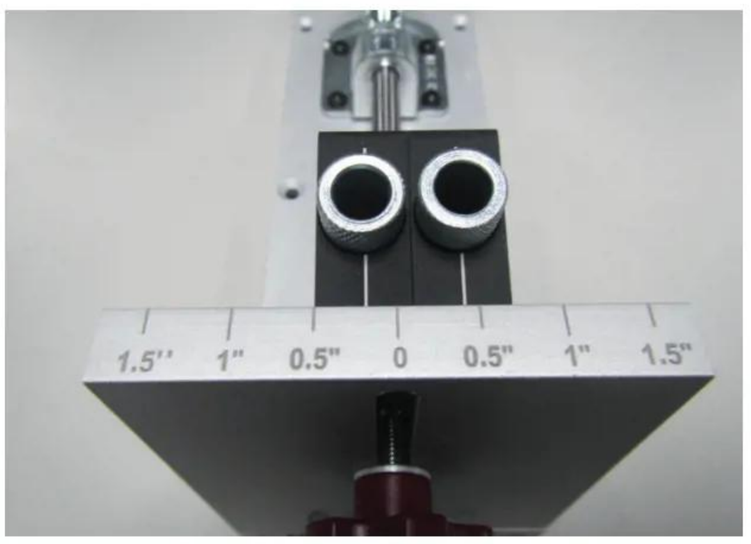
On many jigs, the distance between drill guides is set, so if you want the holes to be closer together or further apart, you have to move the workpiece between each one. But the two independent drill guides on the



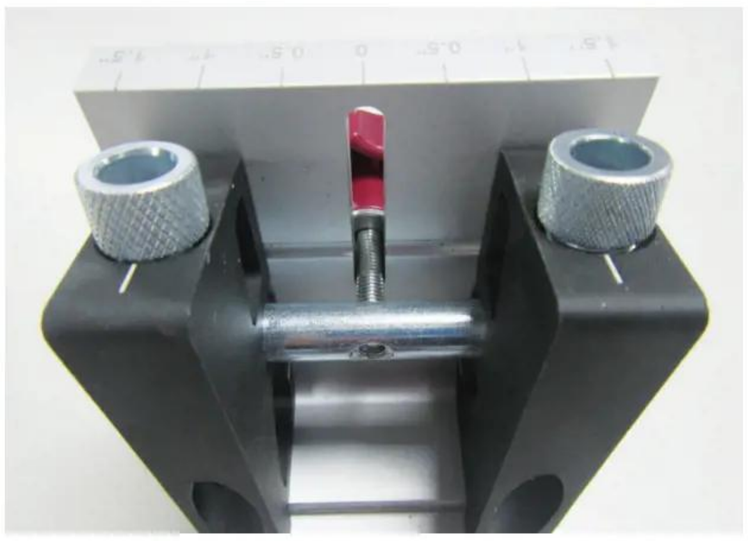
Simple and functional design



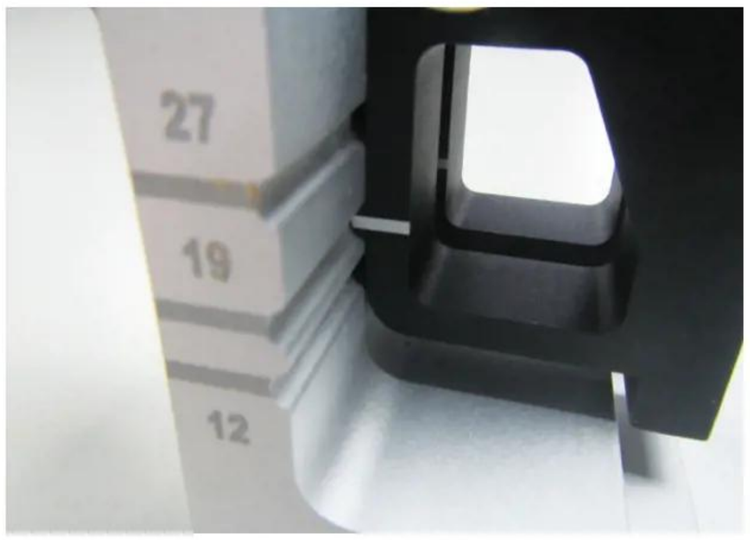
The knurling isn't quite uniform



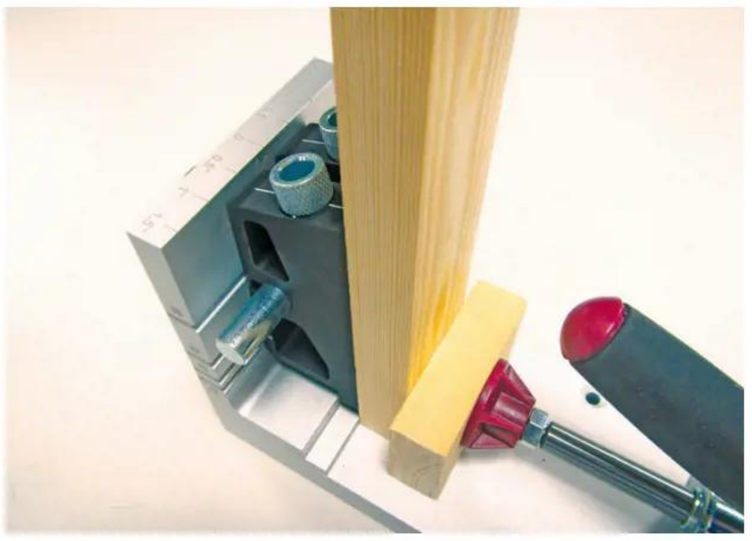
Guides can be set as close as ¾in (20mm)...



... and as far as 3in (75mm)



Height range is limited to standard sizes



Set up and ready to go

It's difficult to miss this advice

The storage drawer doubles as a drill setting guide

Clear instructions moulded in

PocketJig400 allow the distance between holes to be adjusted from ¾ to 3in – 19 to 75mm.

Setting up the drill is easy using the guide moulded into the drawer. Taking the height reading from the side of the jig to match where the guides are set, the drill tip's shoulder is placed level with the respective line, the collar slides up to the recess, then locked onto the drill's shaft. It's a tried and tested method that works very well.

Reading material

The 'booklet' of stapled sheets that's supplied with the jig is essential reading for new users, but if you already know how to use a pocket hole jig you definitely won't need it. There are diagrams for every step and separate text to explain these; if you're still confused, there's plenty of online tutorials and demonstrations. Practice makes perfect – and pocket holes aren't difficult to cut.

In use

There are no surprises here. The adjustable clamp locks the wood firmly in place – I used a packing piece as it easily marks the surface – the drill is guided smoothly at the correct angle and the dust extraction tube removes chippings effectively. The drill removes some of the black anodised surface inside the guides the first few times it's used; this needs to be carefully cleaned off the wood, otherwise it leaves smudges. I always forget to run the drill with scrap wood to prevent this from happening with wood that matters. There were also a few pieces of aluminium swarf, which was a little more worrying. It doesn't seem to have affected the jig's performance yet, though.

I've never used a pocket hole drill that doesn't tear grain, so there was no surprise when the edges of the holes weren't clean; this isn't so obvious once the plugs are in, of course. The first 19mm test pockets seemed to be a little shallow; the plugs do go in, but the screw heads aren't far below the surface. I eventually found that the drill guides weren't fully inserted and needed another half turn. The resulting joints were as good as any I've made.

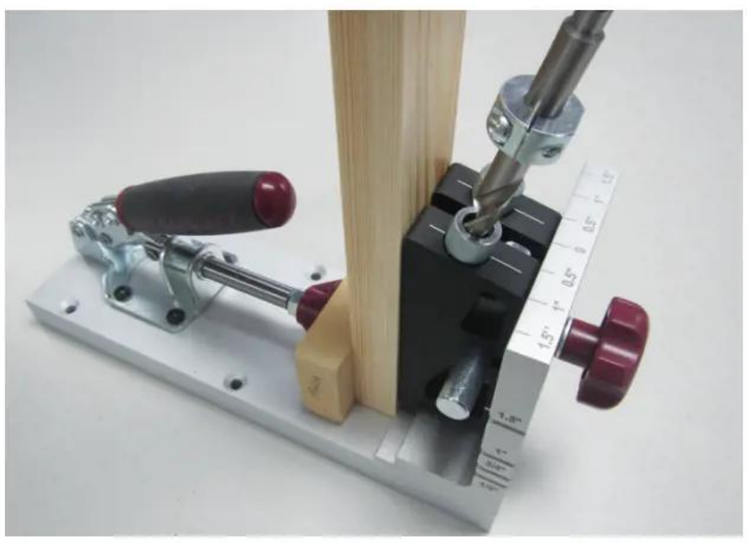
The guide block can also be removed from the base so that it can be used as a more mobile jig. The only slight issue I had with this is that a standard pocket hole clamp can't be used when it's placed inside an existing joint, as the recess overlaps the bottom of the jig. But if the PocketJig400 is the only jig you have, then this adaptability is a definite plus.

Conclusion

The more pocket hole jigs I test, the more I realise that there really isn't very much difference between them. They all use standard distance settings – marked on a gauge even if they're not indexed like the PocketJig400 – and all cut at a 15° angle. Apart from differences in their

Setting up is simple...

... at both ends



Ready to drill

Clamp base and extraction port are included

All done

Neat enough for softwood, but the plugs don't match

Strong test joint completed in a couple of minutes

colour or the method used to turn them – square or Torx – the screws are pretty much all the same.

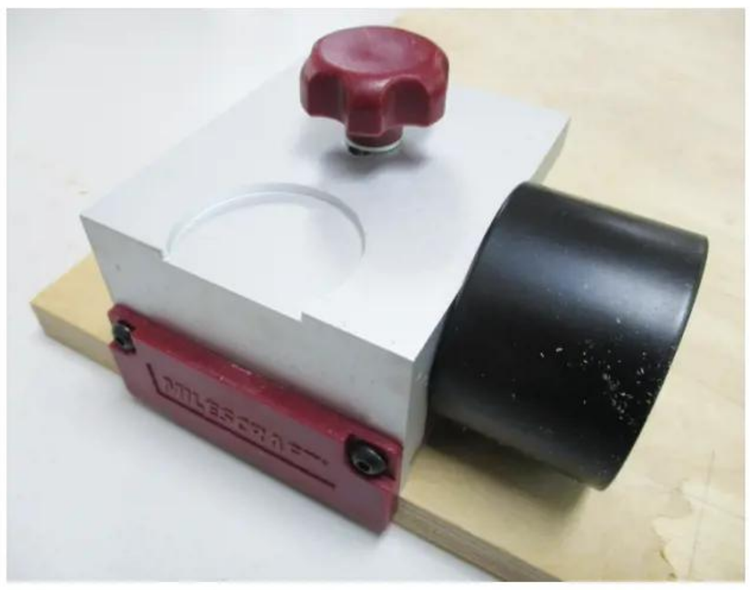
Which jig is best therefore comes down to how easy it is to set up and use, how successfully it does its job, and how consistent the results are; and of all the jigs that I've tested, the PocketJig400 is among the best.

Firstly, it's solid and uncomplicated. The four indexed settings don't give an 'infinite' range, but you can always set a 12, 19, 27 or 38mm hole in exactly the same place every time; there can be no misalignment and definitely no slippage. The ability to alter the distance between holes is also very useful and a single wheel locks the guides securely in place. Clear markings on the top and sides help to ensure correct positions. The work clamp is just as effective, ensuring that the wood doesn't move between holes, and the guide block can also be removed for getting into corners.

The storage tray is large enough to hold all supplied accessories, ready to use; that's much better than them being loose in a bag and they're less likely to go missing. The two drill guide bodies look smart and are, more importantly, functional; replaceable drill guides are a good idea too – although I haven't yet checked that spares are available – and the extraction port removes the chippings so that you can cut joint after joint without having to stop to clear blockages.

A bolt-on plate means that it can be easily clamped if you don't want to screw the jig permanently to a bench top. There's also a burgundy coloured plate that attaches in the same place; this acts as a stop to position the jig parallel to an end, or it can be clamped in a vice to hold the jig still.

If that isn't enough, the PocketJig400 is less than half the RRP of my previous best in show. An extended test is required to be absolutely certain that, in the long run, this jig truly is better value for money, but my hunch is that it will be. It might not be the only pocket hole jig you need for every eventuality, but it's definitely an excellent starting point.



The drill guide block can be removed if required

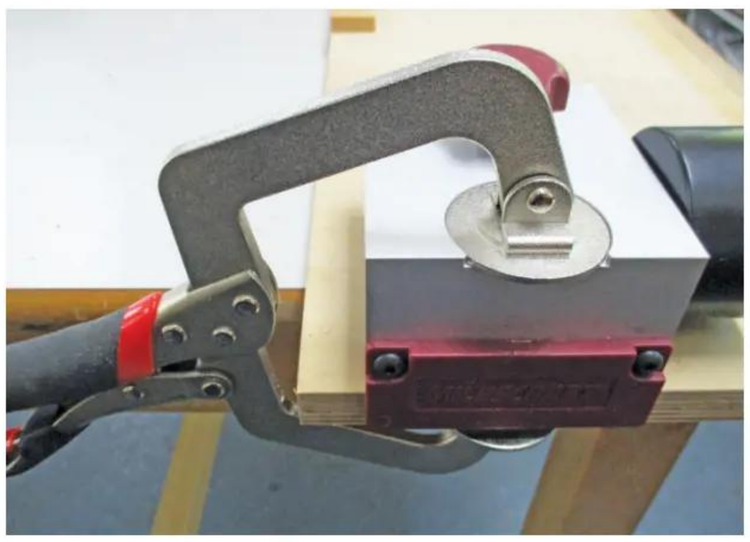
SPECIFICATION

- 1 × main jig body with toggle clamp
- 1 × removable L-shaped clamping wall
- 2 × solid steel drill guides
- 1 × removable dust port
- 1 × ⅜in (9.5mm) PocketBit™
- 1 × 6in (150mm) Magnetic T20 Torx® Driver
- 1 × 3mm Allen key
- 1 × ⅜in (9.5mm) Split-Design Depth Stop
- 10 × pocket hole plugs
- 4 × mounting screws
- 60 × T20 pocket hole screws
- 10 × 1in (25mm) coarse thread
- 10 × 1¼in (32mm) coarse thread
- 10 × 1½in (38mm) coarse thread
- 10 × 2in (50mm) coarse thread
- 10 × 2½in (63mm) coarse thread
- 10 × 1¼in (32mm) fine thread

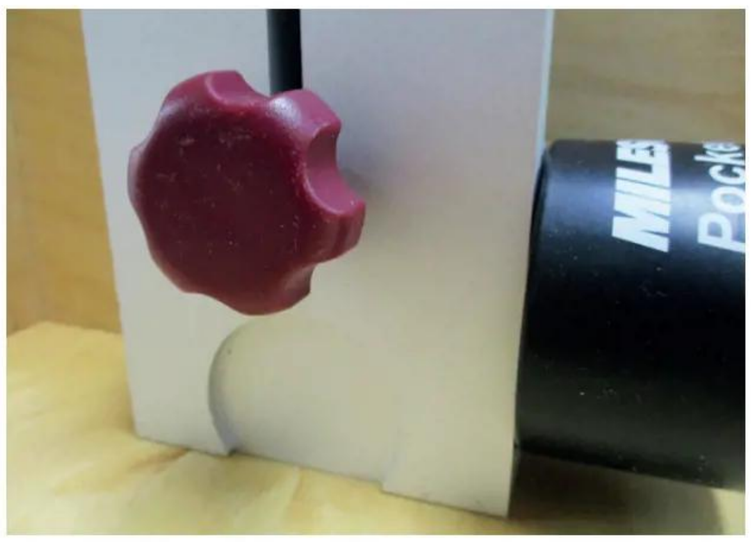
Features

- Height adjustable bushing blocks contain two ⅜in steel drill guides, which can be repositioned for drilling boards from 12mm up to 38mm thick
- Drill guides adjust horizontally to position holes between 20mm and 75mm apart
- Removable dust extraction works with common 64mm and 27/32mm hoses
- All-steel toggle clamp with micro-adjust non-marring clamp-head dials in perfect clamping pressure for different board thicknesses
- Convenient storage drawer holds bit, driver, depth stops, and more
- L-Base can be removed from the main body and used for mobile pocket hole projects and repairs

Typical price: £99.95
Web: www.woodworkersworkshop.co.uk



Clamping is easy at the end of a board...



... but not so inside assembled units

PROS

- Solidly built; simple setup; consistent results; several different clamping methods; adjustable distance between holes; indexed depth settings

CONS

- Limited to four pre-set depths

RATING – *PERFORMANCE*: 5 OUT OF 5
RATING – *VALUE*: 5 OUT OF 5

Drill guides can be removed for cleaning

Replaceable sleeves – in theory

A good range of screws, but they won't last long!

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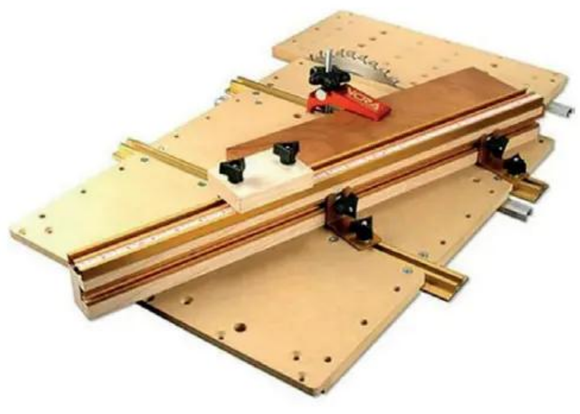
£79.96



INCRA Build-It System Starter Kit

The INCRA Build-It System Starter Kit provides all the components you will need to produce a wide variety of common and special-purpose jigs and fixtures. The kit also includes start to finish instructions for five handy jigs.

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The sample pot of Odie's Oil original finish, which was sent to both testers

ODIE'S OIL SAMPLE KIT

Both firm advocates of natural oil and wax finishes, **Odie's Oil** sent a sample of their original finish to **Jonathan Salisbury** – a CDT teacher – and **Cameron Sidgwick** – a site carpenter/joiner – to try out

JONATHAN SALISBURY

I carve spoons, and spoons can't be treated with anything that isn't safe for human consumption. Oil finishes from the hardware shop can contain chemicals, for various reasons, and most cooking oils go rancid in a short time. Then there's the problem of allergens; I don't use nut oils – just in case. I have my own recipe for spoon butter, a mixture of either flax or sunflower oil and beeswax, but the easiest solution is to leave them untreated, even if they don't look so good.

When it comes to furniture, I still like to use finishes with as few additives as possible. I have tins of proprietary wax that are ages old, as I can't stand the fumes. I'll use them up, eventually, but only because it would be a waste to throw them away; otherwise, I use linseed or tung oil.

'Universal' oil sample pot

First made in 1982 by James Tinghitella – not Odysseus Cornwall, even if the 19th-century-styled label suggests a slightly longer history than the 42 years of research, development and field testing that have taken place – its creation came from personal experience of the health problems associated with volatile chemicals and the effects of vapours. Only James knows the formulation and processes involved in creating Odie's Oil, and he still manufactures each batch by himself.

I was sent a sample tub of the 'universal' oil; described as the "truly one-stop source for finishing virtually any project", it's a tung oil-based finish that's been modified and enhanced with essential oils and waxes. Tung oil is made from seeds, not nuts, and Odie's only uses food-safe, natural ingredients, blended "to yield the strongest finish on the market."

It's claimed that the universal oil out-covers and out-performs conventional products as it doesn't require large quantities or multiple coats. Added to this it contains no toxic chemicals, volatile organic compounds or petroleum derived ingredients. Many finishes contain solvents that have been added to help improve application, such as toluene or turpentine, which an increasing number of people – including me – like to avoid, as far as is possible, or only use outside where there's plenty of fresh air to take away the fumes that can lead to nausea, dizziness and headaches; Odie's Oil causes none of these, meaning it can be applied anywhere.

In use

The guidance for use states "wipe on, wait a while, buff off," so this is exactly what I did, firstly on a piece of untreated eucalyptus. The oil has a similar consistency to clear honey, and it feels just as sticky. At first I needed to keep dipping the application pad into the tub as I started to treat the bare wood, but as it warmed up and the pad became loaded with product, it was possible to just keep wiping without frequent dipping.

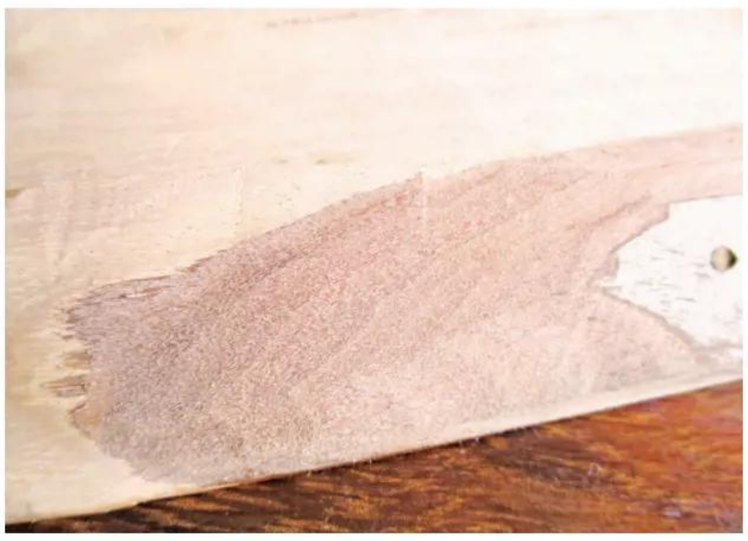
It's claimed that Odie's Oil products cover up to 20 times the surface of conventional finishes; the 250ml jar is said to treat up to 17.5m². There's a wide range of coverage claims for pure tung oil, but the oft-quoted 8-10m² per litre equates to 2-2.5m² for 250ml. This isn't ½₀th of Odie's Oil, but certainly much less; I think that the wax content increases its viscosity and decreases the depth it can soak in.

On the Paraná pine bathroom cabinet, it quickly

The product looks and pours like honey

The supplied applicator pad

The oil-loaded pad also pulls out dust



Jonathan's eucalyptus test piece before ...

... and after application

nourished the wood, clearing most of the water marks and dryness; 10 minutes later, a quick rub down with the towel and the smooth, waxy surface looked almost as good as it did when the unit was new. As you might expect, it requires less product when using it as a top-up on wood that's already been waxed. In these cases, a pad soaked with Odie's seems to just keep on working; it was good not to have to continually dip it into the pot.

Conclusion

There's nothing that I don't like about Odie's Oil. It works very well, is lovely to use, and the knowledge that there's nothing harmful in it means that I don't have to worry about protective gloves, although I'm not keen on the slight stickiness left on my fingers after use, or having to keep the window open until the smell has dissipated. Being able to have one finish for all objects, even those used to prepare food, is also an advantage. The range extends beyond the original finish on test, with wood butter, waxes and oils in natural and dark versions, and powdered pigments to add light-fast colour – there's something for every woodworker.

Having established the excellent quality of Odie's Oil, I now turn to value for money. The ability of Odie's Oil to cover a larger area than other finishes needs to be factored in, as well as the enjoyable experience of using it, the impressive finish that can be achieved very quickly and the pleasant smell of the essential oils it contains. But I'm looking at the price ticket; it seems to be quite an investment.

Totally natural finishing products are almost always more expensive than their petro-chemical cousins, and sometimes considerably more. If you're in the USA, where Odie's Oil is made, the 250ml jar costs $60, including tax and delivery – that's about £50. But once shipping and duty have been added, by the time it reaches these shores the price has increased almost 50% to £74.53. It's a great shame that Odie's Oil isn't made under licence in this country to counter the poor exchange rate and excessive cost of international postage.

We definitely need a greater variety of natural finishes to choose from, and the Odie's Oil range provides a number of high-quality options for the discerning, safety-conscious craftsperson.

CAMERON SIDGWICK

When first introduced to the Odie's Oil product, I was very excited to be trialling a natural oil. The market is filled with unnatural versions, and heavily chemical-based products, which is contradictory, as we use it on natural surfaces. I tested the Odie's oil sample pot in two separate scenarios, and achieved great results with both.

At first, I wanted to trial the product in a site-based environment. Being a site carpenter/joiner, when it comes to finishes, there's many options and clients often leave the decision up to the expert, so I put my sample pot to the test. I used the Odie's Oil staple product, which is an all-in-one, ultimate oil. It's suggested that this can be used on a wide range of surfaces, with a simple application and great results. I'm currently renovating a sturdy, natural looking utility room, and would normally use Osmo Polyx-Oil, but Odie's ticked all the boxes in helping me achieve the required finish.

Two tests

Firstly, I applied the oil to a sanded – 120 grit – hardwood ply surface, which was then cleaned. The oil comes in a runny honey like form, which has a grain-like texture. I used the non-woven pad to apply the oil, working it into the surface. As this was a large area, I wiped off any excess as I went. Due to the viscous consistency, a little goes a long way when it comes to application. I let the oil set for 10 minutes or so just so it'd sink into the hardwood ply surface, then moved onto buffing.

Water stained Paraná pine cabinet

After applying Odie's Oil, it's looking better

I buffed the surface with a cloth, moving in a circular motion, ensuring the entire surface was worked in evenly. This buffing process gives the finish an immaculate, consistent look – almost like a waxed finish, but with the added strength of an oil. I applied two coats, following the same procedure as before.

Very similarly, I used Odie's Oil on a natural terracotta tile floor. The process was exactly the same as before, and the natural tile took to the oil beautifully. Traditionally, linseed oil would be used here, but Odie's performed very well and imparted a lovely finish prior to grout and wax. I applied three coats for extra strength, and the wax gave a final sheen and age-old aesthetic. I also have to mention the smell – it's incredible – like that found in a shop that sells natural bath products.

Conclusion

A joy to work with, compared to heavy chemical oils that linger in your head for hours after use, Odie's has created a sturdy and easily workable oil, all from natural-based ingredients. I look forward to trying their other oils and waxes, and am confident in saying that natural products will work their way back into the market in order to enhance environmentally-friendly practices.

SPECIFICATION

- Can be used on all wood surfaces, interior and exterior, as well as most other porous materials, including leather, stone, concrete and brick
- Non-toxic, food-safe, one coat, easy to apply wood finish and stabiliser
- Covers up to 20 times the area of conventional wood finishes
- No solvents or volatile substances; no hardeners or unpleasant odours
- No PPE required
- Stain and moisture resistant

Typical prices: Sample kit including 30ml of Odie's Oil and two applicator pads – £21.11; Odie's Oil 250ml jar – £74.53; Odie's Oil 946ml jar – £237.63 (All prices inc delivery and VAT)
Web: www.odiesoil.co.uk

PROS

- Excellent coverage; pleasant to use; fast results; good finish; safe for all applications, including food contact; recipe includes all natural ingredients; pleasant smell

CONS

- Price

JONATHAN

RATING – *PERFORMANCE*: 5 OUT OF 5
RATING – *VALUE*: 3 OUT OF 5

CAMERON

RATING – *PERFORMANCE*: 5 OUT OF 5
RATING – *VALUE*: 4 OUT OF 5

CHISEL RATING

TIDY SHOP

JOB

Handsome is as handsome does: this workmanlike design is neat and attractive, and detailed with features such as through dovetails at the corners

Get in some through and lapped dovetail practice with **Jack Hill**'s traditional woodworker's cupboard

You could have walked into many woodworking workshops at any time over the last 100 or more years and found tool cupboards just like this one. It's hardly surprising, of course: hand tools have scarcely changed over the years, and the need to store them as carefully as they're handled is no different either. Good tools deserve a good home, and that's why I made this cupboard using prime-quality English ash.

Main carcass

After careful selection for figure and colour, the wood was dimensioned to size and work began on the construction of the main carcass or frame. The two sides, top and bottom are made from four pieces measuring 200 × 23mm thick × 762mm long, the corners joined by means of through or common dovetails. After completing these joints so that they're close fitting and neat, a 12mm rebate is worked on each piece's rear edge to accept the back, which may be made from 10mm solid – as mine was – or from ply.

Before assembly, mark out and cut in the required housings or trenches – which are 16mm wide and 6mm deep – to receive the ends of the shelves and partitions in the positions (**Fig.1**). Clean up the inside surfaces, then glue the joints and assemble, before fitting the back using glue and screws.

Shelves

The partitions and shelves vary in width according to their position. The two through shelves at the bottom are reduced by 25mm to allow chisels, etc. placed in the rack at the cupboard's reverse to drop behind unobstructed – the drawers are reduced in size for this same purpose. These shelves have housings cut into them to receive partitions above and below, while the front edges of the two long vertical partitions and the top shelf are cut back by 50mm commencing 16mm from the end to allow for projecting tools in racks behind the doors.

TOP TIP

Once filled with tools, the cupboard will be quite heavy, so rather than relying on mirror plates or screws to hold it to the wall, it's advisable to use a batten. Better still, make two battens that are mitred at 45°. Fix one to the wall, with the mitre facing the wall, and the other to the cupboard, with the mitre facing the cupboard. This gives you two interlocking faces that'll ensure the cupboard is held securely. Another batten supporting the bottom edge will further ease the load

These door racks should be made individually to accommodate your particular tools. The two vertical partitions above have housings for a small internal partition and to take one end of the shorter top shelf. Carefully measure what's required, then cut all the shelves and partitions to precise length, and after testing the fit, clean them up and glue into place.

The drawers...

The three drawers, each one made to size to fit their openings, have lapped dovetails joining drawer sides to front with through dovetails at the back. The drawer fronts are 20mm thick, while the sides and back are 12mm thick. The solid drawer bottoms are held in grooves in the front and sides, and pass below the back to allow for any movement.

Stops are fitted to keep the drawers flush on the face, and each drawer has a pair of brass flush ring handles recessed into their front as a means of pulling them out.

.... & the doors

The two doors are framed and panelled, using mortises & tenons to join the frame corners. For strength – and aesthetic reasons – try using haunched tenons, cut through and double wedged. The 10mm thick panels, carefully selected for colour and figure matching, are backed off around their edges to be housed in 6mm wide grooves cut in the door frame. The doors' closing edges, meanwhile, are rebated and a bead worked on the outside face.

When you come to glue up and assemble the doors, check they're flat and square, and take care not to get glue in the panel grooves – the panels must remain free to move.

You can now glue and screw the appropriate tool racks and fittings into position on each door's reverse.

Finishing your cabinet

The doors are hung on 50mm brass butt hinges and fastened using a cupboard bolt fitted inside one door, and a cupboard lock fitted onto the other. Finally, a simple nosing is fixed around the top of the cupboard, mitred at the front corners and projecting by 25mm.

After careful cleaning up followed by an overall light sanding, the cupboard may be given a protective finish using two coats of Danish oil or similar.

STOCKING YOUR CUPBOARD WITH TOOLS

The completed cupboard provides plenty of storage for your hand tools. For a start, you can fit a jack plane, smoothing plane and a block plane between the vertical partitions.

Sharpening stones, abrasives and a cork rubbing block may be kept in the small compartments on either side of the top drawer, while there's accommodation for chisels and gouges in the rack at the back of the bottom shelf, with space left in front for other items.

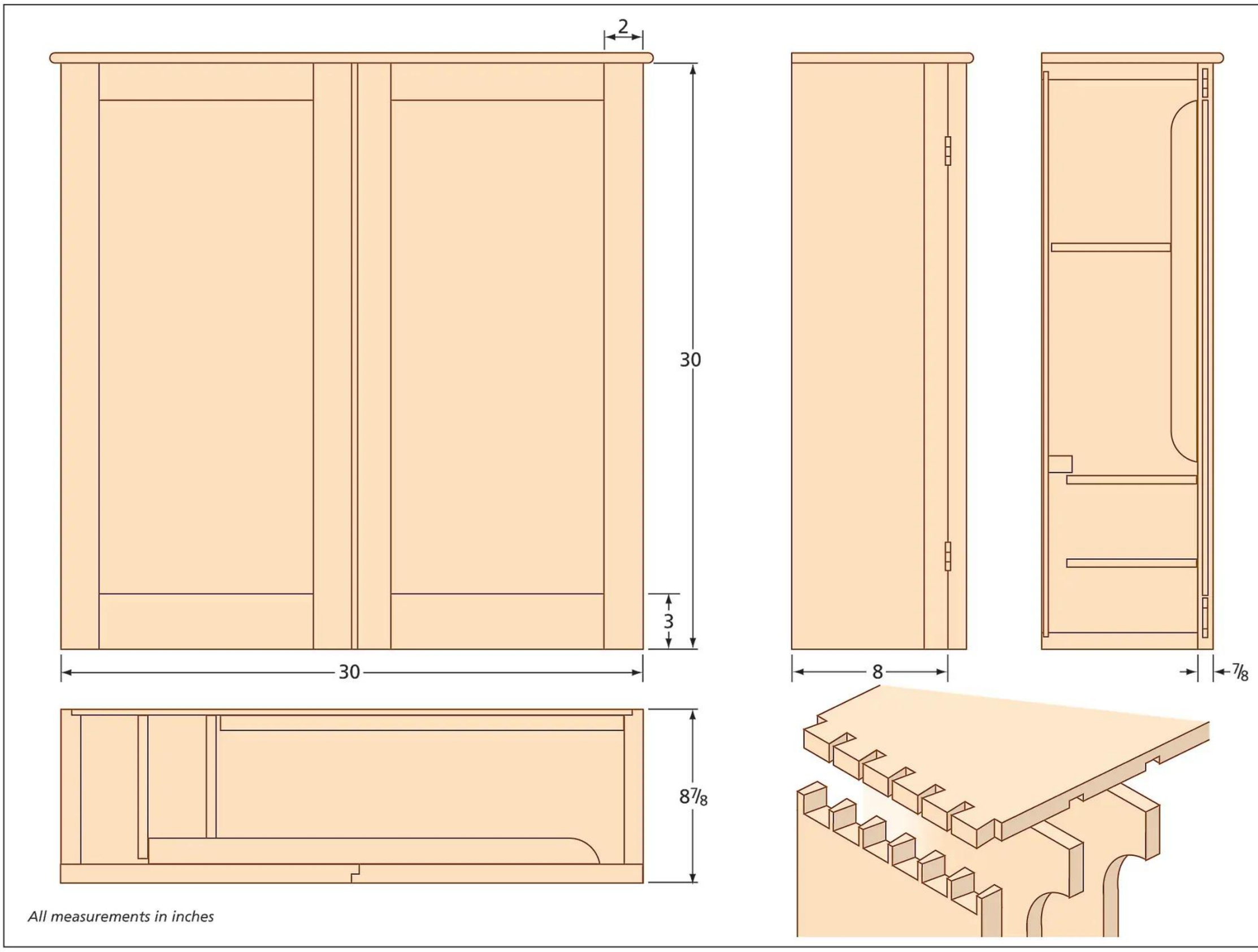
On the top shelf, there's room for a block for drills, a small glue pot or proprietary adhesives, as well as your finishing materials, etc. You may want to use the top drawer for drawings, marking-out instruments, or those small tools that are always looking for a home.

The two bottom drawers, meanwhile, can be used for the storage of screws and nails respectively. The racks behind the doors will hold items such as screwdrivers, bradawl, hammer, pincers, larger marking-out tools, etc. on one, with handsaws, spokeshaves, etc. on the other rack.

This cupboard not only has a practical use, but looks good in any workshop. What's more, it's worthy of being passed on to future generations of woodworkers

TOOL CUPBOARD CUTTING LIST

Part	Notes	Quantity	Size
Top, bottom & two sides		4	762 × 200 × 22mm
Top & bottom long shelves		2	730 × 200 × 16mm
Short top shelf		1	514 × 150 × 16mm
Two upright partitions		2	527 × 200 × 16mm
Minor partitions – cut to size		1	610 × 200 × 16mm
Back	Material to cover		762 × 762 × 10mm
Doors	Closing stiles	2	762 × 57 × 16mm
Other stiles		2	762 × 50 × 16mm
Top rails		2	381 × 50 × 16mm
Bottom rails		2	381 × 75 × 16mm
Door panels		2	648 × 292 × 10mm
Racks for chisels, gouges, etc.	Various pieces		38 × 38mm
Top nosing		1	813 × 38 × 20mm
		2	229 × 38 × 20mm
Drawers	Top drawer front	1	435 × 100 × 20mm
	Sides	2	150 × 100 × 38mm
	Back	1	435 × 100 × 20mm
	Bottom	1	419 × 140 × 20mm
	Bottom drawer fronts	2	349 × 75 × 20mm
	Sides	4	150 × 75 × 38mm
	Backs	2	349 × 64 × 12mm
	Bottoms	2	349 × 140 × 6mm



All measurements in inches

Fig.1 Tool cupboard dimensions and construction

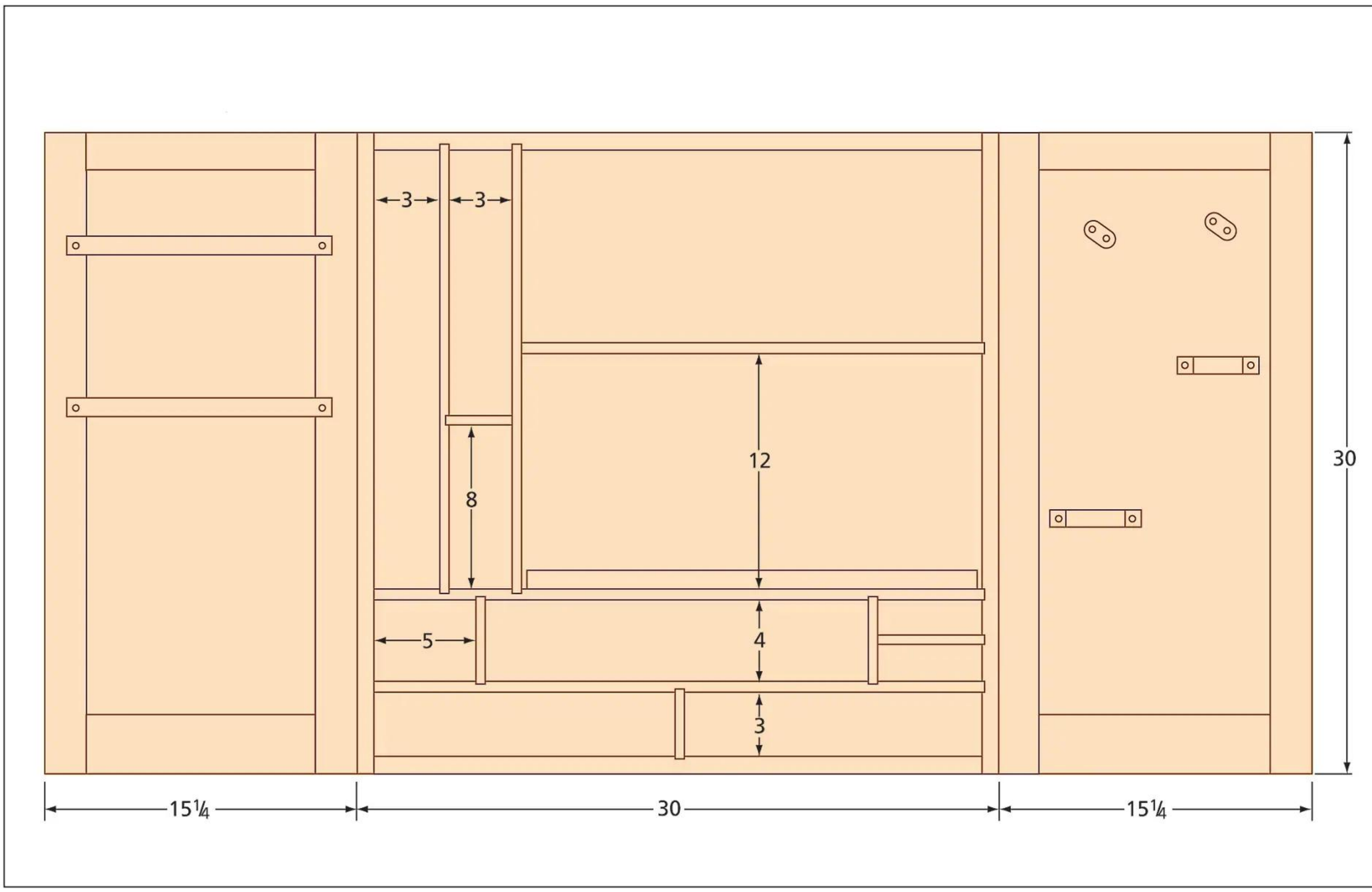


Fig.2 Tool cupboard dimensions

COMPETITION

WIN! WITH LIBÉRON

DEPUIS 1912

There's a £200 Amazon voucher up for grabs, plus a bundle of Liberon woodcare products worth over £120!

