

The Woodworker

& Goodwoodworking

THE ORIGINAL & BEST SINCE 1901



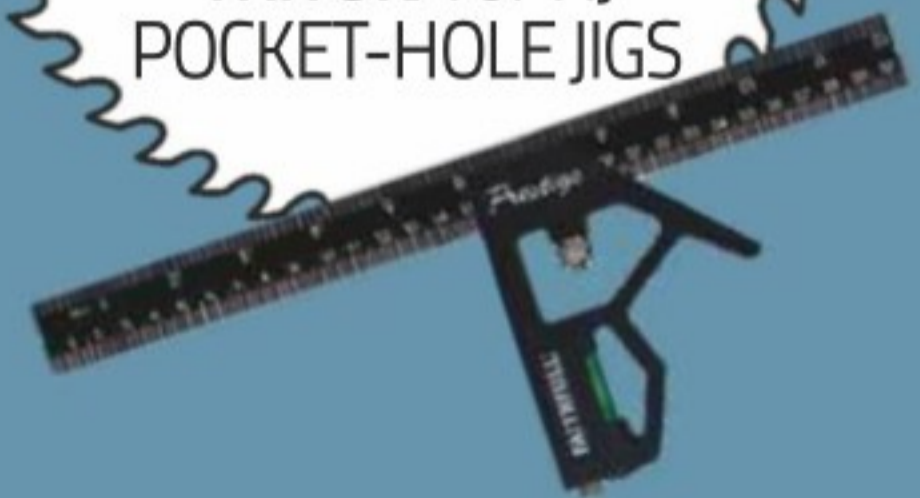
FURNITURE MAKING FINESSE

2019 Peter Sefton Furniture School graduates share their award-winning work



DOUBLE WIN!

FAITHFULL TOOLS
CNC MEASURING
PRODUCTS &
TRITON T6PHJ
POCKET-HOLE JIGS



PLUS...

- ON TEST EXCLUSIVE: NOVA VOYAGER DVR 18IN DRILL PRESS
- LES THORNE SHARES HIS WOODTURNING ALCHEMY SECRETS
- PETER DUNSMORE REMAKES A NOVELTY MONEY BOX FROM 1951

www.getwoodworking.com



£4.75

A SERVICE

YOU CAN RELY ON



**OVER
17,500
PRODUCTS
IN STOCK
AVAILABLE
NEXT DAY**

It's what **every tradesperson** needs!

We won't let you down

Get your FREE CATALOGUE today! Order by phone or online



CALL: 7am-8pm 7 days a week

0808 168 28 28



ONLINE: Shop 24/7!

IronmongeryDirect.com

IronmongeryDirect

MASTERS OF OUR TRADE

2019 Peter Sefton Furniture School graduates



Welcome

One thing that never fails to surprise me in the world of woodworking is the sheer amount of talent that exists – not just in this country, but all over the world. People are using their inventiveness to create pieces that are jaw-dropping and completely unique, but that should not take away from the equal skill of creating pieces that are both timeless and traditional. There is a whole host of diversity out there, and that's what makes this industry such an exciting one to work in.

Emerging new talent

I see pieces each month that impress and inspire me in equal measure, but September (when I'm writing this) seems to have been exceptional in terms of those that have crossed my path, most notably the items made by the six Peter Sefton Furniture School graduates, all of whom are pictured above. Their pieces are featured on the front cover, but I also wanted to show the faces of the makers behind them. It's difficult to choose a favourite, but if pressed, I think I'd have to settle on Charles Colbourne's 'Parabola Side Table', made using pearwood and sycamore, as it not only draws the eye, but also gets the head spinning as to how on earth such a piece was, not only conceived, but also constructed. The intricacy and attention to detail displayed are exceptional and there's clearly a reason why he was awarded the 'Outstanding Furniture Design' prize.

Congratulations to Charles and the other students on their graduation, and to Peter Sefton for educating another set of marvellous furniture makers, who I'm sure will each go on to impact this fantastic industry.

Attention-grabbing pieces

Another set of pieces that really caught my eye were those winners from the recent Celebration of Craftsmanship & Design exhibition. The star of the show, being chosen as the winner of the 'Furniture Makers' Company Design Award', was Fernanda Nunez and her



Andrew Pincher



Charles Colbourne



Fernley Card



Jon Robinson



Mark Clare



Tia Owen

stunning 'Guilloché' bedside tables, which elicited comments such as "extremely accomplished cabinetmaking". But that wasn't all. Adrian McCurdy's 'The Ark', winner of the '2019 Best Use of British Timber Award', also caught the attention of the judges due to every aspect of the piece being bespoke and considered. Heralded as "a masterpiece of skill and commitment", Adrian's sculptural version of a Medieval Ark was inspired by a museum replica seen in the V&A some 30 years ago.

As before, a massive congratulations to all the winners, many of whom will be profiled in the magazine over the coming months.

Championing new talent

The notion of new talent gracing the furniture making world brings me nicely on to the subject of The Alan Peters Furniture Award 2020, details of which were launched back in our August issue. We're incredibly honoured to be part of this fantastic collaboration, which aims to champion, highlight and showcase the work of UK furniture makers. We're so excited to see the pieces that are put forward, and if you haven't already, do get working on your submission, as although the deadline isn't until 30 May, we all know how quickly time flies! Full details of the Award can be found on pages 34-35.

Lastly, I do hope you enjoy our November issue and thank you again for being part of our wonderful woodworking family!

Email tegan.foley@mytimemedia.com



Tegan Foley

Group Editor



Phil Davy

Technical & Consultant Editor

We endeavour to ensure all techniques shown in this issue are safe, but take no responsibility for readers' actions. Take care when woodworking and always use guards, goggles, masks, hold-down devices and ear protection, and above all, plenty of common sense. Do remember to enjoy yourself, though

79 TURNING ALCHEMY: wood into metal

Is Les Thorne's latest piece made using wood or metal, or perhaps a combination of both? Read on to discover his trade secrets and how he uses woodturning alchemy to create stunning items such as this one



**Double
WIN!**

1 of 2 Triton T6PHJ Pocket-Hole Jigs

A revolution for the production line, Triton's new T6 pocket-hole jig with SpeedDrive™ makes drilling pocket-holes four times faster – turn to page 53 to find out how you can be in with a chance of winning one! Good luck!



1 of 3 Prestige Combination Squares or 1 of 2 Prestige Tri- Scale Engineer Rules

To celebrate the launch of Faithfull's new CNC Measuring Range, we're giving five lucky readers the chance to win some great tools – see page 19



veritas®

SEND IN YOUR TOP WORKSHOP HINT OR TIP & YOU COULD BE IN WITH A CHANCE OF WINNING A VERITAS LOW-ANGLE JACK PLANE – WORTH OVER £250!

See page 62 for details



PROJECTS & TURNING

26 Mission impossible – part 4

In the final part of this series, Shaun Newman adds the fingerboard and frets, top nut and saddle bone, a finish, strings it up and sets the action, before making a bespoke flight case



56 Small change

Featuring a cleverly hidden secret opening, Peter Dunsmore remakes this novelty money box from the March 1951 issue of *The Woodworker* but adds a few modern techniques

74 Workshop roof revamp

With the arrival of winter, Phil Davy gets to grips with a garage workshop roof revamp to ensure his valuable tools and machinery are protected from the elements

88 After winter comes string

Get organised with these string boxes by Dave Roberts



TECHNICAL

37 Woodworker's encyclopaedia – part 10

Cooped up, coppicing, cord, cove and cross shakes all feature in part 10 of Peter Bishop's timber directory

44 CNC & the home workshop

Roger Spratley explains the basics of CNC machines, how they can be used to augment the tools you already have, as well as expanding what you can do

66 What is it about David Lloyd?

Edward Hopkins wonders



REGULARS

- 3 Welcome
- 8 News & courses
- 9 Timber directory
- 15 D&M editorial
- 32 Archive
- 62 Letters & readers' tips
- 72 Around the House
- 92 Next month
- 97 Marketplace

ON TEST

- 16 Nova Voyager DVR 18in Drill Press
- 22 Ryobi ONE+ AirStrike 18Ga nailer
- 24 Micro Jig MATCHFIT Dovetail Clamp Pro
- 72 Faithfull angle gauge
- 73 Faithfull mitre saw protractor

FEATURES

32 The vital spark

Robin Gates revisits the work of 20th century master carver Gino Masero, featured in the April 1966 issue of *The Woodworker*

34 The Alan Peters Furniture Award 2020

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

42 Orangery rescue – part 2

Carrying on from the last issue, joiner Gareth Jones continues his tale of orangery repair woes as he has the pleasure of encountering a rather terse land agent

48 2019 Peter Sefton Furniture School graduate showcase

Here we take a closer look at the award-winning work of the 2018-19 Long Course Graduates on the Peter Sefton Furniture School Furniture Design & Maker's Course

54 Me and my workshop – Walter Havinga

This month, join us as we take a look around the workshop of Devon-based Musical Instrument Engineer, Walter Havinga

65 Following dreams

If woodworking is your passion, then go for it, advises Anselm Fraser, Principal of The Chippendale International School of Furniture – after all, life is too short for regrets

84 Furniture – product or service?

Furniture designer-maker Jeremy Broun challenges the status quo of the one-off market by inviting fellow maker Andrew Lawton to argue the case at the Gordon Russell Design Museum

98 Drecking

How to uglify your garden



www.facebook.com/GetWoodworking

www.getwoodworking.com

Published by MyTimeMedia Ltd.
Suite 25, Eden House Enterprise Way,
Edenbridge, Kent TN8 6HF
UK and Overseas Tel: +44 (0) 1689 869 840

SUBSCRIPTIONS

UK – New, Renewals & Enquiries
Tel: 0344 243 9023
Email: mytimemedia@subscription.co.uk
USA & Canada – New, Renewals & Enquiries
Tel: (001) 866 647 9191
Rest of World – New, Renewals & Enquiries
Tel: +44 (0) 1604 828 748
Email: help@tww.secureorder.co.uk

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, Jamie Smith, Shaun Newman, Robin Gates,
Peter Bishop, Gareth Jones, Roger Spratley, Walter Havinga,
Peter Dunsmore, Rick Wheaton, Anselm Fraser, Edward Hopkins,
Phil Davy, Les Thorne, Jeremy Broun, Dave Roberts

PRODUCTION

Designer: Nik Harber
Retouching Manager: Brian Vickers

ADVERTISING

Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@mytimemedia.com
Tel: 01689 869 891

SUBSCRIPTIONS

Subscriptions Manager: Kate Hall

MANAGEMENT

Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@mytimemedia.com
Chief Executive: Owen Davies

mytime media
print & digital media publishers



Paper supplied from wood grown in forests managed in a sustainable way.



THE TOOL SUPERSTORE

HAND, POWER TOOLS & MACHINERY SPECIALIST

DM-TOOLS.CO.UK

When you demand Quality Tools, Trusted Service & Expert Advice...

D&M Tools has been family owned and managed since 1978, and in 2018 we celebrated our 40th Anniversary! During that time we have earned a reputation with our customers as a trusted partner. Whether you are a trade professional or a DIY enthusiast, our mission is a simple one - to supply top quality tools at the best value for money, backed up by a service you can trust.

LOW TRADE PRICES!

Whether you're buying online, by phone, email, post or visiting us in-store, D&M provides you with the widest range of quality hand, power tools and woodworking machinery all at the keenest prices.

OVER 10,000 LINES IN STOCK!

We hold massive stocks, meaning that most items are available for despatch the day you order it. Our website shows up to date stock availability, so you can order with confidence.

SHOP ON-LINE 24HRS A DAY

Visit our easy-to-use website to see what we mean about range and value. Browse and buy with confidence 24hrs a day from the biggest brands in the business, all at prices you'll find hard to beat, you will also find all our latest offers and deals.

Why not **subscribe to our regular emails** to keep up with our latest deals and offers or join our **D&M Loyalty Scheme** and earn valuable loyalty points every time you shop on-line.

More details on our website.

Scan this QR code



MASSIVE CHOICE FROM THE BIGGEST BRANDS!



VISIT OUR EXTENSIVE TWICKENHAM SUPERSTORE
73-81 HEATH ROAD • TWICKENHAM • TW1 4AW
020 8892 3813 • SALES@DM-TOOLS.CO.UK

Why not follow us on Social Media for up-to-the-minute news and offers?