We've teamed up with wood care experts **Liberon** for a third time to give more readers the chance to showcase their woodworking skills and win a **prize bundle worth over £300!**

Following the success of both the 2022 and 2023 competitions, held in conjunction with wood care experts Liberon, we're giving more readers the opportunity to show off their woodworking skills. As before, there's a fantastic range of prizes up for grabs, for first, second and third place winners.

So, if you've recently completed a project build or restoration – or are in the process of doing so – this is your chance to share photos of the finished piece(s) along with a brief description detailing the making process involved.

It's easy to enter, and the idea is to showcase a woodworking project you're particularly proud of – which could be a new piece, a restoration project, or similar – and anything from an item of furniture to a turned bowl, for example. Regardless of whether you've created a piece from scratch or restored an old or antique item back to its former glory, we'd love to see what you're capable of.

Showcase your skills

To enter the competition, entrants are required to share 1-3 photos of their chosen project as well as a brief description giving some details. Together with the Liberon team, we'll judge the entries, select first, second and third place winners, and showcase these in an upcoming magazine feature, which will also appear online. This is a fantastic way for readers to share their work, have it judged by Liberon experts, and be in with the chance of getting their hands on a fantastic prize bundle, including an array of specialist woodcare products.

LIBERON'S WOODCARE RANGE

Ahead of the competition launch, shown below is some information regarding various core items within Liberon's top quality range. These are designed to help both professional and amateur woodworkers achieve a beautiful finish on a wide range of projects.

Wood dyes

Liberon's Spirit Wood Dye is ideal for use on dense hardwoods, and to achieve a preferred shade, any of the eight colours in which it's offered can be mixed together.

The **Palette Wood Dye**, available in a choice of 13 different shades, can also be combined in order to achieve an exact shade. This quick-drying, water-based option is suitable for both soft- and hardwoods.

Oils

Liberon's Finishing Oil blends hard-wearing oils with resins, as well as offering protection, not only against water, but also heat and alcohol.

The **Superior Danish Oil** can be used to achieve a wonderful satin gloss sheen while also feeding, protecting and adding long life to both hard- and softwoods. It protects against sunlight and is also resistant to water, alcohol, heat and food acid.

The hard-wearing **Pure Tung Oil** provides a long-lasting matt finish and is ideal for those surfaces most often in contact with food.

Wax

Liberon's Wax Polish Black Bison has a good content of Carnauba wax and, being highly lustrous, makes wood look simply beautiful. It provides good resistance to finger and water marks, and is ideal for small surfaces. It feeds, polishes and helps to prevent wood drying out.

For further information on Liberon and the company's extensive range of woodcare products, see **www.liberon.co.uk**

2023 WINNERS

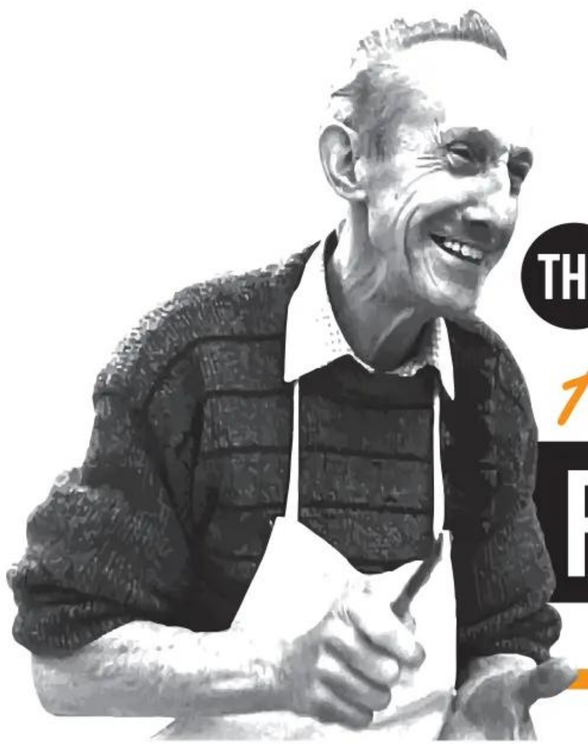
1ST PLACE – George Davies' beautifully crafted cedar-clad Tiger's Treehouse, every inch of which is hand-crafted

2ND PLACE – Shaun Newman's concert classical guitar, the back and sides of which make use of figured European maple

3RD PLACE – Frank Ashurst's chessboard, made using various materials, also demonstrates a wide range of technical skills

HOW TO ENTER

1. Email your entry to **editor.ww@dhpub.co.uk** with '**Liberon competition**' as the subject title. Please ensure to provide the following information: **1)** Your name; **2)** Confirmation of email address; **3)** Contact telephone number; **4)** 1-3 photos of your woodworking project – in JPEG format and each 1-2MB in size; **5)** A description of your project – maximum 100 words.
2. Entrants must be willing to have their project photos and details published and used on Liberon's social media channels, as well as in *The Woodworker* magazine and accompanying website.
3. The first place winner must be willing to supply a photo of themselves with the Liberon prize bundle.
4. All entries must be received by midnight on **31 July 2024**.
5. Multiple entries are permitted – i.e. each person can submit up to three different pieces, but each must be emailed separately.
6. The first place winner will receive a £200 Amazon voucher plus a Liberon product bundle worth over £120. Second and third place winners will each receive a Liberon product bundle as above. Prizes will be sent by Liberon directly; please note that no cash alternative is offered.
7. The competition is **only open** to **mainland UK residents**.
8. Judging will take place between **16 August and 13 September 2024**, ahead of a feature showcasing the first, second and third place winners in the magazine, on our website, as well as on Liberon's social media channels.
9. Further terms and conditions can be found on our website: **www.thewoodworkermag.com/category/win**.



THE Alan Peters ONLINE FURNITURE AWARD 2024

Entry deadline:
31 July 2024

A £20 entry fee applies & a maximum of two entries can be made (£20 per entry)

Devon walnut and rosewood desk by Alan Peters, 1989

'EXCELLENCE WITHOUT ELITISM'

Continuing to champion UK furniture design and making talent while celebrating the life and work of the late **Alan Peters OBE**, the 2024 award returns as a biennial competition and is set to adopt an online format as before

This biennial 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, aged over 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 Jeremy Broun's 64-page online video-integrated e-book, which is offered free-of-charge here: **www.jeremybroun.co.uk/alanpetersaward**.

Alan Peters in his studio

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. Apprenticed to Edward Barnsley, he had a direct link to the English Arts and Crafts Movement as well as being hugely influential on an international level in terms of his practice, teaching and publications. Above all, Alan Peters' 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 these subtle innovations.

Award history

The original award – called 'The Alan Peters Award For Excellence' – was initiated by Jason Heap in 2010. The prize was offered to three winners, each of whom were given free exhibition space alongside professionals at this 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 both the 2021 and 2022 awards, this year, as with 2021, an online format will be adopted, followed by an event ceremony and virtual exhibition.

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
- **Fernanda Nuñez** – Award-winning furniture designer-maker

The Woodworker Good woodworking

JB JEREMY BROUN

WORKSHOP HEAVEN Fine Tools

eVOLUTION

PRIZES OFFERED

1ST PRIZE: £1,000 voucher, courtesy of Workshop Heaven
2ND PRIZE: £500 voucher courtesy of Evolution Power Tools
3RD PRIZE: £300 Judges' cash 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 video introducing themselves and describing the piece(s).

Judging of entries will take place in August followed by an event ceremony and virtual exhibition(s) in September – exact dates TBA.

It's important to get designing and making straight away, as the submission deadline is **31 July 2024**. To download an application form and view the free 64-page e-book, visit **www.jeremybroun.co.uk/alanpetersaward**. The application form download button can be found halfway down the page. Payment for entry can also be made securely via the website. For further information, contact Organiser Jeremy Broun – **jezbroun@gmail.com** – or Group Editor, Tegan Foley – **tegan.foley@dhpub.co.uk**

Romanian chest by Alan Peters

CREAT

Caleb Howard-Almond and Patrick Stokes share a workshop space on the outskirts of Brighton, East Sussex, but each runs their own business

WW PROFILE

IVE

COLLABORATION

Despite running their respective businesses, **Caleb Howard-Almond** and **Patrick Stokes** recognise the benefit of collaborating on various projects, utilising individual skills and expertise

Occupying a shared workshop space located in Woodingdean, on the outskirts of Brighton, East Sussex, Caleb Howard-Almond – who runs Oak & Almond Cabinet Makers – and Patrick Stokes – who runs Stokes & Co. Joinery – operate separate businesses, have their own clients and individual projects, but still recognise the benefit of working collaboratively.

According to Caleb, although the pair work independently, they're always sharing ideas and chatting over coffee, and are happy to lend a hand on each other's larger projects, especially when it comes to the installation phase.

Patrick and Caleb moved into their converted barn-workshop back in January 2023, and so far, they believe this has been really positive experience. "With workspace becoming harder to come by – especially close to the city centre – it's been a brilliant move for us," says Caleb, "allowing us to grow our respective businesses without needing to take on full-time staff, and therefore avoiding a huge individual financial burden."

OAK & ALMOND CABINET MAKERS

When asked about his background, Caleb says that he grew up in a very free environment, with one of his grandfathers a skilled carpenter, the other a professional sculptor, and parents who loved film, music and photography. Caleb's own creativity, however, was mostly channelled into music and songwriting, playing guitar in a fairly successful band alongside his brother.

"It was much later in life, while working at a recreation of Lapland in the Kent countryside, that I discovered my love of turning a pile of timber into something tangible," he explains.

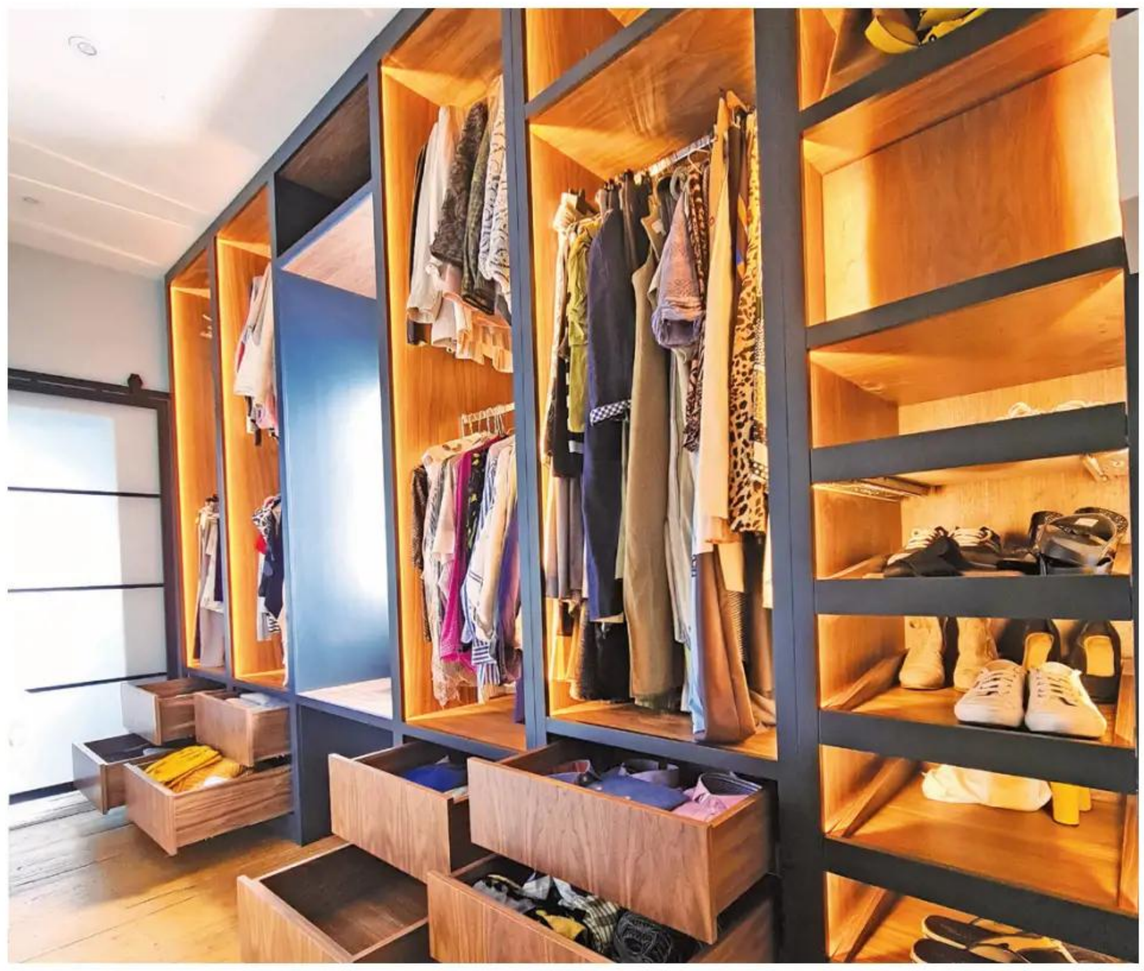
Caleb Howard-Almond sanding a project in the workshop

Caleb moved to Brighton in 2013 and with a view to honing his skills, he began working on creating rustic elf houses in the woods, going on to transform these into fitted furniture in peoples' homes. "I studied at college for a year, alongside shadowing one of the best makers in Brighton. After working with him for nearly five years, I decided it was time to spread my wings, so took the plunge and set up my own business."

After outgrowing a few workshop spaces in various locations in and around Brighton, Caleb met Patrick who offered him a space much closer to where he lived. "So we agreed to move into the workshop and share the space, equipment and ideas," Caleb confirms.

Describing himself as a creative carpenter, Caleb specialises in delivering innovative storage solutions and furniture with an emphasis on practicality and design. "I work with clients from concept to creation," he explains, "offering a unique and personal experience, bringing

Under-stairs storage is designed to maximise a client's available space



Oak & Almond offer a multitude of wardrobe styles and designs

design requirements to life and improving homes in a decorative and functional way."

All commissions are built in the shared workshop space and taken to site, which ensures minimum intrusion for the customer. When it comes to installation, Caleb uses the best dust extraction system available in order to reduce impact while maintaining a professional and quality finished product.

According to Caleb, cleanliness, craftsmanship and an unparalleled finish are all very important considerations. When taking on new projects, establishing a client's individual requirements, tastes and budget are pivotal, as well as identifying and using the best materials.

Services offered

- **Alcove units:** "We offer a wide range of options for alcove storage, most commonly made up off a cupboard at the alcove's base, with shelves above." There's many different styles and finishes that can be tailored around personal tastes and desires. Ranging from very sleek, minimalist designs with clean lines to ornate traditional moulded details.
- **Shelving & bookshelves:** "From single floating shelves to entire library bookcases, shelving can be both decorative and practical." Whether a client is looking to make use of an awkward corner, or create a feature wall, shelving can be built using solid/veneered timber alternatives, or a professional painted finish.
- **Under-stairs storage:** Oak & Almond aim to design and build under-stairs storage that maximises a client's space while making the most of all of the unusual areas available. "A great way to utilise space is doing away with the traditional one door approach, instead incorporating drawers that can be accessed from the hallway, without needing to empty the cupboard in order to access items."
- **Wardrobes:** With a multitude of styles and designs available, some popular options include a combination of hanging space, adjustable shelves and drawers. "Once I've met the client and discussed their requirements, I'll send a few design options and once everyone is 100% happy with the final outcome, production then begins in the workshop."
- **Kitchens:** "I can design and build entire bespoke kitchens to create a vibrant heart to a client's home. Alternatively, I can also update and revamp a kitchen by replacing cupboard doors and drawer fronts, or regenerate old worktops." This approach allows Oak & Almond to cater for all budgets and designs while still creating a completely transformed room.
- **Beds:** Oak & Almond can design and build a range of custom-made beds, using a variety of timbers, which can really pull a room together.
- **Studies & desks:** "Having a made-to-measure built-in or free-standing desk can maximise a client's home office," says Caleb, "and designs can be tailored around an individual's height, use and working style."

Oak & Almond

Web: www.oakandalmond.co.uk

One of Caleb's alcove storage solutions

A great way to utilise under-stairs storage space is doing away with the traditional one door approach

STOKES & CO. – FINE ENGLISH JOINERY & CABINETMAKING

According to Patrick Stokes, he's been making things for as long as he can remember: "As a child I was always either outside, or messing around in my parents' garage creating various projects, and almost certainly using power tools that I wasn't allowed to!"

A notable first project included a full-size samurai sword in pine. This early interest in making things eventually found its natural conclusion when Patrick turned 18, which saw him working as a labourer on an entire house renovation.

Attending university was the next step in Patrick's journey, and having the opportunity to spend a year in the USA, during this period, he was able to gain good experience in general residential building work, with a main focus on the renovation side of things. "While working on these projects, I always tried to soak up as much as I could, mainly through watching how things were done. As time went on, I found myself becoming increasingly drawn towards the carpentry aspect, which likely stems from my early interest in making things from wood."

Working alongside the lead carpenter, Patrick learnt a great deal and was able to experience a huge range of woodworking techniques: "The firm was small, which meant that we'd do everything from beginning to end."

Next, a thirst for adventure saw Patrick relocating to Melbourne, Australia for a few years, where he worked in the residential renovation sector, as well as gaining experience in timber-framing for houses.

After returning to the UK, Patrick subcontracted as a carpenter to a few larger builders before eventually striking out on his own, winning work with private clients. "As I was building my business, I'd take on general building work but always looked for projects with a joinery focus, priding and selling myself on my joiner's attention to detail," he explains. Over time, Patrick found himself gravitating towards more traditional joinery and cabinetmaking as well as working with specialised joinery and furniture making companies in order to gain wider experience.

Patrick Stokes prides himself on using traditional tools, materials and methods

"Added to this, I also immersed myself in the world of fine furniture making, reading and learning as much as possible about methods and practice in addition to studying the work of notable great makers."

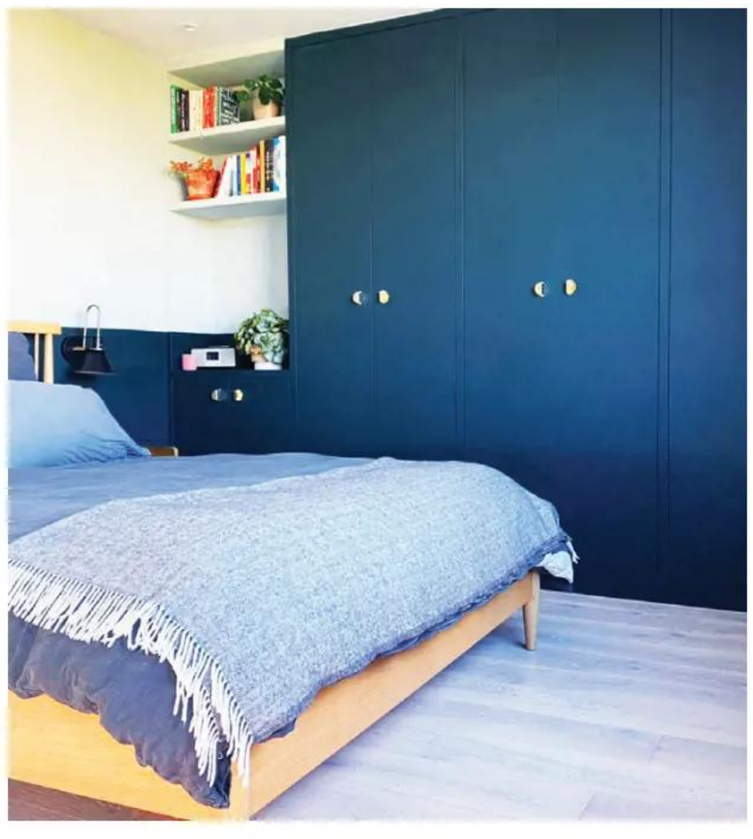
Eventually, Patrick made the decision to specialise and focus on joinery and cabinetmaking, which, as he discovered, is where his passion truly lies. Through his business, Patrick aims to keep traditional skills alive and bring ideas to life through the highest quality bespoke projects.

Handmade kitchens

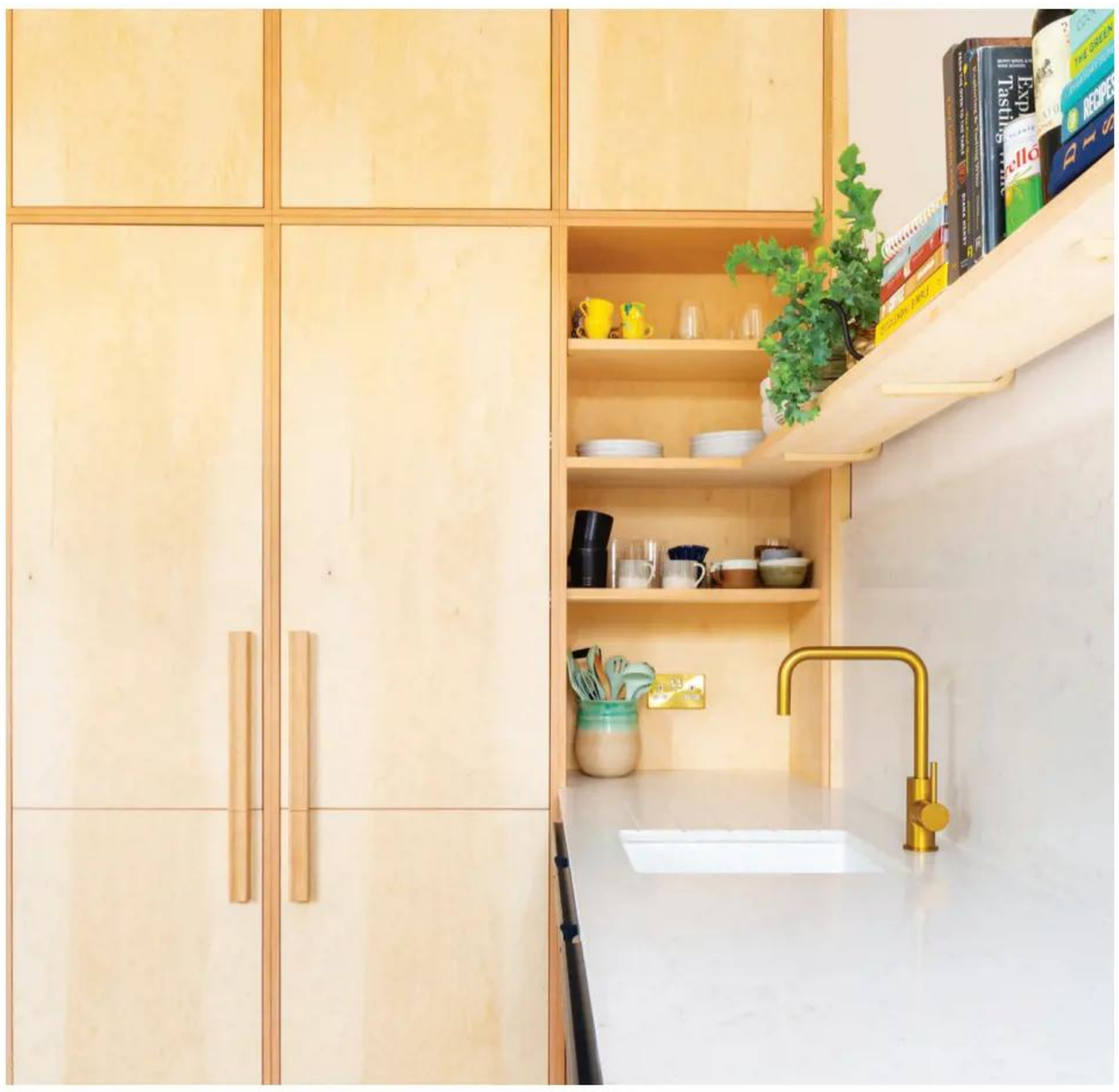
Over the last few years, Stokes & Co. Joinery has increasingly specialised in handmade, bespoke kitchens, each of which is designed,

Each of Patrick's handmade kitchens is truly bespoke

Added details such as these really do make a world of difference



In addition to handmade kitchens, Stokes & Co. also create bespoke fitted storage solutions



Another bespoke kitchen design...

... which demonstrates a great deal of skill and craftsmanship

made and fitted by Patrick and the team. "There's no standard sizes, no off-the-shelf solutions and our commitment to every detail reflects a dedication to excellence. From carefully selected materials to expertly crafted finishes, we're proud to create kitchen spaces tailored exactly to a client's lifestyle and design."

Made by hand, not machine

For Patrick, handmade means exactly that: to be made by the human hand. "In my work, this finds its voice in a few key areas. Firstly, an emphasis on traditional tools, materials and methods. Joinery, for the most part, has remained constant for hundreds of years. The way things were made in 1724, 1824 and 1924 can and should remain largely the same in 2024 and beyond."

While advancements in technology have changed some of the ways in which we do things – such as the introduction of the powered saw or power planer, for example – Patrick firmly believes that tooling and technology should never come at the detriment of actual skill.

Sustainability

Sustainability, and Patrick's approach to it, is incredibly important to his work, as he explains: "I address this firstly through careful use and approach to materials. I always aim to use only sustainably sourced timber that bears the FSC mark and also always try to understand exactly where the timber has come from. Where possible, I'll always use native British timber and have built up a great network of suppliers to facilitate this.

Web: www.stokesandco.uk

Two heads are better than one

For Caleb and Patrick, two heads are definitely better than one. Sharing a workshop space and collaborating on various projects is clearly a mutually beneficial approach and judging by the completed projects shown here, the standard of craftsmanship and attention to detail is incredibly high. For these young woodworking professionals, the sky really is the limit...

There's no standard sizes, no off-the-shelf solutions...

... and a commitment to every detail reflects a dedication to excellence

WIN! 1 OF 2 MILESCRAFT POCKETJIG400S – WORTH £99.95 EACH!

For those woodworkers looking to create accurate pocket hole joints, every time, the **Milescraft PocketJig400** is the ideal choice. In conjunction with **Wood Workers Workshop**, we're giving two lucky readers the chance to win one of these handy workshop aids

Featuring a solid aluminium construction, hardened steel bushings, dust extraction and a sleek design, the Milescraft PocketJig400 is sure to become your go-to for creating accurate pocket hole joints, every time.

Features

- Height adjustable bushing blocks contain two ⅜in (9.5mm) steel drill guides that can be repositioned for drilling boards from ½in (12mm) up to 1½in (38mm) thick;
- Drill guides adjust horizontally to position holes between ¾in (20mm) and 3in (75mm) apart;
- Removable dust extraction works with common 2½in (63mm) and 27/32mm hoses
- All-steel toggle clamp with micro-adjust non-marring clamp-head dials in perfect clamping pressure for different board thicknesses;
- Convenient storage drawer holds bit, driver, depth stops and more;
- L-Base can be removed from the main body and used for mobile pocket hole projects and repairs.

A convenient storage drawer holds bit, driver, depth stops and more

Includes

1 × main jig body with toggle clamp;
1 × removable L-shaped clamping wall;
2 × solid steel drill guides;
1 × removable dust port;
1 × ⅜in (9.5mm) PocketBit™;
1 × 6in (150mm) magnetic T20 Torx® driver;
1 × 3mm Allen key;
1 × ⅜in (9.5mm) split-design depth stop;
10 × pocket hole plugs;
4 × mounting screws;
60 × T20 pocket hole screws;
10 × 1in (25mm) coarse thread
10 × 1¼in (32mm) coarse thread
10 × 1½in (38mm) coarse thread
10 × 2in (50mm) coarse thread
10 × 2½in (63mm) coarse thread
10 × 1¼in (32mm) fine thread

For further information on this and other products available from Wood Workers Workshop, visit the website: **www.woodworkersworkshop.co.uk**.

Height adjustable bushing blocks contain two ⅜in (9.5mm) steel drill guides that can be repositioned

Removable dust extraction works with common 2½in (63mm) and 2⁷⁄₃₂mm hoses

HOW TO ENTER

To be in with a chance of winning **1** of **2 Milescraft PocketJig400s**, visit **www.thewoodworkermag.com/category/win** and answer the multiple choice question below:

QUESTION: What size is the supplied PocketBit™?

A: 1¼in (32mm)
B: ⅜in (9.5mm)
C: 1in (25mm)

The winners will be randomly drawn from all correct entries. The closing date for the competition is **16 August 2024**. Only one entry per person; multiple entries will be discarded. Employees of David Hall Publishing Ltd and Wood Workers Workshop are not eligible to enter this competition

OPEN & SHUT CASE

Michael Huntley builds on last month's mortise & tenon advice by demonstrating the use of the haunched variety while altering an old oak door

One of the best ways of learning about woodwork is to repair old examples. If you're observant, you can see how the joints were marked out, then cut. There's also the advantage of hindsight in that you can see what went wrong. It might have been poor timber choice, weakening of timber by cutting a joint too close to the edge, or even putting in a screw when glue or dowel would've been a better choice. You do need to be aware, however, that compromises are also required.

Few amateurs are able to work with perfect timber on every job; you may have to accept the distortion that comes with age when using, as I often do, recycled timber.

To illustrate a more complex mortise & tenon than the one last month, I'm going to show the repair of an oak door, the timber for which cost me nothing. Doors, if made properly, have mortise & tenon joints with wedges. The wedges compress the timber and will hold the door tight for years. When I got this door (**photo 1**), it was in a bit of a mess. It had one damaged and one good stile, and only two out of the three rails. The saving grace was the fact it was oak, which meant that it could be knocked apart, a new piece spliced in and the rails shortened to fit my workshop door frame. The mortises were sound and traditionally made (**photo 2**).

Preparation

I always give the old timber a quick going over with a sander (**photo 3**). This makes it easier to see the marking lines later on and highlights any surface irregularities or, worse still, nails. My eyes aren't so good now, so I do run a stripping knife over each face as well as feeling for nails. Some people use an electronic pipe finder gizmo, but I like my old stripping knife.

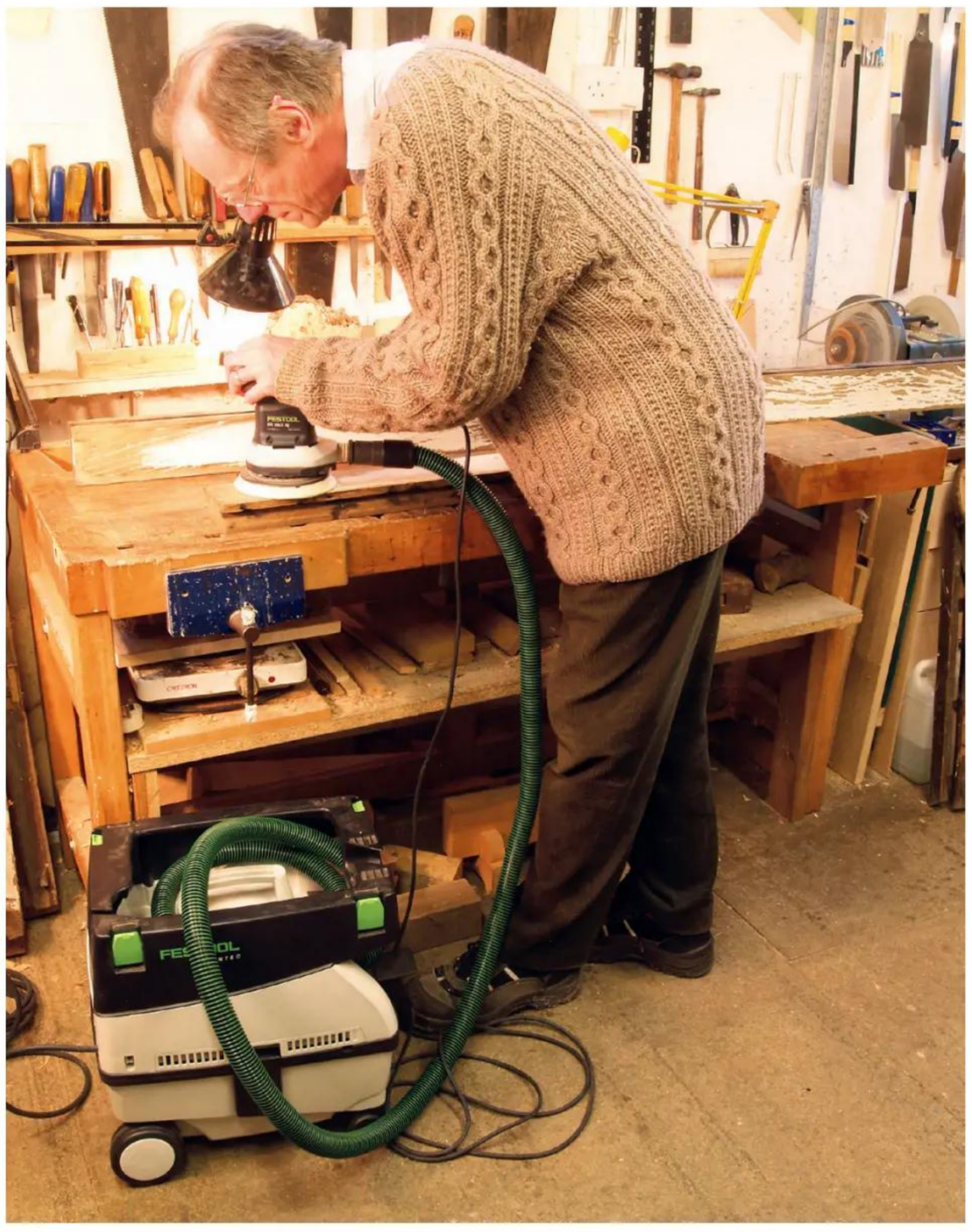
A sander isn't necessarily required; you could instead use paper and a cork block, but ensure not to use fingers – you'll get through a box of plasters before the project is finished!

Set square

Start by checking that the timber is as square as you can get it and that the door top and bottom are true; in other words, ensure that the disassembled timbers are square in section

1 The door timbers disassembled

2 Close-up of the original mortise



3 If you recycle timber, sometimes a sander is very useful

MEASURING & MARKING TOOLS

When laying out mortises, it's advisable to leave a horn. This is an extra piece of timber beyond the mortised piece's finished length. Once the mortise is glued up, the horn, which protects the mortise from breakout, can be cut off clean

at the crosscut ends and 'as best possible' in the middle. Remember that we're working with recycled wood and don't have machines to square it up. Yes, we have hand planes, but recycled timber can have nails in it, and I don't use my best planes on second-hand timber unless absolutely necessary.

Get marking

Identify your front face from which all marking will take place and mark it. Next, use a gauge to mark the mortise's far face and transfer this to the timber being used for the tenon – in this case a rail that's being shortened to make the door narrower (**photos 4** & **9**). Now we suddenly hit a hitch – the haunch. This is why we've jumped from **photo 4** to **photo 9**! The haunch is the most common variant of the mortise & tenon joint, so I use it as an introduction to more difficult M & T varieties. We need to set out the haunch before setting out all of the tenon.

Had I been using a pencil, I could've rubbed out any unwanted marks, but I find a knife more accurate and encourage students to use one from their first day onwards.

Measure the tenon's length (**photo 5**), which will be the same as the stile's width. This is where understanding terminology becomes really important. The same dimension can be length and width because the stile is at 90° to the rails. Transfer this to the rail (**photo 6**) and scribe a line for the first short shoulder.

To bring that shoulder line all the way around the rail, make little cuts on the arris, which joins the edge line to the face. You can then place your knife in the cut and slide the square up to

4 A wheel gauge is expensive but easier to set than a pin gauge

it (**photos 7** & **8**). On the edge with the haunch, don't scribe a shoulder line right across. The shoulder line goes up to the haunch's edge, as shown in **photo 12**. It stops at the haunch's near side and starts again on the far side. This is why you needed to know where the tenon faces were but couldn't actually mark their full length until the haunch shoulder had been determined. It doesn't make a lot of sense when you read it, but becomes clear in practice!

Finally, measure the haunch's depth (**photo 10**) and set that out on the rail (**photo 11**). Gauge the mortise's near face, set out on the rail and you can then hatch – in pencil – the waste using a different hatching for the haunch waste, which is cut out once the tenon cheeks have been cut (**photo 12**).

Cutting the tenon

Cut the tenon in the usual way (**photo 13**). Here I'm using a Japanese pull saw from Workshop Heaven, which is double-sided –

5 Vernier callipers are a must if you're using odd timber sizes

6 Using the points to mark a dimension

7 A little knife line that goes across the arris helps square around

8 Offer the square up to the blade and run the line across the rail

9 Gauging down to the shoulder

10 Using the wheel gauge as a depth gauge

i.e. rip and cross-cut – so you can so easily switch from one cut to the other, thus making it less likely to over-cut. I use a double-sided Japanese saw to do the rip first almost to depth, then the cross on a bench hook, being easily able to see how far down to cut because the rip kerf is already there, then just tickle the rip to free the waste. It also has a blade that you can touch up yourself, for those who wish to sharpen saws. So much simpler than separate rip and cross backsaws, the whole job is done without switching saws.

I'd advise cutting the tenon a tad oversize so that it can be 'planed' in. Sharp-eyed readers will see that there's an odd little ledge on the mortise, which had to be filled by leaving a little extra on the tenon. This can occur when grooves are run in stiles, which are intended to accommodate tongued & grooved panels.

Finally, the tenon is cut to the haunch's size and the wedges made using the haunch offcut – in this case at 8°.

Benefit of strength

Making mortises of different depths and tenons of different lengths in order to make a haunch may seem a lot of work, but it's worth doing and also adds strength. The haunch means there's a much wider bit of timber to resist twisting of the rail. Ideal proportions are one-third for the haunch and two-thirds for the tenon. On quality work, the shoulder opposite the haunch – the 'inside' shoulder – is set back by 2mm to cover the mortise's edge, which might otherwise have been unsightly. On a window frame, there's different depth mouldings and a rebate, all of which make a door joint seem very simple by comparison.

Of course, you can see the full range of mortise & tenon joints in either Hayward or Joyce. Not everyone wants to alter or make a door, but haunches are used in a great many situations when the mortise & tenon is on a frame's outer corner edge.

SUGGESTED READING

Woodwork Joints, by C H Hayward
ISBN: 0 237 44765 7

The Technique of Furniture Making, by Ernest Joyce
ISBN: 0 7134 8814 X

11 Marking the haunch shoulder

12 Offer up and check what you're doing

13 A Japanese saw is best for tenons

14 The rail and stile once assembled

SMALL FIDDLE, BIG HEART

CHISEL RATING

WW PROJECT

The pochette is essentially a very small violin-like wood instrument, which is designed to fit in a pocket – **Shaun Newman** makes his own version

This diminutive instrument is named a 'pochette' from the French meaning a small pocket, envelope or small sleeve, and dates back in earlier times – in more roughly made forms – to the rebec, and perhaps even the small cittern. In the mediaeval period, it was used by street musicians and buskers – then often called 'hawkers' or 'patterers' – but by the time it'd developed its true form by the early 18th century, the pochette had become the height of fashion. While the reasons for this aren't obvious, many thought this was an instrument only suitable for children or beginners, but many accomplished musicians and, above all, dance teachers, were the main users of this small, portable violin. According to musicologists, even Stradivarius made several pochettes, one of which remains in relatively good condition and is on show at the Conservatoire de Paris.

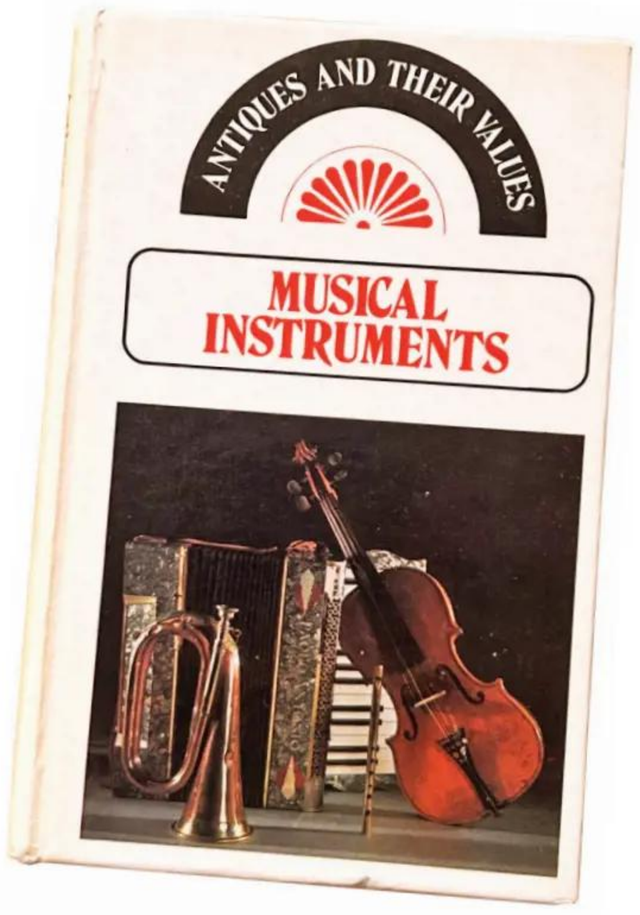
Background

So, why was this instrument so popular? Its rise to fame most probably began towards the end of the 17th century with King Louis XIV's interest in music and dance at his courts. Whenever a player was invited to the court, he or she had to present themselves with an instrument that looked worthy of an appearance before such illustrious folk, so the materials and decoration therefore became quite extravagant. It seems that the ability to dance well both at court specifically and in 'high society' generally was a most sought-after attribute. As such, many rich households would hire a travelling musician – akin nowadays to a personal trainer – to teach people the necessary skills.

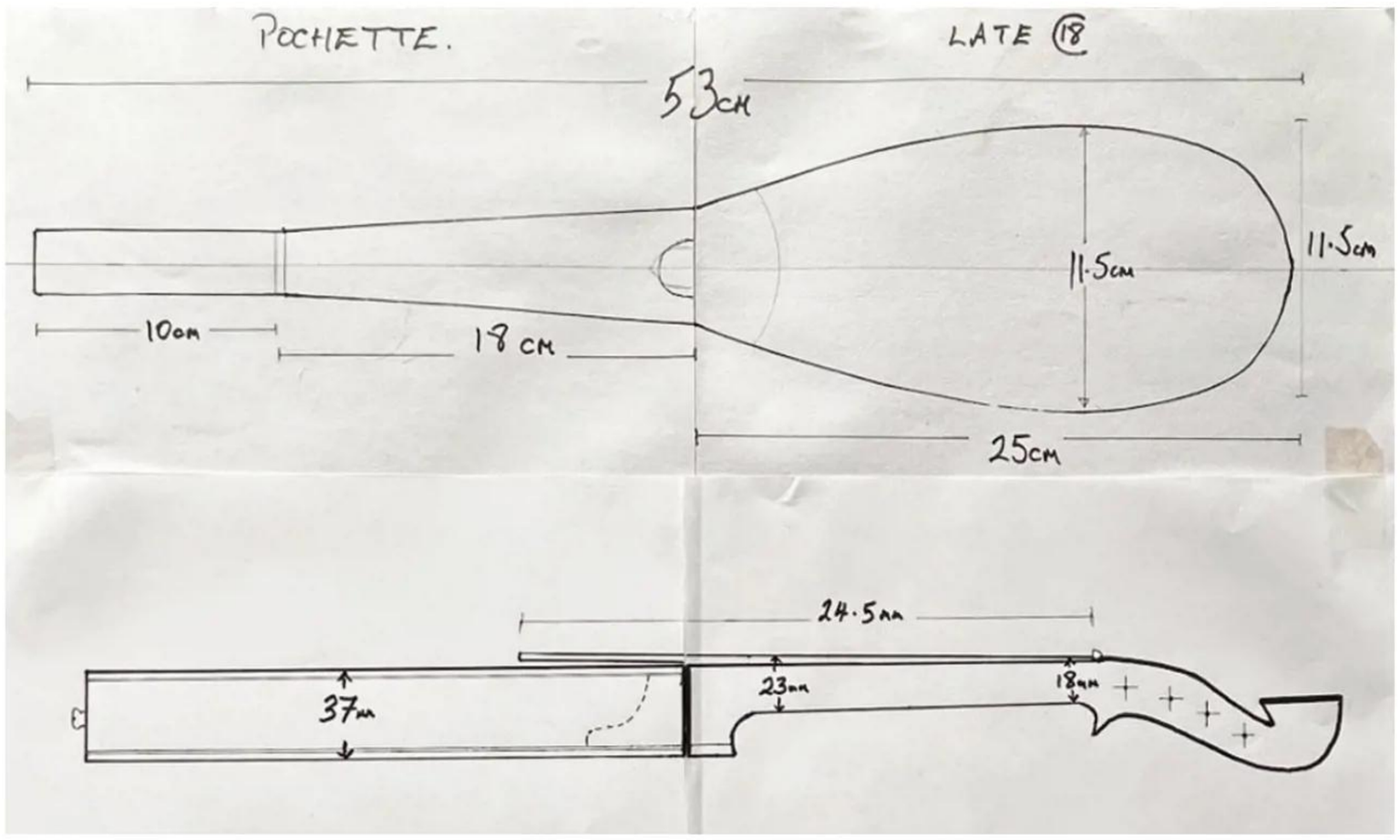
Some musicians were in great demand, and they'd frequently be moving from one place to another and sometimes at short notice. Being unencumbered by a heavy musical instrument case during these trips became essential. The average violin at the time was around 57-58cm long, and the case, more often than not made of solid wood, had to be a good deal longer to accommodate the bow. So when a musician could place the violin into one coat pocket and the bow in another, a solution was found. Among the fashions of the time were long and heavy coats, called 'justaucorps', which were particularly

SUPPLIERS

www.gear4music.co.uk – for strings and bows
www.luthierssupplies.co.uk – for timbers
www.touchstonetonewoods.co.uk – for violin/viola pegs
www.hobbycraft.co.uk – for leatherette sheet
www.stewmac.com – for all manner of luthiers' supplies and specialist tools



1 The inspiration behind the build



2 Hand-drawn outline plans

useful when using horse-drawn coach travel with no interior heating. These coats, as described earlier, would have a long, specially designed pocket sewn into the inside, both to the left and right, which would each accommodate the instrument and its bow. Occasionally, this small violin would be in a slim leather case, and certainly not in the so-called 'coffin' case that was so often used for instruments made during this time.

Two typical shapes

The pochette violin is normally no longer than 44-45cm and considerably slimmer. It came in two typical shapes: the first and most often built was slender and shaped rather like a canoe. These were sometimes called 'sardinos' for obvious reasons; the other would retain the overall violin shape, though much thinner, and was called the 'kit'. Some historians say that 'kit' referred to the last three letters of 'pocket' but neither pronounced nor spelt in exactly the same way. Others say it's because a kitten is a small cat, and a pochette is a small violin! I know which name I prefer. Whatever the name, each pochette would have a fingerboard that was proportionately longer than may have been expected, which ensured that the player could preserve the melodic range of a full-sized violin; however, the pochette's general sound was never quite that of a full-sized version, and of course, the bow was quite a lot shorter, meaning the strokes were less able to offer sustain.

3 The work board and cams

4 Front – soundboard – in a wedge and lace jig

Then, because the instrument needed to be very robust in order to withstand rough treatment through excessive travel, the materials were often thicker, and sometimes the whole back and sides of the sound box, head and neck would be shaped from a single piece of timber. But to learn dance steps, most people wouldn't have felt they were in a concert hall looking forward to hearing a violin partita from Bach, and thus being disappointed by the sound.

Owing to the importance attached to social climbing in both the 17th and 18th centuries, it wouldn't have been entirely acceptable to call your personal dance trainer just a teacher, so they became commonly known as the 'dance masters', thus elevating their status.

Interestingly, one of the parts of Europe where the pochette really took off was Scotland. By some accounts, there was a feeling that the Scots were somehow behind in the world of music. I can't imagine why that might have been the sentiment when I hear the dulcet tones of bagpipes echoing from a street corner, but it seems that being able to impress your peers and move up in the world was equally important in Scotland as anywhere else. There's also the view that the short 'snap' notes of some folk music north of the border were particularly suited to the pochette. Whatever the reason, both pochettes and dance masters were in huge demand. But how is this instrument made? Let's move into the workshop.

5 The back in a wedge and lace jig

6 Sound holes partially cut

First steps in the build

For my last birthday, I was gifted a small book entitled *Antiques and their Values – Musical Instruments* from my friend, Caroline. It was first published in 1977 by Lyle of Galashiels, Scotland, and compiled by Tony Curtis (**photo 1**). It listed hundreds of instruments with a very short description for each one, a line drawing and a price, which often by today's values cause me to smile. One of the instruments depicted was a late 18th century French pochette valued at £480. This rather small drawing – just 5cm high and barely 1cm wide – offered me the chance to roughly sketch out what the instrument could look like at full size. The length described was just over 50cm, so I had a good idea where to start.

7 Completed sound holes

8 Bending the sides on a heated iron

9 Tail block in place on the work board

It was also clear from the line drawing that this particular model derived from the 'sardinos' style as opposed to the 'kit', and with the help of a short ruler, I could establish the fingerboard's length against that of the whole instrument by carrying out a simple ratio calculation. The instrument depicted wasn't heavily decorated as some, so while it represented a challenge, this wasn't a 'mission impossible'.

It seemed best to begin with a full-sized working plan, which I could use for constructing templates and to help me keep an eye on the build as it progressed. From the small image in my little book, it wasn't at all clear what the view from the side might be, but it was pretty obvious that it wouldn't be far from the way a modern violin looks, so I went ahead (**photo 2**).

Once the working drawings had been completed, making a work board to begin the construction was straightforward. There are several ways in which luthiers put stringed instruments together, the most common being an external or internal mould around which the instrument is firmly held as it's built, or a work board, which uses cams to hold the components in place. I chose the latter of these two methods.

I constructed the work board's middle part with a shallow well to allow for any curvature in the front when the assembly began. The easiest way to achieve this was to use a top layer of 3.5mm ply with the central section cut out using a fretsaw (**photo 3**), leaving a narrow inside margin of around 5mm.

Shortly after, I made up the instrument's back and front from book-matched spruce, for the soundboard, and maple for the back. These both began as thin boards, around 4mm thick. They were similarly treated with the only difference being a central decorative insert of some guitar purfling, which was left over from another job, used between the two parts that made up the back. Each of these two components was held in my old 'wedge and lace' jig (**photos 4** & **5**) until the adhesive had cured. Once removed, I could cut out their shapes with the bandsaw, leaving a small amount of wood at one end to have something to hold firmly when they were brought to their 2.5mm final thickness for the front and 3mm for the back. This approach – i.e. to make the back and front flat to begin with – is a major departure from standard violin making, which curves both components from joined wedges of timber, initially prepared with the thickest part at the centre. I realised that a curvature in both back and front are necessary for strength and looks, so went on to use a guitar making method to achieve this by creating arched braces. More of this process will be explained later.

I brought the spruce front to the required

10 Sides – ribs– held in place with work board cams

11 The back is braced and maker's label fitted

12 The front braces are scalloped and gabled

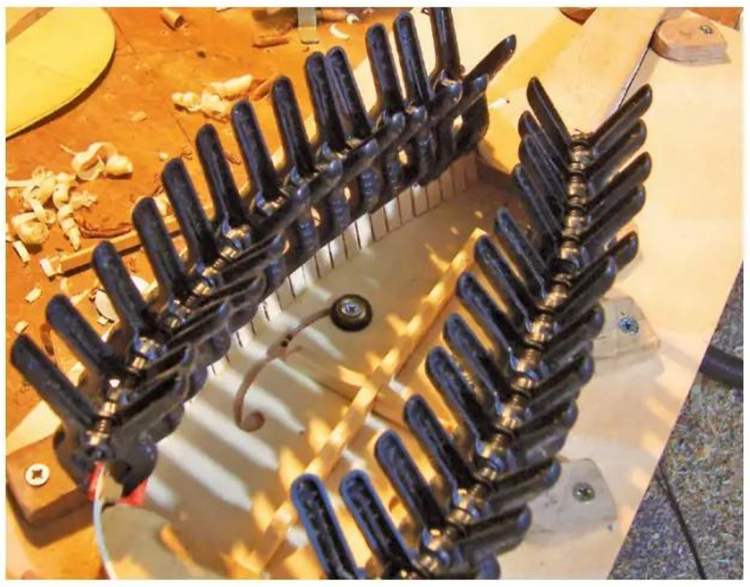
13 The soundboard once braced

14 Drilling the peg holes

15 Reaming the peg holes

16 Hollowing the peg box

17 Soundboard, ribs and neck in place on the work board



18 The back linings held in place with clamps

19 The back is pinned into place with cam clamps

thickness, then proceeded to cut the sound holes. In modern violins, violas and cellos, they're usually 'f' holes, owing to their shape; however, it took many years for this form to be eventually and universally adopted. Before then – for example, during the Renaissance period – sound holes would often look rather more like lunar crescents in outline. Some instruments had heart-shaped ones while others would often just have a circular hole cut in, or even an arrangement of small holes drilled into a symmetrical pattern. To offer this little pochette some character, I chose one of the shapes similar to a crescent, while still retaining small, circular holes cut at either end.

It's easy to find templates for such shapes online, and if printed out, they can be attached to the instrument's sound board with woodworking adhesive and cut out with a fret saw (**photos 6** & **7**). Next, I brought the back to thickness and cleaned it up.

Moving towards three dimensions

The pochette's sides are made from maple and long enough to meet at the centre of an internally mounted tail block, and extend to the neck's heel sides with an overlap of around 20mm. The sides would eventually be let into the lower part of the neck with an overlap of approximately 20mm to ensure a strong but smooth join. Once the sides were the correct 2mm thickness, I bent them using the hot iron (**photo 8**). Such irons are commercially available but quite expensive. They're also very simple to make using a piece of cast-iron pipe mounted on a board and heated from inside with a blow torch. These can be very effective, but great care needs to be taken as they can become too hot and burn the timber. The commercially available ones usually have a temperature control.

An ebony pin that holds the tailpiece in place is usually found at the pochette's lower end, which is effectively a string guide, so a fairly thick block was required to hold the pin and to offer strength at the instrument's lower end. This was initially screwed to the work board in the exact position that it'd occupy once the back and front were put on (**photo 9**). The screw is of course removed before the front or back are attached! It's easy to go ahead when something has been in place for some time like this, and to forget that if it's sealed in when the instrument is put together, removing it can be very taxing. For the tail pin, I used an old ebony bridge pin from an acoustic guitar.

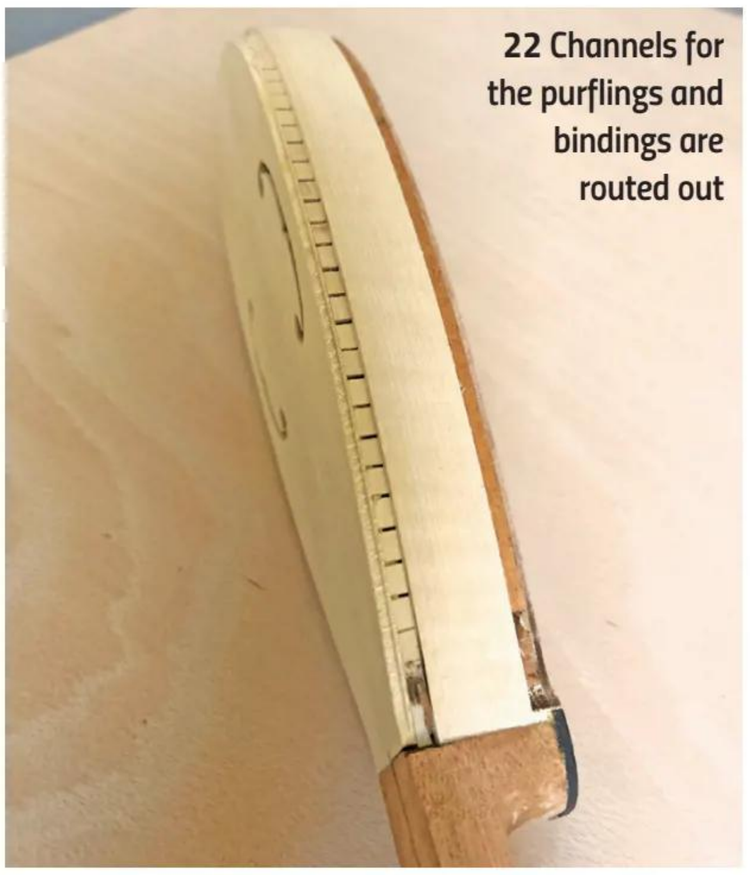
Having attached the block, the cams could then be positioned both inside and outside of the instrument's outer line in such a way that when the sides were fitted, the cams would trap them, but it'd also be possible to move them slightly in or out to obtain a perfect shape (**photo 10**).

Bracing the front & back

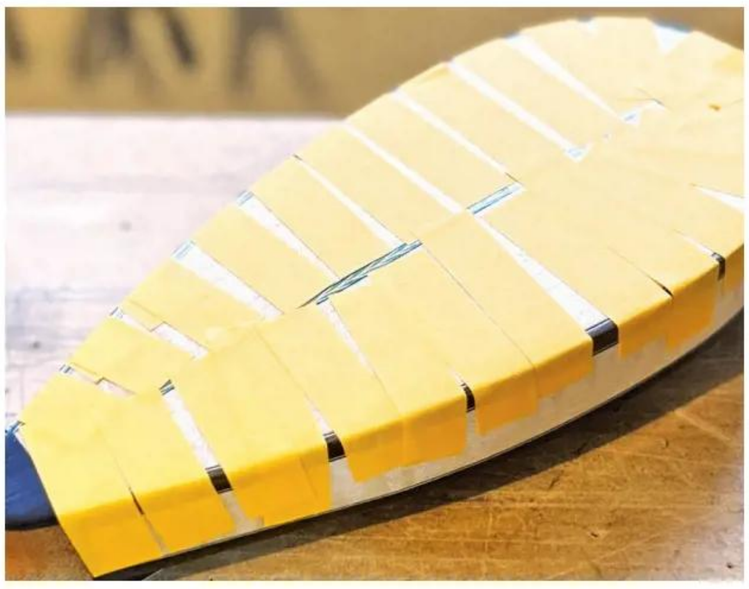
As mentioned earlier, to give the back and front a slight curve, I used braces. These are normally made from spruce for the soundboard and mahogany or a similar hardwood for the back. The back simply had one brace running horizontally across the widest part of the sound box – 5mm

20 The fingerboard under preparation

21 Fingerboard's lower inside section once hollowed



22 Channels for the purflings and bindings are routed out



23 The bindings and purflings held by strong masking tape

24 A spokeshave is useful for slimming down the neck

25 A razor file completes the neck profile

26 String holes are drilled into the pegs

27 The tail piece shortened by almost a third

wide × 11mm deep with a very slight curve that pushes the back outwards once in place. The brace was gabled and the ends scalloped to reduce bulk while maintaining strength. In addition, I fitted a strip of very thin cross-banded spruce along the centre join, offering reinforcement to the inlaid strip. The strip – just 1.5mm thick × 14mm wide – stopped short at the heel inside and at the tail block's front edge. At this point, the maker's label could now be put in (**photo 11**).

The front had a more complex arrangement with a centre brace in addition to a horizontal one – sometimes called a 'ladder brace'. Each measuring 5 × 11mm, gabled and scalloped (**photo 12**), but attached once a cross-halving joint had been cut at the point at which they meet. The ladder brace's position on the front's underside is critical as it must sit directly under where the bridge would be placed; this helps to prevent the soundboard from buckling as the strings are brought to tension. On a modern violin, the bridge normally sits just across an imaginary line that'd be drawn between the 'f' holes' mid points, and in this case, those points are made obvious by small 'V' cuts in the spruce (**photo 13**).

The neck & peg box

Here I used a single billet of quartersawn mahogany, measuring 32 × 4 × 5cm, though it's possible to use maple or a similar hardwood. If the timber isn't hard enough, then the peg box will quickly wear and it'll be difficult to keep the instrument in tune. Following the working drawing's outline, I cut out the shape on a bandsaw. I then drilled the holes right through the pegbox for the four tuning pegs (**photo 14**) to 7mm each. These holes then had to be reamed (**photo 15**) with the two on one side of the pegbox being reamed in the opposite direction to those on the other side. The tapers created by the reamer, which has a 30:1 ratio, help to produce a tight fit, which keeps the strings in tune.

As the strings needed to be rolled up through a line from tail to heel, the peg box was hollowed out to allow for clearance. This task required great care as if the sides were made too thin, the box would be weak. Here, the sides were 5mm thick. A similar thickness was also required along the peg box's bottom. If this is allowed to become too thin, not only will it lose strength, but it's also possible for the chisel to burst through (**photo 16**). Having completed the peg box, the top part of the head's curved shape was later cut off square and at a slight angle to allow for the abalone and rosewood overlay. This motif was very common on older instruments and is still a feature of the Portuguese guitar, made in the Coimbra region.

At this point in the build, things were really starting to take shape. Next, the sides and neck were joined and the front put into place onto the work board. These components were held in place with the cams locking them into position, this time only from the outside. The soundboard was joined to the sides with 'tentellones' – small right-angled triangles made from spruce – which measure just 14mm high × 6mm wide × 5.5mm deep at the widest point, tapering to zero. I passed two small screws with felt washers between the underside of the heads and spruce's reverse, through the 'f' holes in the soundboard down into the work board, to prevent any unwanted movement (**photo 17**). Note that the pochette's front overlaps the sides by a few millimetres, in order for them to sit tightly on the soundboard's reverse.

The back wasn't fitted by using tentellones, but instead held in place with a kerfed lining, which has similar dimensions to the profile of their tiny spruce counterparts. The linings were held in place with small cramps while the adhesive cured (**photo 18**). Once the linings had been levelled with the top edges of the sides and linings, the back could be attached using cam clamps (**photo 19**).

The next job was making the fingerboard. This was produced from a billet of ebony measuring 6.5mm thick × 37mm wide × 245mm long. The sides were planed to the working drawing's outline and the top of the ebony given a slight curve across its width. If the fingerboard were left flat, it'd be difficult to play individual notes with a bow (**photo 20**). From the point that the soundboard meets the neck's heel, the fingerboard is usually raised from the front to leave a gap of just a few millimetres, which allows as much of the soundboard to play an active role in sound production as possible. The lift was made by sawing then chiselling away 3mm of material from the underside of that end of the fingerboard. It's also customary to hollow out the lower part, which is best done with a sharp gouge (**photo 21**).

Bindings & purflings

The bindings in a stringed instrument offer protection to the outer edges and aren't common in all violins, but almost always there in guitars. As I had some scraps left from previous work, I felt it'd help to keep the instrument in good condition if I fitted these around all edges of the sound box. Purflings are, however, normally placed into the inner part of violins' edges for decorative purposes. I similarly had some decorative 'crows foot' purflings for the front and simple white/

28 The bridge ready to install

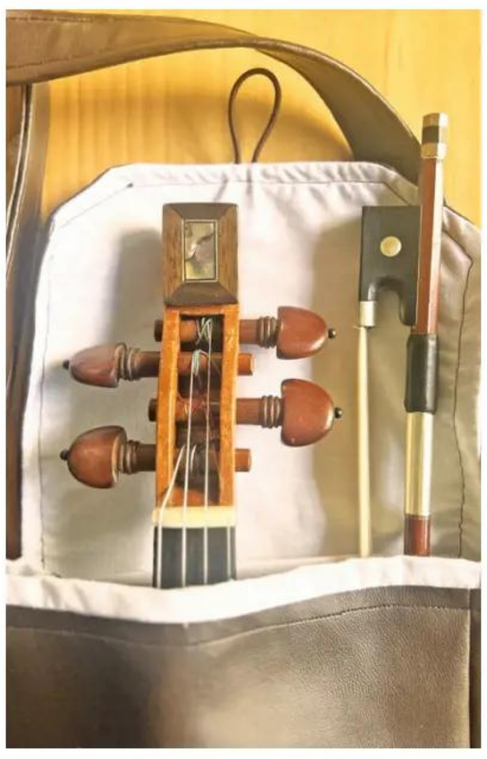
29 The nut under preparation

30 A small toggle is turned on the lathe

31 The completed leatherette case

black ones for the back, so went ahead and fitted these. Before these could be put in place, however, it's necessary to rout a narrow rebate, which corresponds to both the depth and width of bindings and purflings to be inserted (**photo 22**). Once the bindings and purflings had been put into place using masking tape to hold them firm while the adhesive cured (**photo 23**), I was able to shape the neck and heel to its final form. A spokeshave was used to remove the bulk of the wood (**photo 24**) and clean-up achieved with a curved razor file (**photo 25**).

As the finishing post was nearing, it was now time to work on the pegs. Luckily I had half a dozen dark boxwood viola pegs from a repair I'd carried out some 25 years ago, which since then, had been sitting in my tin full of various pegs and odds and ends, but now I'd found a use for them.



33 The completed pochette and leather case

All I needed to do was cut them to length and drill the string holes (**photo 26**). Once completed, I put some peg paste on those points at which they'd make contact with the peg box's sides and turned them in place several hundred times using a hand-held string winder to ensure a snug and smooth fit. Such an operation reminds me of grinding a set of valves, by hand, into my 1952 Morris Minor some years ago. To go to such lengths may sound a little over the top, as they say, but a slipping peg can be very frustrating.

The ebony pin also had to be reamed into the tail block centre so that the tailpiece could be put in place with a gut loop, then it was time to make a nut and bridge to hold the strings off the fingerboard. The pochette requires a much smaller tailpiece than a full-sized violin, but has the same width at the point from which the strings go up to the top nut. Luckily I had a tailpiece from a previous repair, which was modified simply by cutting off the lower end, then reducing the length by some 15mm (**photo 27**). The small rosewood wedge just under the tail pieces' end helps to lift it away from the soundboard's surface, which avoids the risk of buzzing.

Getting ready to 'string up'

The few remaining tasks involved ensuring the strings would sit at the correct height along the fingerboard's length and were correctly spaced. To ensure the correct height, a bridge was necessary, and this was made from a small billet of maple measuring 55mm long × 6mm wide × 17mm high. The top was slightly curved to match the fingerboard's profile and the height determined by allowing 4mm clearance at the end of the fingerboard for each of the four strings while having 10mm spacing between them. To help reduce the bridge's weight, some wood was cut away from the lower part, and for decorative purposes, I chose to give it a simple shape.

Furthermore, to ensure the bridge's top wasn't cut into by the steel strings, a piece of guitar fret wire was inserted along the top centreline with a fine cut, made using a dovetail saw. Just before fitting the fret wire, I slightly reduced the bridge's upper half in thickness with a gradual taper from 6-4mm (**photo 28**).

At the peg box end, I made a small bone top nut, 26mm long

32 The playing position isn't the same as for a violin

× 6mm high × 4.5mm wide. I cut four grooves into the nut's top – one for each string – and the back end sloped downwards to allow the strings to drop into the peg box interior (**photo 29**). Once everything was in place, the strings could be put on and the pochette brought into tune.

A full-sized violin is usually tuned to 'GDAE' and this also applies to the pochette, but to an octave higher. The extra string tension has the effect of making the sound similar to that of a cat whose tail has just been squashed by a careless boot. Another reason why the pochette was sometimes named a 'kit', I wonder? The reason, however, is more likely the need for the notes to spread across a noisy dance floor. Either way, the sound is truly astonishing for such a small instrument. It makes me think of the amazing volumes sometimes produced by the tiniest of songbirds.

A pocket for the pochette?

As I don't own a long coat with a specially designed pochette pocket, I commissioned my daughter Kim to make me one out of leatherette. She's a very competent seamstress and the result is just perfect. I had fun turning a small toggle on the lathe (**photo 30**), which sets off the traditional look very well (**photo 31**).

Now to find a royal court ballroom where an anxious group of budding dancers need a pochette player who's mastered the correct playing position (**photo 32**)!

34 Instrument reverse

CHISEL RATING

A SHAPELY TURN OF LEG

Colin Simpson designs a little footstool to show off a novel turning technique – creating a set of matching cabriole legs on the lathe

The dictionary definition of a cabriole leg is one that curves outwards, then tapers down to the foot, which is often shaped like an animal's paw. The word derives from the Latin *capra*, meaning a goat, and the overall shape is indeed like that of many animals' legs.

True cabriole legs are cut by hand or on a bandsaw, then carved to their finished, rounded shape. This project covers the making of four pseudo cabriole legs, which are completely turned on the lathe. This is a great exercise to hone your skills as it encompasses copy turning, offset turning and turning pommels – where square stock becomes round.

Since four identical legs are required for the little footstool being made, it's so much easier to prepare four identical blanks before you start turning. I used my planer/thicknesser to dimension these, but you could just as easily prepare the stock by hand.

1 Try to avoid this type of angled grain when making cabriole legs

2 The stock I chose contains enough wood to make blanks for six legs

3 Pass two adjacent edges over the planer to create a square corner

4 Plane the other two faces on the thicknesser to make perfectly square stock

I used pieces of oak about 200mm long and 50mm square for the legs. It's very important to use stock with a straight grain that runs the leg's entire length. If the grain comes out of the side (**photo 1**), the resulting leg will be much weaker and the defect could result in it breaking when used. **Photo 2** shows my raw stock, which may not look much now, but these pieces will provide sufficient wood to make six legs. It's always better to prepare more stock than needed in case of accidents.

Sizing components

Start by planing two adjacent faces of your stock on the planer. When planing the second face (**photo 3**), it's important to keep the first one flat against the fence, which will give you one square 90° corner. Next, use the thicknesser to plane the other two faces (**photo 4**) and you should end up with perfectly square-sectioned stock.

The next stage is cutting your stock to the required length. This can be completed by hand, or using a bench saw, as I did (**photo 5**). Note the temporary stop block clamped to the fence, which ensures that all pieces are cut to the same length.

Marking out the blanks

Now it's time to turn your attention to the marking out. Start by measuring 63mm from one end of each blank and square a line all round (**photo 6**).

When turning pieces where part of the work remains square, it's important to locate the stock's centre as accurately as possible. Here I'm using the corner to corner method (**photo 7**). Do this at both ends of the stock.

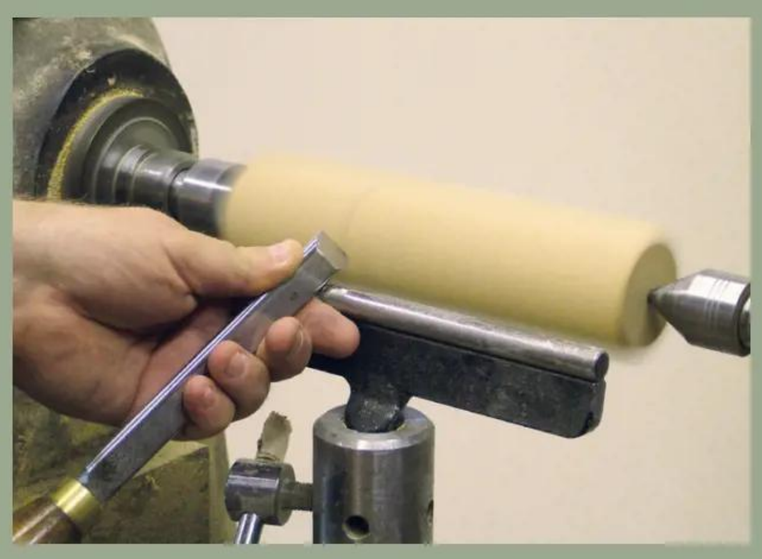
5 Cross-cut the blanks to length. Here I'm using my radial arm saw for the job

At the foot end of each blank, mark a second centre 12mm along one of the diagonals at the stock's foot end (**photo 8**). The blank's top end also needs a second centre; this is about 6mm from the true centre along the

6 Measure 63mm from one end and square a line round all four faces

7 Mark the centre of each end of the blanks by drawing diagonals on it

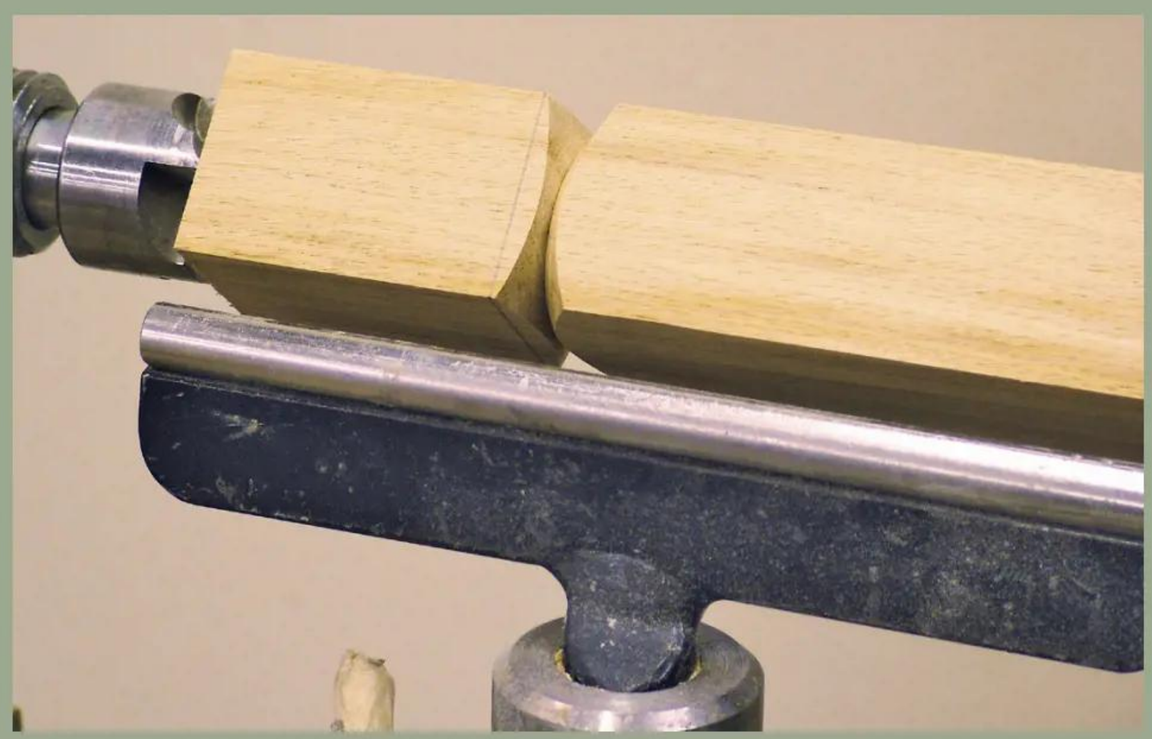
8 Mark a second centre 12mm along one diagonal on each end of the stock; see the text for details



9 Secure the blank on the lathe and start to cut the pommel shape

10 Reverse the skew chisel and use it to cut the other side of the 'V'

11 Cut the left and right side of the 'V' alternately to create this shape



12 Continue widening the 'V' cuts until they join up all round the stock

13 Use a spindle roughing gouge to turn the remaining leg to round

14 Use the gouge on its side to avoid contact with the square section

same diagonal, but in the opposite direction. It may be necessary to move this centre slightly later on. I used an awl to mark all centres in the stock, so they could be accurately loaded onto the lathe.