FREE DELIVERY

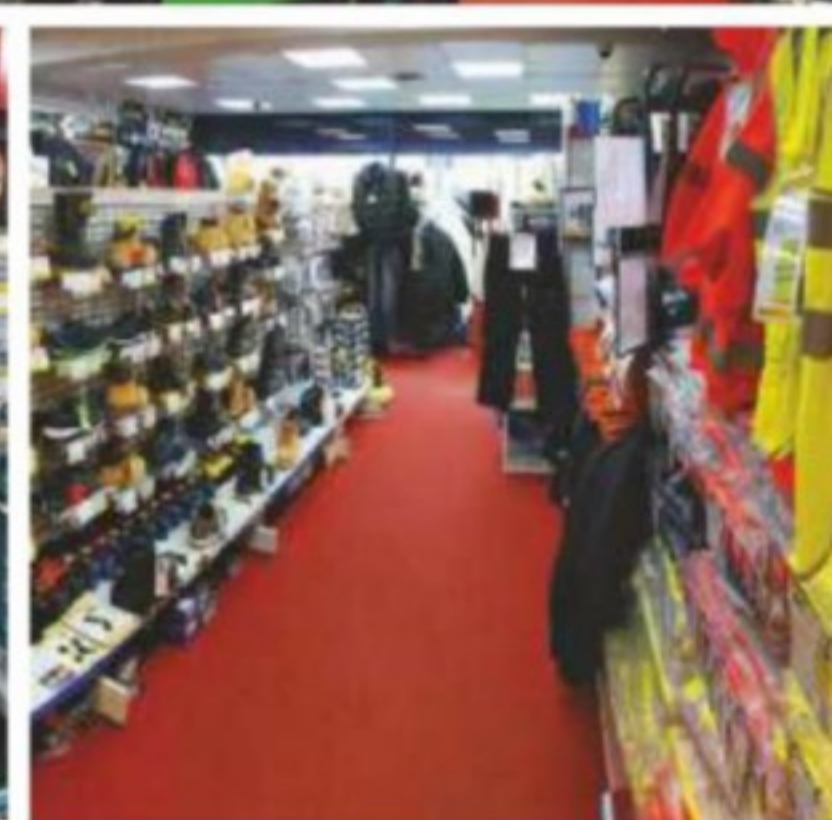
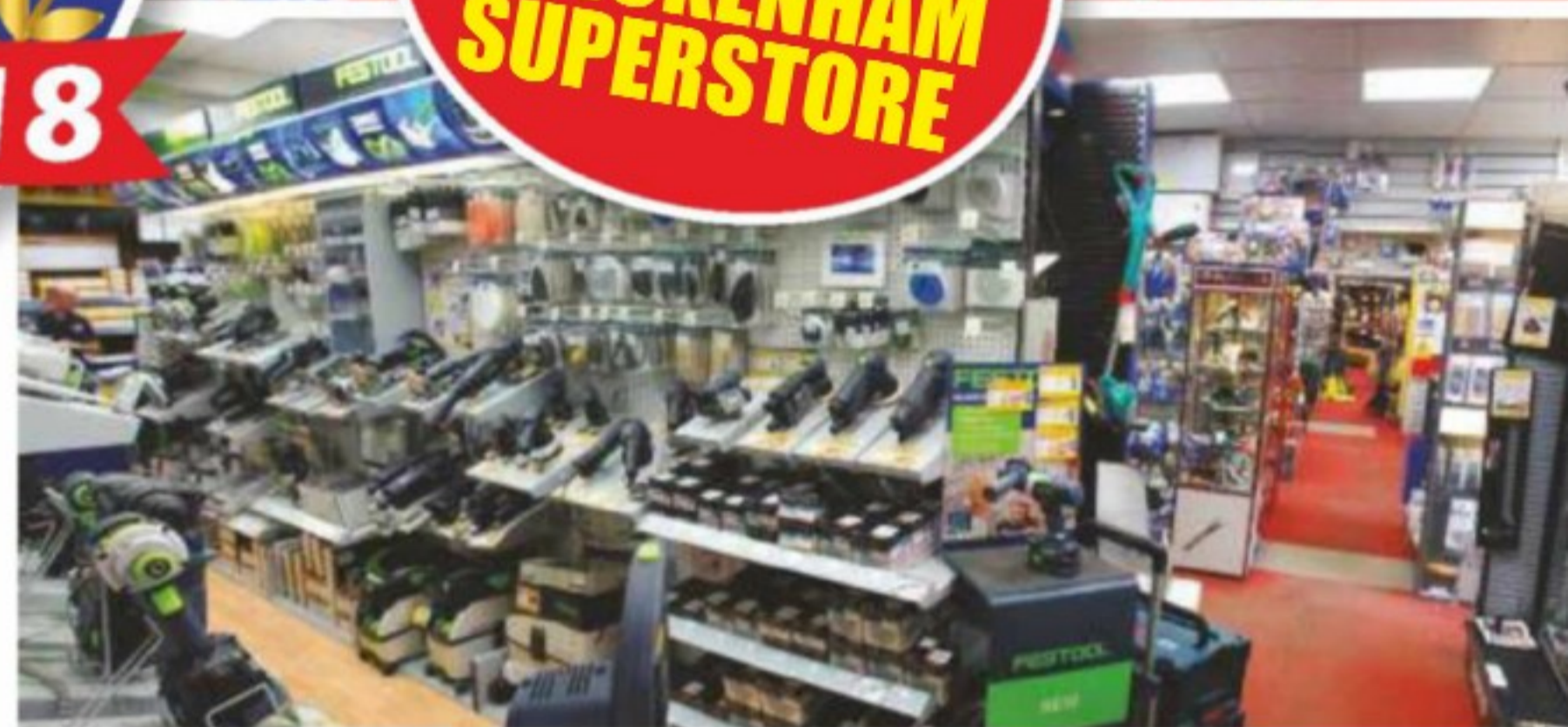
Delivery to UK mainland addresses is **FREE for most orders over £99**, and for orders under £99 is only £5.95. See the carriage rates on our website for full details.



020 8892 3813
MON-SAT 8.30am-5.30pm
(CLOSED BANK HOLIDAYS)



VISIT OUR EXTENSIVE TWICKENHAM SUPERSTORE



OUR CUSTOMERS LOVE US!

We are regularly receiving 5 star reviews on the independent review site Trustpilot, as well as testimonials direct from our customers, here are just a few:



"Not just great prices but excellent customer service. Whenever I've contacted to sort out deliveries, warrant work etc they have always gone the extra mile! One very satisfied customer"



"Great service. Great service, great advice, competitive pricing and amazingly quick delivery. For tools I go straight to D & M Tools"



"Fantastic store well stocked. I have bought thousands of pounds worth of tools from D&m tools either in store or online and have never had any reason to shop elsewhere, their prices are very competitive."



"Best prices. I have bought thousands of pounds worth of tools from D&m tools either in store or online and have never had any reason to shop elsewhere, their prices are very competitive."



"Good website. Well arranged. Simple setup for payment. Goods delivered on time by courier with full information about progress and likely timing - which was accurate. No problems."



"Great company to deal with. Prompt delivery and excellent price. Would not not hesitate to use D&M tools again. Thankyou.



@DM_Tools



DandMTools



dm_tools



DMTools1

A WOODWORKING TREAT NOT TO BE MISSED

The North of England Woodworking & Power Tool Show, affectionately known as the 'Harrogate' show, takes place at the Yorkshire Showground, Harrogate from 15–17 November 2019. Now in its 27th year, the event is the largest retail woodworking and power tool show in the UK.

There are more than 50 top demonstrators taking part throughout each day covering every discipline, including woodturning, carving, furniture making and much, much more. Plus, over 80 leading companies, including all the



top brands, will be exhibiting on the trade stands. There is a huge amount to see and do and some terrific bargains to be had.

Advance tickets can be obtained by calling the ticket hotline on **01749 813 899**, or by visiting the website: www.skpromotions.co.uk.

THE AXMINSTER CATALOGUE JUST GOT BIGGER

The 2019/20 Axminster catalogue is now available, highlighting the very best of Axminster's own and exclusive brands. Even bigger than last year's, you'll find over 400 pages full of more than 2,000 products that represent the very core of Axminster.

As a company, Axminster shares its customers' passion for great craftsmanship and a job well done. Product selection and development is a task that the company takes very seriously. As well as manufacturing many tools in house, Axminster also works closely with a carefully selected group of manufacturers from around the world. So, whether you're starting a new hobby or upgrading your trade workshop, Axminster offers a wide range of tools and machines to choose from.

If you're a craft user, take a look at the Craft range of machinery. Each machine is packed with unique features and designed

to meet the demands of those dedicated to learning and honing their craft. These pieces of kit offer exceptional functionality, durability and performance seeing you through even the longest of home projects.

For trade workshops and serious woodworkers, the Trade machines possess qualities and features typically found on industrial machinery, but they are priced at an affordable level for the trade user. With years of experience and taking note of feedback, these are built to withstand the rigours of a busy workshop. Indeed, whether you're a craft, trade or industrial user, a woodworker, woodturner, carver or simply a keen DIYer, the Axminster catalogue contains the tools and machines for you.

To request your free copy, visit www.axminster.co.uk/catalogue. For customers outside of the UK, email export@axminster.co.uk to register your interest.



CLARKE CPS160 160MM PLUNGE SAW (230V)

The Clarke CPS160 is ideal for DIY or trade use and can achieve professional results cutting or edging most types of wood. This model benefits from a powerful 1,200W motor with a no-load speed of 5,500rpm, which can deliver a maximum cutting depth of 55mm (90°) or 45mm (45°). This plunge saw has a multi-purpose 24-tooth TCT blade and its soft grip handles make it simple to use, while its adjustable cutting angle and depth allows for added working versatility. This unit comes complete with 2,700mm guide rails, tilt protection clamp and hex key. Priced at £166.80 (inc VAT), see www.machinemart.co.uk for more details.



DIARY – NOVEMBER

- 4* & 19* Sharpening hand tools with Tormek
- 5* Turning a pestle & mortar
- 19 Sharpening woodturning tools with Tormek
- 21* Spindle moulding
- 26* One-day woodcarving
- 26 Pyrography
- 27–28 Woodturning
- * Course held in Sittingbourne, Kent

Axminster Tools & Machinery

Unit 10 Weycroft Avenue
Axminster, Devon EX13 5PH
Tel: 08009 751 905
Web: www.axminster.co.uk

- 4–9 Make your own workbench
- 22–25 Beginners' four-day course

Chris Tribe

The Cornmill, Railway Road, Ilkley LS29 8HT
Tel: 01943 602 836
Web: www.christribefurniturecourses.com

- 1 Woodturning – make a small bowl
- 1–3 Turning green wood
- 11–14 Make a Shaker sewing box
- 15–18 Woodcarving – exploring form and texture
- 28–1 Make simple furniture – for complete beginners

West Dean College

Nr Chichester, West Sussex PO18 0QZ
Tel: 01243 811 301
Web: www.westdean.org.uk

- 2–3 Woodcarving weekend
- 13–14 Tool sharpening
- 15–16 Wood finishes
- 16–17 Sussex trug making workshop
- 27 Willow Christmas trees

Weald & Downland Living Museum

Singleton, Chichester, West Sussex PO18 0EU
Tel: 01243 811 021
Web: www.wealddown.co.uk

- 3 Intro to woodcarving
- 3 & 9 DIY in a day – drills
- 10 Intro to woodturning
- 17 Intro to spoon carving
- 20 Intro to woodcarving

The Goodlife Centre

49–55 Great Guildford Street
London SE1 0ES
Tel: 020 7760 7613
Web: www.thegoodlifecentre.co.uk

IronmongeryDirect

MASTERS OF OUR TRADE

UK'S BIGGEST — RANGE! —

17,000 PRODUCTS IN STOCK FOR NEXT DAY DELIVERY

The Woodworker Timber Suppliers Directory – November 2019

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

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

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
Web: No website

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



**GO ONLINE
TO GET YOUR
FREE
CATALOGUE**

**RATED
EXCELLENT**



Join the 1000's
of customers
who shop with
us every day!



CALL 7am-8pm 7 days a week

0808 168 28 28



ONLINE Shop 24/7!

IronmongeryDirect.com

NEW DIRECT-DRIVEN RANDOM ORBIT SANDERS FOR PROS – FROM BOSCH PROFESSIONAL

Bosch expands its range with two new direct-driven random orbit sanders: the GET 55-125 Professional and GET 75-150 Professional. Both tools are equipped with a powerful 550 or 750W motor meaning they can achieve a fast removal rate with a high surface quality. Not just that, but with only one click, tradespeople can change from fine sanding to coarse sanding or polishing with the direct-driven function, achieving three times faster material removal.

The optimised design of the tools means they are easier to handle, which is yet another advantage. The GET 55-125 and GET 75-150 Professional are operated flexibly and comfortably in every application and position, thanks to the ergonomically shaped palm rest with soft grip and narrow handle. Tradespeople from all areas of woodworking are now able to achieve the highest possible sanding and polishing results. If smaller, convex or concave surfaces have to be processed, the GET 55-125 Professional is recommended with a sanding pad diameter of 125mm.

The GET 75-150 Professional with a 150mm pad is particularly suitable for larger surfaces. Both tools have a six-stage speed pre-selection and are designed for processing different surfaces.

Efficient & virtually dust-free working

The GET 55-125 and GET 75-150 allow professionals to work very efficiently at low dust levels due to the multi-hole pad and

the M480 sanding net. In comparison to common six- to eight-hole standard pads, the multi-hole pad enables significantly improved dust extraction. The multi-hole pad is also compatible with all common abrasives. It is suitable for all hole patterns and hook-and-loop types. The M480 Net supports dust extraction across the entire surface thanks to an open net structure. Clogging caused by residues and dusting of the workpiece or the environment are minimised, the lifetime of the abrasive is extended, and a high removal rate is ensured. The system solution protects your health, saves time-consuming cleaning of the workplace and enhances the surface quality. Dust particles that could otherwise remain on the workpiece and scratch it are also extracted efficiently.

The direct-driven random orbit sanders are also equipped with an anti-static dust extractor, which makes it easier to guide a connected dust extractor, an auxiliary handle for use on both sides, as well as a removable guard attachment for protecting the sanding pad and workpiece during work close to edges.

These direct-driven random orbit sanders are available now. Accessories such as soft and hard sanding pads, polishing fleece and Click & Clean adaptors for the connection of a dust extractor are available in the Bosch range of accessories.

Priced from £340.99 (inc VAT), see www.bosch-professional.co.uk.



MAKITA LAUNCHES TCT MULTI-PURPOSE SAW BLADES

Makita has launched a new range of Tungsten Carbide Tipped (TCT) multi-purpose saw blades, which are designed to cut aluminium, MDF, PVC and laminated chipboard.

The new blades are available in 15 variations, from 160mm x 60T to 355mm x 100T. The new range contains options that are suitable for both circular and mitre saws, with bores ranging from 20-30mm. Blades are available with kerfs ranging from 2.2-3.0mm and in a variety of thicknesses from 1.4-2.2mm. Regardless of size, each saw blade has a rake of 5°.

This new range has been manufactured to a high standard to ensure they offer the best performance, durability and are strong enough to easily cut through aluminium, and equally effective when cutting MDF, PVC and laminated chipboard.

The saw blades are also fitted with specialist Triple Chip Grind (TCG) teeth. Unlike traditional teeth, TCG teeth alternate between a combination of flat and trapezoidal to provide the most effective cut. The trapeze tooth cuts out the middle of the kerf, which is then followed by a standard flat top grind (FTG) tooth, which cleans out the corners, hence creating three separate cuts. What's more, because of the alternating cuts from the TCG design, the life of these blades is extended when compared to a standard blade used for cutting different types of materials.