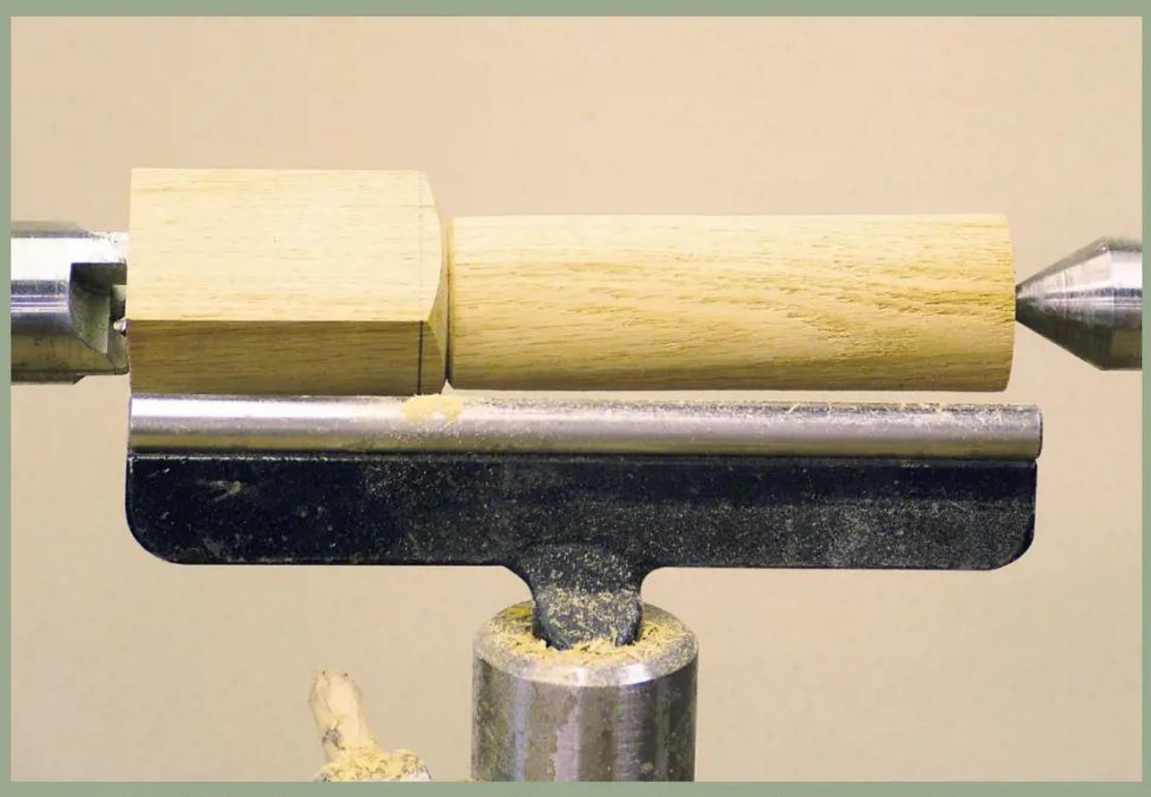
The first turn

Load the first blank in the lathe with the leg's top at the headstock end, and use a series of 'V' cuts to form the pommel. Start the cut about 6mm from the squared line. Cut the left-hand side of the 'V' first (**photo 9**), then reverse the procedure to cut the right-hand side (**photo 10**).

I use the long point of a skew chisel to do this, and it's important to cut with just the tool tip. Don't let the cut ride up the cutting edge, and don't try to take too much off at one time with these cuts. Open the 'V' out by cutting the left and right sides alternately. **Photo 11** shows the effect you should be aiming for. Now you can work the left-hand side back towards the scribed line and go deep enough to cut into all four of the stock's faces (**photo 12**).

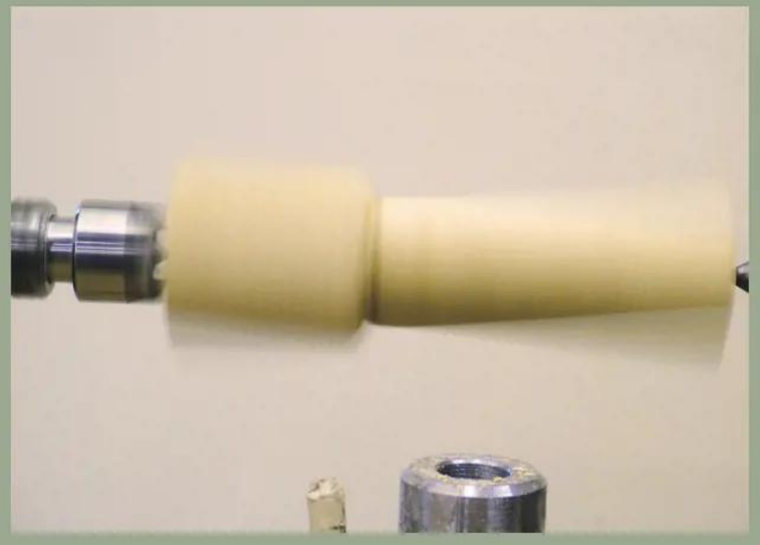
Going round

With the pommel cut, the next step is to use a spindle roughing gouge to convert the remaining leg to round (**photo 13**). As you work towards the headstock end, take care not to damage the



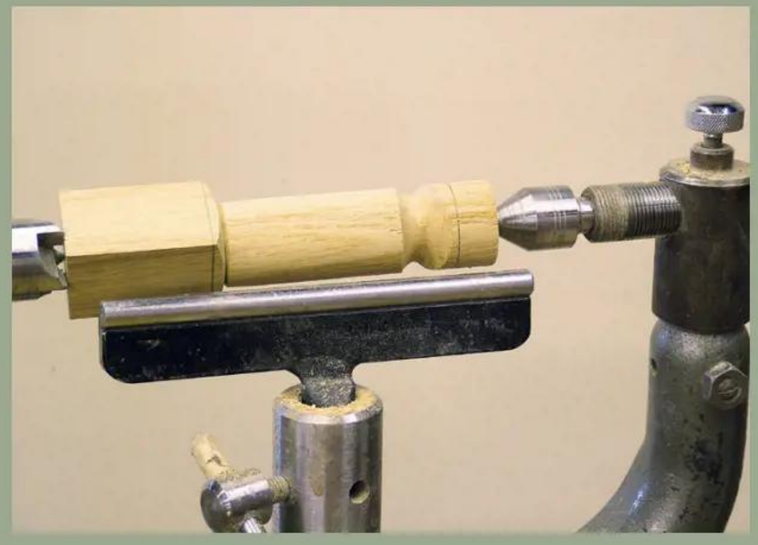
15 You should finish up with something like this; note the pommel shape

16 Mark a line with callipers and pencil 12mm from the leg's foot



17 Offset the leg using the two other centres and look for the ghosting

18 Cut a cove in the leg's offset part, to the left of the pencil line



19 Stop at intervals to check your progress, aiming to achieve this cove shape

20 Ensure the cove's depth just cuts all the way round the leg

21 Remove ghosting on the leg with the spindle roughing gouge

22 Sand this offset part of the leg and put it back on its true centres

pommel. To avoid contact with the square section, I used the spindle roughing gouge held on its side (**photo 14**). When finished, you should end up with a workpiece like that shown in **photo 15**.

Forming the foot

Now it's time to enter the world of offcentre turning! Start by marking a line 12mm from the leg's foot (**photo 16**).

Now offset the piece using the two other centres marked earlier, and switch the lathe on. You should see ghosting along most of the piece, but not at the pommel (**photo 17**). This is where the two axes should cross. If they don't cross here, slightly reposition the centre at the leg's top end.

Starting to the left of the line drawn in **photo 16**, cut a cove in the leg's offset part (**photo 18**). Continue until your offcentre cove looks like the profile shown in **photo 19**. Finish the job by working the cove's right-hand side back to the line (**photo 20**), ensuring the depth of the cove just cuts all the way round the leg.

Shaping the leg

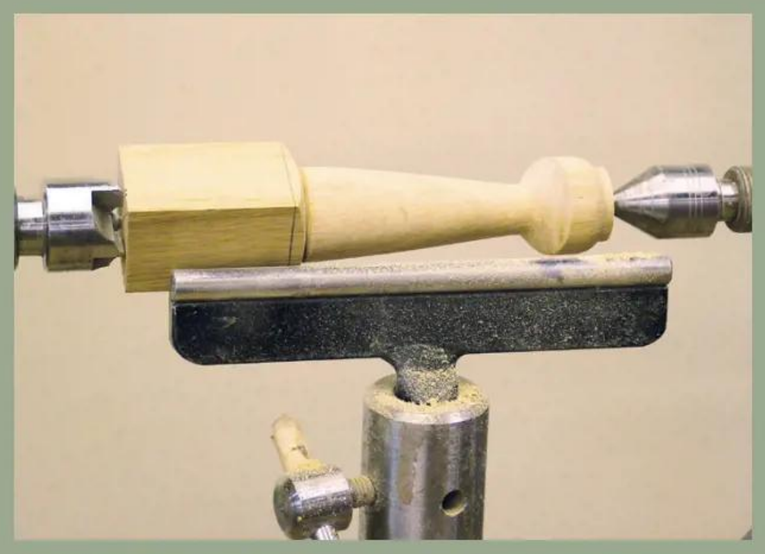
The next stage involves using the spindle roughing gouge to remove ghosting on the leg section (**photo 21**). Stop turning as soon as you reach solid wood all the way round, then sand this offset part of the leg (**photo 22**), and put the leg back on its true centres between headstock and tailstock.

You can now use a skew chisel to make a 3mm peeling cut at the leg's foot (**photo 23**), and form a shallow spigot. Follow this by rounding over the foot's bottom part using a 10mm spindle gouge (**photo 24**), creating half a bead all round.

All that remains now is to sand down this half bead (**photo 25**) and your first leg is completed (**photo 26**). Only three more to make, then you'll be able to join me next month in making the simple footstool shown below.

23 Use a skew chisel to make a 3mm peeling cut at the leg's foot

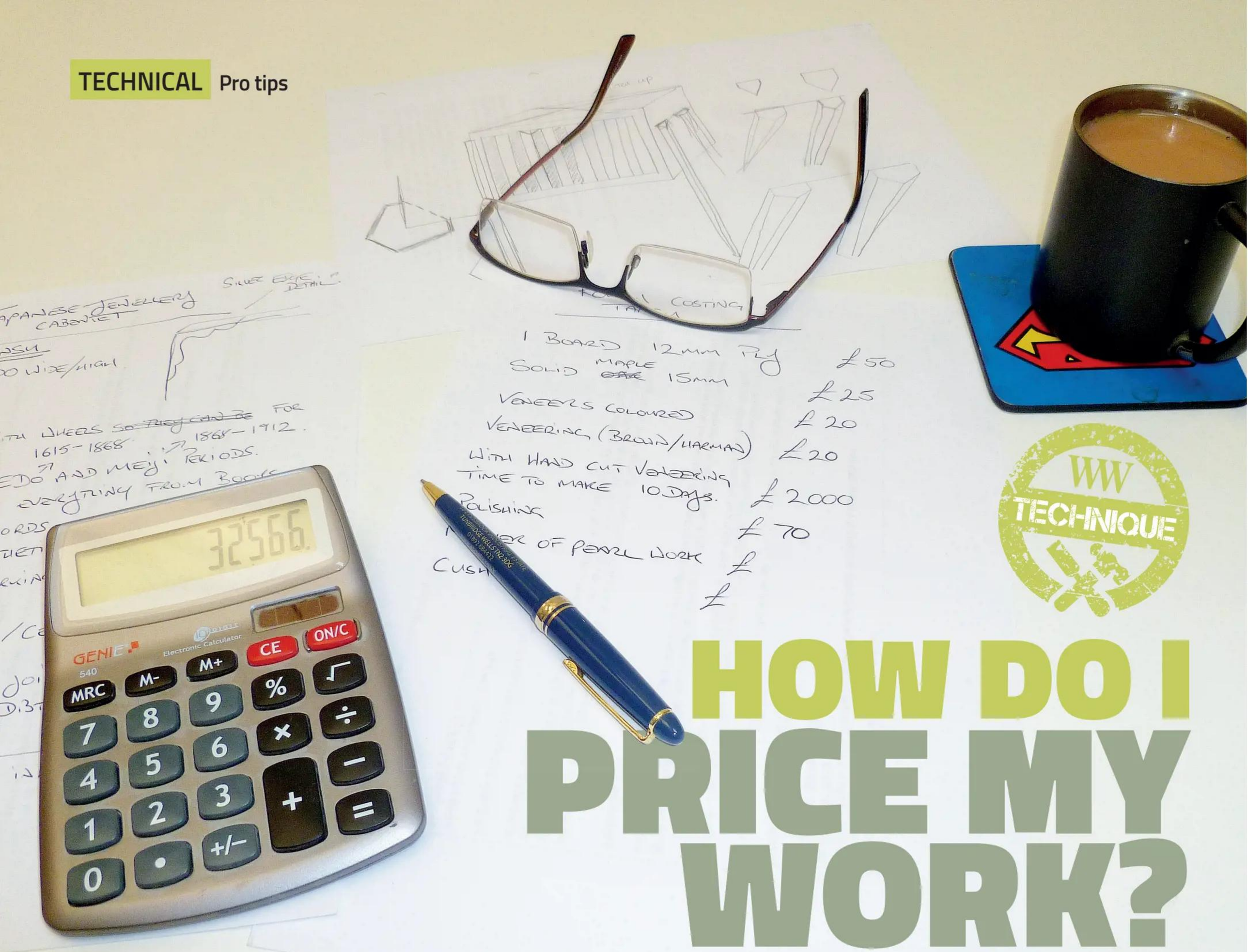
24 Round over the lower part of the foot using a spindle gouge



25 After sanding this bead, you should end up with a finished shape that looks something like this

26 Repeat the whole process three more times and you'll have a set of four perfectly matched legs

Next month, I'll show you how to make this simple footstool, which utilises the four cabriole legs turned here



HOW DO I PRICE MY WORK?

Designer-maker **Mark Griffiths** answers the big question for budding pros

This is by far the most important question to be asked by anybody wishing to turn a hobby into something that can pay a wage. First off, profit isn't a dirty word; without it there's no business.

It's the profit that feeds back into the workshop, creating capital to invest in new machinery, tools and equipment. Profit also provides a safety net in troubled times.

Setting out costs

Working out the cost of materials is relatively straightforward. After making a cutting list of timber and board material required, it's just a case of ringing around a few suppliers and beating them down to a reasonable price. The same goes for the hardware, glues, polishes and other sundries required.

Think profit margin: When you have your prices, remember these are trade ones, so add at least 10% on when setting out your quote.

Think delivery costs: If you're supplying the transport, calculate the fuel required there and back.

All your quotations should bear the words 'Only good for four weeks'. This is because commodity prices can change dramatically in a short space of time, and not normally downwards.

Calculating daily rate

Slightly harder to work out is your daily rate. I calculate this by first listing all my costs, starting with home expenses. These could include mortgage/rent, utility bills, food and household expenses, car running costs, etc. Workshop expenses could include rent, bills, van running costs and sundries.

With both of these sums totted up and added together, think about monthly costs of a pension, insurances and a reasonable figure for savings. Your daily rate should be enough to cover all costs and leave you a bit for security.

Multiply this total sum by 12 and divide by 240 – based on a five-day week and some slack time when you won't be earning – to give you a daily rate.

Totting up task time

Now for the difficult part: being honest about how long a job will take. Help to cut down on guesswork by recording how long certain tasks take. 99% of the time, the greater cost on any job will be your labour, and it's all too easy to underestimate this, especially if the overall size of the quote is running over what you had in mind.

An unrealistic quote cheats yourself. All other costs – like rent and timber – have to be paid, so if the job runs over the estimate, you'll bear the shortfall.

All quotes will work out higher than you were expecting, and in the eager anticipation of getting work, it's all too easy to trim them down to what you feel is a more reasonable sum. However, if you won't be making profit or, worse, losing money, then it's better not to take the job in the first place. As my accountant always tells me: it's far better to have one well-paying job than three that pay next to nothing.

Big cheque time

The quote must also take into account all the years spent learning and honing the craft. This is what the client is paying for and what the craftsperson must have the self-respect to charge for.

So write out your quote accurately, don't start trimming here and there but pop it in an envelope, sleep on it, and I guarantee that it won't look as bad as it did the day before.

Most clients who can afford hand-made furniture are, unlike us, used to writing out big cheques. So don't be ashamed to make a profit on your work. Get it right, and you'll earn a living doing the thing you enjoy the most.

LIBÉRON PUTS STUDENTS' SKILLS TO THE TEST

In a bid to bring its woodcare products to the woodworking masses, **Liberon** challenges three sets of college students to create different projects, each using various wood dyes, finishing oils and polishes from its extensive range

WW PROFILE

WALSALL COLLEGE

Students at Walsall College were recently put through their paces by Liberon as part of a carpentry and joinery competition. The woodcare experts called on the college's Level 2 Bench Joinery course learners to build and finish a child's Christmas toy train with one engine and one carriage, plus a small decoration in the form of a Christmas tree, using Liberon's Palette Wood Dyes, Finishing Oils and Wax Polish Black Bison Paste.

CNC router technology

Students were handed guideline images by their lecturer and asked to complete the project over a total of 20 teaching hours. A winning student – Anthony Walker – plus two runners-up – Dayzanaia John and Nico Jones – were selected from the class by Director of Faculty, Neil Sambrook and Curriculum Delivery Manager, Nathan Hartshorne. The project incorporated a variety of hardwoods for the trains and various wood offcuts from previous projects for the trees. A CNC router was programmed by the Joinery Technician, Colin Wright, using the department's latest advanced technology additions to create wheels for the trains. The winner and runners-up were each awarded a £25 Amazon voucher, provided by Liberon.

Problem solving & design ideas

Course leader, Paul Underwood, Lecturer in Carpentry and Joinery, said: "All the students should be very proud of what they achieved in this competition. The challenge showcased and helped to develop their problem-solving abilities, design ideas, and saw them utilising a wide range of timber and tools as well as learning how to sand products down through the abrasive grades in order to achieve the best finish from the Liberon products. It's been great to see how this challenge has highlighted the students' personalities and individuality."

Walsall College Students in the workshop creating children's Christmas toys and trees

Note: It's always advisable to check the suitability of surface finishing products for use on real-world children's wooden toys. Those featured in this competition are for display purposes only.

BURTON AND SOUTH DERBYSHIRE COLLEGE

Similarly, Bench Joinery students at Burton and South Derbyshire College also took part in another woodworking competition set by Liberon, which tested their carpentry and joinery skills. This time, the brief involved building and finishing a children's toy, using the same products as before: Liberon's Palette Wood Dye, Finishing Oil and Black Bison Paste.

Toddler's stroller

To ensure fairness, the teams of students were again allocated a total of 20 teaching hours in which to complete the project. The winning team came up with the idea of producing a toddler's stroller, which incorporated built-in games on its front, shaped holes on its side for posting corresponding-shaped blocks through, and a storage section at its rear for the blocks. The project saw the team using oak along with a variety of softwoods.

Walsall College students, from left to right: Dayzanaia John, Anthony Walker (winner) and Nico Jones

Richard Bradley, Liberon Marketing Manager, said: "The Burton and South Derbyshire College students came up with some brilliant designs; they're clearly very talented."

Course leader, Ian Vanes-Jones, added: "All the students produced some extremely impressive results of which they can be very proud. The investment made by the college in a new CNC router has seen a good return in this task. We asked the students to design, build and finish a project within a tight time-frame, and they've risen to the challenge superbly, handling their introduction to new skills really well. I've always been a strong advocate of Liberon's Palette Wood Dye, which imparts great tonal highlights, but this competition has underlined its attributes even further. Having tested the range of colours first, it's been great to see the rich shades that can be achieved using this range."

The entries were judged by volunteers from a local children's nursery who agreed that the standard of work was high and as such, making a choice hadn't been easy. The winning team's

three members each received a £25 Amazon voucher, which was provided by Liberon.

NEWARK COLLEGE

Last but by no means least, Furniture Making course students at Newark College were also challenged by Liberon to produce competition-worthy pieces that'd put their carpentry and joinery skills to the test. This time round, the students were tasked with designing, building and finishing a jewellery box in tulipwood using one or more of Liberon's Palette Wood Dyes, Finishing Oils, Superior Danish Oils or Wax Polish Black Bison Paste. Due to this task's higher complexity, students were allocated a total of 30 teaching hours in which to complete the project. The competition resulted in one winning student, plus two runners-up.

Burton and South Derbyshire College winners, from left to right: Billy Mills, Elliot Fowkes and Ben Dungavel

The completed toddler's stroller incorporated built-in games on its front...

... shaped holes on its side for posting corresponding-shaped blocks through...

... and a storage section at its rear for the blocks

Newark College students, from left to right: Callum McCann (winner); Julian Davis (runner-up with his design that features multiple jewellery item chambers); Cameron Owen-Jones (runner-up)

Course leader, Richard Preece, commented: "The students produced some impressive jewellery box designs. Each were given tulipwood in a particular section size so that they could cut it according to their needs. The project has been a good means of testing the students' jointing skills in particular, and we saw several joint formats produced including comb joints, traditional dovetail, modern domino and mitres with feathers. In addition, the competition looked at the students' wood finishing techniques, and using Liberon's range of products, gave them insights into what effects could be achieved."

The entries were judged by two of the college's managers, including the head of Newark College, and the winner and runners-up each received a £25 Amazon voucher, provided by Liberon.

LIBERON PRODUCT RANGE

Liberon's Palette Wood Dye

For those woodworkers looking to achieve a specific finished shade, this can be done by mixing any of the 13 colours in which Liberon's Palette Wood Dye is available. Palette Wood Dye is a quick-drying, top quality, water-based option, which is suitable for either soft- or hardwoods. The dye's formulation includes light stability for excellent colour retention. Easily absorbed, its specialist acrylic formula minimises the raising of wood grain.

Liberon's Palette Wood Dye is available in Antique Pine, Dark Oak, Ebony, Georgian Mahogany, Golden Pine, Light Oak, Medium Oak, Teak, Tudor Oak, Victorian Mahogany, Walnut, White and Yew.

If varnishing is also required, it's possible to save time by mixing Liberon's Palette Wood Dye with the company's Natural Finish Varnishes to create a single-application product. This achieves a beautiful result more quickly than having to apply the two products, one after the other.

When asked his opinions on the three winning groups of students, Richard Bradley, Liberon Marketing Manager, said: "In my opinion, all of these students obviously have some great skills and it's wonderful to see what they've been able to achieve within the set parameters. We'd like to congratulate all of the winning students and runners-up, and wish them all the best of luck in their future carpentry and joinery careers."

For further information on Liberon and the company's extensive range of woodcare products, visit **www.liberon.co.uk**.

Each of the student competitions made use of Liberon's Palette Wood Dyes, Finishing Oils, Superior Danish Oils or Wax Polish Black Bison Paste

Newark College Furniture Making course students working on their jewellery box projects

A selection of completed jewellery boxes, all of which utilised tulipwood

THE TIMBER INDUSTRY: IMPORTS, EXPORTS & POLITICAL STRIFE

Starting back in the 17th century, **David Smyth** begins his historical analysis of timber merchants, dealers and importers

ALBION TIMBER

Over the next few issues, I'm going to explore how the timber industry has changed over the centuries, what markets and trades have come and gone, and how timber has changed our lives and shaped history in the process.

The Napoleonic Wars caused a shift in the supply of timber

Turning to timber

The use and manipulation of timber into tools, components and weapons has caused great changes and technological improvements in the past. The success of William the Conqueror's army at the Battle of Hastings in 1066 was due, largely, to his Norman archers, with their yew bows raining arrows down on Harold Godwinson's army. The famous British naval fleet was created entirely from timber – mainly English oak –often with imported logs for the ships' masts as domestic sources became scarce. The Wright brothers' first successful plane flight was in a machine framed with spruce and steam-bent ash. Now, modern industrial processes, such as thermal modification and glue laminations, are changing how and where we use timber, and as today's world increasingly turns to timber for the answer to many of our problems, it's still one of the most important resources.

The world's third largest timber importer

For centuries, Britain has been a net importer of timber. Today, we're approximately the world's third largest importer; however, while all the other top importers – such as China, Canada and the USA – are also exporting massive quantities, we don't. While we do export some wood products, the vast majority is consumed here.

Our domestic production is quite small, and without bringing large volumes of timber over to these shores, we wouldn't have enough to satisfy demand. Although our own forests provide a thriving softwood sawmilling industry, softwood comprises around 95% of the total imports and much of this comes from the Baltic region, mainly Finland and Sweden.

This has been the case for several hundred years now, and troubled the minds of 17th and 18th century economists. This was at a time when mercantilism was the dominant economic strategy, whereupon a country's exports should always exceed their imports in value, thus creating a net surplus, and economic competition between empires was based on these principles.

A troublesome trifecta

The trouble with the Baltic regions was that their sparse population didn't require many goods in return. Not only was this inefficient – as most ships entering the region were without any cargo – there were also security issues, as the routes could be blocked by enemy navies. We were at war several times with the Dutch and French from the mid 1600s to the early 1800s, the risk being that both countries could restrict access to the Baltic region and its precious timber resource.

This troublesome trifecta caused all sorts of political strife, and the government reacted by passing acts of parliament attempting to stem the influx of foreign goods into the country, while imposing increasingly hefty levies on Baltic imports.

The situation became acute during the Napoleonic wars, when British trade with Europe was blockaded during the first decade of the 1800s, causing a major shift towards colonial timber imports from the new world.

Canada became a major exporter of timber to Britain, and being part of the empire meant the trade stayed within British interests and therefore helped the trade deficit problem. As this was also part of the Atlantic route, it was possible for ships to be loaded both ways, making it much more profitable for the shipping companies.

This continued until the late Regency period, during which several shifts occurred, thus changing the timber industry once more.

NEXT MONTH

David continues through the historical developments, moving on to look at changes during the industrial revolution

HMS Victory was constructed from English oak

Britain has a heavy reliance on Baltic timber imports to this day

THE PRESSURE'S ON

The making of **Nick Webb**'s complex cherry, burr walnut and ebony hall table is a lesson in veneering techniques

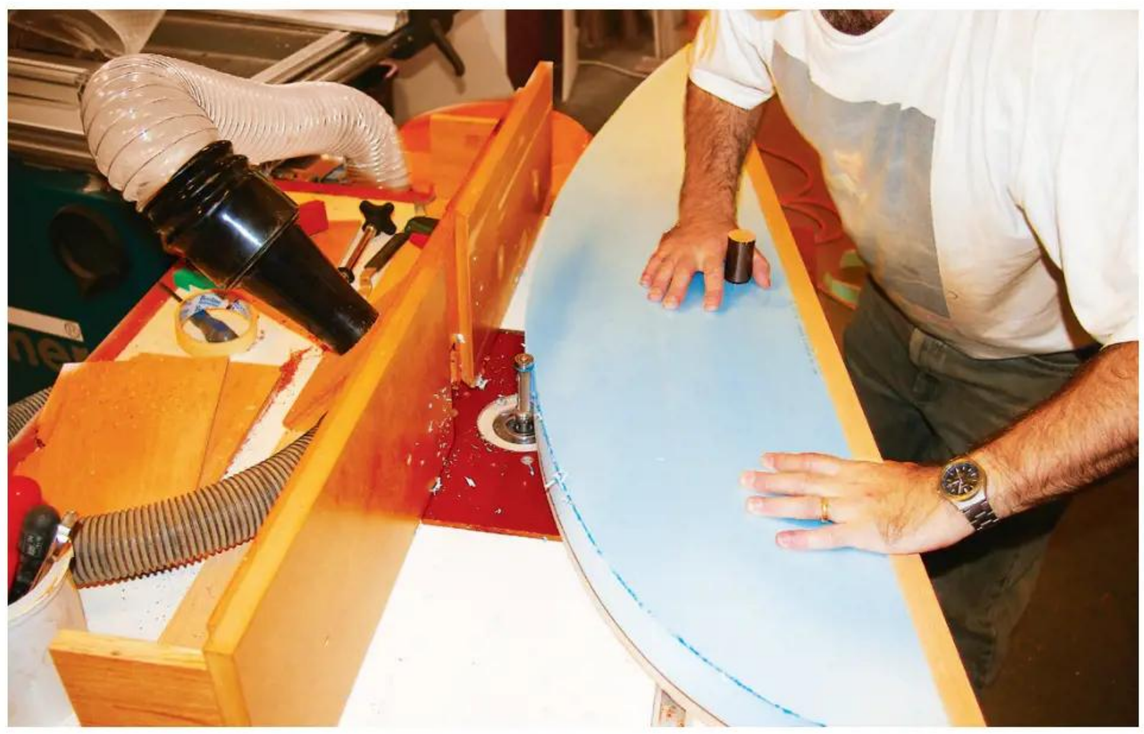
The wood for this elegant contemporary table is mainly cherry veneer, with burr walnut in the top, as well as ebony and boxwood stringing. It also features curved shelves and a drawer box. A boss that adds strength to the leg assembly has end caps, which are decorated with dyed boxwood stringing.

The large curved components are generally veneered and drawn tight in a vacuum bag, while straight, small ones are ironed on. The stringing is glued and weighted. What follows is a step-by-step look at each of the processes.

1 While drilling the Styrofoam blanks for the dowel that keeps them aligned...

2 ... transfer the template's outline with a marker pen

3 Cut out the blanks roughly to shape on the bandsaw...



4 ... and finish on the router table using a bottom bearing-guided cutter

LAYING IT ON THICK

I masked off the sides and used a small brush to liberally apply glue to the laminate prior to placing the veneer

Shaping in the bag

This table's laminated legs comprise two layers of 8mm bendy plywood encased in 1.5mm aero-ply, all of which was then veneered.

The quarter-elliptical leg shape was made by vacuum forming over an expanded Styrofoam mould, cut from a template (**photos 1-10**).

Ironing-on veneer

I used another bendy ply template for the leg taper. After marking out the legs using the template, I shaped them on a bandsaw, before reattaching the template with double-sided tape and trimming the leg edges on the router table. This time the veneer was ironed on (**photos 11-18**). The iron-on technique was also used for the stringing on the boss end caps and for the boss' curved faces.

Steaming ebony rebates

The next stage involved cutting rebates for the ebony edging. The long, curved edges and the very short edges were easily completed on the router table using a suitable bearing-guided cutter.

The remaining four edges were cut with a shoulder plane. Steaming (**photos 19-20**) was next, followed by assembling the leg components (**photo 21**).

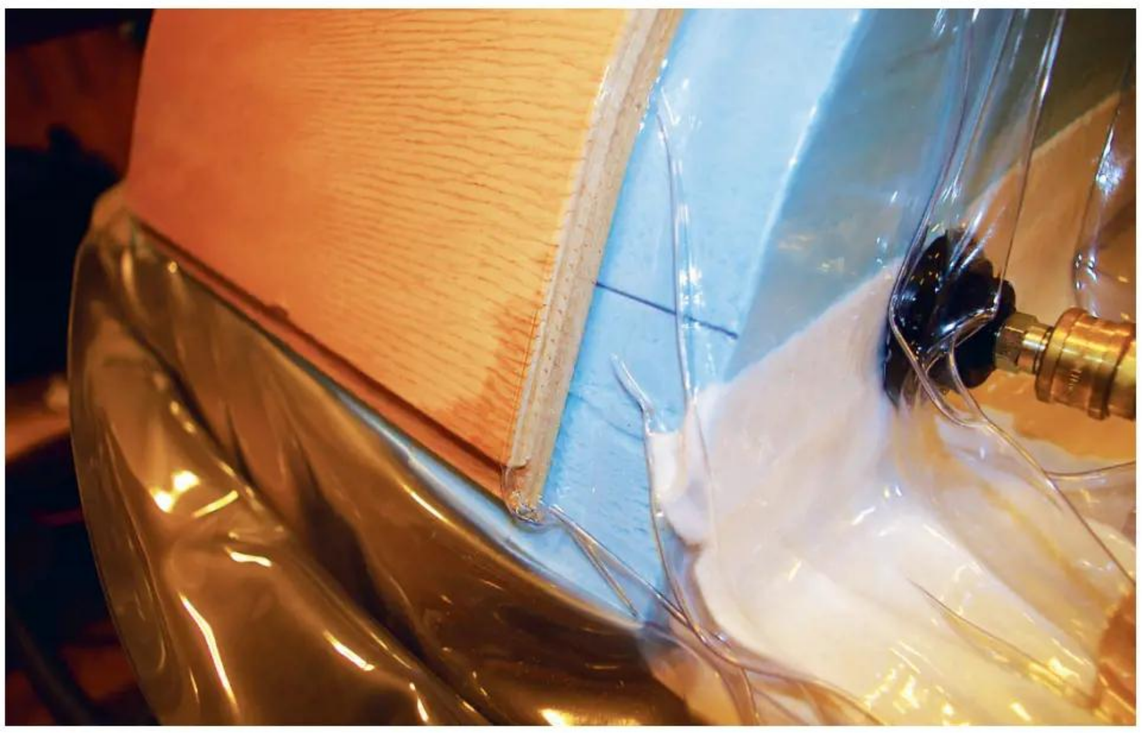
The drawer box – the major part of which comprises shelves – was made from 18mm birch ply with 25mm-wide

5 Fit the separate blanks over the dowel and join them with double-sided tape

6 Glue up the sheets of bendy ply using Cascamite and a roller...

7 ... then lay it over the mould and hold in place using a vacuum bag

8 Face the bendy ply with aero-ply to provide a smooth substrate for the veneer



9 Check that the registration marks on the mould correspond with those on the workpiece

10 Mark out the legs using a template made from a spare piece of bendy ply...

cherry lippings on its edges. The ply faces were veneered in cherry, except for the upper shelf's top face, which made use of burr elm. The border between the veneer and lippings was inlaid with ebony lines on all four faces.

The veneering required me to shoot straight edges on as many leaves of veneer as necessary to cover the faces. Next, the leaves were joined with veneer tape, the plywood lay on top, and the veneer roughly cut to size and shape.

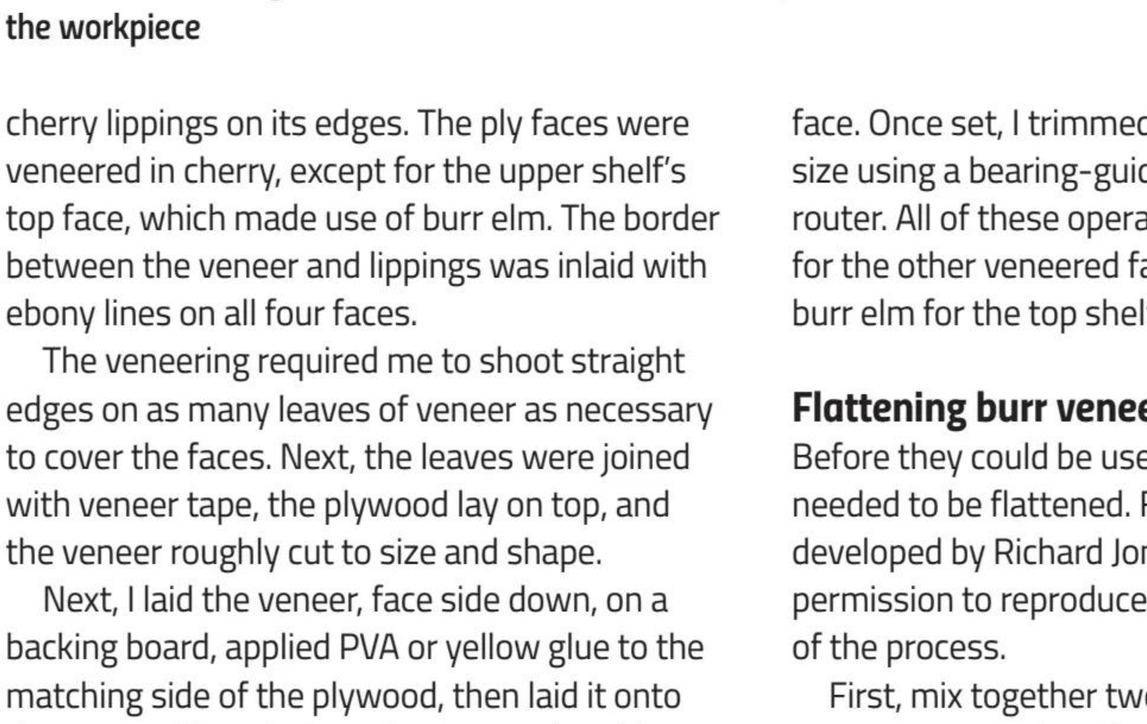
Next, I laid the veneer, face side down, on a backing board, applied PVA or yellow glue to the matching side of the plywood, then laid it onto the veneer. The whole package was placed into a vacuum press, not forgetting to transfer the up, left and bottom markings onto the veneer's outer face. Once set, I trimmed the veneer to finished size using a bearing-guided trimming bit in the router. All of these operations were then repeated for the other veneered faces, but this time using burr elm for the top shelf's upper face (**photo 22**).