The Tungsten Carbide Tipped (TCT) multi-purpose saw blades will cut materials up to 15% quicker than equivalent alternatives, helping tradespeople to work faster on-site. As such, the saw blades can deliver a significant return on investment.

To find out more about Makita and its industry-leading product portfolio, see www.makita.com/products/multi-purpose.html.



HIKOKI POWER TOOLS LAUNCHES 36V SLIDE COMPOUND MITRE SAWS

HiKOKI Power Tools has introduced the cordless C3607DRA 36V (185mm blade) and the C3610DRA 36V slide compound mitre saw (255mm blade) for absolute precision on tough cutting jobs. Both models feature high efficiency, low



maintenance brushless motors. To ensure the highest levels of accuracy and safety, both saws have a laser guide system and LED worklights, so users can be confident of making precise, safe cuts.

The C3607DRA 36V slide compound mitre saw allows the user to make bevel cuts up to 45° left and right and mitre cuts up to 45° left and 57°. It can even be used in tight spaces, as the motor head slides on fixed pipe to make optimum use of space. It has a twin belt drive, which makes for smoother cutting with lower noise and a fine adjustment knob for accurate bevel cuts. The C3607DRA can make up to 320 cuts per charge.

The C3610DRA 36V model has a fast cutting speed with up to 374 cuts per charge. Bevel cuts can be made up to 55° left and 60° and mitre cuts up to 48° left and right. The soft start facility reduces recoil force at motor start up for added user safety.

Both models come with two BSL36B18 4.0Ah/8.0Ah Multi Volt batteries and charger, and are also available as body-only versions. All batteries are compatible with existing HiKOKI 18V tools. The tools also come with dust bag, vice assembly, sub fence and wrench as standard. For more details, visit www.hikoki-powertools.co.uk.



FESTOOL

Compact. Mobile. Sophisticated.

**Perfect for work on the go:
the new CT MINI and MIDI.**

Lightweight, compact dimensions and all of the innovative details you can imagine – prepare to be impressed by the new CT MINI and MIDI compact dust extractors. With intuitive touch operation, smooth suction hose and a flat storage area for tools and working materials. Manual cleaning and main filter change from the outside for longer periods of work in a healthy environment. Integrated **Bluetooth®** technology starts the mobile dust extractor automatically via the Bluetooth® battery pack or the remote control. And with an interior hose holder, SYSTAINER T-LOC coupling and practical cable storage, for speed and order.

All of this combined easily ensures clean air while you work.

For more information, go to www.festool.co.uk

The Bluetooth® word mark and the logos are registered trademarks of Bluetooth SIG, Inc.; they are used by TTS Tooltechnic Systems AG & Co. KG, and therefore by Festool, under licence.

MACHINE MART'S NEW AUTUMN/WINTER CATALOGUE

The new Machine Mart catalogue is packed with all the tools and equipment you need whether for a hobbyist, DIY enthusiast or professional. Featuring over 760 price cuts and new products, the 508-page catalogue is a 'must have' for anyone seeking a huge choice of tools and equipment at unbeatable value. With over 21,000 items of tools and machinery in stores across the country and online, you'll be sure to find the kit you need.

To order your catalogue, simply visit the website: www.machinemart.co.uk.



DICKIES WORKWEAR HELPS BAND OF BUILDERS REACH NEW HEIGHTS

Global workwear brand Dickies has supported Band of Builders' latest fundraising challenge by providing clothing for those completing the National Three Peaks Challenge in aid of the cause.

A national charity run by and for tradespeople, Band of Builders is a community that helps members of the construction industry at times of need through hands-on projects, advice and support. A team of 17 walkers supported by eight drivers took part in the National Three Peaks Challenge, climbing Ben Nevis, Scafell Pike and Snowdon – the three tallest mountains in Scotland, England and Wales – within 24 hours to raise funds for the charity.

Dickies provided hoodies and T-shirts for those taking part, which were branded with the Band of Builders logo.

James Whitaker, Marketing Director of Dickies Workwear, said: "Word is quickly spreading about the fantastic work Band of Builders does to support tradespeople when times get tough. We're pleased to support such a worthwhile cause and this was a great opportunity to do so."

Martin O'Donnell, Fundraising Coordinator at Band of Builders, added: "Everyone taking part in this tough challenge should be proud of what they've achieved. The total walking distance for the National Three Peaks is 23 miles, with a total ascent of 3,064m – although the descents were just as tough at times! We surpassed our initial goal of raising £10,000 and this figure has now reached £13,180 in total.

"We're grateful to Dickies for providing the branded T-shirts and hoodies. Seeing our logo on our tops was a good reminder for everyone climbing those mountains that our efforts were for such an important cause," he finished.

For more information on how to get involved in Band of Builders, including volunteering to offer support on projects, visit

www.bandofbuilders.org/get-involved, and for more on Dickies, see www.dickiesworkwear.com.

Quality Tools to match our Service



Mouldings



Certified Hardwoods

Toishi-Ohishi Japanese Waterstones



Top quality Hand Tools

Drilling Tools made to the highest standard

COLT PROFESSIONAL TOOLS

G&S Specialist Timber
TOOLS AND MACHINERY

www.toolsandtimber.co.uk
you can order online now



STAINLESS BOTTLE STOPPERS

Bottle Stoppers made from food safe stainless steel, FREE Blank included



pfeil

WE ARE EASY TO FIND:
1 1/2 miles from the M6, J40.
Take the A66 towards Keswick,
turn left at first roundabout,
follow the Brown Signs to
The Alpaca Centre.

Open 8am to 5pm daily,
10am to 5pm Saturday,
Closed Sunday.

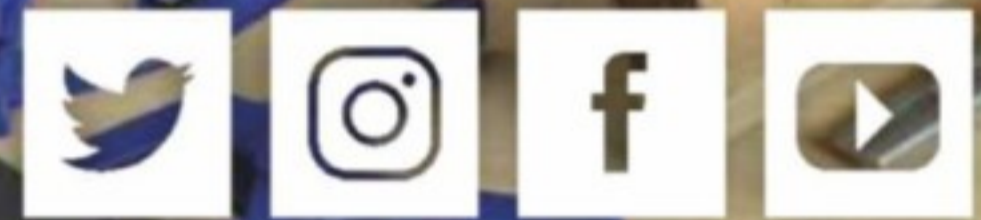
G&S SPECIALIST TIMBER

The Alpaca Centre, Snuff Mill Lane, Stainton, Penrith, Cumbria CA11 0ES.
Tel: 01768 891445. Fax: 01768 891443. email: info@toolsandtimber.co.uk



Clamping Range

Featuring bar clamps and spreaders, ratcheting clamps, 'F' clamps and accessories.



**5 YEAR
GUARANTEE**

For more information visit

www.faithfulltools.com



Save and get a **FREE Volvo** with every Sjöbergs bench package



Traditional Swedish quality

Sjöbergs of Sweden have a double Autumn offer. As well as extra special prices on all their bench packages, every buyer will receive a classic Volvo 240*.

Like Sjöbergs, the Volvo 240 has a reputation for longevity and great build quality; built in Sweden, winning the hearts of a generation.



With savings and benches to suit every wallet, this autumn it is a great time to buy a workbench. All Sjöbergs benches come with a 10 year warranty.

Sjöbergs SB119 Professional Workbench & SM05 Storage Module

£1,728.95 Inc.vat Code 720637

Normally £1,946.95 – **Save £218** Offer valid until 15th December 2019.

For more bench and storage module offers from Sjöbergs visit brimarc.com/sjobergs

*Model replica 65mm long x 23mm wide x 20mm high.



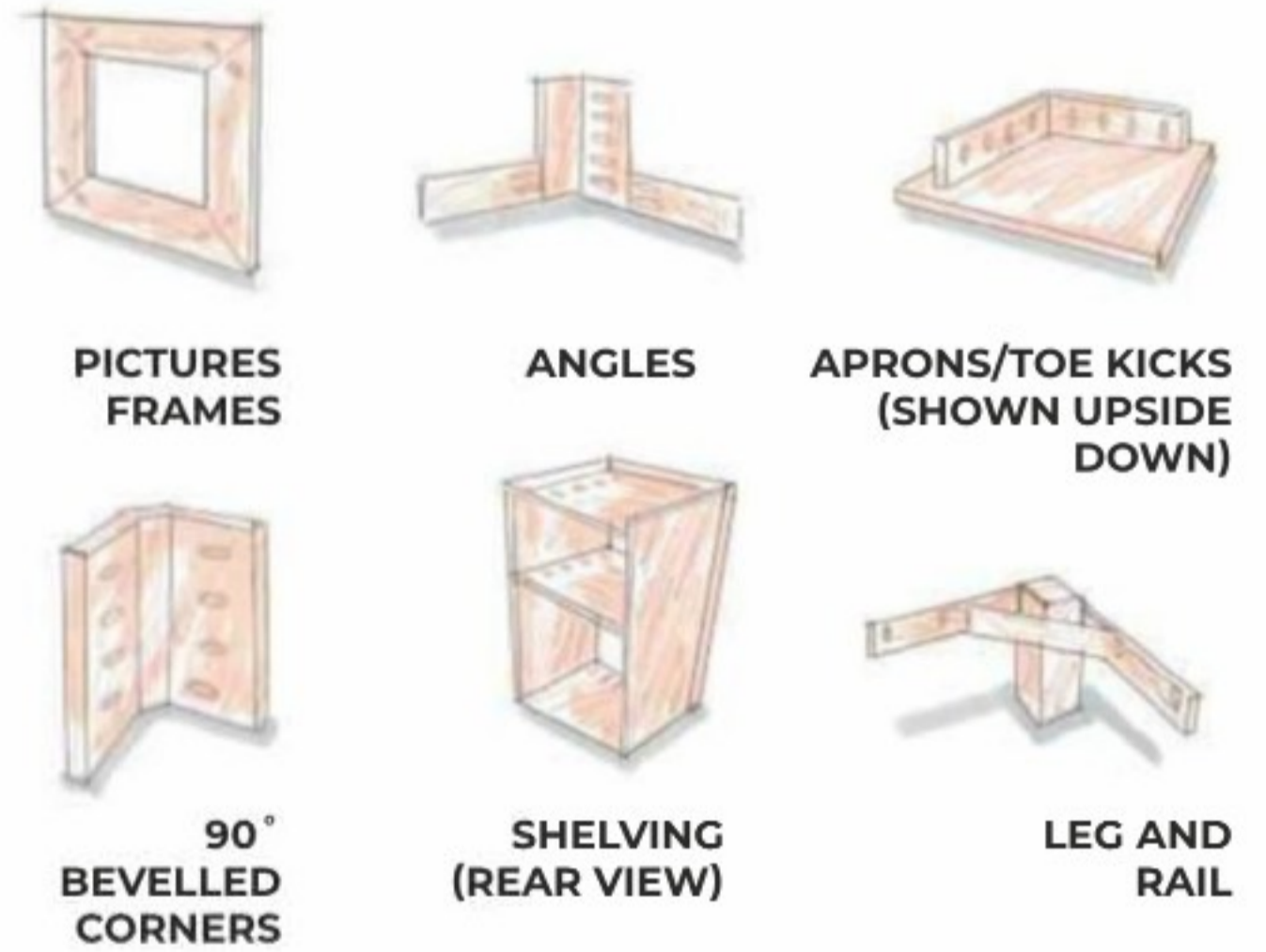
JOINERY

made simple



MASTERS OF WOOD

Whether you're a beginner or a master, a Triton Pocket-hole Jig makes strong, accurate, joinery remarkably quick and easy.



NEW
EXPANDED RANGE

Which Jig is Best for Me?

	PROJECT TYPE	CLAMP
<p>T1 PHJ Single Mini Pocket-Hole Jig</p>	Small scale projects with 1 to 10 Pocket Holes 	Required
<p>T2 PHJ Double Mini Pocket-Hole Jig</p>	Small scale projects with 1 to 20 Pocket Holes 	Required
<p>T2 PHJS Double Mini Pocket-Hole Jig Set 8pce</p>	Small scale projects with 1 to 20 Pocket Holes 	Required
<p>T3 PHJ T3 Handy Pocket-Hole Jig 3/4" (19mm)</p>	Small to large 3/4" projects only, with 1 to 50 Pocket Holes 	Handheld
<p>T4 PHJ T4 Easy-Set Pocket-Hole Jig</p>	Medium to large scale projects with 1 to 50 Pocket Holes 	Built in
<p>T6 PHJ T6 Pocket-Hole Jig</p>	Medium to large scale projects with 50+ Pocket Holes 	Built In
<p>T6 PHJM T6 Pocket-Hole Jig Master Set 12pce</p>		Built In
<p>TW 7PHJ Pocket-Hole Jig 7pce</p>	Small to large scale projects with 1 to 50 Pocket Holes 	Built In
<p>TW 8CPHJ Clamping Pocket-Hole Jig 8pce</p>		Built In

Create strong, accurate, concealed joints in minutes.
 No need for glue so less mess and no waiting!
 Create anything from simple frames to fine furniture.



Also Available

- TS PJ**
TS Shelf Pin Jig
- Shelving pin preparation in cupboards, storage units and furniture
 - 7 drill guides
 - 2 x Side stop spacing 30 & 50mm
 - Snap-together system to join 2 or more jigs
 - Includes drill bit, depth collar and jig locating pin



Find your nearest stockist TRITONTOOLS.COM

3YR
GUARANTEE

What's new from

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



'THE' TOOL SHOW '19 AT KEMPTON PARK



D&M Tools would like to say a huge thank you to all exhibitors and visitors who attended our 19th annual show at Kempton Park Racecourse in Sunbury-on-Thames, over the weekend of 4–6 October, and helped to make it another success.