Flattening burr veneers

Before they could be used, the burr veneers needed to be flattened. For this, I used a method developed by Richard Jones, who kindly gave me permission to reproduce his recipe and description of the process.

First, mix together two parts PVA, three parts water, one part glycerine and one part denatured alcohol or meths, then apply liberally to both sides of the veneer and let it soak for five minutes. Place the veneer between thin fibre glass mesh on both sides, and add two or three layers of blank newsprint on top of the mesh, continuing to add layers. Place the whole sandwich in a vacuum bag, top it off with a caul – which should be at least 6mm thick – and apply full pressure.

Change the newspaper two or three times on the first day, and leave under pressure overnight. Repeat on the second day, though you can dispense with the fibre glass mesh or screen as the veneer will no longer stick to the newspaper. Don't replace the sandwich in the press, though; instead, simply put weights on top of the caul to hold the stack down. Don't be tempted to rush the process: this second day of drying is important to ensure good results.



11 Carefully separate the template and leg to avoid damage to the bendy ply face

12 Skin the legs' edges with aero-ply

13 Do the same with the leg ends and secure with masking tape until dry

14 After trimming the veneered faces with a block plane, mark out cherry veneer for the edges

If you have a heated hydraulic or vacuum press, however, the whole flattening job can be foreshortened to between an hour or less and up to four or six hours.

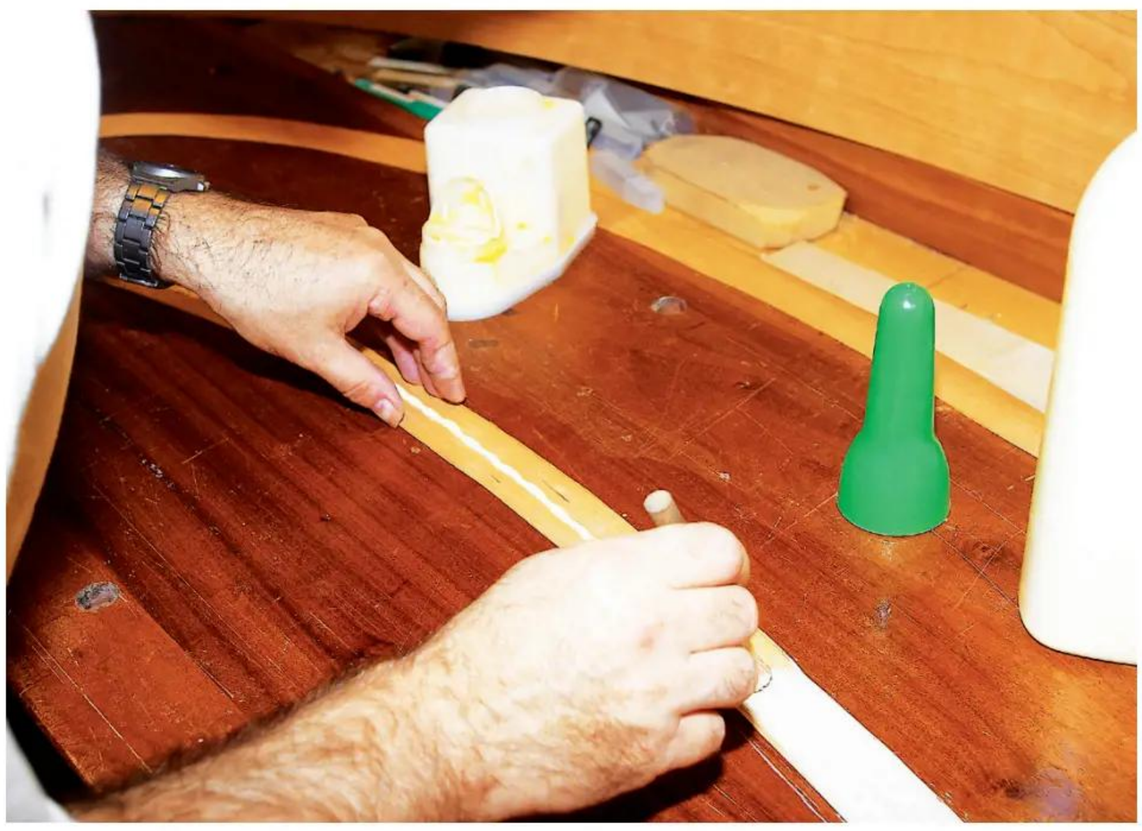
The veneer will be ready to use on the third day. If you don't use immediately, it'll stay flat for months provided that a board is placed on top of the veneer stack, and light pressure applied. Newspaper between the veneer is unnecessary during storage, but you could always separate the leaves with layers of plastic. This'll help to reduce the exchange of moisture in and out of the leaves, preventing them from drying out and cracking.

Using weights

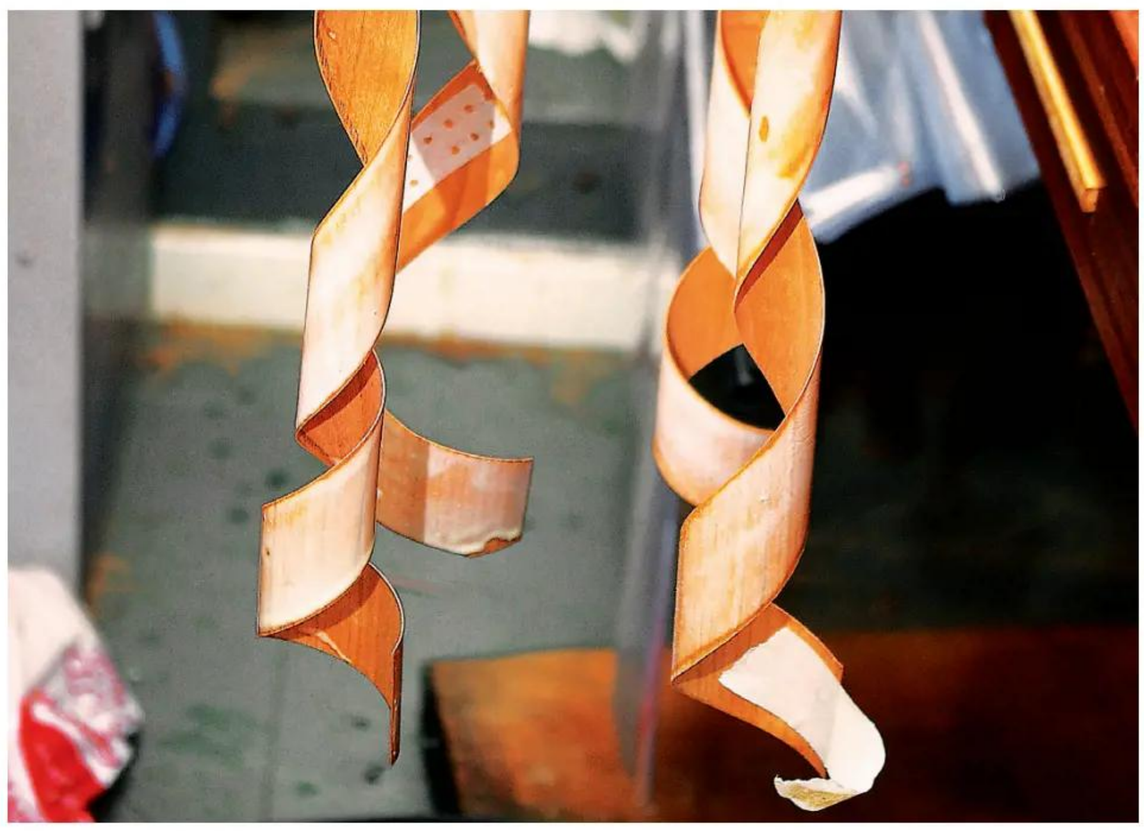
The lippings and stringing for the shelves were held tight with weights while the glue dried. The lipping was laid face down, and the area inside it covered with a piece of lining paper to ensure the lipping would stand proud of the centre.

After applying plenty of glue to mating faces, the centre could be dropped into the lipping, employing weights to keep the whole thing flat. Once set, the backing board could be peeled off the shelf, the attached crud removed and the lipping planed and scraped until flush with the core.

The ebony lines were let into each surface at the junction between the veneer and lipping, and held down with weights.



15 Apply PVA or yellow glue on the edge strips, which will curl as they dry...



16 ... sometimes tortuously, so ensure they don't stick together

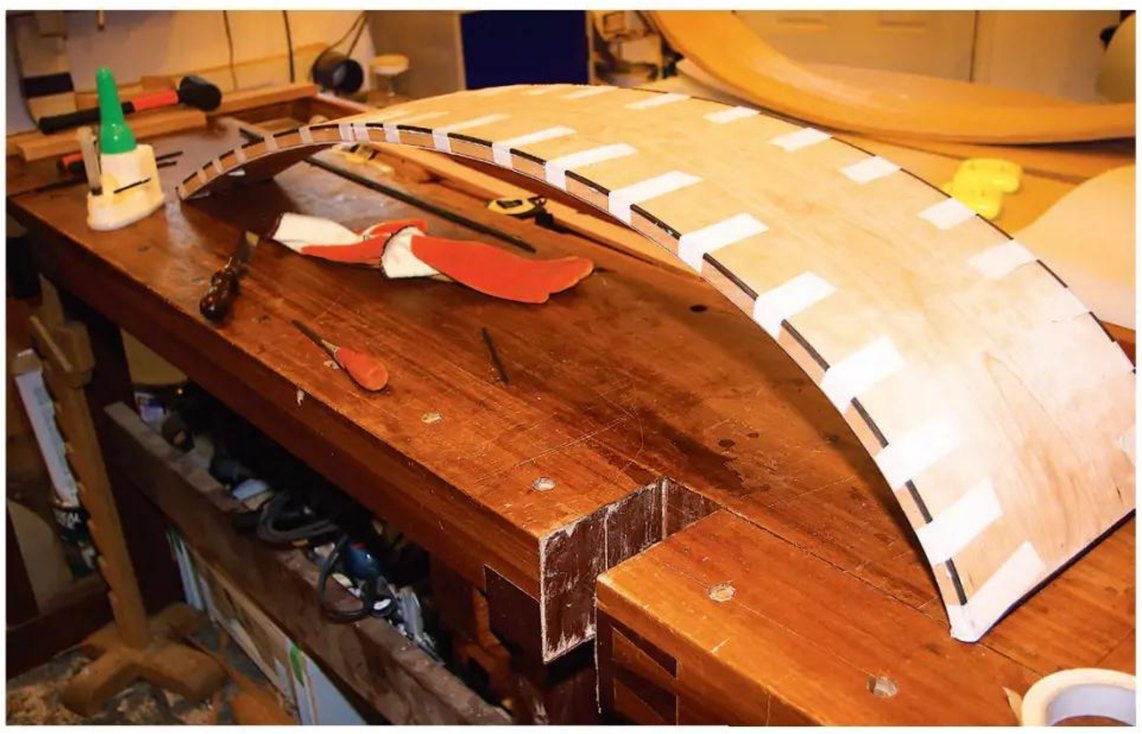
TIP

When machining Styrofoam, you need to keep feed rates high and cutter speeds low. This lessens the tendency of the foam to melt, then weld itself to your cutters. When routing, employ quite fast passes against the template to achieve a smooth finish – if needed. You should always experiment with an offcut before diving into the real thing

17 Iron the veneer into place, ensuring it's completely attached

18 Ironing a shirt will never be a problem after the care required for this job – here at work on the boss

19 A wallpaper stripper and piece of pipe are just the job for steaming the brittle ebony seen here



20 This is held in place until dry, then glued

21 With the legs complete, assembly can take place

22 The veneer for the top, which forms the top of the shelf, is made up by shooting and taping together separate leaves

Preparation is key

The key to successful veneering is preparation. Here the veneer is taped on, then rolled flat to get rid of bubbles and voids

Let the force be with you

Note how tightly the component is being pulled by the vacuum pressure exerted by this bag press

Drawer back in the bag

The drawer box reverse fits flush with the edge of the shelves and is made in much the same way as the legs: two layers of bendy ply are covered with 1.5mm aero-ply, then veneered; there's no need to use either aero-ply or veneer on the edges.

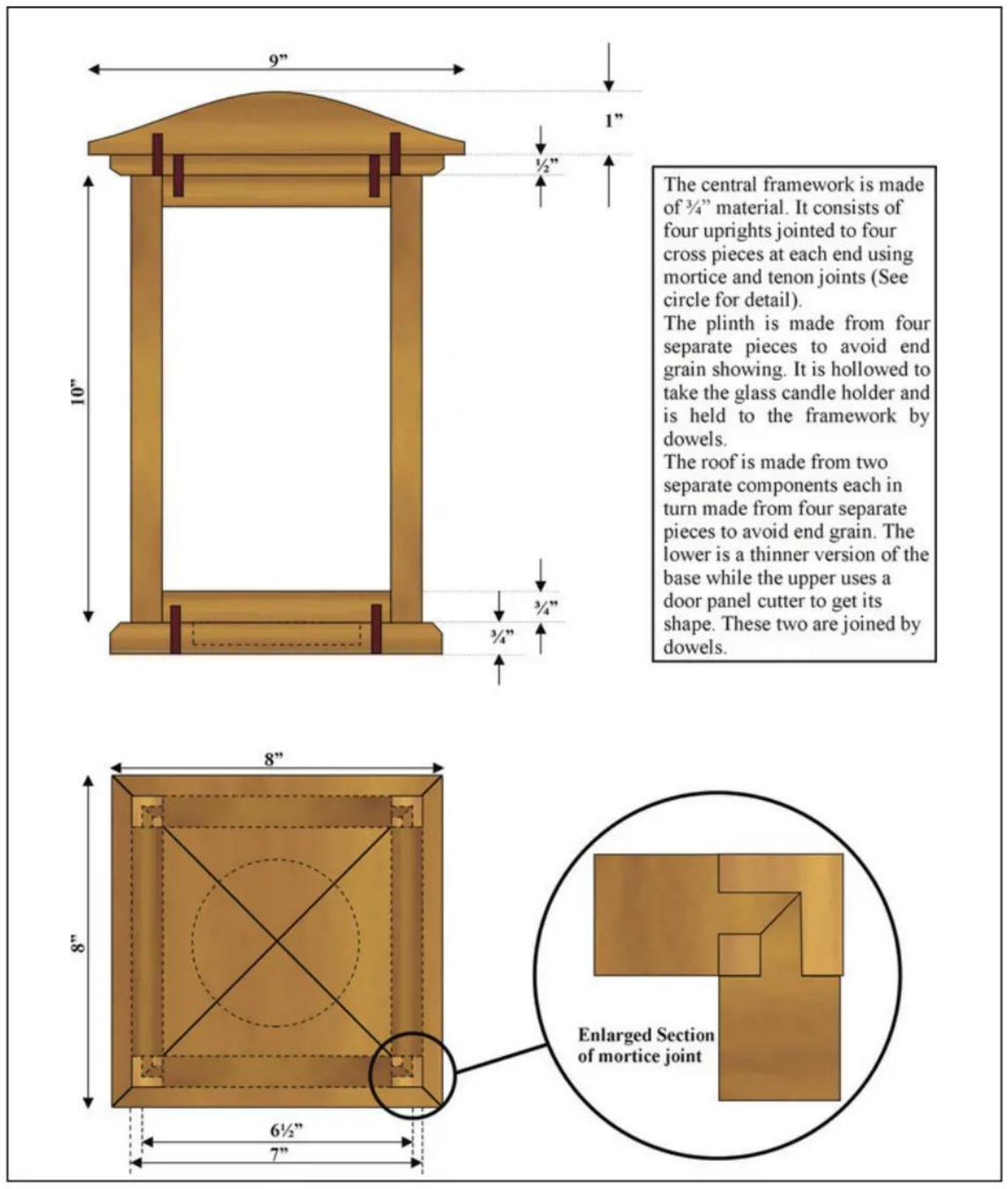
The sides and back of each drawer are also made using lamination techniques while the outermost sides are from solid cherry.

The curved sides' inside faces are veneered, as is the outside of the long side and back's reverse, which covers the sides' exposed ends

CHISEL RATING

LET THERE BE LIGHT

Donald Phillips recreates a garden lantern design using American white oak, but at a fraction of the original's cost



The central framework is made of ¾" material. It consists of four uprights jointed to four cross pieces at each end using mortice and tenon joints (See circle for detail).
The plinth is made from four separate pieces to avoid end grain showing. It is hollowed to take the glass candle holder and is held to the framework by dowels.
The roof is made from two separate components each in turn made from four separate pieces to avoid end grain. The lower is a thinner version of the base while the upper uses a door panel cutter to get its shape. These two are joined by dowels.

Fig.1 Garden lantern dimensions and construction

Like quite a few of my household projects, this one was borne out of a desire to save money. My daughter came to me clutching one of those glossy ideal home magazines where even the flower vases are priced in the hundreds of pounds. What she showed me was an oak garden lantern, which she thought would look lovely in our outside eating area.

The lantern was quite elegant and I liked it; however, the price, in excess of £250, I did not! As I'm sure she'd already have ascertained, I said that if she liked it that much then I'd make her one, the process for which is documented here.

Cutting lantern components

The lantern is made from American white oak although any light coloured hardwood can be used. The main framework is simply constructed from 25mm square material.

As I wanted all the joints to be a perfect fit when assembled, I thought it best to have extra material for completing the project and be left with a few spares, rather than having to go back later and try to make an odd piece to fit.

Once I'd prepared all the material, I was able to move on to making the main project framework. If wanting everything to be perfectly square when it comes to assembly, it's best to cut the pieces in batches.

Firstly, I set up a table saw to cut the four uprights, which measured 255mm in length. If the pieces are slightly out, it's not a disaster, providing they're all exactly the same length.

Next, I adjusted the stop and cut eight cross pieces. When the framework was assembled, I wanted the gap between the uprights to be 140mm, but I also had to allow for tenons on each end, which were each about 20mm long; this meant that I had to add 38mm to the length in order to make each piece 178mm long.

Again, absolute accuracy isn't vital providing all eight pieces are exactly the same length. It pays to have a spare or two of each size in case any mistakes are made during the machining process.

Due to the difficulty associated with machining such small tenon joints, I decided to make my tenons open-sided. This joint is sometimes used in small door construction where it doesn't carry any great load. For this same reason, it also worked for the lantern, which when completed, weighed less than 1kg; however, I wouldn't recommend this open-sided joint for anything bigger.

Cutting the mortises

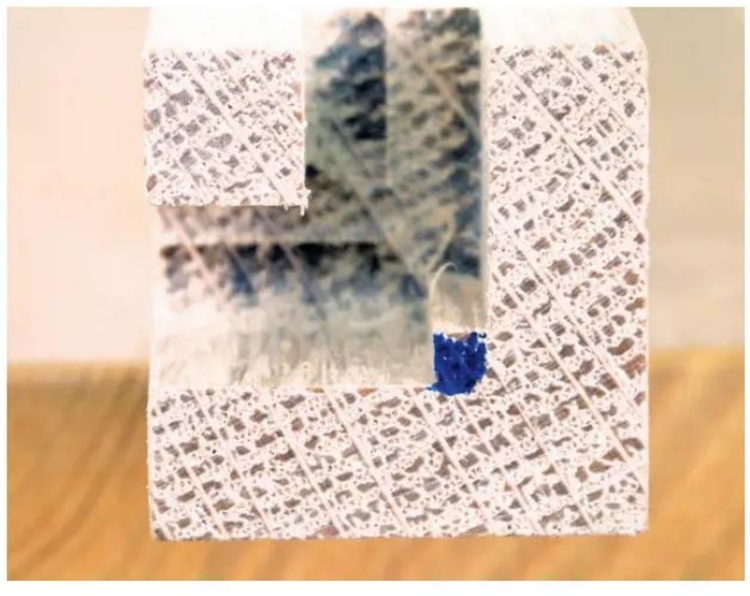
My next job was cutting the mortises. As these needed to be exactly central, I therefore had to cut them in two ways: once from the right and once from the left.

I placed a ¼in router cutter in my router table leaving a 8mm gap between the cutter's reverse and the fence. To ensure the gap was exactly right, I first carried out a trial run with an offcut. Next, working from the right-hand side of the table, I clamped a stop to my fence that'd produce a 20mm long cut. As before, I used an offcut to ensure the length was accurately set (**photo 1**).

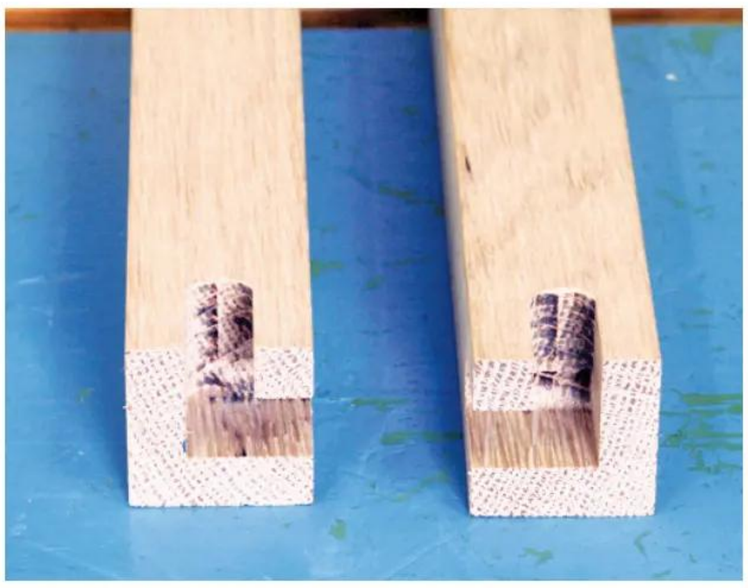
Now working something of a production line, in the case of small pieces of timber like this, fingers are closer than usual to the cutter so I didn't want the timber sticking as it was slid along the table.

1 Working from the right-hand side of my router table, I clamped a stop to the fence that'd produce a 20mm long cut, using an offcut to set this length accurately

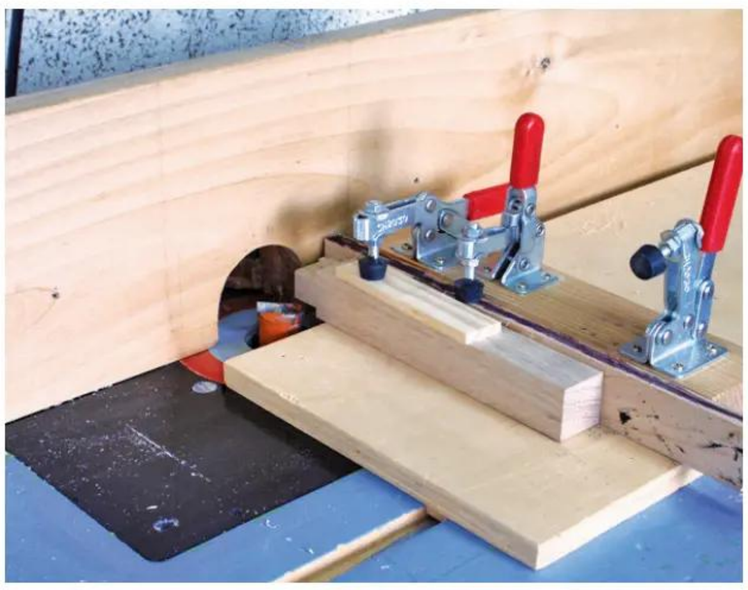
2 I transferred the stop to the fence's opposite side and as before, set the 20mm length using an offcut for accuracy. Working from the other side of the table, I then repeated the process



3 I found there was a small corner left at the point where the two mortises met, so wound the cutter up a little further and put all 16 mortises through once again to remove this



4 The uprights were now completed



5 When cutting tenons this small, I use a jig on the router table with a 1in straight-sided cutter

I always clean the table before applying a light coat of furniture polish; this allows the components to slide freely and makes life much easier as a result.

I set a reasonable depth of cut, then took each upright and slid it along the fence to the stop and back out, blowing the swarf away after each cut. I carried this out for all four mortises on each of the uprights, producing 16 mortises in total, taking care to match them correctly on both ends. Next, I wound the cutter up further and repeated the process. I continued doing this until I'd reached the 20mm depth, then set the router stop.

Next, I transferred the stop to the fence's opposite side and as before, set the 20mm length, again using an offcut to ensure this was accurate. Working from the other side of the table, I then set about repeating the process (**photo 2**).

When finished, I found there was a small corner left at the point where the two mortises met (**photo 3**), so I wound up the cutter a little further and put all 16 mortises through once again to remove this. At this point, the uprights were now completed (**photo 4**).

Cutting the cross-pieces

Small work such as this is impractical and even dangerous to carry out using a normal bandsaw. When cutting tenons of this size, I use a jig on the router table with a 1in straight-sided cutter (**photo 5**). If the jig seems a bit tricky, alternatively, the tenons can be cut on the bandsaw using a fine blade.

The tenons needed to be cut to an equal depth on both sides in addition to the top, while the bottoms would remain flat. Requiring an 8mm deep cut, if taken in one go, it'd be difficult to avoid burning the timber. I set my jig to remove slightly less material and roughed out all tenons first; doing so allowed me to fine set the next cut to give a nice sliding fit into the mortises and avoid burning. The joint shouldn't rattle, but at the same time, not require any effort. I put all the tenons through on this setting.

The tenons were cut square, while the mortises had a rounded top. In order for them to fit properly, the tenons needed to be rounded over. I used a craft knife to remove the bulk of the material, then employed a small metal file for the final shaping, before checking to ensure all the tenons were properly seated (**photo 6**).

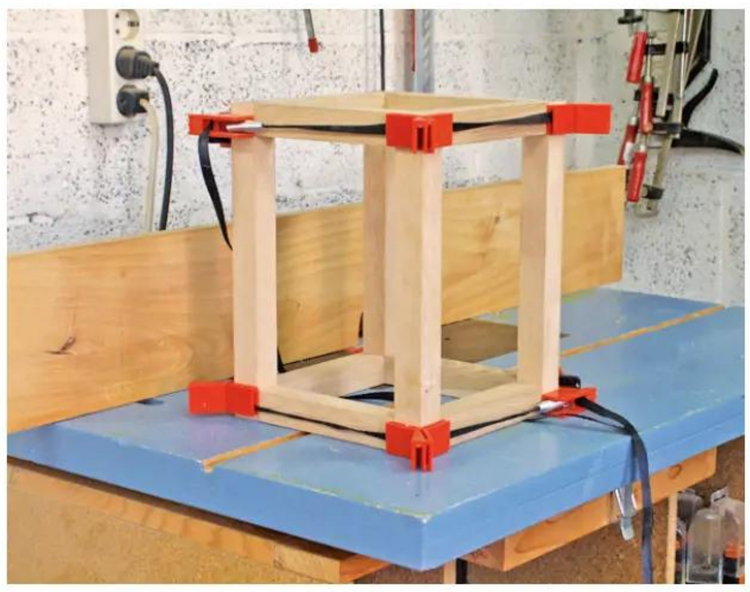
It took a while to complete this entire process, but luckily it's a quiet operation and having the radio on at the same time provides some entertainment and distraction. Finally, the tenons needed to be cut at 45° on their ends; this can be completed using either a small bandsaw, which is preferable, or a fine tenon saw (**photo 7**).

6 I used a craft knife to remove the bulk of the material, then employed a small metal file for final shaping, before checking to ensure all tenons were properly seated

I glued and screwed the four top cross-pieces to the lantern's top by means of screws, which were inserted half way along their length. It's

7 The tenons needed to be cut at 45° on their ends; this can be completed using either a small bandsaw, which is preferable, or a fine tenon saw

8 I glued and screwed the four top cross-pieces to the lantern's top by means of screws, which were inserted half way along their length. It's best to drill and countersink clearance holes for these prior to assembly



9 I ensured all cross-pieces were flat on the surface before and after applying the strap clamp, checked all uprights were truly upright, then left it to set

best to drill and countersink clearance holes for these screws prior to assembly (**photo 8**).

Frame assembly

Assembling the frame is quite straightforward, but I'd recommend a dry run before applying any glue to ensure all is as it should be. If that goes well, then glue and assemble the pieces for one end on a flat surface using a strap clamp. I ensured all cross-pieces were placed down flat on the surface before and after tightening the strap clamp.

If when the clamp is tightened all the uprights are still truly upright, the glue can be left to set before moving on to the other end. If they're slightly loose and won't remain upright, then glue the other four pieces into place on the opposite end and carefully turn the assembly over. Again, I ensured all cross-pieces were flat on the surface before and after applying the strap clamp, checked that all the uprights were truly upright, then left it to set (**photo 9**).

Base & top

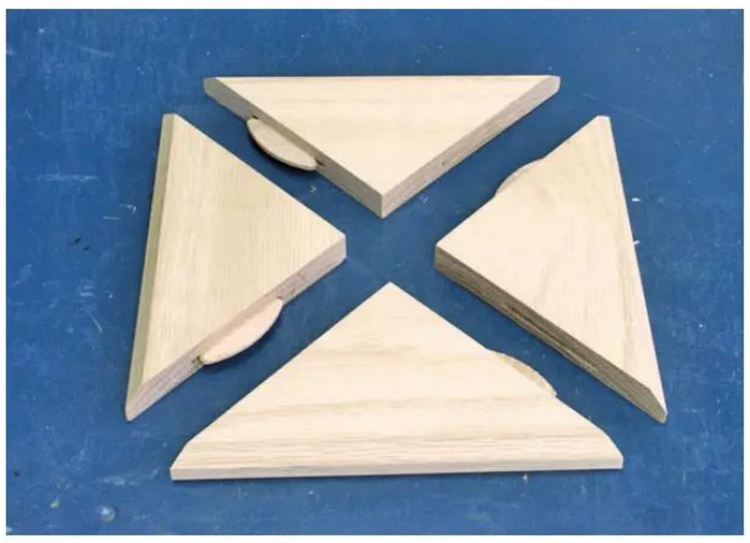
The lantern has a base and top sections made using four equally sized pieces, which are held together with biscuits to avoid showing the end-grain (**photo 10**). I use a dedicated table saw jig for this mitre work (**photo 11**), but if your table saw has a sliding table and an accurate mitre gauge, this can be used instead.

The secret here is taking some time to set it up so that it cuts a true 45°. I made my timber the correct thickness (**photo 12**), but a little wider than required, then cut the chamfer equally on both sides; this allowed me to turn the timber over and minimise wastage. The four sections were again pulled together with a strap clamp.

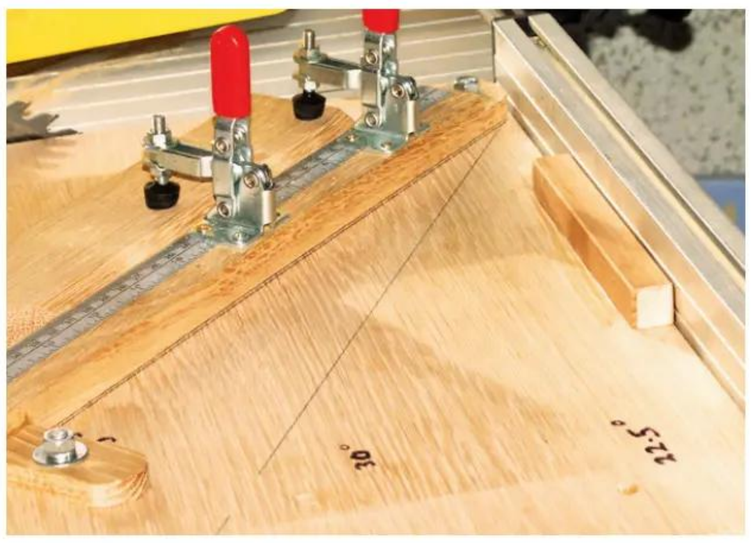
The base and top are identical, measuring 216mm square × 20mm thick. The cap piece is 125mm square × 20mm thick. As before, the top and cap piece needed to be glued and screwed together, so therefore clearance holes for the screws are best made and countersunk prior to assembly.

To assemble the top, I applied glue to the cap piece and centred it. I used minimal adhesive here, then rubbed the two components together until they both sat tightly in the correct position (**photo 13**).

Once the glue had cured, I proceeded to



10 The lantern has a base and top sections made using four equally sized pieces, which are held together with biscuits to avoid showing the end-grain



11 I used a dedicated table saw jig for this mitre work, but if your table saw has a sliding table and accurate mitre gauge, this can be used instead

12 To produce a true 45°, I made my timber the correct thickness but a little wider than required, then cut the chamfer equally on both sides

13 To assemble the top, I applied minimal glue to the cap piece and centred it, then rubbed the two components together until they both sat tightly in the correct position

14 Once the glue had set, I inserted the screws

15 Pinning a paint tin lid in place with brass pins produced an air gap between both the oak and heated metal

16 I cut an insert to fit snugly into the framework's bottom, then cut a hole fractionally wider than the vase; this helped to keep it firmly in place while still allowing removal

17 To complete the lantern assembly, I glued the framework to the base section, using the previously made markings, and applied four screws once the glue had set

18 I attached the top assembly using exactly the same method, then inserted and glued a piece to keep the vase and candle in place

insert the screws (**photo 14**). I also centred the main framework on the top assembly's underside and marked its position for later reference. It also pays to do this on both the frame and bottom section.

The top assembly's underside would be subject to candle heat and if not protected, will burn. I pinned a paint tin lid to mine, which was held in place with brass pins through pre-drilled holes. This gave an air gap between the heated metal and oak and practically eliminated this problem (**photo 15**).

Lantern handle

Another thing I had to consider at this stage was the type of handle my lantern would have. I started by looking for a large drawer handle,

19 Using any shop-bought wooden handle of a suitable size and timber, spin it against the stop and bearing to machine the end

20 The end can then be cut off on the bandsaw to produce a foot, which can now be glued to the lantern's underside

but struggled to find one that wasn't handed or large enough, and finally settled on the one shown. I secured the handle from the drawer's reverse, so to fit it to the lantern, I first had to find a much longer threaded bolt, then drilled the cap and fitted this prior to final assembly.

Candle vase

In terms of the candle vase, this needed to be removable to ensure that the candle could be removed and replaced when required, but must also be held in place to prevent it falling over if the lantern is knocked or moved.

After I'd bought my vase, I cut an insert to fit snugly into the framework's bottom, into which I cut a hole that was fractionally wider than the vase. This helped to keep it firmly in place while still allowing removal (**photo 16**).

Lantern assembly

To complete the lantern assembly, I glued the framework to the base section, using the previously made markings, and applied the four screws once the glue had set (**photo 17**). Next, I attached the top assembly using exactly the same method (**photo 18**). Finally, I inserted and glued a piece to keep the vase and candle in place (**photo 18**).

To give the lantern a more stable base, I used some feet. An easy way to make these is to fit a bearing-guided round-over cutter into a router table and clamp a piece of timber alongside it as a stop. Then, using any shop-bought wooden handle of a suitable size and timber, spin it against the stop and bearing to machine the end (**photo 19**). The end can be cut off on the bandsaw to produce a foot, which can then be glued to the lantern's underside (**photo 20**).

I had a choice as to whether to fit a hook for hanging the lantern or employ a carrying handle. The handle looks better providing the correct drawer pull is chosen, and in which case, it'll also double up as a hanging handle.

To provide protection against the elements if the lantern were to be left outside, I treated mine with a weather-proof polyurethane finish.

21 The completed garden lantern should look something like this

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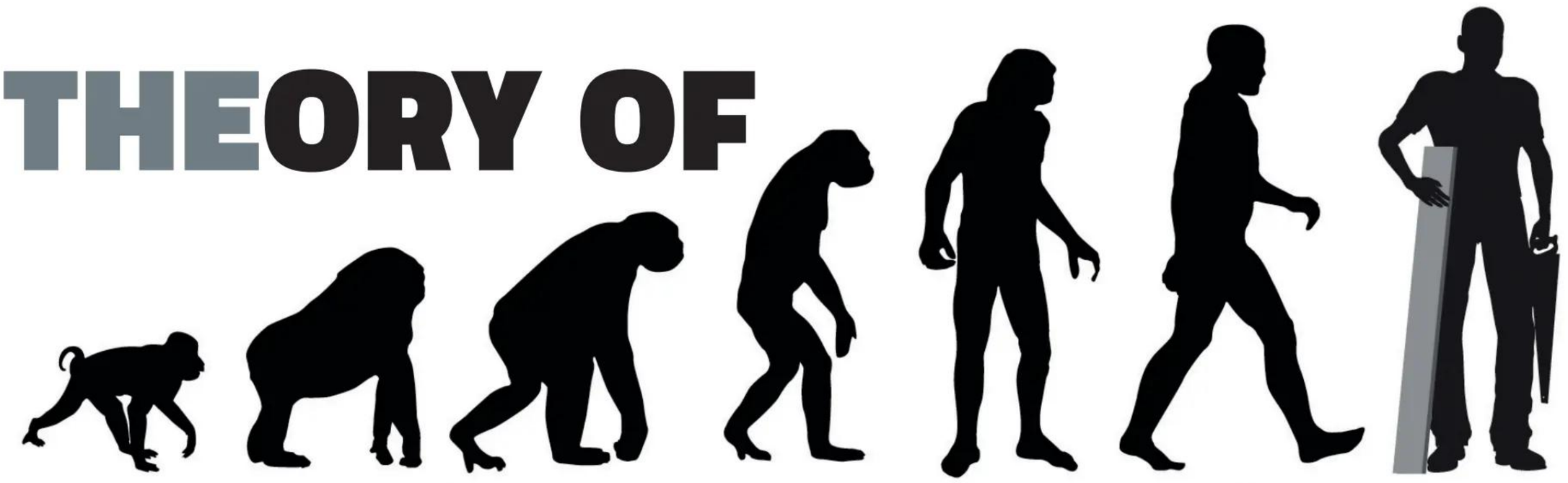


THEORY OF EVOLUTION

This miniseries from **Phil Whitfeld** explores the history of English furniture

A bureau from Thomas Chippendale's *Director*

A Bureau,
From Chippendale's "Director."