This annual free event is considered by many to be the highlight of the woodworking calendar with probably the largest display of tools and accessories from all the leading brands. Visitors to the show had the opportunity to get their hands on the very latest products, with some exhibited for the first time in the UK, including the **Trend Yeti CNC Smartbench** (bottom right). They could talk to the brand experts before taking advantage of the exclusive show deals and special offers.

The show featured stands from all the leading brands, and the fine weather over the weekend allowed visitors to enjoy the various outdoor displays as well as the two floors inside. The show featured products and kit from all the leading brands, and the fine weather over the weekend allowed visitors to enjoy the various outdoor displays as well as all that was on offer inside the venue.

A popular feature of the show was **'Woodworking Live'** from **Record Power**. Now in its third year, this event brought together some of the UK's most respected and popular woodworkers, including **Ben Crowe** of Crimson Guitars; professional woodturner and tutor **Gregory Moreton** RPT; **Martin from MG Makes**; talented and innovative woodturner **John Clothier**; scrollsawer and turner **Jamie Page**; plus members of the **Surrey Association of Woodturners**.

We look forward to seeing you again next year! For details and updates, see the website: www.thetoolshow.com



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

NOVA VOYAGER DVR 18IN DRILL PRESS

Nova Voyager DVR: part drill press, part spaceship... **Jonathan Salisbury** boldly goes into space (between his workbench and storage cupboards, to be precise) to explore

A crate was beamed down in front of my garage this morning and inside it was what looked like a drill press, except not quite like any I have ever seen before.

The motor of the Nova Voyager is connected directly to the quill and speed is controlled by programming via a user interface, not by shifting the belts on pulleys contained in the large box found on the top of most pillar and bench drills. In addition, the motor provides data to the controller on its position and load conditions and the controller 'uses this data to handle all the timing and power management to ensure an energy efficient and powerful motor'. In other words, the system is intelligent. It knows where the drill is and if it's being overloaded. It can also do a whole lot more...

Putting it all together

You cannot benefit from all the features of the Nova Voyager without referring to the manual, but before I could try it out it had to be put together. Assembling the Voyager is not really any different from any other drill – except that the head is ridiculously heavy and there was no way I could have possibly lifted and manoeuvred it into position without the help of my very strong and willing neighbour.

Plug it in, flick the switch

When switching on for the first time, and after a factory reset, the Voyager will beep and flash up safety messages before asking you to choose the language and units (mm, fractional inches, decimal inches) you wish to use. Once confirmed, you have the drill's permission to use it. Subsequent use always displays the safety messages first, before returning to the last setting used.

As a drill

Ignoring the electronics for a moment, it's a fantastic drill press, and excels at the sharp end. The table is large and easily adjusted, the feed handles are large and comfortable, the movement is smooth, positive and pleasant to use. For woodworking, the 419mm-square table is a very good size, and is slotted for clamps and bolting on sacrificial work surfaces. The table rotates 360° around the pillar and can be angled – the latter setting shown on a gauge. Supplied, the table and quill aligned absolutely perfectly – 90° all round the drill – but the gauge reads about 0.5° and the plates are riveted on, so cannot be adjusted. Quill travel is 6in (150mm or so) and only requires two revolutions of the handle to travel the full distance; a quill lock allows you to fix the drill position at a set height. The base is big and heavy. What's more, when a long 5mm



Chuck, guard, handles and table installed



The high-quality keyed chuck



Interlocked chuck guard



Heavy-duty rack for easy table adjustment...



... with a large cranked handle



Large feed handles give good control

drill accidentally dropped through the centre hole onto the base, I was very pleased to discover that there were no holes for it, or dust and chippings, to fall into! Four holes are provided for bolting it to the floor, which ought to be done, especially when the weight of the head is considered.

The 1/2" chuck provided is key operated; personally I'd prefer keyless. It has a capacity of 3-16mm, which covers most drill shanks I think! If you need to use drills smaller than 3 mm, a converter can be used.

Electronic

The differences start when changing the settings to suit the work, as they are entered with a dial and buttons and not by opening lids and fiddling with mechanical systems. A data sheet is not required; all you need to do is to select the type and size of drill being used, select the material to be drilled, and press the green start button...

The speed setting is chosen for you, but can be overridden. After all, not all hardwood is the same, and the manual does imply that it is a suggestion rather than the optimum setting. The default is 900rpm (probably about the same halfway-house-speed that most drills are set on), and can be varied from 50-3,000rpm via the main screen. I tried it up to its maximum 5,500rpm, but quickly decided that 3,000 is plenty after the Voyager sounded like it was going to take off. Up to eight favourite settings can be saved.

Feed rates are not automated or monitored, although a sensor relays back to the computer how much resistance is being overcome by the drill. The load you are applying to the high-torque

motor is then displayed on the screen as a percentage, to let you know if you're overdoing it a bit. It's a useful reference that allows you to up the pressure in the knowledge that you're within the limit.

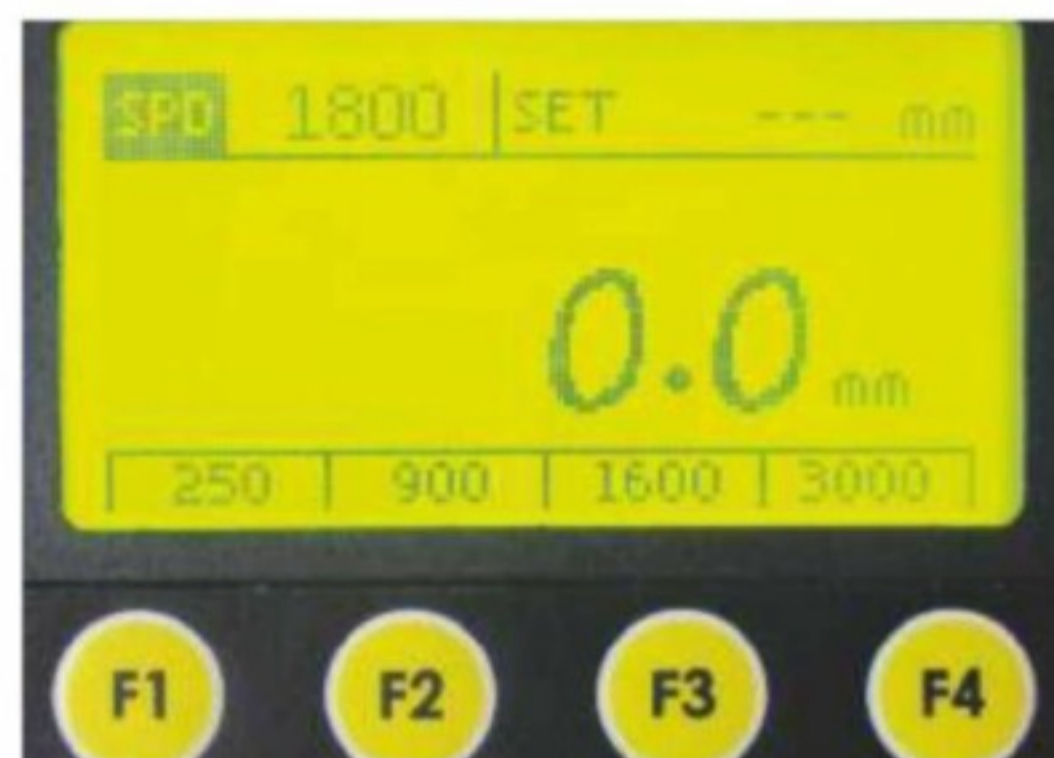
More features

Drill depth can be set electronically by lowering the drill to the workpiece's surface and pressing the 'ZERO' button before setting how far you want to drill and confirming. As you feed the drill downwards, the Voyager beeps like a reversing warning system in a car, getting faster as you approach the set depth, after which it stops. The hole depth is pretty regular, although if you are naughty and speed up the feed, the sensor won't respond quickly enough and you will over-drill. I used this feature to create the first hole carefully, then setting the manual depth stop (a threaded-bar with a quick-release nut) for further holes.

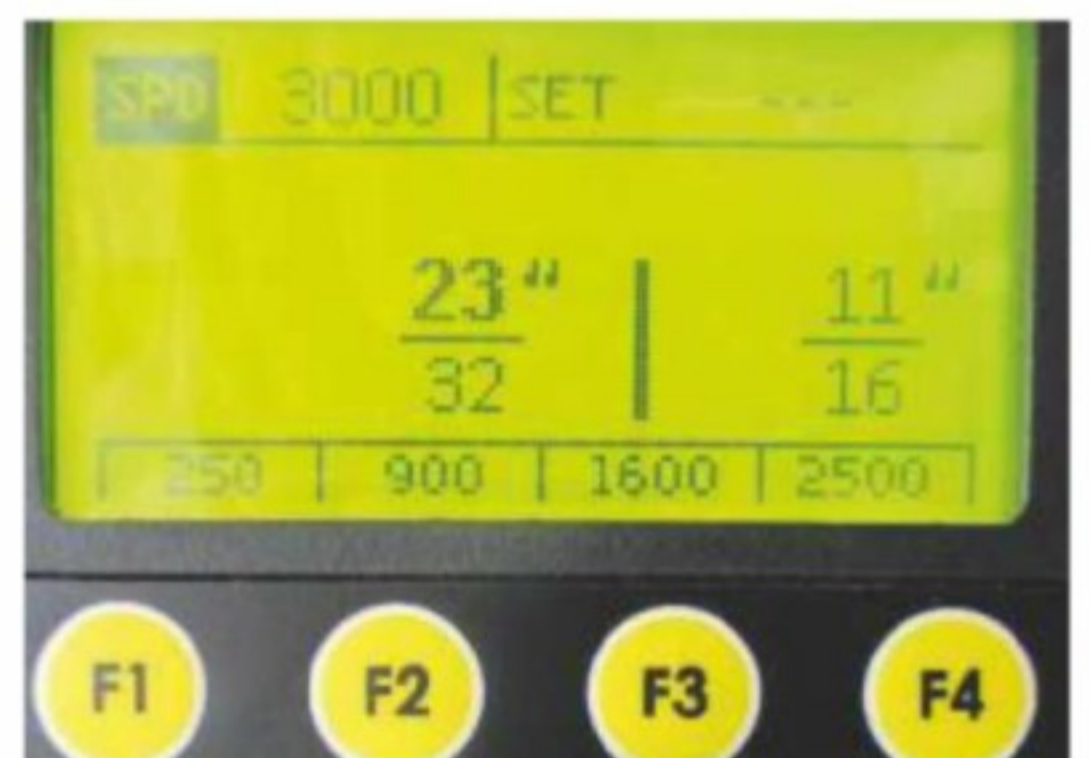
Drilling several holes one after the other can sometimes be hazardous if you need to move the workpiece as you go to clear shavings. No longer!



The control panel and lockable stop switch



Dimensions can be set to metric...



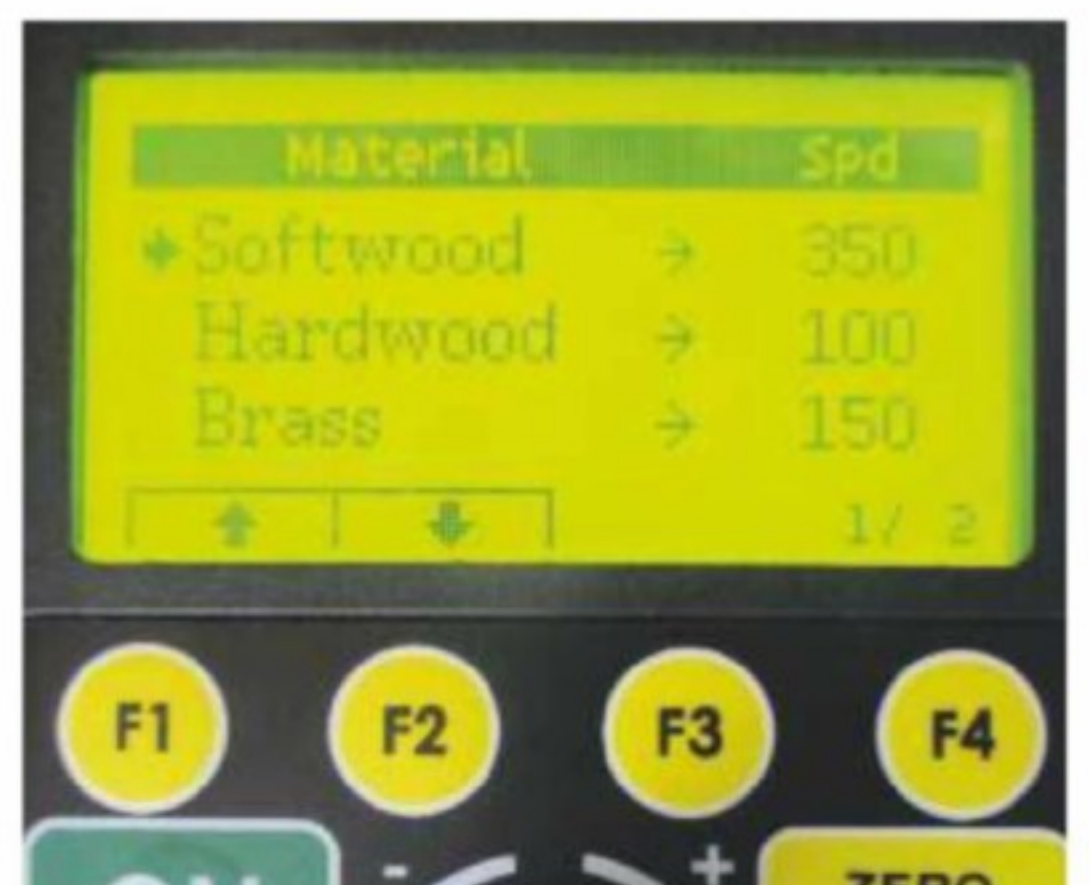
... or imperial (fraction or decimal)



Menu changed with the dial – push to select



Select the drill required



Select the material



Confirm choice with the press of a button



The screen reminds you that self start has been activated



Electronic depth stop can be set very accurately

Just program the Voyager to autostart when you begin to plunge, it will 'autostop' when the drill is back to the top and you can reposition and then carry on without letting go of the handle.