It's possible to go to any public library and find a selection of books that trace the history of English furniture in a variety of contexts. Some take a purely chronological approach, connecting the dots with selected examples of work, which is a fairly standard methodology. Others, especially more recently with the development of design history as a discipline separate from art history, may take a more social and cultural viewpoint.

Considering the cultural background of a specific design era allows us to reflect on some of the events that helped shape the aesthetic of the time. The displays at the Geffrye Museum in London use this approach to very good effect. What's of interest to us as craftspeople, however, are the construction techniques and styles of each period.

As the understanding of materials has developed, so too have skills, with new processes being formulated for getting the most out of those materials as time goes by. This way of approaching design is certainly not original, or anything I'd take credit for, but it's something that's not usually looked at in isolation.

Darwinian furniture

Over the coming months, we'll be looking at how English furniture developed from around the time of the Norman Conquest (1066) up to present day. The starting point is important as this is around the time when records began in particular inventories of goods in the castles in addition to great houses of the aristocracy, as well as the Church. It's also as far back as surviving pieces can be traced, at least in terms of actual furniture and general carpentry.

We'll investigate the evolution of woodworkers, from early basic carpentry skills to the pinnacle of the craft during the Georgian period, often referred to as 'The Golden Age of English Furniture'. From there we'll look at the decline in craft as the Industrial Revolution took hold and its resurgence through the Arts and Crafts Society. This led to the establishment of the Cotswold

How has furniture changed since the Norman Conquest?

School and was further maintained through the Barnsley Brothers, Edward Gimpson and Gordon Russell.

A move to affluence during the '50s and a desire for change resulted in a hiatus, but the craft had a renaissance in the latter part of the 20th century due to craftsmen and designers such as John Makepeace and Alan Peters. Today it may well be in a process of inevitable change, but there are many craftsmen out there coming to terms with new technologies of the 21st century, in the same way that the art and craft practitioners had to at the turn of the 20th century.

The problem with a chronological approach is that the use of dates gives the impression of ideas and processes having suddenly stopped and started – that change was immediate rather than gradual. This is never the case at all, of course. If you ask me, it's much better to take a Darwinian approach and look at this history of furniture as an evolutionary process. Dates allow us to examine things in manageable portions; however, they must be regarded as a guide rather than immutable historical turning points.

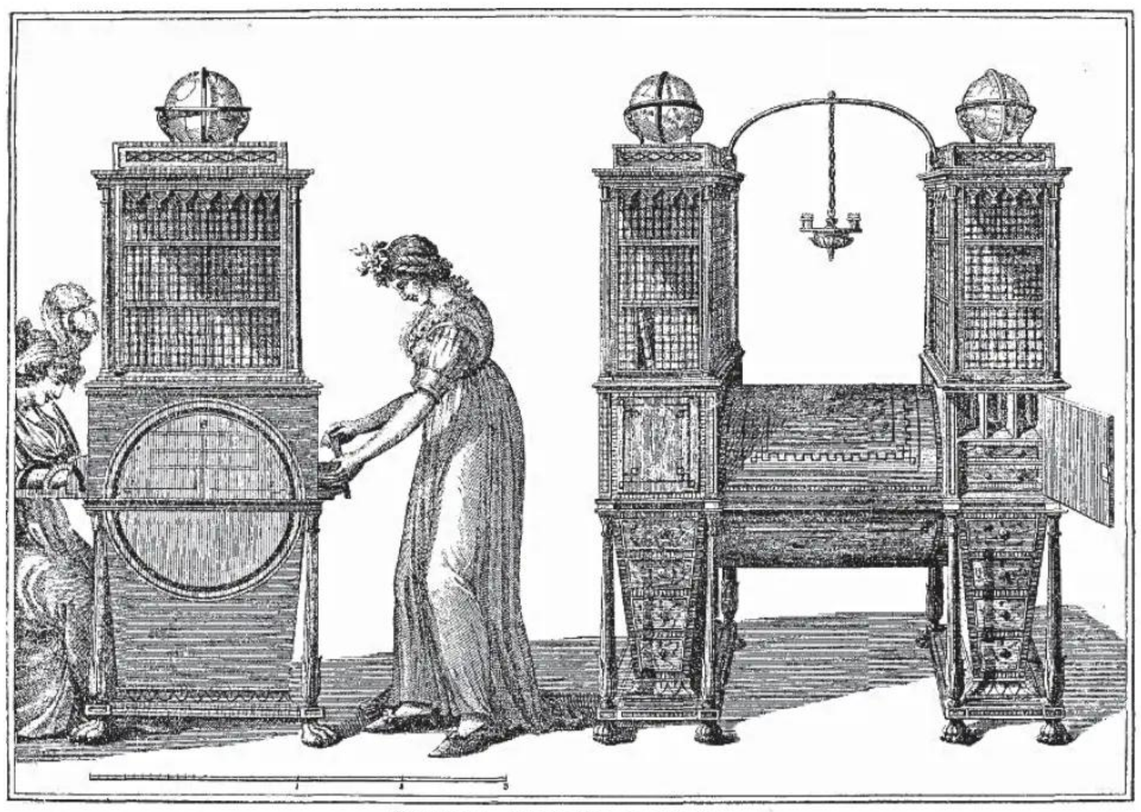
Examples of work we discuss will generally be from an aristocratic or religious background as the ordinary people didn't have many possessions, and what they did have remained unchanging over a long period of time. The aristocracy maintained inventories and goods that were passed from one generation to the next – although we shall see that for a long period of time, furniture wasn't highly valued. Textiles, gold, silver and jewellery, for example, enjoyed much higher profiles and often a piece of furniture was used only to display these objects.

As the woodworker's skills improved and the aristocracy's living conditions changed, the move from the great castles to Elizabethan country houses and in turn Georgian stately homes, furniture became much more visible and highly valued. Here, we see a move from functionality towards appearance and desirability.

History looms

At times it'll be hard to avoid certain social or political events, where they had a profound effect on craft development. A good example would be the Restoration of the monarchy with Charles II's return from exile in the Low Countries, bringing with him a retinue of craftsmen possessing fresh skills and ideas. His wife – the Spanish Catherine of Braganza – also maintained a body of craftsmen from her homeland. All of these fed into the melting pot from which English design grew.

The Restoration of Charles II to the throne had a profound effect on design



'Sister's Cylinder Bookcase' designed by Thomas Sheraton, 1802

Ancient Egyptians were way ahead of us, but we're just looking at developments here in the UK. As mentioned, we'll start with the Norman Conquest, leading up to around the end of the 17th century, a time when the general carpenter was dominant, supported by carvers, ark wrights and hutchiers. At this time, there weren't any furniture makers as we know them today. Very few examples of work have survived from that time, but enough to give us a good idea of the quality, construction techniques and aesthetics used.

From then until the mid-17th century, we can consider the development of the joiner and the beginnings of a division of the crafts – a distinct separation between carpentry and joinery. A highly influential occurrence during this period was the establishment of the craft guilds who maintained the standards and quality of work. This ensured that many pieces have survived to the present day.

A relatively short but highly significant period from the mid-17th century until the early years of the 18th century saw the establishment of the cabinetmaker and huge strides in the development of furniture making, the Restoration, and also the Great Fire of London having big impacts.

Developments in printing also allowed Chippendale, Sheraton and Hepplewhite to produce and publish books of design and for the first time, make the work available to craftsmen nationwide.

Arguably from this point we start to see a decline, or at least a change, in the everyday traditions of English furniture. Our journey will also include a look at many of the supporting skills and crafts that form part of this story. The carver, turner, upholsterer and finisher all played their part, all developed old skills and acquired new ones through the centuries, side-by-side with woodworking.

What to expect...

So how best to approach the story of English furniture? Despite gripes over chronology, it seems wise to begin with the carpenter and the beginnings of the craft – OK, the Ancient Egyptians were way ahead of us, but we're just looking at developments here in the UK. As mentioned, we'll start with the Norman Conquest, leading up to around the end of the 17th century, a time when the general carpenter was dominant, supported by carvers, ark wrights and hutchiers. At this time, there weren't any furniture makers as we know them today. Very few examples of work have survived from that time, but enough to give us a good idea of the quality, construction techniques and aesthetics used.

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For the next 100 years or so, the designer ruled supreme and we entered that so-called Golden Age.

The craftsmen's role changed from one of designer-maker to being an interpreter of others' ideas, and the skills developed to meet the demands of those ideas. The quality of both design and craftsmanship ensured that a huge range of work has survived.

What we must remember, though, is that we're looking at the interpretation of the designers' ideas through the maker's skills and craftsmanship. Examining a Chippendale, you have to bear in mind that he was a designer and businessman and no piece exists that bears his mark as a maker. The same is true of Robert Adam, George Hepplewhite and Thomas Sheraton.

Down, not out

Here we hit a low point in our history as the machine prevailed and we saw the beginnings of mass production, the craftsmen's role becoming increasingly limited and going into steep decline. The industry developed to meet the needs of its growing Empire quickly and efficiently, often with little regard for style or quality. It'd take the emergence of the Arts and Crafts practitioners to salvage this sorry state of affairs. While in terms of industry impact and patterns of consumption it had little effect, William Morris and his peers ensured the crafts survived against impossible odds.

During the 20th century, the crafts had a chequered and difficult history, but by the '60s and '70s, a new generation of craftsmen emerged to meet the needs of the time. These have set a precedent ensuring that, though somewhat scaled down, the woodworker's craft retains a role in 21st century society.

From the relative extravagance of Chippendale furniture...

... how did we get to the gentle elegance of Arts and Crafts?

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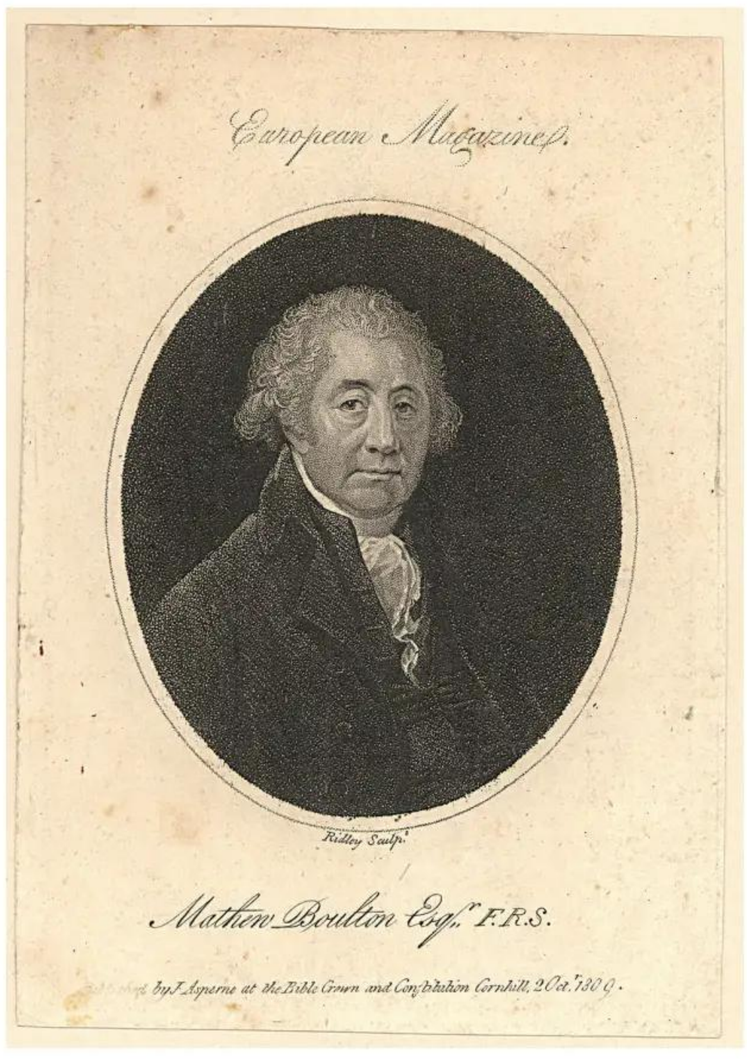
BACK TO BLACK

Stephen Simmons' exploration of makers past begins in Birmingham and the Black Country

WW PROFILE

The coming of the railways in the 1830s had a profound effect on the individual identities of Black Country villages

I've chosen to start this series by looking at Birmingham and the Black Country, purely for personal reasons. I grew up there, and can identify what were separate industrial villages in the century before the coming of the railways in the 1830s, rather than just part of the sprawl now stretching north-west from Birmingham to Wolverhampton – places like Stourbridge, Halesowen, Brierley Hill, Dudley, Sedgeley, Tipton, Bilston, West Bromwich, Wednesbury, Wednesfield and Walsall.



The area was known primarily for metalwork – for example, Matthew Boulton's firm was famous all over Europe

It was an area associated with metal rather than wood, unlike, say, High Wycombe and the Chilterns. Among other things, Birmingham was a brass centre: the firm of Boulton & Fothergill was famous in Europe for its up-market cabinet fittings; and at the end of the 18th century, Jones & Barker's output included locks, knobs, coffin furniture, picture and looking glass frames and "ornaments and borders for rooms, in stampt, burnish'd & gilt metal… chimney pieces, etc."

Workaday

There were several prosperous furniture making centres outside London: Norwich, York and Chester, the eastern ports of Hull and Newcastle and the western ones from Lancaster via Liverpool and Bristol to Exeter. Their wealth was based on aristocratic landownership and powerful trade dynasties.

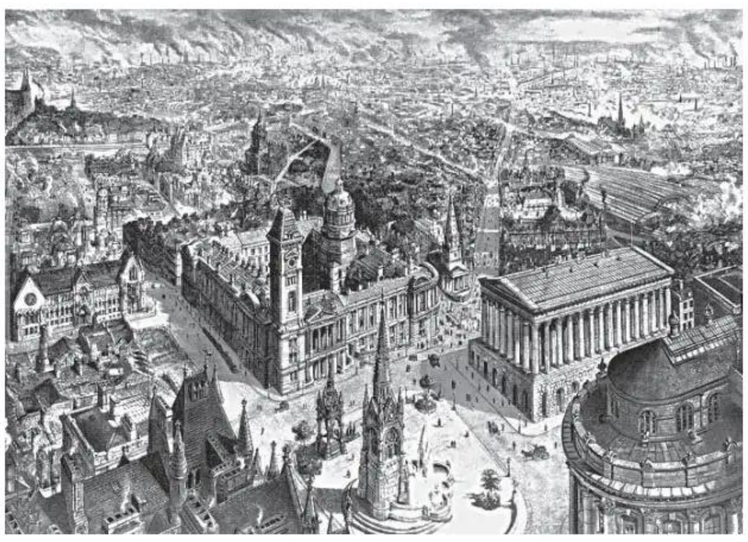
Conspicuous consumption was rife and furniture a major fashion statement. As well as the standard cabinetmakers, they all supported a huge luxury sector including sedan chair and billiard table making, coach building, carving and gilding, frame making, specialist polishing and the like.

Our area was very different, although ironically one of the earliest references to a woodworker in Birmingham was John Lees, an inlayer and gilder, in 1717. It was an area of new manufacturing rather than established trade, and hadn't yet assumed the gloss of gentility and social pretension. The records show a much abbreviated luxury sector, although I get the impression that it was beginning to expand towards 1840. There were always some gilders and frame makers, plenty of 'fancy' chair makers, and Thomas Whittall of Birmingham became the area's first listed billiard table maker in the 1830s. But the vast bulk of references are to ordinary cabinetmakers and workaday occupations meeting everyday demands.

Richard and Thomas Parker of Beauty Bank, Stourbridge were chairmakers in the 1830s, as was Joseph Lindon of Bilston. J & R Richardson of Walsall were described simply as furniture makers and Catherine Hewitt of Wolverhampton was a chair bottom rusher.

Compared with other areas, aristocratic clients were few and far between. The cabinetmaker Thomas Cockerell of Birmingham was paid £3, 4s for "three Close stools and two Dressing glasses" by Baron Dudley in January 1754. The carver and gilder Peter Giusani of Wolverhampton was another of the lucky few in the 1820s to '30s. On the other hand, local manufacturers were beginning to spend their money on furniture; the cabinetmakers Thomas Hodgkins and Thomas Smallwood, both of Birmingham, received commissions from Matthew Boulton in the 1780s and '90s.

Another thing that makes the area stand out



Despite not being an area we traditionally associate with woodwork, there was definitely no shortage of skilled craftsmen and women

is the absence of references to any definite local subscribers relating to famous design books of the period. Named subscribers to Chippendale and Sheraton are quite common from Newcastle to Penzance and Cumbria to Kent, but Birmingham and the Black Country is a blank. This may be a quirk of the records, but I suspect that it reflects the shortage of fashion conscious and socially motivated clients.

A healthy trade

Nevertheless, furniture making was still widespread and varied and there were timber merchants to support it. James Evans traded in Wolverhampton towards the end of the 18th century; and Josh Betteridge of Worcester Wharf, Birmingham dealt in mahogany and rosewood veneer, as well as English and foreign timber in the 1830s. He was manufactured carved bedhead pillars.

Birmingham could boast dozens of cabinetmakers, and was the centre of the local furniture trade. Wolverhampton was next, with Dudley developing nicely in third place – it was able to support at least three carvers and gilders in the 1820s and '30s as well as Thomas Turner, who described himself as a picture frame and looking glass manufacturer. Furniture makers of any description could be a bit thin on the ground in smaller towns and villages, but they were never a complete desert.

Birds of a feather

There were a few things the area had in common with the rest of the country. Some cabinetmakers were coffin makers and undertakers, but many more were upholsterers and interior designers. In 1814, Thomas Hensman of Birmingham submitted a bill to a client for £29, 7s, 2d which included "a Mahog. Loo Table on a Grecian Claw Stand, best Castors [£12, 12s]… a fine green Cloth cover to Do. made up with silk binding… Kidderminster carpeting [£21, 3s, 6d] cut and fitted over Brussels carpeting; and a hearth rug." Thomas Molesworth, a near neighbour, took out insurance for £150 on utensils and stock, £100 for his workshop and £50 for a separate feather store. In the 1830s, Ann and Stephen Ethell went a stage further, being feather dealers as well as cabinetmakers, upholsterers and paper hangers.

And there were other women – only a tiny minority but represented in most sectors. Ann Ashbourn of Stourbridge was a chairmaker and basket maker. Elizabeth Share of Dudley was a cabinetmaker and upholsterer in the 1830s while Frances Thomas worked solely as a cabinetmaker in Halesowen for at least 20 years after 1810. One of her mahogany armchairs is described as being "inlaid with brass, the back having a horizontal splat surmounted by a pierced squat vase between two scrolls… a quality piece."

Furniture makers would handle many tasks such as chairmaking and upholstery

The spice of life

As ever, there were some odd combinations of livelihoods. Roger Auster of Birmingham was working as a picture frame maker in 1793, but from 1812, was also a brass founder. John Stone of Bilston was a quarry owner and victualler as well as a cabinetmaker in 1793 and 20 years later, Thomas Pitt of Dudley was described as a carver, gilder and bellhanger. Henry Woodfield of Birmingham specialised in making ebony ink stands and William Gabriel in bath chairs, rocking horses and children's carriages.

But more interesting are the kindred trades. Chairmakers seemed quite versatile, and in Birmingham alone, Richard Heath and Thomas Fowell also made gun- and ram-rods; a W. E. Whitbread Venetian blinds; David Potter bedsteads; and William Thompson was a wheelwright. Cabinetmakers also got in on the act. John Smith Walker of Wolverhampton wasn't alone in being a joiner and builder, nor was Joseph Pyatt of Dudley as a clock case maker.

Surviving trade cards and adverts are illuminating. Samuel Hallam of Dudley claimed to make "all kinds of fancy and Windsor Chairs in the most modern style of workmanship. India Canework in all its Branches, Rosewood Graining etc." Francis Lockley, a frame maker, carver and gilder from Wolverhampton also offered to bleach engravings and clean and varnish paintings.

If it lacked a well developed luxury sector, there were specialities: the main one was papier mâché, often japanned. The earliest recorded manufacturer in the country was John Baskerville of Birmingham (1706–75) but production increased after 1772 when Henry Clay took out a patent for "new Improved Paper-ware" involving pasting sheets of paper together and then oiling, varnishing and stove hardening them. The contemporary blurb reads like the early claims for MDF. It could be "sawn, planed, dove-tailed or mitred… as if made in wood." It was widely used in panels for coaches, carriages and sedan chairs as well as furniture, but also became highly fashionable for small and portable furniture after the Royal Family became clients. Clay moved production to London in around 1800, but the tradition was continued by a number of firms including Richard and George Bill of Birmingham and Ryton & Walton of Wolverhampton.

SOURCE

Much of the information and all quotations in this article are taken from *The Dictionary of English Furniture Makers 1660–1840,* by the Furniture History Society ad Maney, published 1986
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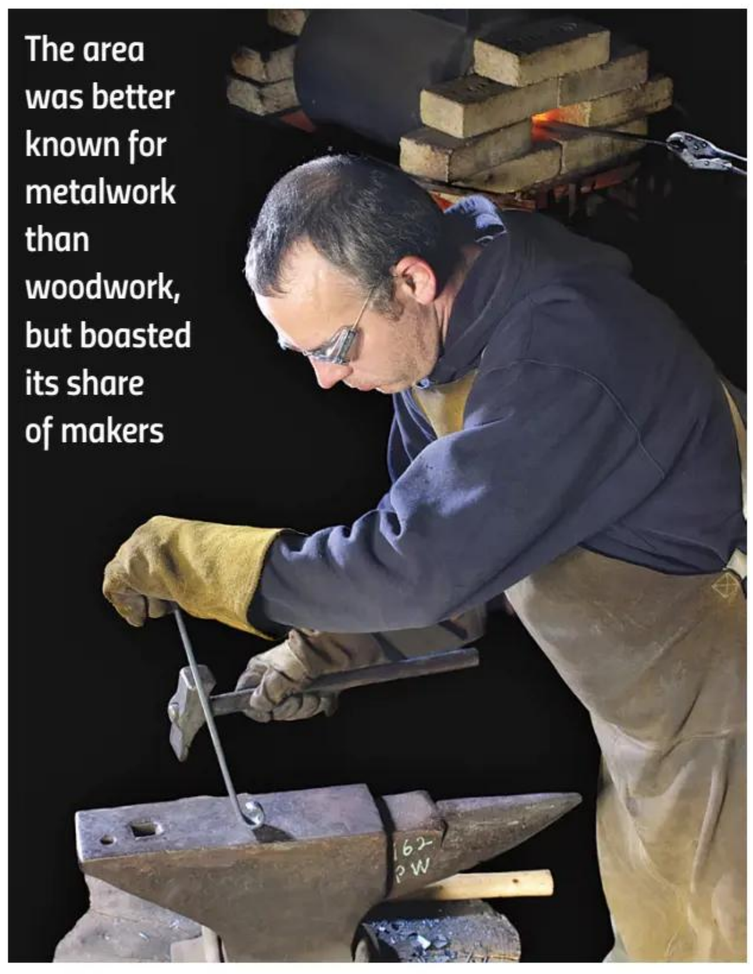


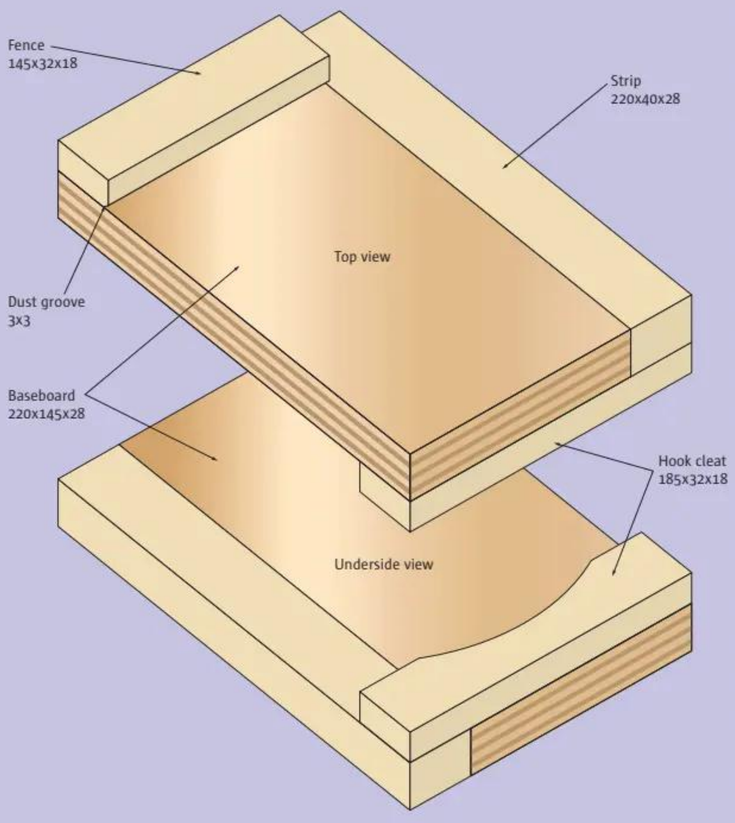
The area was better known for metalwork than woodwork, but boasted its share of makers

LETTERS

★LETTER OF THE MONTH

SUGGESTED DELUXE SAWING BOARD MODIFICATION

Hi Tegan,
There's a small modification, which you might want to incorporate if making Jeff Gorman's bench hook, featured on pages 54-55 of the July 2024 issue. If you have a small Japanese pull saw, it's not ideal to use with a conventional bench hook, but you do need a workbench with a well for the modified hook.



The specifications for Jeff Gorman's improved bench hook – sawing board, which was featured in the July 2024 issue

Shorten the fence's left-hand end and make that side of the base to match the right. Turn the hook round and pop the cleat into the well. The workpiece can now be held properly for sawing on the pull stroke. As a bonus, the hook will now also work for left-handers.
Regards, **John Bullock**

Hello John, thank you for this handy tip and suggestion of the modification mentioned. I'm sure many readers will find this useful and even better that those left-handed woodworkers can also benefit from heeding your advice. Many thanks for taking the time to write in.
Best wishes, **Tegan**

ROBERT SORBY 84HS THREE-PIECE BOWL TURNING SET WINNER

Hi Tegan,
I was recently sat at home enjoying a cup of tea when I saw a DPD delivery driver approaching my house, carrying a large parcel. I got up and opened the door thinking he must have the wrong address as I'd not ordered anything, but lo and behold, the parcel bore my name and I could see it was sent by Robert Sorby. Thinking there must be something nice inside, I was thrilled to discover that, having recently entered the competition online, I'd actually won a 84HS three-piece bowl turning set. Thank you to the magazine and Robert Sorby for the chance to try out a new style of turning tool. Demonstrators at my local woodturning club in Kettering – Ise & Nene Valley – keep saying how good these negative-rake scrapers are, and now I can try one out for myself. The bottom feeder bowl gouge is also new to me and I can't wait to get back in the workshop and try them out!

This was a very nice surprise, so thank you very much. Keep up the good work on *The Woodworker*.
Best wishes, **Michael Crighton**

Hi Michael, we're so pleased to hear that you're enjoying the well-deserved new tools. It's always lovely to hear that competition prizes are being put to good use and also great to hear how excited you are to put them through their paces.

LEARNING TO BE A WOOD SURGEON

Dear Editor,
Once you acquire one piece of woodworking machinery, it's easy to find the need for others and in next to no time, what'd previously been a garage has now turned into a small workshop. Some years ago, quite by chance, I came across a young man exhibiting his furniture at an arts festival in Fife. I was completely astonished by the quality of his workmanship and the huge variety of work he had on display.

'How did you manage to acquire all these skills?' I asked, thinking that he must've served a long apprenticeship to some master of the craft. No, he explained that he'd learnt it all in the space of a year somewhere deep in the East Lothian countryside, near Edinburgh.

I was intrigued by the fact that all those cabinetmaking skills could be learnt in just a year, so I visited the Chippendale International School of Furniture and was bowled over by everyone's enthusiasm. I signed on the dotted line and haven't looked back since. When I started, I didn't have a clue how to get from a plank of wood to a finished product, neither in terms of design and planning, nor in terms of the practical skills involved. I'd never used a machine shop – many of the big machines seem terrifying at first.

The Chippendale School is a very interesting learning environment. It has much in common with the process of building knowledge, skills and experience that I was familiar with as a doctor. You learn from the masters; from those who know a bit more than yourself, as well as learning from the other students. There's a minimum of formal teaching, some exercises, but the learning is mainly built around the practical experience of conceiving, designing and making pieces of furniture.

Practical skills

For 21 students, there are four tutors and a high student to pupil ratio. You can always find someone to ask a question, and if you're not sure as to the answer, you can quickly get a second opinion! From Day One the emphasis is on practical skills. By the Friday of that first week, we'd all produced a model of our first term's piece of furniture. The following Monday, we began to learn how to take a plank of wood and mill it to the shape and size required. The second term is all about learning special skills: stained glass, woodcarving, gilding, veneering and marquetry. I made a mirror frame in the form of a carved and gilded knotted scarf, along with a reproduction of Charles Rennie Mackintosh's Ingram Street chair.

The pace is up to you but there are always deadlines set by the school. There's also the opportunity to bounce ideas off each other at the design

Michael pictured at his local woodturning club with the Robert Sorby 84HS three-piece bowl turning set, which he won as part of a recent competition

It's the perfect time of year to get in the workshop and hone those skills! I'm sure fellow club members are very envious of your prize! Enjoy and many thanks for your kind comments.
Best wishes, **Tegan**

Charlie working on a project in the Chippendale School workshop

stage and during the construction process, and to get ideas back in return. I'd designed a revolving library bookcase with carved tree trunks on the outside, inspired by Paul Nash, a World War I artist who went on to become a key figure in the English school of surrealist and impressionist art.

The Chippendale ethos isn't solely focused on creating furniture, however; it's about making pieces that push the boundaries of what's possible, drawing on traditions both old and new.

Furniture restoration

Furniture restoration is a crucial part of the course. I've restored a couple of chairs and a friend's Victorian medicine cabinet, which smelt of calamine lotion like an old-fashioned chemist's.

As a retired man on a pension, I don't have to make a living out of what I'm learning, but I do have children, grandchildren and friends, so it's not difficult to come up with an internal market! The last thing I want is a full order book – it'd ruin my retirement.

One interesting experience is that I've lost count of the number of friends and acquaintances who've expressed envy at what I'm doing, and they're right to be envious. The Chippendale School's furniture making course is an enormously fulfilling thing to do in retirement for anyone with the time and energy to learn something new. Learning to work in new ways with your hands is a fabulous experience. I've acquired a whole set of new skills, which will keep me happily occupied for the rest of my lifetime, and in the process, have made valuable new friends and had a hugely enjoyable year.

Regards, **Charlie Clark**

Hi Charlie, what a wonderful picture you paint! Incidentally, the Chippendale School recently held its 2024 annual Graduate Exhibition, which we'll feature in the next issue. We look forward to taking a closer look at the work of these students and finding out more about each of them. In the meantime, to find out more about courses offered by the School, visit the website: ***www.chippendaleschool.com****.*

We hope you enjoy the rest of your retirement, Charlie and continue to take great pleasure in making new pieces!

Best wishes, **Tegan**

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 new 'Letter of the Month' prize – a Trend T8EK 240V 2,200W ½in dual-mode plunge router, worth £349.99! Engineered for both hand-held and router table use, it comes with a host of accessories, all supplied in a moulded carry case to ensure safe storage. Simply email **tegan.foley@dhpub.co.uk** for a chance to get your hands on this fantastic prize

Good luck!

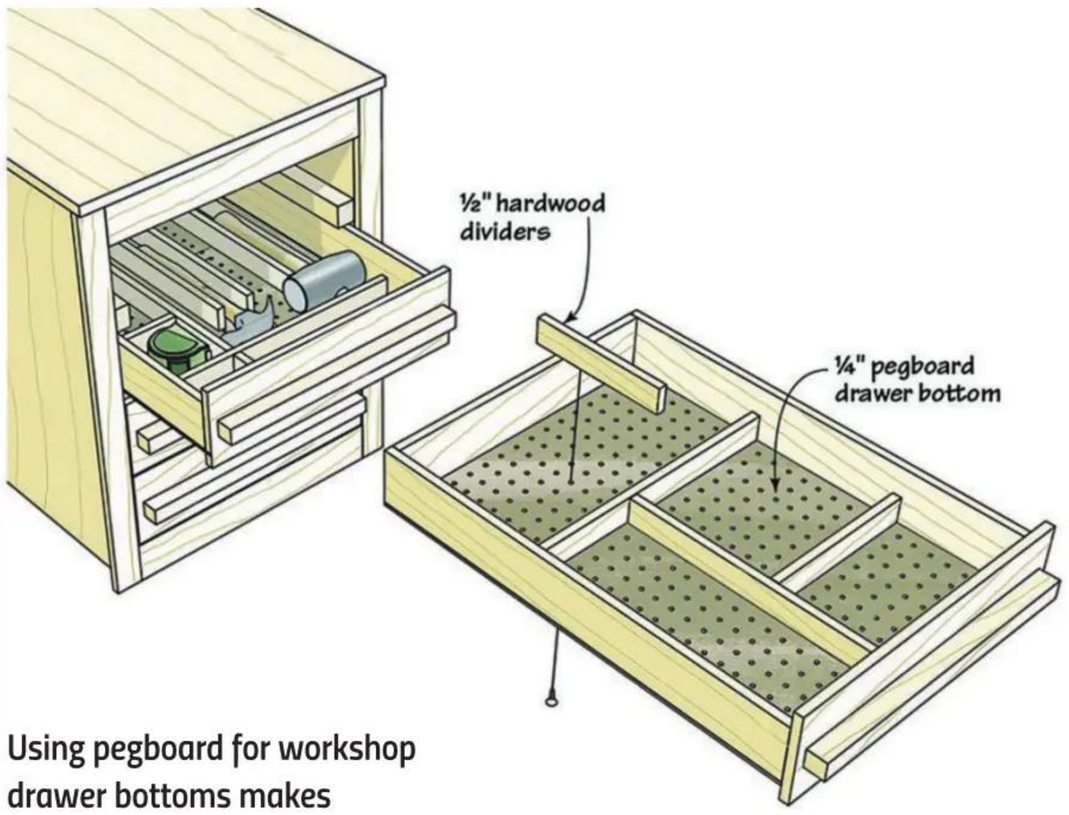
READERS' HINTS & TIPS

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

HANDY HINT:
HOLEY SOLUTION FOR ORGANISED WORKSHOP DRAWER STORAGE

Using pegboard for workshop drawer bottoms makes it a cinch to add dividers for easier organisation of drawer contents. Simply secure hardwood dividers to the pegboard from below with No.8 flathead wood screws, which perfectly fit the 7.14mm holes.

Michael Garrett



Using pegboard for workshop drawer bottoms makes it a cinch to add dividers for easier organisation of drawer contents

PROJECT Making cramps

CHISEL RATING

HOME-MADE HANDSCREWS

If, like **Ken Jones**, you never seem to have enough G-cramps for an awkward gluing job, an easy solution is to make a few wooden handscrews rather like the craftsmen of old used to do

Handscrews can be made both quickly and cheaply using readily available materials – it's a good chance to raid the offcuts bin! In fact, for jobs such as attaching stuck-on mouldings, these simple cramps seem to work better than many bought ones. They operate on a very simple principle; the rear screw pushes the beams apart, and the forward one pulls them together.

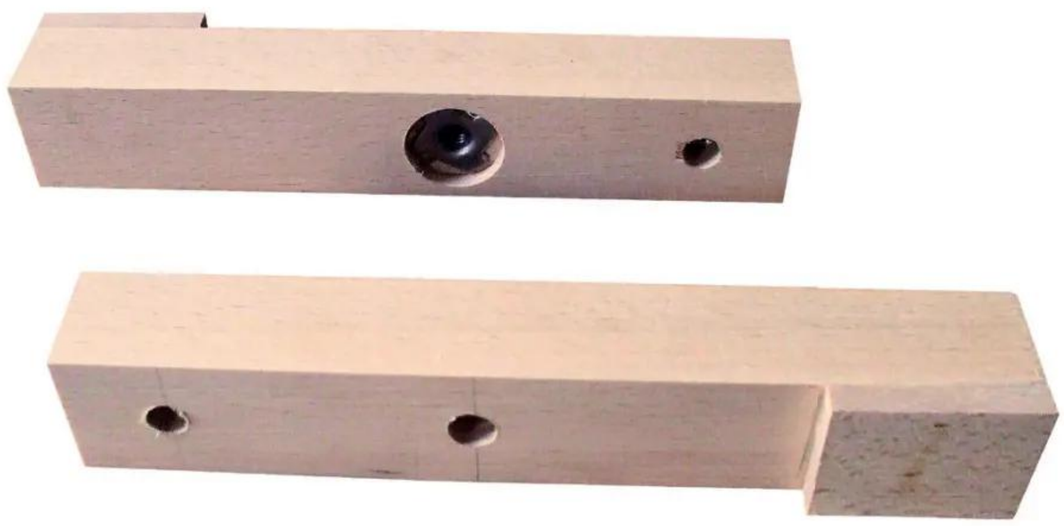
Preparing the parts

First, cut out the two cramp beams and pads from a suitable hardwood – I used beech – following the dimensions given in the cutting list. Glue the 6mm thick pads to the beams' ends (**photo 1**), and clean up the joint lines. Note that the photo shows components prepared for making two handscrews.

Next, mark out and drill 10mm diameter holes for the studding, and form the counter-bores for the T-nuts. I used a 25mm Forstner bit for this purpose, drilling to a depth of 6mm. Note the position of these nuts, as shown in **Fig.1**. Fit the T-nuts into place (**photo 2**). The blind hole in the lower rear beam is only 10mm deep, and a countersunk 12mm No.6 steel screw is inserted in a shallow pilot hole drilled through the hole's base – see **Fig.1** for its position. This prevents any wear at the hole's base as the handscrew is operated, as the end of the studding revolves on the screw head.