The pilot hole function is a useful setting when drilling harder materials. The drill starts off slowly until it senses that you have cut below the surface, when it speeds up to the set maximum. The screw thread tapping function provides a very slow forward rotation followed by a reverse clearance movement when resistance suggests it is required.



A manual stop is also provided



Why won't the drill work?



The software is updated via computer

Safety

The emergency stop button is right in front of your eyes and latches so you have to physically deactivate it too; if you haven't worked out that it is this preventing the drill from working, the screen will tell you! Once unlatched, the drill requires restarting with the green button – a no-volt switch, no less. Put your hands on the table when the drill is spinning at 3,000rpm and you can just about feel a light buzz. Any vibrations beyond these, caused by an unbalanced drill or if the drill gets stuck and the workpiece starts flying around, are detected by the Voyager and lead to the powering down of the motor. You can choose the feature's sensitivity too, although the default is off.

The Voyager motor will also be switched off if the drill jams for any reason and there is a spike overload trip that stops the motor if electrical supply problems are detected. The manual recommends that a surge protection socket is used, as the Voyager is computer controlled, but states that you should not use an RCD. More mundane safety features include the chuck key's spring-loaded pin to make it impossible to leave in the chuck, an interlock on the chuck guard and a message on the screen telling you that the drill will not work until you

SPECIFICATION

Power output: 1.75HP/2HP; 220-240V; 10A/15A

Spindle

Distance to table: 23½in/587mm (max)

Distance to base: 40.94in/1,040mm

Travel: 6in

Taper: No.2 Morse taper

Table

Size (woodworking) (L x W): 16½ x 16½in (419 x 419mm)

Table tilt: -45° to +45°

Table rotation: 360°

Column diameter: 3.62in/92mm

Base size (L x W): 22¼ x 17½in (565 x 445mm)

Chuck size: ½in (3-16mm)

Motor: Striatech DVR high torque

Warranty

- 2 year full replacement motor and controller
- 5 year full replacement on all other parts

Typical price: £1,599.99

Web: www.turners-retreat.co.uk

close it, and the option to password protect the system so you can keep the use of the drill all to yourself!

Conclusion

You might expect perfection at this price; the slots have a small amount of roughness left after casting, the membrane pad would be better replaced by proper buttons, the gauge for the table tilt is slightly out, and there ought to be a little holder for the chuck key. My current machine is a rusty and rattling nightmare stuck on 900rpm, but £1,599.99 to replace it seems like a lot of money – except, look at the catalogues and you will see that it is possible to spend more on a mechanical drill. Yes, changing settings still requires effort (although by reading the manual I found out that pushing in the dial is the same as pressing the 'Confirm' button), but nothing in comparison to those pulleys!

Even if you don't make use of all the features, the drill is solid, quiet, easy and a joy to use. Everything is in the right place and, if I had £1,600 to spend on a drill, I would definitely buy a Nova Voyager. This is a phenomenal piece of engineering, everything a high-end pillar drill ought to be – who wouldn't want one? ✖



How many drills come with a USB socket?

THE VERDICT

PROS

- Exceptional quality; quiet operation; easy to set up for every type of drill imaginable; does everything you could possibly want to do on a drill; the only drill press you will ever need

CONS

- Very heavy components require two strong people to lift the headstock into position; it's expensive!

RATING: 5 out of 5

To celebrate the launch of their new CNC Measuring Range, Faithfull Tools is giving five lucky readers the chance to win some of their new products

WIN!

1 OF 3 PRESTIGE COMBINATION SQUARES OR 1 OF 2 PRESTIGE TRI-SCALE ENGINEER RULES



10 YEAR GUARANTEE



10 YEAR GUARANTEE



Prestige Combination Square Black Aluminium 300mm (12in)

Faithfull Tools' most anticipated range of the year is finally here and they are proud to introduce a brand-new CNC Measuring Range. These products are manufactured using CNC (Computer Numerical Controlled) machines, which means, in short, guaranteed accuracy. Each product is individually cut from solid aluminium and the CNC ensures each cut is exactly the same, every time – meaning the thousandth piece produced will be just as accurate as the first.

To offer an extra level of quality, each product is acid-dipped and coated in a black anodised finish, offering enhanced corrosion protection and a modern flair. The products are then laser-engraved to provide the highest accuracy for the user, especially when compared with moulded alternatives. The engraved markings shine boldly against the matt black finish to complete the unique look of these products.

The range features a selection of measuring tools that cover a number of applications, making them suitable for woodworking and kitchen fitting projects, as well as for roofing and more specialist engineering work.

'Prestige' prizes

To celebrate this exciting launch, in conjunction with Faithfull Tools, we are giving five lucky winners the chance to get their hands on either a **Prestige Combination Square Black Aluminium 300mm (12in)** (three of these are available), or 1 of 2 **Prestige Tri-Scale Engineer Rules Black Aluminium 300mm (12in)**. For more information on both products, see details below. Is it also worth noting that Faithfull 'Prestige' products are manufactured to the highest standards and are covered by a 10-year guarantee.

Prestige Combination Square Black Aluminium 300mm (12in)

The Faithfull Prestige Combination Square is a versatile tool for use in both woodworking and metalwork projects. It may be used as an internal and external try square, T-square slide, mitre square, vertical and horizontal level, depth and marking gauge. It is suitable for marking out 45°, 90° and 135° angles. The square incorporates a handy spirit level for accurate 90° horizontal and vertical readings and a marking scribe located in the stock.

Manufactured from aluminium using CNC machines, the black anodised finish offers enhanced corrosion protection and the laser-engraved scales give outstanding measurement accuracy.

Prestige Tri-Scale Engineer Rule Black Aluminium 300mm (12in)

The Faithfull Prestige Tri-Scale Engineer Rule is commonly used to convert ratios with scales when making precision drawings. This model features six scales that can be easily recognised thanks to the colour-coded inserts. The unique triangular profile keeps fingers away from knife blades when used for cutting or scoring card, etc.



Prestige Tri-Scale Engineer Rule Black Aluminium 300mm (12in)



HOW TO ENTER

To be in with a chance of winning 1 of 3 Prestige Combination Squares Black Aluminium 300mm (12in), or 1 of 2 Prestige Tri-Scale Engineer Rules Black Aluminium 300mm (12in), just visit www.getwoodworking.com/competitions and answer this simple question:

QUESTION: What does CNC stand for?

The winners will be selected at random – the three winners will be chosen first, followed by the other two, all of which will be randomly drawn from all correct entries. The closing date for the competition is **13 December 2019**

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

Machine Mart

64 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS

Clarke TABLE SAWS

LEG STAND KITS FOR CTS100 AND CTS111 ONLY £27.99 INC VAT

FROM ONLY £72.99 EXC.VAT
£87.99 INC.VAT

MODEL	MOTOR	BLADE	EXC.VAT	INC.VAT
CTS100	600W	230mm	£22.99	£27.99
CTS111	1500W	254mm	£149.98	£179.98
CTS100	1500W	254mm	£169.98	£203.98

Clarke TABLE SAW WITH EXTENSION TABLES (250mm)

CTS14
Ideal for cross cutting, ripping, angle and mitre cutting • Easy release/locking mechanism for table extensions • 0-45° tilting blade • Cutting depth: 72mm at 90° / 65mm at 45°

FROM ONLY £129.99 EXC.VAT
£155.99 INC.VAT
SHOWN WITH OPTIONAL LEG KIT CLK5 £19.98 EXC.VAT £23.98 INC.VAT

Clarke TABLE SAW WITH STAND

CTS16
1600W motor • 250mm blade size • 0-45° tilting blade • Cutting depth: 73mm at 90° / 53mm at 45°

INCLUDES LEFT & RIGHT TABLE EXTENSION
FROM ONLY £99.98 EXC.VAT
£119.98 INC.VAT

Clarke WOODWORKING VICES

Record WV7
FROM ONLY £14.99 EXC.VAT
£17.99 INC.VAT

MODEL	MOUNTING JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke WV7	Bolted 150/152/61	£14.99	£17.99
Clarke CHT152	Record 150/152/61	£22.99	£27.99
Clarke WV7	Bolted 180/205/78	£23.98	£29.98

Clarke GARAGES/WORKSHOPS

IDEAL ALL-WEATHER PROTECTION
BRIGHT WHITE INTERIOR
LENGTH UP TO 24'
ZIP CLOSE DOOR

FROM ONLY £229.00 EXC.VAT
£274.00 INC.VAT

Ideal for use as a garage/workshop • Extra tough triple layer weatherproof cover • Heavy duty powder coated steel tubing • Ratchet tight tensioning

MODEL	SIZE (LxWxH)	EXC.VAT	INC.VAT
CGS1015	4.5 x 3 x 2.4M	£229.00	£274.00
CGS1020	6.1 x 3 x 2.4M	£279.00	£334.80
CGS1216	4.8 x 3.7 x 2.5M	£279.00	£334.80
CGS1220	6.1 x 3.7 x 2.5M	£349.00	£418.80
CGS1224	7.3 x 3.7 x 2.5M	£419.00	£502.80

Clarke 4" BELT/ 6" DISC SANDER

Dust extraction facility
4" x 36" belt tilts & locks 0-90°
225mm x 160mm table, tilts 0-90°
370W, 230V motor
CS4-6E

FROM ONLY £96.99 EXC.VAT
£116.39 INC.VAT

Clarke 6" BELT/ 9" DISC SANDER

Includes stand
1 HP/ 230W
1ph motor
CS6-9C

FROM ONLY £259.00 EXC.VAT
£310.00 INC.VAT

Clarke 1" BELT/ 5" DISC SANDER

Includes 2 tables that tilt & lock

FROM ONLY £74.99 EXC.VAT
£89.99 INC.VAT

Clarke 4" BELT/ 8" DISC SANDER

Includes two tables • 550W
230V motor
CS4-8

FROM ONLY £159.98 EXC.VAT
£191.98 INC.VAT

Clarke DISC SANDER (305MM)

Powerful, bench mounted • 900W
Dust extraction port
CDS300B

FROM ONLY £129.98 EXC.VAT
£155.98 INC.VAT

Clarke SHEET SANDERS

Ergonomic design for optimum comfort
CON320

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

Clarke COBS1 OSCILLATING BOBBIN SANDER

Dust collection port • Inc. 6 sanding sleeves/bobbins

FROM ONLY £129.98 EXC.VAT
£155.98 INC.VAT

Clarke OSCILLATING BELT & BOBBIN SANDER

Sand concave, convex, straight or multi-curved pieces
Dust collection port • Inc. sleeves, drum & belt
COBS1

FROM ONLY £179.98 EXC.VAT
£215.98 INC.VAT

Clarke 40" WOODTURNING LATHE

Ideal for woodturning in the workshop
1016mm distance between centres allows for turning longer spindles • Inc. tool rest, tail stock, drive centre, face plate & 3 chisel
Large turning capacity of 350mm • 4 turning speeds
CWL1000B

ONLY £136.99 EXC.VAT
£164.99 INC.VAT
LOCKABLE TAILSTOCK BENCH MOUNTED

Clarke 13" MINI WOOD LATHE

CWL325V
Ideal for enthusiasts/hobbyists with small workshops
325mm distance between centres • 200mm max. turning capacity (dia) • 0.2HP motor

FROM ONLY £159.98 EXC.VAT
£191.98 INC.VAT

Clarke DRILL PRESSES

Range of precision bench & floor presses for enthusiast, engineering & industrial applications

FROM ONLY £69.98 EXC.VAT
£83.98 INC.VAT
B = Bench mounted
F = Floor standing

MODEL	MOTOR (W)	SPEEDS	EXC. VAT	INC. VAT
CDP5EB	350/75	5	£69.98	£83.98
CDP102B	350/75	5	£79.98	£95.98
CDP152B	450/112	5	£149.98	£179.98
CDP202B	450/112	5	£189.00	£226.80
CDP10B	370/112	5	£199.98	£239.98
CDP452B	550/116	5	£239.00	£286.80
CDP352F	550/116	5	£229.00	£274.80
CDP502F	1100/112	5	£549.00	£658.80

Clarke HARDWOOD WORKBENCH

Includes bench dogs and guide holes for variable work positioning • 2 Heavy Duty Vices
Large storage drawer • Sunken tool trough
LxWxH 1520x620x855mm
CHB1500

FROM ONLY £149.98 EXC.VAT
£179.98 INC.VAT

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

CDE7B
CWVE1
Powerful 1100W motor • 50 litre bag capacity
Flow rate of 850M3/h

FROM ONLY £109.98 EXC.VAT
£131.98 INC.VAT

MODEL	MOTOR	FLOW RATE	BAG CAP.	EXC.VAT	INC.VAT
CWVE1	1100W	183 M3/h	50Ltrs	£109.98	£131.98
CDE35B	750W	450 M3/h	56Ltrs	£144.99	£173.99
CDE7B	750W	850 M3/h	114Ltrs	£159.98	£191.98

Clarke POWER PLANERS

NEW RANGE
CEP450
Perfect for smooth and fine finishing along with hard to reach areas or curved surfaces

MODEL	WIDTH OF CUT	EXC.VAT	INC.VAT
CEP450	60mm	£34.99	£41.99
CEP720	82mm	£44.99	£53.99
CON950	110mm	£67.99	£81.99

Clarke DETAIL SANDERS

CDS-1V
Perfect for smooth and fine finishing along with hard to reach areas or curved surfaces

MODEL	WATTS	EXC.VAT	INC.VAT
PS105	105W	£19.98	£23.98
CDS-1V*	280W	£26.99	£32.99

Clarke BELT SANDERS

Ideal for surface removal, sanding and finishing
BS1
ABRASIVE SANDING BELTS IN STOCK