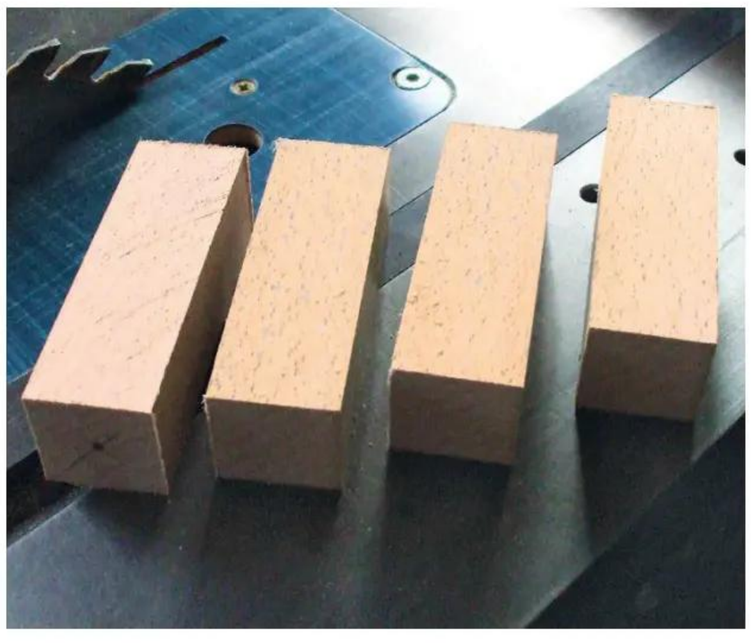
Finally, form a splay on the beam ends – either by hand or on the disc sander if you

1 Cut the beams and pads to size and glue the pads into position

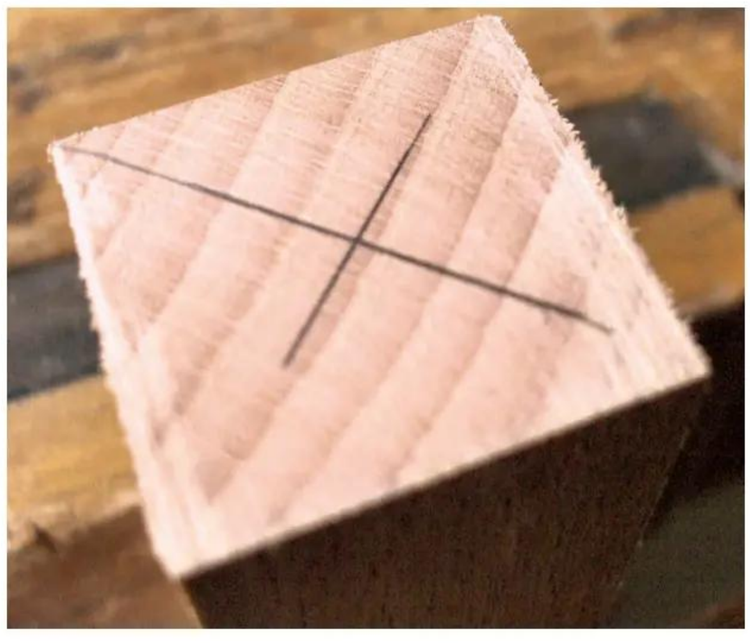


2 Drill the 10mm diameter holes for the studding and fit the T-nuts

3 Using a disc sander, form a splay on the upper ends of each beam



4 Prepare 30mm square blanks about 90mm long for the handles



5 Mark their centres, and select a drill bit to match the studding

HANDSCREW CUTTING LIST

Part	Qty	L	W	T
Cramp beam	2	205	32	26
Cramp pad	2	32	32	6
Handle	2	90	30	30

For each handscrew you'll also need some M8 studding, two M8 T-nuts, an M8 hex nut and two matching washers, a 12mm No.6 countersunk woodscrew, an offcut of 22mm diameter copper pipe and some epoxy resin adhesive.
Note: All dimensions are in millimetres

have one (**photo 3**), then clean up the various components with fine abrasive.

Handle blanks

Cut out 30mm square blanks about 90mm long for the handles (**photo 4**). Mark their centres accurately, (**photo 5**) and select a drill bit which will make a tight-fitting hole for the studding. You can test this by drilling holes in an offcut. Now drill each hole to a depth of 70mm by using a three-jaw chuck in the lathe to grip the blank (**photo 6**). Note the use of masking tape on the drill bit to indicate the correct hole depth.

Turning and studding

Turn each handle blank down to a cylinder (**photo 7**), then reduce one end to match the ferrule's diameter. I used 22mm copper pipe offcuts, about 15mm long, for these. Continue the turning to form the handle profile of your choice, glue the ferrule to its spigot with a dab of epoxy resin adhesive, and finish the handle

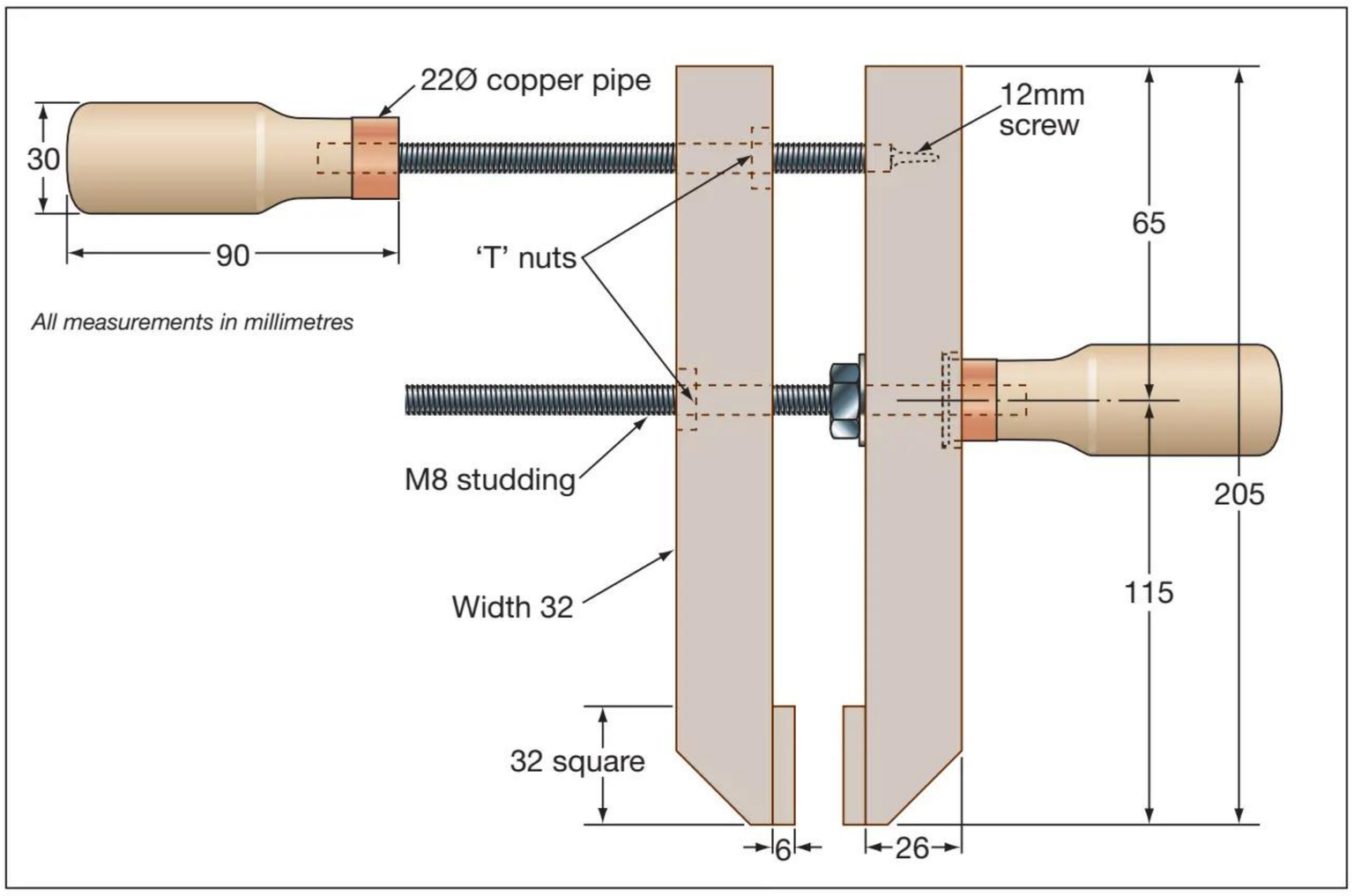


Fig.1 Construction of home-made handscrews

with a wipe of oil or other sealer (**photo 8**).

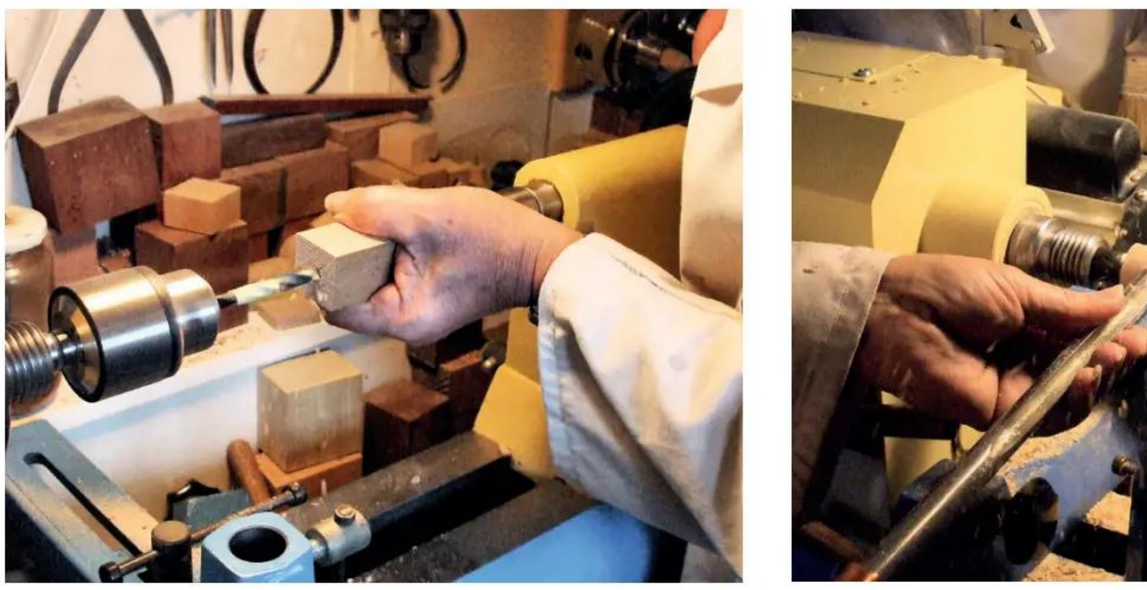
Cut the lengths of studding and file the ends smooth, then use epoxy resin adhesive again to glue them into the handles (**photo 9**). For my clamps I used 200mm lengths, but within reason the studding can be cut to the size best suited to your needs.

Nuts & washers

You're now ready to assemble the cramp. Take one length of studding and thread a washer over the end. Insert this in the front hole in the lower beam. Thread on the other washer and hexagonal nut. Smear a very small amount of epoxy resin adhesive onto the studding just above the washer and wind the nut down into place, leaving enough slack to allow the studding to revolve easily.

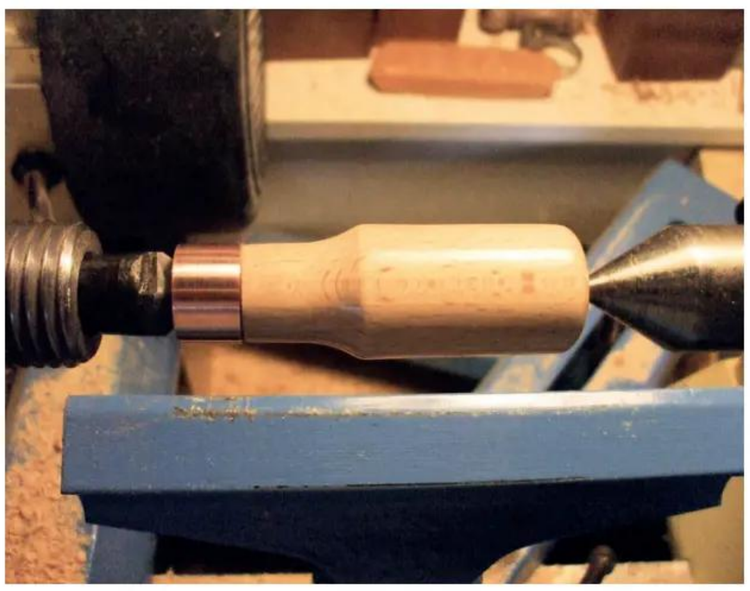
Now thread the end of the studding through the forward hole in the top beam and engage it with the T-nut. Screw it down until about 50mm protrudes beyond the beam.

Take the second length of studding, thread it through the T-nut in the top beam's rear hole and screw it in until it touches the screw head in the hole in the lower beam. By revolving both handles together, you can now open and close the cramp jaws (**photo 10**). That's all there is to it!



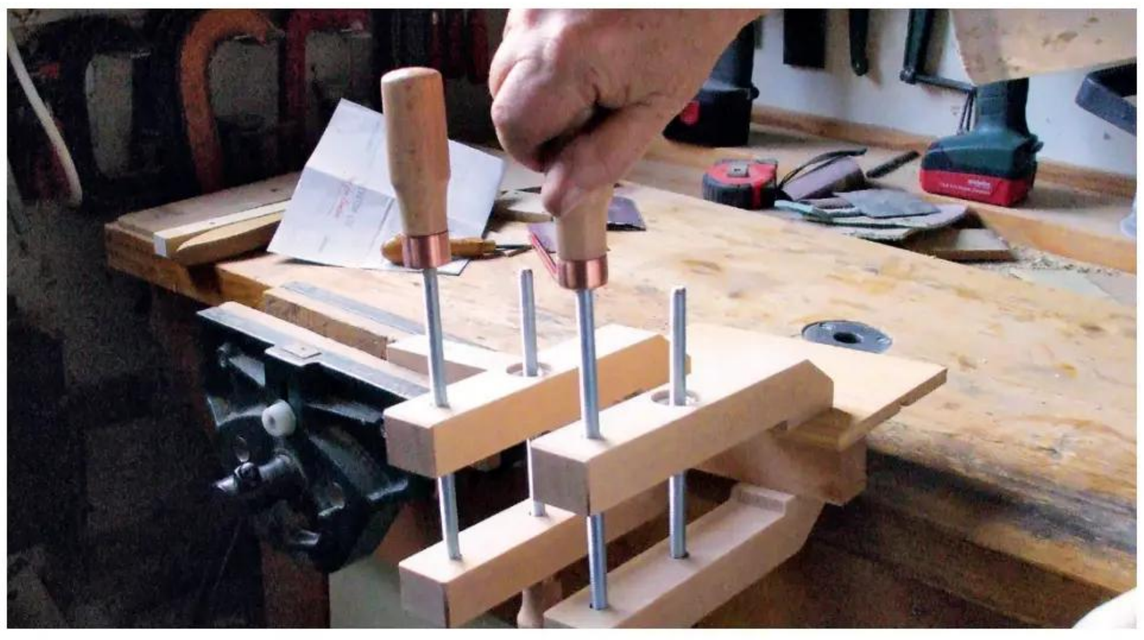
6 Drill each hole 70mm deep; use a three-jaw chuck mounted in the lathe

7 Turn each handle blank down to a cylinder and decorate it to taste



8 Glue the ferrule in place with epoxy adhesive and finish the handle

9 Cut the lengths of studding and glue them into the handle holes



10 Turning both handles together opens and closes the cramp jaws

AROUND THE HOUSE WITH PHIL DAVY

Unless we're fortunate enough to have a huge workshop, most woodworkers will devise various solutions to the problem of space, or lack thereof. Although I'm thankful for my new 'shop, it's already feeling somewhat cramped, particularly as my big old bench is back in action after lying dormant for a couple of years. No matter how well we plan the layout, a new machine or piece of equipment can force us to have a rethink. With pretty much all available wall space filled with shelving and tool storage, heavier items such as bench-top machines need to be stowed below work surfaces.

A simple answer is to fit castors where possible, so these items can be wheeled out as necessary but don't interfere with the general working area when not required. A couple of simple plywood trolleys enable tool chests to be moved around, while my sharpening station can now be shoved into a corner until needed. If only there was a Tardis designed for woodworkers!

Q&A
ROUTING CONUNDRUM

Q I need to produce several metres of softwood skirting for a renovated cottage. This must match the original pattern. Walls aren't true or square and the plasterer has rounded the external corners. Before I get to the fixing stage, though, what's the best method of machining custom skirting? Should I use a router table or work freehand? I don't have access to a spindle moulder.
C Clements, Norwich

A Use a profile gauge on the existing skirting to draw an accurate cross-section. Depending on its height and thickness, decide whether you can adapt a stock skirting pattern – e.g. Torus – or need to produce it from scratch using PAR timber. You may need two or three router bits to create the required profile. Check out websites or catalogues of routing manufacturers such as Trend Tool Technology – **www.trend-uk.com**.

Basically, if routing a profile on long lengths of timber – say, 2.4m plus – I'd be inclined to use the router handheld. Providing you have another pair of hands to take timber off at the outfeed end, using a router table is fine for long lengths. That said, you should use a pressure device – Shaw guard – to keep timber tight against the fence; this also means you can generally push the timber through roughly to midway, walk around the table and pull the remainder through. With a table you really need extraction.

A ¼in router would be easier to use handheld as these are lighter and more compact than ½in tools. A ½in router is more powerful and tends to be more efficient, depending on cutter choice, but can be unwieldy with large cutters. You'd also need to cramp the timber to a Workmate or similar

Q&A
WEATHER THE STORM...

Q I want to make some garden furniture. Can you please advise which is the best timber to use in terms of standing up to the British weather?
Michael Cowe

A Assuming that your furniture is going to be left outside in all weathers, there are several suitable timbers to choose from, though budget will probably play a part. Hardwoods will generally last longer than softwoods and withstand more abuse. That said, western red cedar – a softwood – is naturally durable and its straight grain makes it easy to work. Often used for roofing shingles, it's not particularly strong but is often used for top quality sheds and greenhouses and is also relatively inexpensive. I wouldn't use softwood such as pine for outdoor furniture unless it's well protected and not subjected to inclement weather.

Oak or teak? Both are ideally suited to outdoor use

Timber should be treated once you've built the project

The ultimate timber for outdoor furniture is teak, which is traditionally used for boat decks and will withstand the harshest conditions. Teak contains natural oils so will repel water, though it should still be coated with a finish. It's a timber that's beyond most people's budgets these days, though. Afrormosia and iroko are African substitutes, which are extensively used for mass-produced outdoor furniture. While Afrormosia is more attractive, this timber is becoming more difficult to obtain. If you're tempted to use iroko, ensure to wear a decent face mask during cutting and sanding, as it's pretty nasty stuff. The grain is usually interlocking, so you'll probably have to plane some boards from both directions.

European oak is attractive, extremely durable and widely used for exterior joinery. Check with local timber suppliers and you should be able to find some homegrown oak, though this is likely to be more expensive than French, American or eastern European oak. Ensure to use an adhesive that's recommended for exterior use, such as Titebond Ultimate III, which claims to be waterproof rather than weather resistant. Alternatively, use a polyurethane glue, although these do have a limited shelf life.

Timber should be treated once you've built the project. Most hardwoods will be fine treated with teak oil or a suitable exterior furniture oil such as Rustins Danish. Oil is easy to maintain, and furniture should be treated twice a year. For durability you could use yacht varnish, though this does look rather artificial. Normally associated with a deep gloss, you can buy some brands in a more subtle satin finish. I've had pretty good results with both Ronseal and Rustins Yacht Varnish. If you're happy with a gloss finish, Rubio Monocoat's DuroGrit is excellent. Avoid acrylic finishes, even though they may be labelled for exterior use. If you decide to use softwood, ensure to apply two coats of a clear preservative – such as Cuprinol, for example – prior to any finish

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STANLEY® FATMAX® 130MM FOLDING JAB SAW

ONE TO KEEP IN YOUR GARDEN SHED

To be honest, this isn't the sort of tool most woodworkers would keep in the workshop, but it could be fairly useful if your skills stretch to building or renovation work.

Primarily intended for cutting plasterboard, at a pinch the Jab Saw can be used on timber as long as you don't expect a good, clean cut. It cuts slowly, too. With JetCut teeth (8tpi), the rigid blade is 130mm long and produces quite a coarse finish.

Teeth are triple-bevelled, meaning they cut on both the push and pull stroke. The blade is pointed, which allows you to start a cut in plasterboard by simply plunging it in.

What's especially handy is the fact the blade can be locked safely in three different positions – 90, 135 and 180° – then folded back into the soft-grip plastic handle when you've finished.

Press the red button each time to release the blade, which locks automatically as you adjust the angle. The blade isn't replaceable, so once this becomes blunt the Jab saw could easily be relegated to tasks such as garden pruning.

FEATURES

- Three locking positions – 90, 135 and 180° – ideal for corner or ceiling cuts/improved leverage
- Three-sided JetCut teeth cut on the push and pull stroke – 50% faster than traditional tooth designs
- 8tpi blade – ideal for cutting through plasterboard
- Fold away storage – for safety
- Locking mechanism locks blade in open and closed positions for safety and convenience
- Soft grip handle – for added comfort
- Ultra hard teeth with sharpened tips for punching through plasterboard

Typical price: £14.99
Web: www.stanleytools.co.uk

The blade can be locked safely in three different positions – 90, 135 and 180°...

... then folded back into the soft-grip plastic handle when you've finished

At a pinch, the Jab Saw can be used on timber as long as you don't expect a good clean cut

TECHNIQUE:
OAK TABLETOP

TABLETOP REVAMP

Like the chest shown opposite, this church communion table was looking shabby, although only the top needed refinishing. In veneered oak with solid timber edges, most of the existing finish was removed by sanding. This time I used Rustins Finishing Oil, followed by their Premium Wax Polish – **www.rustins.ltd/rustins**.

1 On veneered surfaces, don't be tempted to use a belt sander; a random orbit machine is much easier to control

2 A traditional cabinet scraper is an effective tool for removing varnish or lacquer, but ensure to keep the edges sharp

3 For moulded edges, use abrasive wrapped around a piece of dowel, or wood shaped to match the profile

4 Fill any small defects with appropriate filler, such as Elmer's; larger areas may require patching with veneer

5 Sand with 320 grit abrasive, then brush on two coats of oil, denibbing between them; wipe off excess after 10 minutes

6 Lightly sand, then apply clear wax polish to the surface. For a perfect finish, buff with a brush or cloth once dry

Takes:
Days

Tools you'll need:
Heat gun, sander, elbow grease...

SUMMER PROJECT: CHEST REVIVAL

HEIRLOOM RESTORATION

Phil Davy gives an old piece of furniture that'd seen some serious family action a welcome facelift

Sometimes you come across a piece of furniture that's been in the family for years and is looking rather battle-scarred. This chest of drawers was certainly never a piece of fine woodwork and had been covered in several layers of paint. In fact, I can remember my mum painting it when I was a nipper, along with the kitchen table, bathroom stool and virtually anything that moved!

With old furniture like this, it can be difficult to assess how much work is required. When do you stop? I decided it was worth restoring, though not exactly taking an antique restorer's approach. Although the chest had been in the family for at least 60 years, I'd love to know its origins, however humble. It seems to have been made from low-grade timber, or perhaps it was an early example of wood recycling?

Some drawer sides were virtually rough-sawn and looked more like packing crate material, while the backs were a mix of pine and elm and the rear, thin ply. There'd been no attempt at matching grain or colour on the drawer fronts, giving the chest a certain rustic charm. Who knows, maybe it'd been built as a wartime utility item?

Sanding & bleaching

I'd actually started stripping the paint a few years ago and put the project on hold. That was before I'd stumbled across the wondrous heat gun. Without this tool, chemical stripper or sanding is the best way to proceed, working outdoors if at all possible.

Any sort of sanding task is pretty tedious, even with the most sophisticated power tools. If you have the luxury of a willing volunteer, this could be the time to get family members involved. It's not a bad idea to limit sanding to about five minutes per stint, then take a break. This is important if your hands start tingling from vibrations caused by the sander.

After working through the abrasive grades – 80 to 240 grit – the carcass sides were still rather patchy. This meant having to bleach all the timber followed by staining to restore the colour. Rustin's bleach is supplied as two solutions: activator and the bleach itself – hydrogen peroxide. A couple of applications were needed on the carcass, followed by scrubbing off some crystal deposits that formed in one or two places. Depending on the final finish used, it's important to neutralise the bleach. Another light sanding and the chest was ready for staining. I used Rustin's Light Oak Wood Dye, though with hindsight, a deeper colour may have been more effective.

Final finishing

Instead of an oil finish, which I tend to prefer for oak, I decided to use a satin polyurethane varnish. Rustins is more viscous than some brands, so it's best to thin the first coat with white spirit. In fact, I failed to do this on the drawer fronts and regretted using the varnish straight from the tin. Warm weather doesn't help when brushing out a heavy finish, though it obviously speeds up drying. Still, thinning the varnish for the carcass made it much easier to brush on the first coat. A couple of coats gave a decent finish, though produced a less natural look than oil.

To complete the project, I fitted elegant new oak knobs, supplied by Wooden Knobs & Handles – **www.wooden-knobs-handles.co.uk**. This Lancashire woodturning business produces a wide range of classic shapes in ash, oak, cherry, beech, maple, iroko, sapele, zebrano and walnut, as well as offering a bespoke service.

1 This old chest is in desperate need of some cosmetic surgery, though it's not actually too dilapidated

2 Remove existing handles to make it easier to work on the drawers. New knobs will be fitted after varnishing

3 Some drawers may be worse than others; although these fronts are dovetailed, backs are only nailed to the sides

4 A heat gun used with a shave hook or stripping knife is the fastest way to remove several layers of paint

5 Although a belt sander can be pretty aggressive, it's a great tool for cleaning up wide, flat areas...

6 ... while a palm or detail sander is ideal for getting tight into corners; however, hand sanding will still be required

7 Glue and cramp any split drawer components or loose edges; sand once the glue has dried

8 Fill any cracks or blemishes with matching filler and sand back when dry; this may need tinting later

9 When sanded, brush on the activating solution and allow to dry, then apply the bleach in the same way

10 The bleach now needs to be neutralised with water; if stains persist, repeat the bleaching process

11 Lightly sand, then stain the wood to restore the colour; to check this, it's advisable to carry out an initial test on the back of a drawer

12 Brush on two coats of suitable satin or matt varnish, thinning the first one with white spirit if necessary

13 If some drawers are lighter than others, darken with coloured wax; screw new knobs to the fronts to complete

14 While it may not be an antique, the finished chest is certainly more presentable than it was originally

The simple design of this box allowed the wood's character to take centre stage

CHISEL RATING

MORE THAN JUST A BOX

Les Thorne demonstrates the versatility and potential beauty of a simple turned box

WW TURNING

1 Mount the timber between centres and turn round using a spindle roughing gouge, forming spigots on both ends

"Boxes are square, aren't they?" People sometimes get boxes and cubes mixed up. Boxes don't have to be square, and so they needn't be beyond the remit of an adventurous woodturner. Which is just as well, because the box is without doubt one of the most versatile and interesting forms to make.

I always explain to newcomers that wood is normally sold by cubic volume, so a piece of cocobolo measuring 230 × 230 × 76mm may cost up to £40 and you'd get one bowl out of it, but if cut into nine pieces – 76 × 76 × 76mm – you could get nine boxes out of it, so therefore a good use of expensive timber.

The other great thing about boxes is that you could probably make thousands of different styles without ever creating the same two designs. Turned boxes go back to at least Roman times and there's several styles of treen in the famous Pinto Collection, typically utilitarian in nature, used for tobacco, pills, or in the case of thinner boxes, as needle cases.

The process is pretty much the same for most styles of box, however, so for this introduction, I've made a simple straight-sided box.

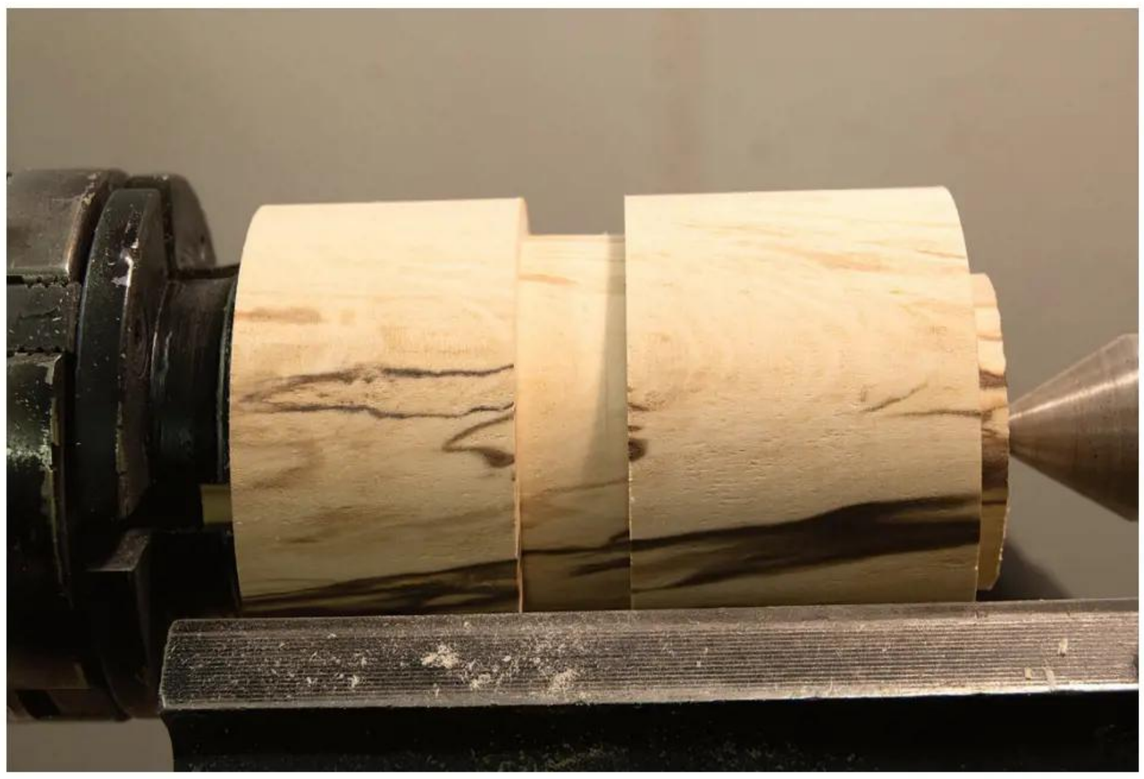
Getting started

With the design of my box being so straightforward, I decided to use a stunning piece of wood. Much of my work is coloured or textured, but when you're dealing with timber like this spalted hornbeam, no artificial embellishment is necessary.

To begin, mount the wood between centres, then use a spindle roughing gouge to make the piece round, with spigots on both ends (**photo 1**). The spigots are there because both the lid and base will need to be hollowed out; I've turned parallel spigots because they fit in the chuck that I use, but if your chuck has, say, dovetail jaws, you'll simply need to turn spigots to suit.

You now need to decide which end is going to be the lid. On this simple shape, it makes little difference, but if the timber sports a fault – such as a split, for example – you should try to place it somewhere in your design so that it can be removed during the course of turning. Put the lid's spigot into the chuck using the tailstock to line it all up and decide where the join's going to be. An educated guesstimate – technical term – has given me a 2:5 to 3:5 ratio. Next, use a parting tool to cut a spigot down to the required diameter (**photo 2**); remember that this diameter will determine the lid's wall thickness, as it needs to fit into the base's top (**photo 3**). With the base parted

2 Use a parting tool to turn the spigot where the join between the lid and base is going to be...



3 ... the diameter of which will determine the lid's wall thickness, as it needs to fit with the base's top

off, I left a small witness on the lid (**photo 4**). As long as the spigot is parallel, this should now be the same diameter as the base's main spigot. All I needed to do then was hollow it to that line and the base would fit – easy really.

Hollowing

The 10mm spindle gouge is my choice for beginning the hollowing process. Present the flute pointing at 10 o'clock with the right hand slightly lowered (**photo 5**), ensuring that the tool tip enters at the work's dead centre. Once a hole is drilled out by the gouge, move the tool handle away from you, keeping the flute at 10 o'clock until you start to come up the side, where it's advantageous to close the flute off slightly to 9 o'clock; this'll make the cut smaller when more of the tool's cutting edge is presented to the wood. I like to take most of the wood out with the gouge before moving to the scraper for squaring up the inside (**photo 6**).

The lid will need to be a really tight fit at this stage so ensure to remove small amounts at a time (**photo 7**); remember that whatever you take off one side will also come off the other, so small, fine cuts are the order of the day.

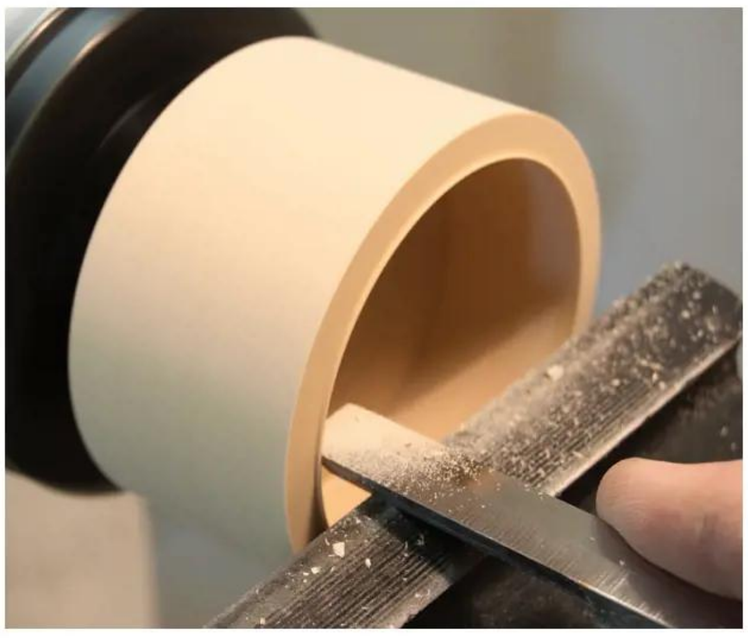
Next, sand the interior, being careful not to touch the area that the spigot fits onto.

Top of the lid

Remove the lid from the chuck, replace it with the base and ensure that it's running true. Place the lid onto the base – hopefully you have a nice tight fit, but if not, a layer or two of paper towel will help (**photo 8**). Be warned, however, that if you have to use too much, you may experience vibration during the next turning process. If you do make that mistake, it's probably worth making a new lid, perhaps from a contrasting timber.

4 Note the tiny ridge that denotes the spigot's diameter

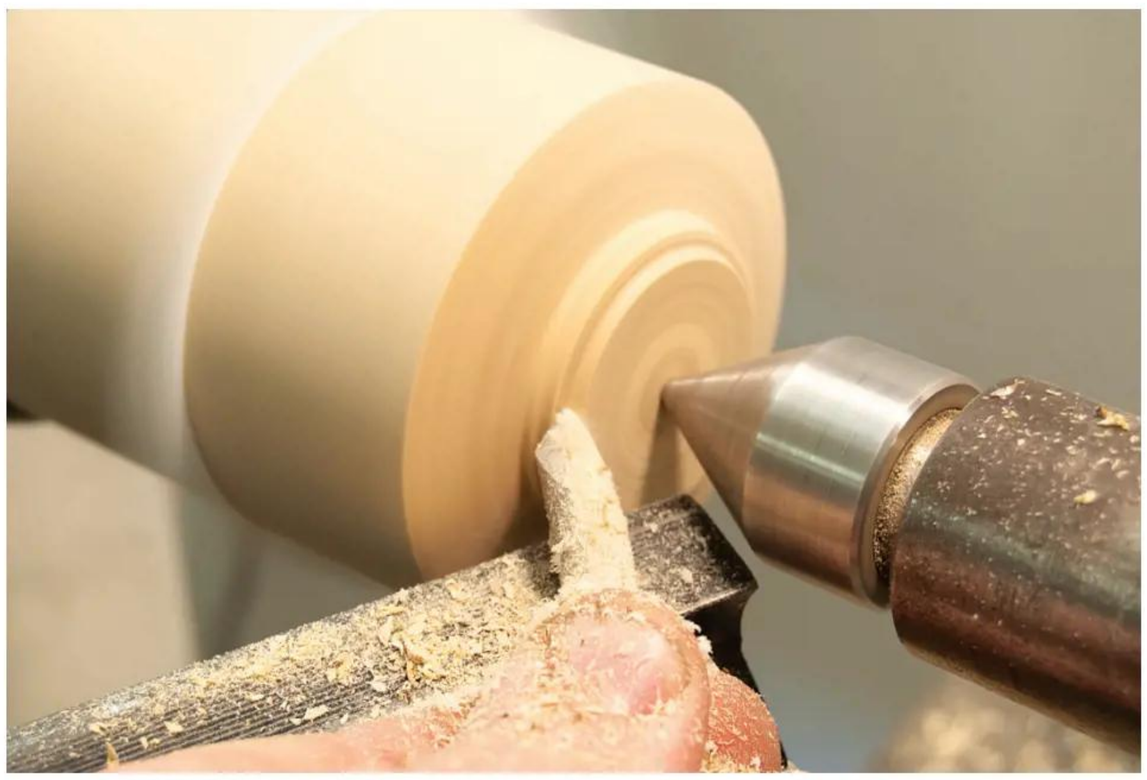
5 To begin the hollowing process, present the flute at 10 o'clock with your right hand slightly lowered



6 I carry out the majority of the wasting with a gouge, before squaring up the inside using a side-cutting scraper

7 I made it too loose on purpose – honest! The lid needs to be a really tight fit, so ensure to remove small amounts at a time

8 A piece of paper towel will increase the friction fit, but if you use too much, you'll experience vibration later



9 To create a slight dome on the lid's top, use a push cut with a gouge – ensure to keep the bevel rubbing

10 Sanding – my favourite pastime – not! Use abrasive and work through the grits to remove tool marks

Using the tailstock for a little added safety, remove the spigot. A slight dome on the lid's top will make the piece more aesthetically pleasing, for which I use a gouge (**photo 9**); a parting tool could tear out the grain, which will result in a poor finish – remember that end-grain is very difficult to sand. I could carry out a pull cut by positioning the flute at 10 o'clock and pulling it towards me, but my preferred method is a push cut with the bevel rubbing and the flute at 2 o'clock. It's best to either use one or the other techniques as a combination of the two could leave a finish that'll show some marks when the polish is applied, as this may penetrate the wood inconsistently.