MODEL	MOTOR	M/MIN	EXC.VAT	INC.VAT
Clarke BS1	900W	380	£37.99	£45.99
Clarke CBS2	1200W	480	£79.98	£95.98
Makita 9911	650W	75-270	£99.98	£119.98

Clarke CIRCULAR SAWS

Great range of DIY and professional saws • Ideal for bevel cutting (0-45°)
CON185
Includes laser guide

MODEL	MOTOR	MAX CUT	EXC.VAT	INC.VAT
Clarke CON185	1200W	90/45	£41.99	£50.99
CCS185B	1200W	65/44	£41.99	£50.99
CON185*	1600W	60/40	£59.98	£71.98

VAC KING WET & DRY VACUUM CLEANERS

Compact, high performance wet & dry Vacuum cleaners for use around the home, workshop, garage etc.
SS = Stainless Steel

MODEL	MOTOR	CAPACITY	EXC. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£49.98	£59.98
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC20PR2	1400W	16/12ltr	£64.99	£77.99
CVAC25SS*	1400W	19/17ltr	£69.98	£83.98
CVAC30SSR*	1400W	24/21ltr	£89.98	£107.98

Clarke RANDOM ORBITAL SANDER

Adjustable front handle improves control
7000-14000rpm
INC DUST BAG AND SELECTION OF 125MM DIAMETER SANDING DISCS
CROSS3

FROM ONLY £32.99 EXC.VAT
£39.99 INC.VAT

Clarke CPF13 ELECTRIC POWER FILE

Variable belt speed
trimming head
*Black & Decker

MODEL	MOTOR	BELT SIZE (mm)	EXC.VAT	INC.VAT
CPF13	400W/230V	13x45	£49.98	£59.98
KA900E*	350W/230V	13x45	£59.98	£71.98

Clarke CORDLESS STAPLE/ NAIL GUN

All models include nail/staple pack and tough moulded case • 18V 2Ah Li-ion power pack • 18 Staple/Nail Gauge
CONSN18LIC

FROM ONLY £109.98 EXC.VAT
£131.98 INC.VAT
SPARE NAILS / STAPLES IN STOCK
ELECTRIC AND CORDLESS MODELS IN STOCK

Clarke CONTRACTOR 18V BRUSHLESS COMBI DRILLS

2 forward and reverse gears
powered by Li-Ion
CON180LI

MODEL	VOLTS	BATTS	EXC.VAT	INC.VAT
CON18LIC	18V	2x 2.0Ah Li-Ion	£109.98	£131.98
CON180LI	18V	2x 4.0Ah Li-Ion	£159.98	£191.98

Clarke BOLTLESS SHELVING/BENCHES

Simple fast assembly in minutes using only a hammer
SAVE 10%
WHEN YOU BUY ANY MIX OF 4 FROM THIS RANGE
SAVE UP TO £23.99 INC. VAT
CHOICE OF 5 COLOURS
RED, BLUE, GREY, SILVER & GALVANISED STEEL

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

Clarke WHETSTONE SHARPENER (200MM)

Produces razor sharp cutting edges on chisels, planes, etc. • Inc. 3 tool holding jigs, workpiece clamp & support frame, polishing paste & water trough
CWS200B

ONLY £119.98 EXC.VAT
£143.98 INC.VAT

Clarke PLANERS & THICKENERS

Ideal for DIY & Hobby use
Dual purpose, for both finishing & sizing of timber
CPT800

MODEL	PLANING WIDTH	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CPT600	6"	120mm	£179.98	£215.98
CPT800	8"	120mm	£219.98	£263.98
CPT1000	10"	120mm	£299.00	£358.80

PAY MONTHLY

- Over 12, 24 or 36 months
- Purchases over £300
- 12.9% APR, 10% Deposit*

EASY TO USE WEBSITE

NOW OVER **21,000** PRODUCTS ONLINE!



For hard-to-find, specialist items visit the **Xtra** section on machinemart.co.uk

FREE 508 PAGE CATALOGUE

Over **760** PRICE CUTS & NEW PRODUCTS



GET YOUR FREE COPY NOW!

- IN-STORE
 - ONLINE
 - PHONE
- 0844 880 1265

Clarke TURBO FAN GAS HEATERS

Offering low cost, efficient heating

DUAL VOLTAGE 230/110 VOLT
IN STOCK FROM £226.80

Little Devil II
FROM ONLY **£79.98** EXC.VAT
£95.98 INC.VAT

PROPANE GAS FIRED

MODEL	MAX OUTPUT KW	EXC. VAT	INC. VAT
Little Devil II	10.3	£79.98	£95.98
Devil 700	15	£99.98	£119.98
Devil 900	24.9	£139.98	£167.98
Devil 1600	36.6	£169.98	£203.98
Devil 2100	49.8	£259.00	£310.80
Devil 4000	131	£429.00	£514.80

Clarke ELECTRIC HEATERS

BEST SELLER

DEVIL 6003
FROM ONLY **£49.98** EXC.VAT
£59.98 INC.VAT

MODEL	VOLTAGE	HEAT OUTPUT KW	EXC.VAT	INC.VAT
DEVIL 6003	230V	1.5-3	£49.98	£59.98
DEVIL 7003	230V	3	£59.98	£71.98
DEVIL 6005	400V	2.5-5	£69.98	£83.98
DEVIL 7005	400V	5	£84.99	£101.99
DEVIL 6009	400V	4.5-9	£109.00	£130.80
DEVIL 6015	400V	5-10-15	£169.00	£202.80
DEVIL 7015	400V	15	£199.98	£239.98

Clarke BENCH BANDSAWS

• Produces fast, precise mitre & longitudinal cuts
• 350W motor
• 7.5" throat size
• Cuts in all types of wood

CBS190B
FROM ONLY **£129.98** EXC.VAT
£155.98 INC.VAT

CBS225
FROM ONLY **£189.98** EXC.VAT
£227.98 INC.VAT

• Great for both home & professional use
• Induction 300W motor
• Table tilts up to 45°
• 9" throat size

Clarke PROFESSIONAL BANDSAWS

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

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

MODELS ALSO FEATURE:

- MULTI-STEP DUST EXTRACTION OUTLET
- FLEXIBLE LED WORKLIGHT
- REMOVABLE DUST TRAY
- BLADE TENSIONING CONTROL

MODEL	THROAT DEPTH	MAX CUT 90°	MAX CUT 45°	EXC. VAT	INC. VAT
CBS250	250mm/10"	100mm	75mm	£219.98	£263.98
CBS300	305mm/12"	165mm	115mm	£398.00	£477.60
CBS350	340mm/14"	225mm	160mm	£498.00	£597.60

Clarke SLIDING COMPOUND MITRE SAWS

BEST SELLER

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

CMS10S2
FROM ONLY **£74.99** EXC.VAT
£89.99 INC.VAT

MODEL	BLADE DIA/BORE DEPTH (mm)	CROSS CUT	EXC.VAT	INC.VAT
CMS210S*	210/30	60/120	£74.99	£89.99
CMS210MP	216/30	65/305	£139.98	£167.98
CMS10S2	254/30	78/340	£139.98	£167.98
CMS250S	250/30	85/250	£109.98	£131.98
CMS250MP	255/30	90/305	£189.00	£226.80

Clarke SCROLL SAWS

• 50mm max cut thickness • Air-blower removes dust from cutting area • Table tilts 0-45°

CSS400C
FROM ONLY **£79.98** EXC.VAT
£95.98 INC.VAT

MODEL	MOTOR	SPEED RPM	EXC. VAT	INC. VAT
CSS4000	120W	400-1600	£79.98	£95.98
CSS16VB	90W	550-1600	£94.99	£113.99
CSS400C	90W	550-1600	£119.98	£143.98

Clarke TURBO AIR COMPRESSORS

airmaster

• Superb range ideal for DIY, hobby & semi-professional use

8/260
FROM ONLY **£89.98** EXC.VAT
£107.98 INC.VAT

MODEL	MOTOR	CFM	TANK	EXC.VAT	INC.VAT
8/260	2HP	7.5	24ltr	£89.98	£107.98
7/250	2HP	7	24ltr	£94.99	£113.99
11/260	2.5HP	9.5	24ltr	£109.98	£131.98
8/550	2HP	7.5	50ltr	£119.98	£143.98
11/550	2.5HP	9.5	50ltr	£139.98	£167.98
16/1010*	3HP	14.5	100ltr	£259.98	£311.98

Clarke PLUNGE SAWS

NEW RANGE

CPS160
FROM ONLY **£69.98** EXC.VAT
£83.98 INC.VAT

MODEL	MOTOR	EXC.VAT	INC.VAT
CPS65	550W	£69.98	£83.98
CPS160	1200W	£139.00	£166.80

Clarke STATIC PHASE CONVERTERS

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

PC60
FROM ONLY **£229.00** EXC.VAT
£274.80 INC.VAT

MODEL	MAX. MOTOR HP	FUSE	EXC.VAT	INC.VAT
PC20	2HP	10Amps	£229.00	£274.80
PC40	3.5HP	20Amps	£269.00	£322.80
PC60	5.5HP	32Amps	£319.00	£382.80

Clarke ROUTERS

BOSCH

• Powerful heavy duty machines ideal for trade and DIY use

CR4
FROM ONLY **£44.99** EXC.VAT
£53.99 INC.VAT

CR1200
*was £131.98 inc. VAT
FROM ONLY **£44.99** EXC.VAT
£53.99 INC.VAT

MODEL	MOTOR (W)	PLUNGE (mm)	EXC.VAT	INC.VAT
CR1200	1200	0-55	£44.99	£53.99
Bosch POF1400ACE	1400	0-55	£89.98	£107.98
CR4*	2000	0-66	£99.98	£119.98

Clarke GRINDERS & STANDS

• Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

STANDS FROM ONLY £47.98 INC.VAT

POLISHING KITS 4" TO 8" FROM ONLY £27.59 INC.VAT

With sanding belt *8" whetstone & 6" drystone

MODEL	DUTY	WHEEL DIA.	EXC.VAT	INC.VAT
CBG6RP	DIY	150mm	£32.99	£39.59
CBG6RZ	PRO	150mm	£42.99	£51.59
CBG6RSC	HD	150mm	£54.99	£65.99
CBG6SB#	PRO	150mm	£56.99	£68.39
CBG6RWC	HD	150mm	£59.98	£71.98
CBG8W* (wet)	HD	150/200mm	£58.99	£70.79

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT

• Great for sawing, cutting, sanding, polishing, chiselling & much more • 250W motor
• Variable speed

CMFT250
FROM ONLY **£37.99** EXC.VAT
£45.59 INC.VAT

Clarke CONTRACTOR JIGSAWS

CON750
FROM ONLY **£15.99** EXC.VAT
£19.19 INC.VAT

*DIY Professional

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EXC. VAT	INC. VAT
CJS380*	420W	55/6mm	£15.99	£19.19
CON750#	750W	80/10mm	£27.99	£33.59
Bosch PS1700E*	500W	70/4mm	£44.99	£53.99

Clarke 12" DOVETAIL JIG

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

CDTJ12
FROM ONLY **£54.99** EXC.VAT
£65.99 INC.VAT

Clarke ROUTER TABLE

CRT-1
Router not included

BEST SELLER

• Converts your router into a stationary router table • Suitable for most routers (up to 155mm dia. Base plate)

FROM ONLY **£69.98** EXC.VAT
£83.98 INC.VAT

Machine Mart Xtra

Professional woodworking tools and machinery from Record, Sheppach, SIP and more!

Visit www.machinemart.co.uk for more information

VISIT YOUR LOCAL SUPERSTORE OPEN MON-FRI 8.30-6.00, SAT 8.30-5.30, SUN 10.00-4.00

BARNESLEY Pontefract Rd., Barnsley, S71 1EZ	01226 732297	EXETER 16 Trusham Rd., EX2 8QG	01392 256 744	NORWICH 282a Heigham St., NR2 4LZ	01603 766402
B'HAM GREAT BARR 4 Birmingham Rd.	0121 358 7977	GATESHEAD 50 Lobley Hill Rd., NE8 4YJ	0191 493 2520	NOTTINGHAM 211 Lower Parliament St.	0115 956 1811
B'HAM HAY MILLS 1152 Coventry Rd., Hay Mills	0121 7713433	GLASGOW 280 Gt Western Rd., G4 9EJ	0141 332 9231	PETERBOROUGH 417 Lincoln Rd., Millfield	01733 311770
BOLTON 1 Thynne St., BL3 6BD	01204 365799	GLOUCESTER 221A Barton St., GL1 4HY	01452 417 948	PLYMOUTH 58-64 Embankment Rd., PL4 9HY	01752 254050
BRADFORD 105-107 Manningham Lane, BD1 3BN	01274 390962	GRIMSBY ELLIS WAY, DN32 9BD	01472 354435	POOLE 137-139 Bournemouth Rd., Parkstone	01202 717913
BRIGHTON 123 Lewes Rd., BN2 3QB	01273 915999	HULL 8-10 Holderness Rd., HU9 1EG	01482 223161	PORTSMOUTH 277-283 Copnor Rd., Copnor	023 9265 4777
BRISTOL 1-3 Church Rd., Lawrence Hill, BS5 9JJ	0117 935 1060	ILFORD 746-748 Eastern Ave., IG2 7HU	0208 518 4286	PRESTON 53 Blackpool Rd., PR2 6BU	01772 703263
BURTON UPON TRENT 12a Lichfield St., DE14 3QZ	01283 564 708	IPSWICH Unit 1 Ipswich Trade Centre, Commercial Road	01473 221253	SHEFFIELD 453 London Rd., Heeley, S2 4HJ	0114 258 0831
CAMBRIDGE 181-183 Histon Road, Cambridge, CB4 3HL	01223 322675	LEEDS 227-229 Kirkstall Rd., LS4 2AS	0113 231 0400	SIDCUP 13 Blackfen Parade, Blackfen Rd	0208 3042069
CARDIFF 44-46 City Rd., CF24 3DN	029 2046 5424	LEICESTER 69 Melton Rd., LE4 6PN	0116 261 0688	SOUTHAMPTON 516-518 Portswood Rd.	023 8055 7788
CARLISLE 85 London Rd., CA1 2LG	01228 591666	LINCOLN Unit 5, The Pelham Centre, LN5 8HG	01522 543 036	SOUTHEND 1139-1141 London Rd., Leigh on Sea	01702 483 742
CHELTENHAM 84 Fairview Road, GL52 2EH	01242 514 402	LIVERPOOL 80-88 London Rd., L3 5NF	0151 709 4484	STOKE-ON-TRENT 382-396 Waterloo Rd., Hanley	01782 287321
CHESTER 43-45 St. James Street, CH1 3EY	01244 311258	LONDON CATFORD 289/291 Southend Lane SE6 3RS	0208 695 5684	SUNDERLAND 13-15 Ryhope Rd., Grange town	0191 510 8773
COLCHESTER 4 North Station Rd., CO1 1RE	01206 762831	LONDON 6 Kendal Parade, Edmonton N18	020 8803 0861	SWANSEA 7 Samlet Rd., Llansamlet, SA7 9AG	01792 792969
COVENTRY Bishop St., CV1 1HT	024 7622 4227	LONDON 503-507 Lea Bridge Rd., Leyton, E10	020 8558 8284	SWINDON 21 Victoria Rd., SN1 3AW	01793 491717
CROYDON 423-427 Brighton Rd., Sth Croydon	020 8763 0640	LUTON Unit 1, 326 Dunstable Rd., Luton LU4 8JS	01582 728 063	TWICKENHAM 83-85 Heath Rd., TW1 4AW	020 8892 9117
DARLINGTON 214 Northgate, DL1 1RB	01325 380 841	MAIDSTONE 57 Upper Stone St., ME15 6HE	01622 769 572	WARRINGTON Unit 3, Hawley's Trade Pk.	01925 630 937
DEAL (KENT) 182-186 High St., CT14 6BQ	01304 373 434	MANCHESTER ALTRINCHAM 71 Manchester Rd., Altrincham	0161 9412 666	WIGAN 2 Harrison Street, WN5 9AU	01942 323 785
DERBY Derwent St., DE1 2ED	01332 290 931	MANCHESTER CENTRAL 209 Bury New Road M8 8DU	0161 241 1851	WOLVERHAMPTON Parkfield Rd., Bilston	01902 494186
DUNCASTER Wheatley Hall Road	01302 245 999	MANCHESTER OPENSHAW Unit 5, Tower Mill, Ashton Old Rd	0161 223 8376	WORCESTER 48a Upper Tything, WR1 1JZ	01905 723451
DUNDEE 24-26 Trades Lane, DD1 3ET	01382 225 140	MANSFIELD 169 Chesterfield Rd., South	01623 622160		
EDINBURGH 163-171 Piersfield Terrace	0131 659 5919	MIDDLESBROUGH Mandale Triangle, Thornaby	01642 677881		

29442RH Calls to the catalogue request number above (0844 880 1265) cost 7p per minute plus your telephone company's network access charge. For security reasons, calls may be monitored. All prices correct at time of going to press. We reserve the right to change products and prices at any time. All offers subject to availability, E&OE. *Terms & conditions apply see machinemart.co.uk/finance for more details

FURTHER INFORMATION

To find out more about Atelier Cabinet Makers, see their website:

www.ateliercabinetmakers.com

RYOBI ONE+ AIRSTRIKE 18GA NAILER

Featuring AirStrike Technology for cordless convenience, **Jamie Smith** of **Atelier Cabinet Makers** takes a look at this 18 gauge nailer from Ryobi, which is part of the ever-expanding ONE+ range

This new cordless nailer from Ryobi is part of the ONE+ range that comprises over 100 different cordless power tools, which can all be run on the same 18V battery. Once on the platform, you have the opportunity to expand your cordless power tool collection without having to purchase additional batteries.

Weight & balance

On first picking up the Ryobi cordless nailer and feeling its weight and balance prior to loading it with the 4.0Ah battery, I found most of the weight to be in the head of the tool. Once fitted with the battery, however, everything balances out well and is comfortable to hold when firing directly downwards – when working at the workbench, for example.

When holding the nailer out in front of me, if I was nailing against a vertical wall, I noticed that the balance in this position is quite front heavy and the tool naturally wants to drop forwards and return to a downward firing position. This would only be an issue for prolonged use in the forward firing position, such as if you were installing a type of cladding. The nailer has a soft rubber grip handle with a great non-slip texture,



The nailer with 4.0Ah battery pack fitted

and the rest of the body is distinctive bright Ryobi green. The nailer magazine is black, with the green showing through on the low nail indicator. Secondary to the low nail indicator, the 18Ga nailer has a lock out feature, which stops the tool from firing before the magazine runs out of nails. There is no physical on/off switch or safety trigger lock switch, however. Personally, I'd prefer the tool to have a lock but removal of the battery ensures there can't be any accidental firing when the nailer is safely packaged in a toolbox, etc. during transit.

In use

The first task for the nailer was in a workshop setting, where it was employed during the building of some cabinet carcasses. I often use an 18Ga to quickly hold large components together, which means I can then continue to add screws and fixings freely. Having this cordless tool available meant that I didn't have to rely on my noisy workshop compressor, which was a definite



Loading the magazine is fast and simple

bonus. I found the nailer worked excellently for most jobs with nails up to 30mm, which is the size I most commonly use. I work with a range of materials and used the Ryobi on softwoods, MDF, hardwood ply boards, as well as solid timber.

Functions & modes

The nailer has two functions including sequential firing and a contact actuation mode. The first mode works by compressing the nailer tip into the timber and then firing a single nail when the trigger is pulled. The nailer has two triggers: the main firing one and a smaller trigger below that is naturally engaged when the tool is picked up. This smaller trigger is a safety switch that has to be engaged before the main trigger to fire a nail; it also activates the two bright LED headlights for about 10 seconds. When the nailer is moved into contact firing mode via the switch situated at the bottom of the trigger handle, it will fire by engaging both triggers and then bumping



LED headlights are activated via the smaller trigger on the grip handle





Nail firing depth control is adjusted by turning this grey switch

the nailer into the workpiece. This mode is designed for faster firing and works perfectly for large workpieces when the nailing doesn't have to be too accurate, for example.

Nailing capabilities

The tool works using Ryobi AirStrike Technology, which is the In Tool Air Compression function. This does away with the need for an air compressor and gas cartridges, which means there are no further costs involved in running the nailer, and also no cables and cords in the way.

On testing the nailing capabilities, I used the full range of 18Ga (1.2mm) nails from 15-50mm in length. I monitored the nail depth adjustment, which is the grey wheel situated on the front right; this allows the nails to be left slightly proud or adjusted until they are sunk a couple of millimetres below the surface. The nailer was fully capable and consistent with its depth of firing and firing depth adjustment when working with man-made boards and hardwoods up to 50mm nails. Only when firing 50mm nails into solid oak did I find that the R18N18G couldn't sink these below the surface. Using a nail of that length in my work would be a rare exception, however, but



30mm nails fully sunk below the surface in solid oak



The nailer struggled to fire these 50mm nails into solid oak, meaning they stood proud of the surface



Due to its cordless nature, the nailer is incredibly handy, both in the workshop and out on the jobsite

I wanted to test the nailer to its full capabilities. I recently looked at another cordless nailer of the same gauge and voltage, manufactured by a different power tool brand, and I found this was able to successfully and consistently fire 50mm nails into solid oak. The difference, however, is that this nailer was over double the price of the Ryobi model tested here, so it really depends on what you're using it for.

Conclusion

Overall I would definitely find this nailer useful in my work, both inside the workshop and out on the jobsite when installing cabinetry. Not having to transport and set up a compressor is a definite advantage, which owes to its cordless status. I'd recommend the R18N18G to both hobbyist and professional users and it's a great competitor to some of the more well-known professional nailers on the market due to its much lower price tag. Prior to purchase, I'd advise taking into consideration the level of heavy-duty work you'd be looking to use it for. The Ryobi nailer features a quick-release nail jam, but I am yet to experience any of these and found the functions to all work well and without any issues. ✂



Constructing plywood cabinet components using 30mm nails



Pre-joining cornice mitres prior to installation



The dual trigger soft grip handle is comfortable to hold and activates the LED headlights



Using the nailer to reinforce the joints of a kitchen spice rack in solid oak

SPECIFICATION

- Battery voltage:** 18V
- Battery type:** Ryobi ONE+
- Magazine capacity brads:** 105
- Nail capacity:** 15-50mm
- Nail type (mm):** 18 gauge, 1.2mm heads
- Weight:** 2.93kg (excluding battery)

Typical price: £199.99 (bare)
Web: <https://uk.ryobitools.eu>

THE VERDICT

PROS

- Dry-fire lockout; very competitively priced when compared to other nailers on the market; versatile tool due to cordless Lithium-ion battery power; doesn't require a compressor or gas cartridges; battery compatible with over 100 other Ryobi cordless power tools; supplied with a three-year warranty

CONS

- Front heavy when nailing forwards rather than downwards; can't fire nails of 50mm length into solid oak as the nails stay proud of the surface; bulky due to weight, and as a result, may be difficult to use in tight spaces or for certain applications; no physical on/off power or safety lock switch

RATING: 4 out of 5

MICRO JIG MATCHFIT DOVETAIL CLAMP PRO

Jonathan Salisbury takes a look at this handy clamp from Micro Jig, which provides a simple way of installing clamps, stops and fences in almost any situation

Even if you can never have enough clamps, there will be a time when your impressive collection of G, F, sash and QRs don't reach, fit or even stay in place. The Micro Jig MATCHFIT Dovetail Clamp Pro might be your answer; if not, it still adds another method to your armoury. It works along the same principles as T-slot clamping, except you create the slot using a router with a dovetail cutter.

In the box

The 'Pro' in Micro Jig MATCHFIT Dovetail Clamp Pro refers to this being a complete set of clamps, router cutter, gauge and the mysteriously-entitled 'dovetail hardware variety pack', containing two each of three types of inserts for fitting smaller stops, guides and fences to surfaces. If you already have a standard 14° dovetail cutter and the ability to set the depth accurately, you don't need the Pro kit; the clamps are available separately (for £55.95), as is the dovetail hardware variety pack (at £13.95).

One thing to consider is that, since it works with slots, if you do not want a work surface

covered with channels, you need to add a board to your bench. Slots also tend to fill up with dust and shavings, although I think that this would just encourage me to clean up after myself more often! I was half expecting the slot to give way when the clamp was tightened, but this only happened in MDF (and probably only because I was over-tightening in a determined attempt to test to destruction). This is very unlikely to be an issue if using plywood or solid timber, as shown by my more thorough test using a piece of oak kitchen worktop. The setup gauge is a great timesaver, but not essential if you're good at setting precise depths on your router.

Having started out quite sceptical about their usefulness, I was surprised at how good these clamps are; I am definitely a convert. Firstly, they are very high quality; the clamp head slides smoothly into position and does not slip as it is being tightened, a problem I have often had with F clamps, and the soft-grip handles allow really tight clamping without requiring a huge effort. The other pieces in the dovetail hardware variety pack provide what is required to fix home-made stops and guides to the surface, which is particularly useful when dealing with irregularly-shaped pieces. Because you can decide where to put the tracks, you are not restricted to clamping to the edges of the table.



Do some research

It's worth looking up the many ways these clamps can be used; my particular favourites are the ability to clamp work to the fronts of benches or to the tops of sawhorses. The clamps and other components can also be used for saw table jigs and on drill press tables, a notoriously tricky place to align and clamp anything. The slot does not have to be on the work surface either; cut one into a length of 2x1 and you have a fence that can be clamped to a board to guide a router or a saw.

Conclusion

At a few pence short of £90, this is not cheap kit, but it represents value for money as the quality is so high. Since they require a standard 14° slot, if you already have the router cutter you can always just buy the clamps, or the dovetail hardware variety pack; the prices of individual clamps are comparable to similar products made by other quality brands. The real advantage of this system is the ability to create a bespoke clamping system for your specific needs. I wish that I'd had this kit for all those times in the past when I had to make do and compromise with whatever I had to hand! ✕

SPECIFICATION

- The freedom to create your own tracks to clamp virtually anywhere
- Universally compatible any with 1/2in 14° dovetail router bits

All-in-one package includes:

- 2 x MATCHFIT Dovetail Clamps
- 1 x MATCHFIT Dovetail Router Bit
- 1 x Setup Gauge
- 1 x set of the Dovetail Hardware Variety Pack

Typical price: £89.95

Web: www.woodworkersworkshop.co.uk



The kit (minus one clamp)



Slots cut, set up and ready to go



The variety pack provides useful bases



Stops can be made from anything!

THE VERDICT

PROS

- Complete kit; very high quality and tolerance; soft grip handles allow easy tightening; simple way of installing clamps, stops and fences in almost any situation

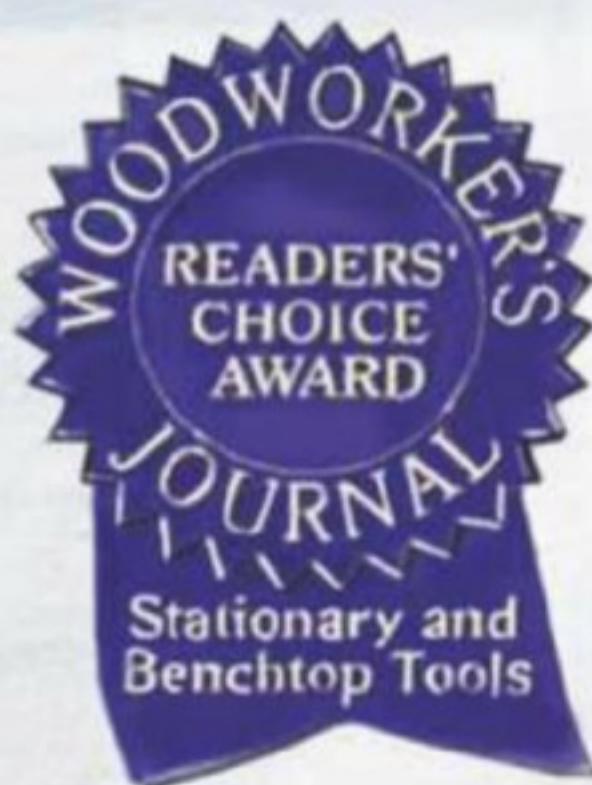
CONS

- Requires a router with a 1/2in collet

RATING: 5 out of 5

Now Available and On Display

at your nearest LAGUNA stockist



*£ 1,299 Inc. VAT

*Shown with optional blade, Light & Wheel System.