Once you've turned the top to a pleasing shape, sand through the different abrasive grades (**photo 10**). Ensure that the first one is coarse enough to remove any remaining tool marks and, as you're sanding end-grain, it's best to avoid generating heat as that may result in small heat checks. At this stage, I sealed the wood with sanding sealer, but don't apply the lacquer just yet (**photo 11**).

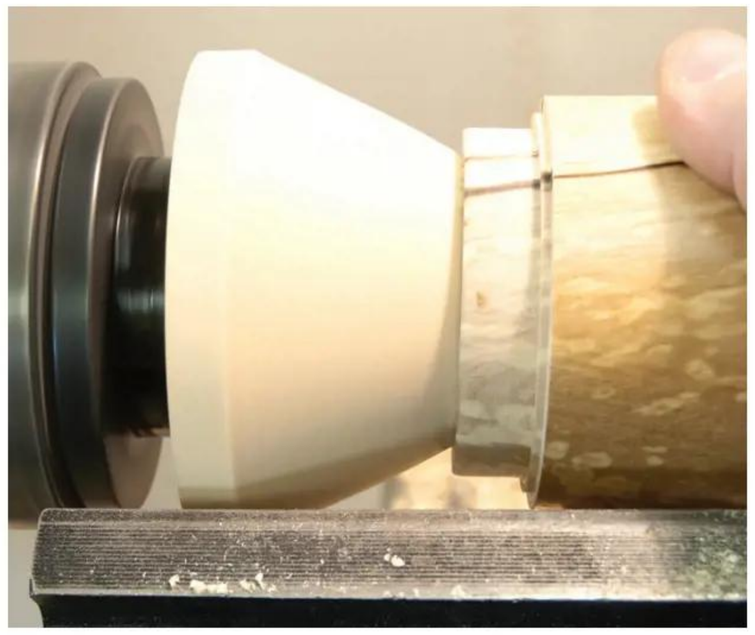
The base

Now to hollow the base. It's best not to take the wall thickness down too thin on timber such as this, though if it's a dense hardwood such as ebony or rosewood, a thinner walled box would be possible. Remember that the further you work off the toolrest, the more down-force will be required on the tool's end, so hold on firm and take light cuts. Watch your fingers when sanding the interior, slow down the lathe, and don't wrap the abrasive around your fingers in case it grabs.

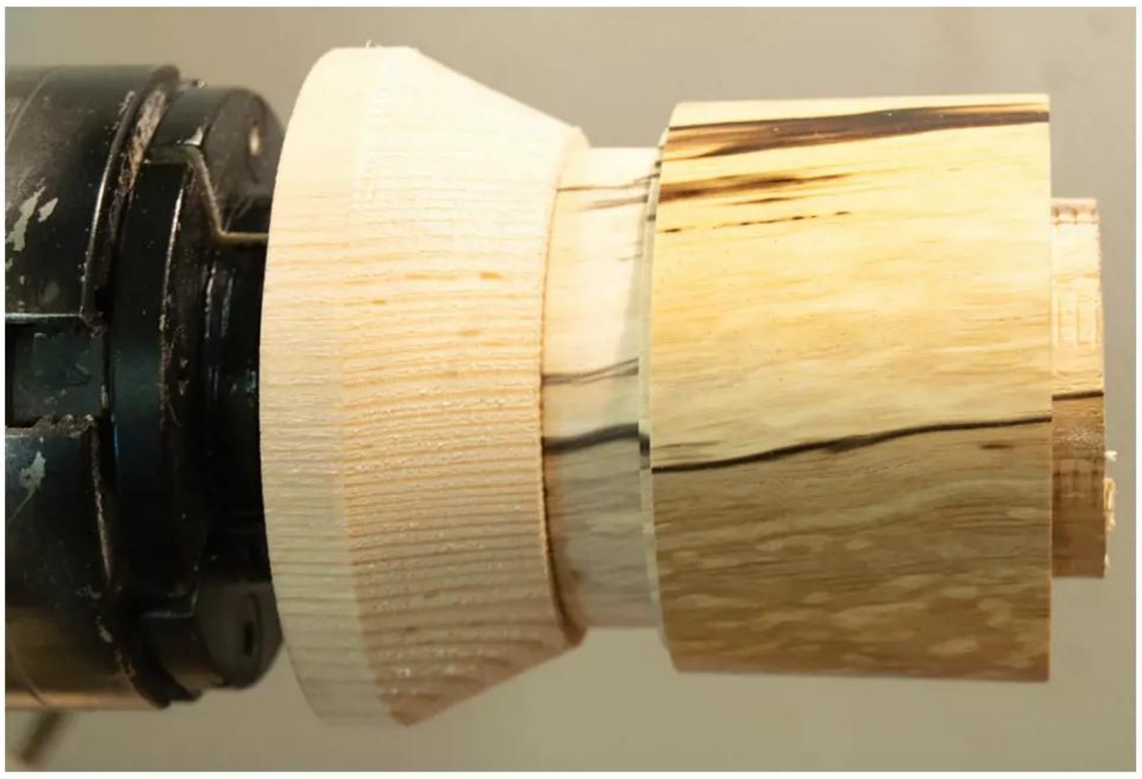
You'll find that a quality finish can be achieved straight off the tool, doing away with the need to sand. When putting the lid on the base, the grain probably won't line up as about 13mm of

11 Due to its spalted nature, lots of sanding sealer is required to seal the wood

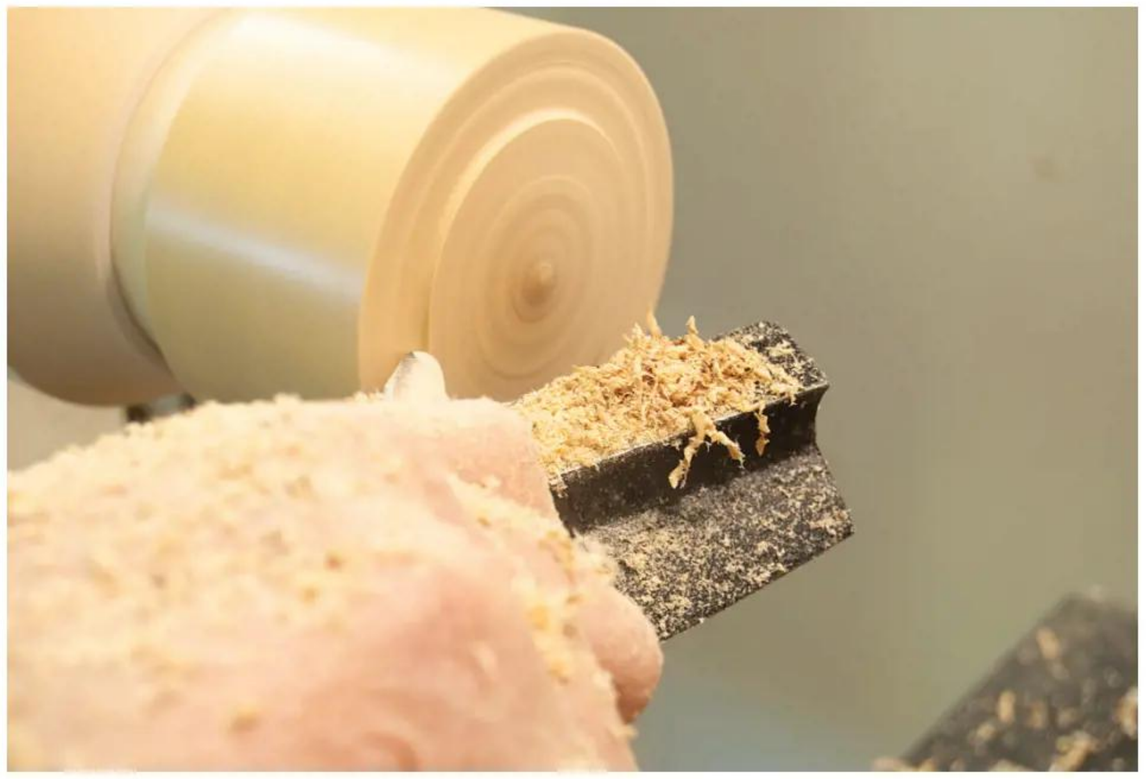
12 A small groove on the base where the joint is located puts a punctuation point between the two surfaces



13 Turn a jam chuck from softwood, transferring the base's inside diameter...

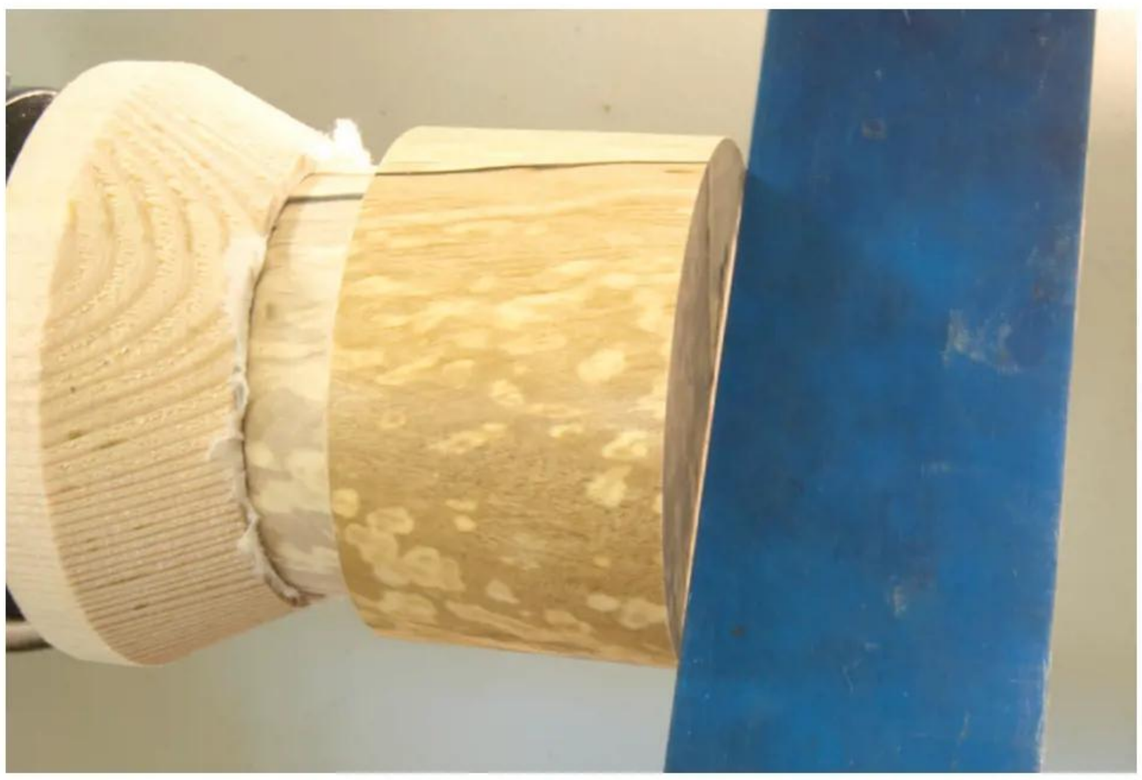


14 ... then turning down to the mark, ensuring that the base's top locates against the jam chuck's shoulder



15 You can turn off the spigot using either a push...

16 ... or a pull cut...



17 ... and put a slight concave shape into the box's base, so that it always sits on the outside edge

18 Using the point of a skew as a scraper, make some decorative grooves...

19 ... I prefer three: two for my name and one for the wood species

the timber has been removed, so I cut a small groove on the base where the joint is; this puts a punctuation between the two surfaces (**photo 12**). The lid may well be too tight at this stage so ease the fit using either a tool or abrasive. I like the lid to have a slight suction so that you get the feeling of it just grabbing as it's removed.

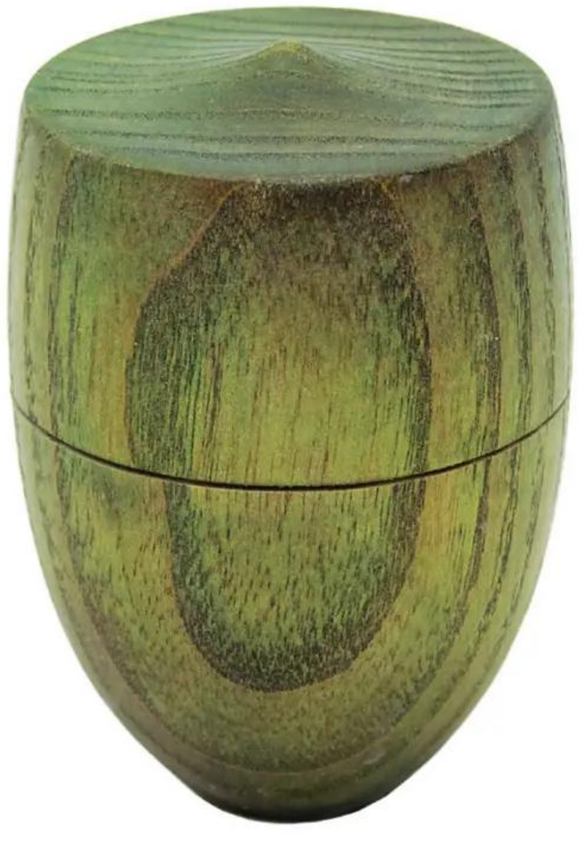
The box is now complete apart from the spigot on the bottom; of course, you could just part off, but it's much better to reverse turn the base and remove the spigot. I turned a jam chuck from softwood (**photo 13**), transferring the internal size by holding the base against the tapered piece of wood, then taking the remaining wood down to the mark that's made.

Ensure that the base's top locates against the jam chuck's shoulder; this gives it strength and accuracy (**photo 14**). Turn off the spigot using either a push or pull cut (**photos 15** & **16**) and put a slight concave shape into the box's base (**photo 17**). Using the skew's point as a scraper (**photo 18**), make some decorative grooves; I prefer three – two for my name and one for the wood species (**photo 19**). Now it's time to apply your desired finish. As mentioned in previous articles, I like the durability of lacquer, the gloss version being my preferred finish. 24 hours after the first coat, I cut it back with 800 grit abrasive; two more coats will give the wood a glossy finish without looking plastic coated.

Go forth, & box

Once you've learned the basic boxmaking techniques, there's numerous different textures, shapes and colours that can be employed. One of my favourite creations is the curly top box, which is made by turning a box and carving the lid into a curved spike. This lends itself to carving or pyrographing a texture into the piece.

I hope you find some inspiration in this article – please email photos of your boxmaking attempts to **tegan.foley@dhpub.co.uk**.



20 As this acorn-shaped box demonstrates, it's not just the lid shape you can play with

21 This lid design is a prime candidate for carving or pyrography

OFFERED

Router lathe – in good condition, includes router; £190 cash – buyer collects
07966 145 260 (Kent)

Coronet Major saw & lathe with extended bed – 56in centres on a wooden storage base plus other accessories – buyer to collect; £425
07970 312 532 (Worcestershire)

Hegner Multicut 1 Super Universal scrollsaw/fret saw – perfect entry model for the discerning hobby craftsperson – new, unused – still in box; £300 – cash on collection
01584 810 881 (Worcs)

Bandsaw – 16in depth of cut; 20in throat depth; compound 30sq.in table; two-speed 3HP motor; £400 – buyer collects
0114 233 4758 (Sheffield)

Elu planer in metal case plus Elu planer thicknesser attachment – both unused; £175 – buyer collects
07864 792 554 (Manchester)

Trend Mini Ellipse Jig – ideal for routing elliptical picture frames, mirrors, clocks & small coffee tables – in excellent condition, with manual; £50 ONO
01322 664 388 (Kent)

Startrite Super 310 Universal Woodworker – includes slot mortising attachment, original jigs, guides, handbook & loads of tooling – in superb condition; £4,500
07890 104 021 (Essex)

Henry Taylor & Marples pairing chisels: 2 × Henry Taylor chisels – 1½in; 1 × Marples pairing chisel – ¾in – good quality tools, made in England. Can post at cost or buyer collects; £80 ONO
07703 290 831

Draper WTL12 woodturning lathe – on matching stand, with set of six Sorby chisels – in very good condition; £200 ONO – cash on collection
07494 849 598 (Woodbridge)

Boxwood – well seasoned, for over 40 years – various diameters ranging from 20-50mm, of varying lengths; call for details
07449 914 078 (Milton Keynes)

Cherry wood – as advertised in the May 2024 issue – was £800, but price negotiable, or small lots, all for local hospice and for charity
01295 721 201 (Oxon)

Robert Sorby ProEdge sharpening system – never out of the box – buyer collects; £250
07722 842 547 (Somerset)

Gifkins dovetail jig with two sizes of cutters – 6 & 10mm. One cutter has a small nick in its wing, but cuts perfectly. Also included is the manual and an instructional DVD. Simple and accurate jig that produces very neat joints; £100 – collection only
01462 676 796 (Letchworth Garden City)

Coronet 'Minor' 10 function machine – lathe, planer, saw bench, etc.; £250 – buyer collects
01363 877 733 (Devon)

Stanley No.7 & No.5½ planes – brand-new; £80 each – buyer collects
01793 770 477 (Swindon)

Kity combi machine – in good condition with instructions – can ship cheaply; open to offers
07968 570 076 (York)

Coronet Imp bandsaw – in working order; ideal for accurate, small work. Cuts up to 12in widths; £75 – cash only
07977 100 313 (Slough)

***The Woodworker/Good Woodworking* magazines 2004–2023;** most in binders and in excellent condition; free for collection
07720 537 912 (Derbyshire)

Leigh Dovetail Jig – in excellent, likenew condition – supplied with cutters, hand-book, screwdriver and guide bush adaptors; £450 (OVNO)
07860 506 040 (Telford)

WANTED

Top-loading barrel log burner or similar
01473 658 546 (Ipswich)

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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The Woodworker Marketplace, David Hall Publishing, 1st Floor, Nene House, Sopwith Way, Daventry NN11 8EA. You can also email your free ad to:
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LET SLEEPING DOGS LIE

CHISEL RATING

Peter Vivian is commissioned to replicate a discontinued dog bed design, which he manages to achieve within the client's given time-frame

A familiar tail

Early last year, I was shown a photo of a dog bed in a magazine, and asked if I could make something similar, as the manufacturer was no longer producing them. The customer had explained that there was no particular hurry as it was intended as a Christmas present. As usual, when given this sort of time-frame, it was put to the end of a long job list, so much so that I actually only got round to it the week before Christmas Day! Many years ago, my wife bought me a sign for the workshop that says: 'If it wasn't for the last minute, I'd never get anything done!'

Taking the ruff with the smooth

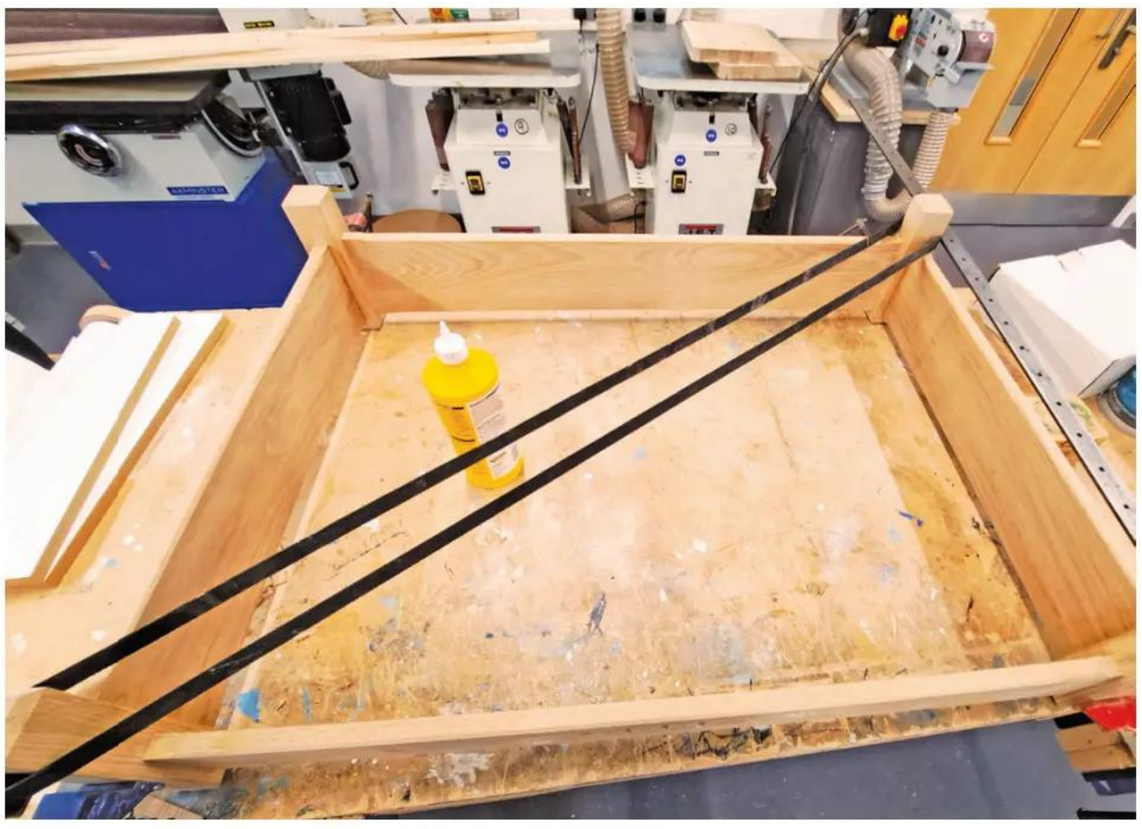
I had a few rough-sawn oak offcuts that were too short for much else, but figured they'd just about be OK for this job – well, I was half right! After running them through the planer/thicknesser, I started cutting the mortise & tenons for the front rail where it meets the legs (**photo 1**). It was at this point that I realised the piece I'd earmarked for the back rail was too short to cut the tenons, so I had to switch to dowels for the remaining joints (**photo 2**).

1 One of the mortise & tenon joints, for the point at which the front rail meets the legs

2 Remaining joints made use of a dowel construction

Four-legged friend

The legs are 200 × 50mm squares, and in an effort to use up some offcuts, a couple of them are laminated from 50 × 25mm strips. I chamfered the top and bottom of each using a router fitted with the appropriate bit. Using the same setup, I ran a stop chamfer around



3 Assembly for the legs and rails

4 Hand-carved lettering with paw print detailing on either side

the top inside and outside of the front, back and side rails. I assembled the legs and rails using PVA and sash clamps along with a web clamp positioned diagonally to ensure all was perfectly square (**photo 3**).

Signed

The photo of the original dog bed had the pet's name engraved on the front, which I had to try and replicate. This was likely done with a CNC router, but I chose to hand carve the name. Luckily, they wanted 'Bella' rather than her pedigree name, which happens to be 'Withamfriary Jasmine Shine'! I also added paw print detailing on either side (**photo 4**).

Sealed

With the bed frame completed, I sealed the oak with a coat of shellac sanding sealer thinned down with 10% methylated spirits, which helps to penetrate the wood. All surfaces were then sanded down to 240 grit and the dust removed, followed by three coats of Danish oil, ensuring any surplus was wiped off after no more than 10 minutes. Always lay the oil-soaked rag flat to dry out before disposal. A couple of coats of beeswax left the oak with a beautiful warm glow. I glued and screwed a 20mm square oak batten around the bed frame interior before adding the 75 × 25mm pine slats, which were screwed in place, but not glued (**photo 5**).

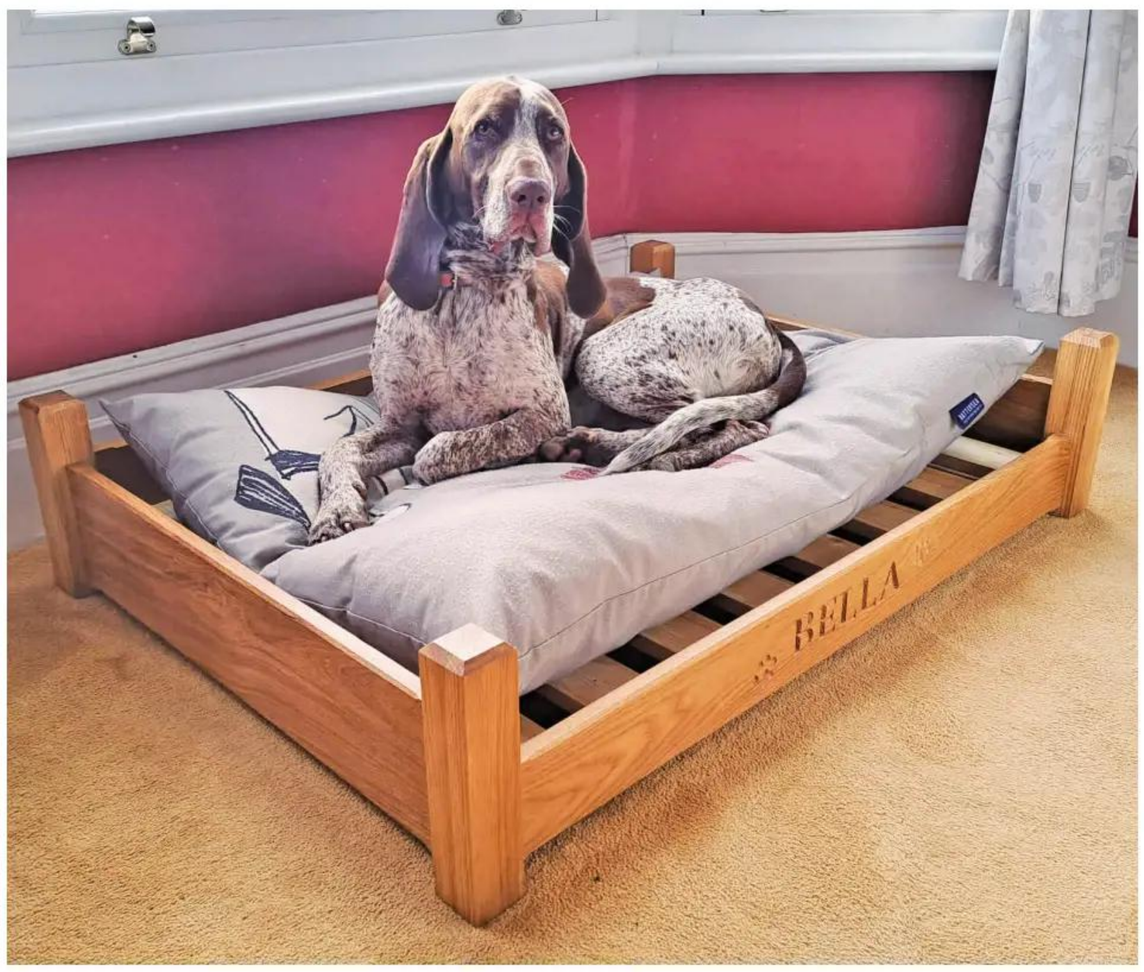
The customer had provided the dimensions of the mattress they'd purchased, which luckily fitted perfectly (**photo 6**).

Delivered

As previously mentioned, the bed was delivered in time for Christmas – just! Both the customer and recipient – Bella the pointer – were very happy with the end result.

5 The 75 × 25mm pine slats were screwed in place, but not glued

6 Luckily, the mattress purchased by the customer fitted perfectly



7 The completed project has Bella's seal of approval!

‘FOR MY PET’

Clearly made by a trained cabinetmaker, this diminutive chair was certainly in need of some major TLC, as **Michael Huntley** discovers

1 This child’s seat was a family heirloom...

2 ... which had to be completely rebuilt

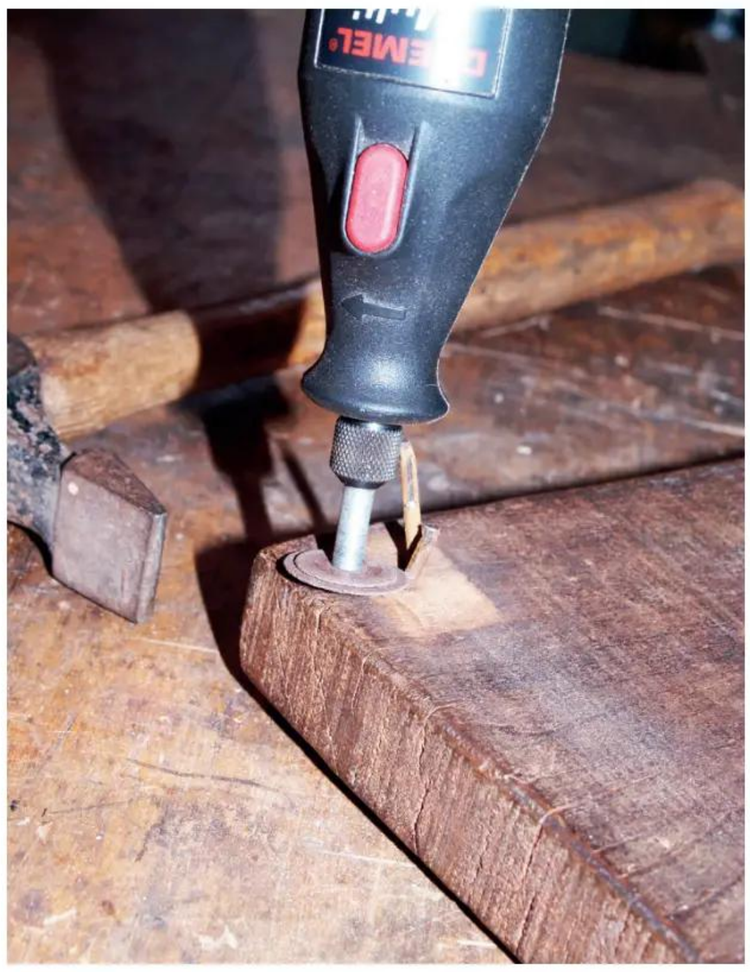
This tiny little chair was clearly made for a child, but by a trained cabinet-maker. The carved inscription on the seat says ‘For my Pet’ (**photo 1**). It was a family heirloom and needed to be re-built (**photo 2**). The carving is typical of that found on Edwardian furniture made just before World War I. It was originally held together by nails (**photo 3**), but had also been repaired with screws (**photo 4**) along with assorted glues. The timbers had shrunk so the nails no longer fitted in their holes and had to be, reluctantly, cut off. However, the heads were left intact to show the item’s original history.

The screws were removed as they weren’t original and dowels glued in place using animal, and therefore reversible, glue.

One back rail had been badly broken and re-glued with PVA; this had to be soaked and picked out with a dental tool (**photo 5**). In the same break there was a selection of little pins, none of which did any good and all added to the joint’s weakness. This was the one place where glue was appropriate because the rail was intended to be in one continuous length.

Once the joint was clean, it was epoxied together and the epoxy coloured with earth pigments to match the surrounding surface (**photo 6**). The adjacent surface was so badly stained that camouflaging the epoxy was simple. Bearing in mind that the intention was for another child or children to use the chair, the rail had to be strong, so epoxy, which being irreversible would only be rarely used, was right for the situation. Unlike constructional joints, it should never be necessary to get that break apart again.

Once all was cleaned up, those joints that could take glue were re-glued with animal glue and the seat dowelled on in the usual fashion for 19th-century chairs. Nevertheless, getting the shrunken components to line up correctly was difficult to achieve, and as such, some odd diagonal clamping was required to pull the rectangles back into line (**photo 7**). Finally, the upper rails would be eased into position using the original nails and cold animal glue squeezed into the original holes to help grip the pitted nail shafts.



3 It’d originally been held together with nails...

4 ... but had been repaired with screws

7 Imaginative clamping was required

5 A back rail had to be picked out with a dental tool

6 The epoxy was colour-matched with earth pigments to match the surrounding surface

NEXT MONTH

Coming up in the next issue...

The Woodworker
& Good Woodworking
September 2024 edition
– on sale 16 August

CHIPPENDALE SCHOOL 2024 GRADUATE SHOWCASE

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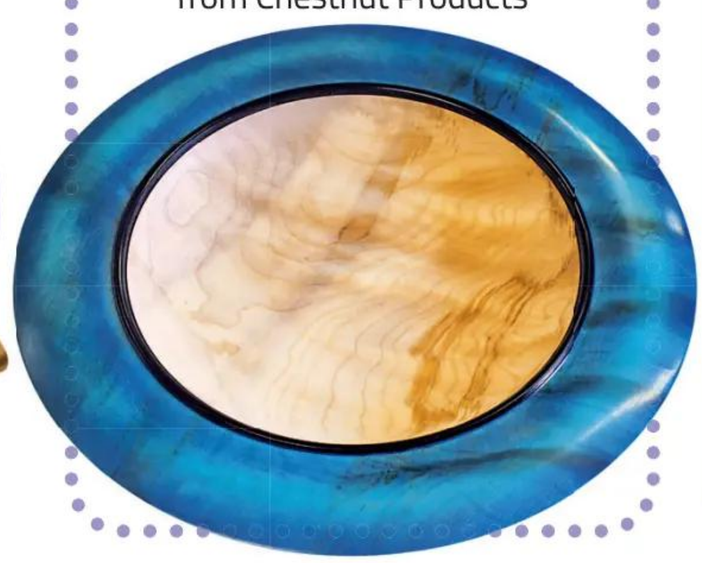
TURNING THE AIR BLUE
Les Thorne shows how to lift a plain sycamore bowl by applying airbrushing techniques, using a selection of bright, vibrant, pigment-based spirit stains from Chestnut Products



WESTONBIRT – AN ARBORETUM LIKE NO OTHER
Situated in Gloucestershire, Westonbirt, The National Arboretum, which boasts 15,000 specimens and 2,500 tree species from all over the globe, is perhaps the most important and widely known of its kind in the UK, as Paul Greer discovers

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PLUS ▪ Beginners' guide to turning – part 3: faceplate turning, bowls & platters
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English furniture history: The early woodworker ▪ Cabriole leg stool – part 2 ▪ Rocking chair
Beaded bath panel ▪ History of the screw

TAKE 5

This month's selection, each chosen for their unique detail and technical skill, from joinery to miniature woodturning, perfectly showcases the breadth and scale of what's possible

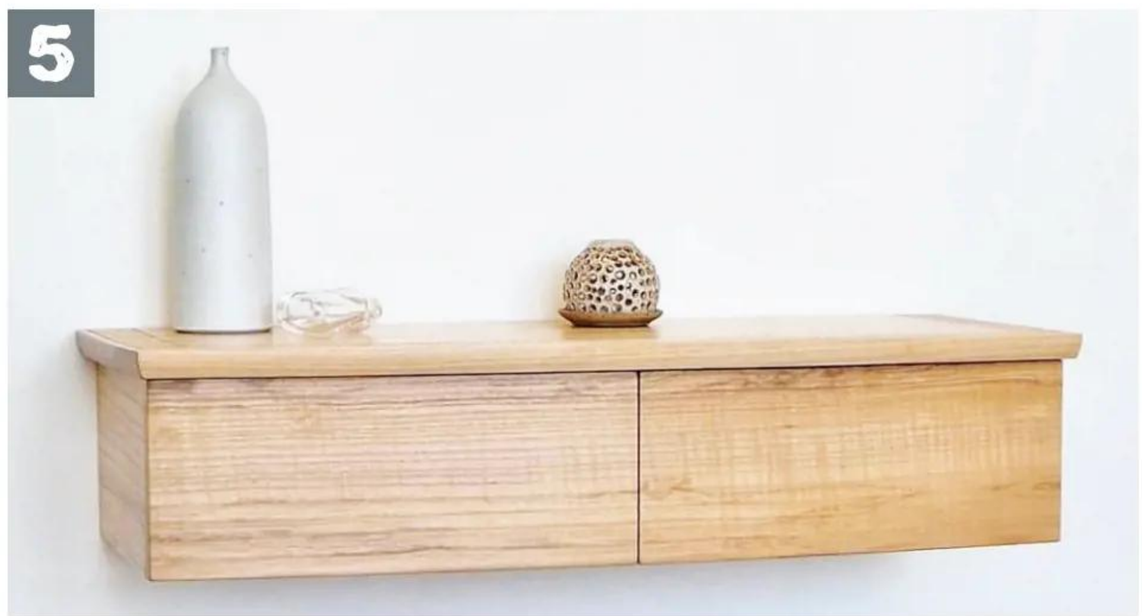
1 One of Robinson House Studio's – **@robinsonhousestudio** – most interesting box designs, made by former 50-week student James Linard – **@jameslinardfurniture** – one in bog oak and pear wood; the other in walnut and sycamore

2 Cardiff stool pair in solid premium walnut featuring through wedged tenon joinery – 457mm high × 355mm seat diameter, by Joshua Evans – **@evansjoinery**

3 'Elements' sharing set by Luke Hope – **@hopeinthewoods** – crafted from responsibly sourced sycamore: plate – 250mm diameter; spoons – 220 × 40mm approximately – sealed with natural, food safe oil and wax

4 'Minimum Art V', 2017, Granadillo and lemon tree, by Toni Porto – **@porto_escultor** – posted by Wood Symphony Gallery – **@woodsymphony**

Follow us on Instagram – **@woodworker_mag** – for regular magazine updates and posts



5 Two drawer floating shelf made from ash, harvested in North Carolina, USA, which will function as a small dressing table in the client's guest bedroom, by John Parkinson – **@johnparkinsonfurniture**

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