To find your nearest specialist retailer please visit
www.lagunatools.uk

MISSION IMPOSSIBLE PART 4

In the final part of this series, **Shaun Newman** adds the fingerboard and frets, top nut and saddle bone, a finish, strings it up and sets the action, before making a bespoke flight case

In part 3 I described how the soundboard should be made, braced and fitted, as well as describing how to inlay the rosette. Next came the bindings and purflings for the soundboard, before working on, and fitting, the bridge.

Dry fitting the neck tenon into the soundbox

To ensure that when fitted the fingerboard is exactly flat, the top edge of the neck must be in exactly the same plane as the top of the soundboard and must not be set at a skewed angle as otherwise tuning and intonation will later become problematic. The easiest way of completing this task is to insert a shim of hardwood veneer into the sides of the mortise. In this case I chose ziricote. If the two surfaces are not exactly level, either a further shim can be added or a little can be taken off the sides of the tenon to ensure the correct fit (**photo 86**).

The fingerboard & frets

The fingerboard may be made from a variety of hardwoods such as ebony, rosewood, blackwood, ziricote, maple, etc. (**photo 87**). I chose to make this one from a billet of ebony measuring 55cm long x 75mm wide x 9mm thick. This would eventually match the bridge and headstock veneer. It was first planed on both sides to ensure flatness and brought to a thickness of 7mm. I had been wondering how to help the puny 5mm bolt of the Halsschraube out, as I had been worried that the neck might tilt forward under the tension of the strings or even twist, as the bass strings will exert slightly more pull than the treble ones. I then came up with the idea of fitting the fingerboard in two parts: first, a longer length would be fitted on the neck and would reach down as far as halfway between frets 13 and 14. The trick would be in cutting the lower end of the longer length into a wedge shape. This would then sit firmly in a reverse cut in the shorter length that would be fitted directly onto the top of the soundbox (**photo 88**).

This idea did not only serve to help lock the neck and fingerboard into place, it also shortened the overall length of the neck, which later had to fit into the carrying case. If the whole fingerboard had been fitted to the neck reaching down as far as fret 20, it would have been almost impossible to get it into the box, even diagonally. So, two birds with one stone!

Having decided all of that it was now time to cut the fret slots. This job can be done with a fine dovetail saw and a small try square to ensure that each fret is parallel with every other, or a commercially available fret cutting jig can be used (**photo 89**). These are expensive and, as with the bending iron, if just one instrument is to be made it is probably not worth it. However, given that the same jig can be used for mandolins, dulcimers, banjos and all types of guitar, both classical and acoustic, it is a worthwhile tool.

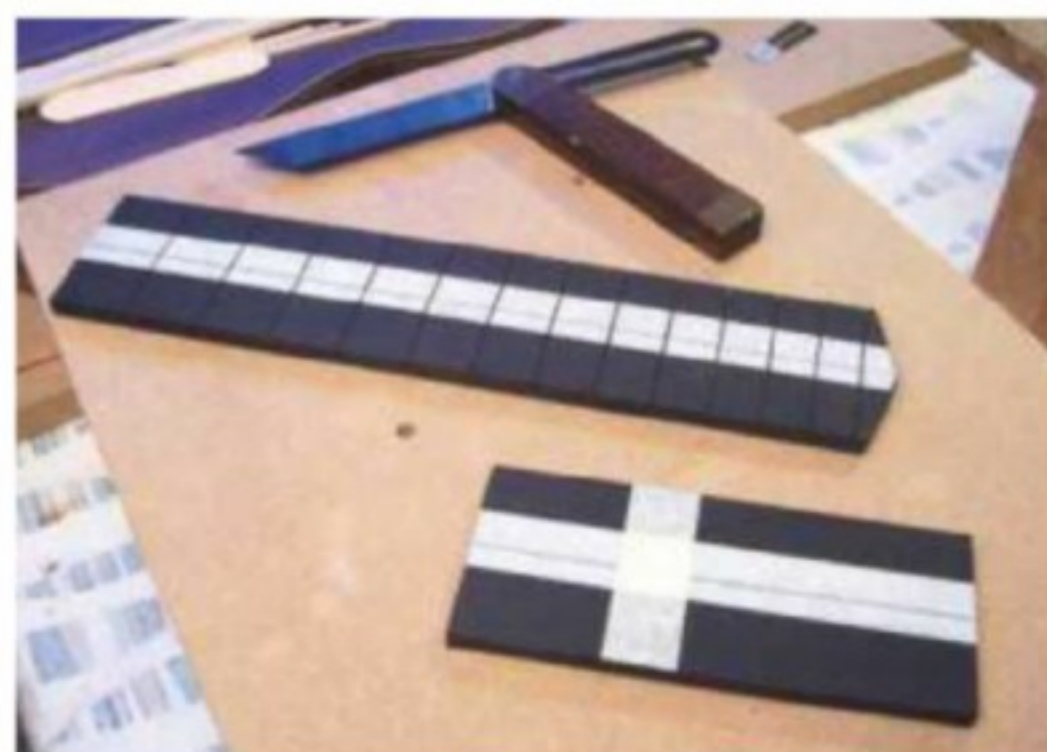
The frets must be carefully spaced according to the following formula for a standard 650mm string length. Remember that the string length is measured from the inside edge of the top nut and the inside edge of the bridge saddle. Note also that the 'V' join between the two different lengths of fingerboard must be cut before the lower fret slots are put in. This ensures that the frets from No.13 to 20 are not the thickness of a saw blade too close to the nut, which would mean they would play out of tune (**photo 90**). The scale is as follows: nut to fret 1 = 36.5; to fret 2 = 71; to fret 3 = 103.5; to fret 4 = 134; to fret 5 = 163; to fret 6 = 190.5; to fret 7 = 216.2; to fret 8 = 240.5; to fret 9 = 263.5; to fret 10 = 285.2; to fret 11 = 305.7; to fret 12 = 325; to fret 13 = 343.2; to fret 14 = 360.4; to fret 15 = 376.7; to fret 16 = 392; to fret 17 = 406.5; to fret 18 = 420.2; to fret 19 = 433; to fret 20 = 446 (**photo 91**).



86 Hardwood shims in the neck mortise



87 Fingerboard blanks in ebony and rosewood

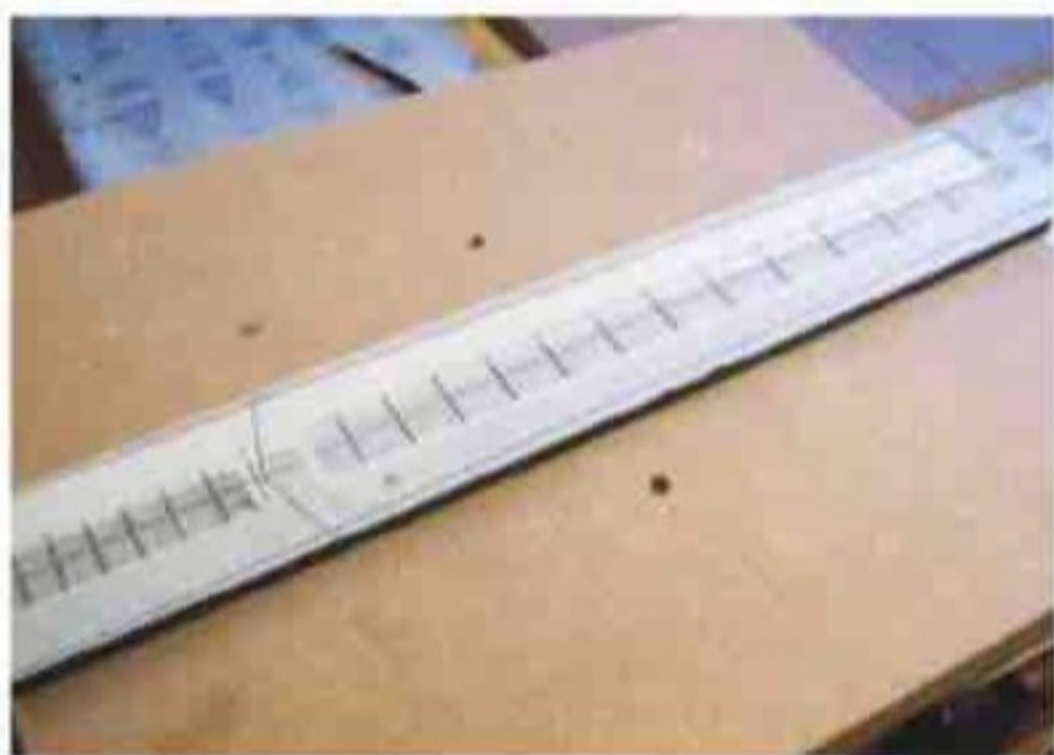


88 Fingerboard wedge to help lock the neck into place



89 A commercially available fret cutting jig





90 Fret spacings marked on fingerboard

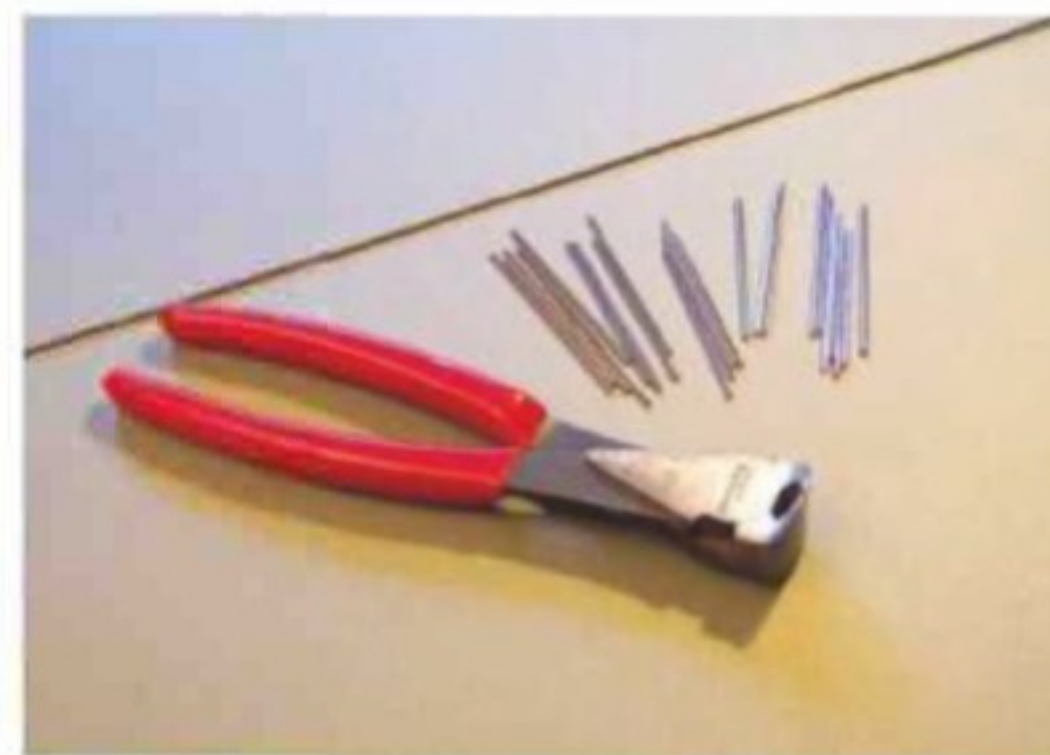
Each one is cut from a length of standard classical guitar fret wire and I usually cut them to around 6mm oversize. The overlap offers a part of the fret to hold between the finger and thumb while each one is tapped into place (**photo 92**).

The next task is to attach the fingerboard to



91 Cutting fret slots

the neck. To prevent the fingerboard from sliding out of line as the clamps are applied, four small holes (each 1.5mm in diameter and two per fret) are drilled through the first and the 12th fret slot. These will allow hardboard pins to be driven through the fingerboard and into the neck.



92 Frets ready to fit

They anchor everything in place as the Titebond cures and when the pins are removed the small holes will be covered by the frets when they are tapped in (**photo 93**). The fingerboard is then levelled. The best way I have found to do this is to take a piece of plate glass 60cm long and 8cm wide and cover it with 80 grit abrasive held in place with double-sided tape (**photo 94**).

A hammer with a nylon face is best used to tap the frets in, as a metal face will damage the crowns. If you are lucky enough to own a 'dead blow' hammer, that is one with lead shot inside the head, with a nylon face, that is the perfect tool for the job (**photo 95**).

It is important to establish the correct depth for the frets as if the slot is too shallow the fret will stand too proud, but if too deep, the structure of the finger board will be compromised. An easy way to test the depth is to use homemade depth gauges. These are made from two pieces of thin metal and some masking tape. The masking tape is placed across the metal strips up from one edge at the depth of the fret tang. The narrow gauge can be used while the fingerboard is in the fret cutting jig, while the other can be used to examine the depth right across the fingerboard (**photo 96**).

Once fitted and checked for level (**photo 97**) the fret ends are filed flush with the edges of the fingerboard and then the ends are sloped to 30° to take off any sharp edges. Two tools can be made to undertake these tasks: two old file blades are screwed to the underside of two hardwood blocks, one of which has the file edge sitting at 90° and the other at 30°. The blocks are gently run over the tops of the frets and the files do their job (**photo 98**).

At this stage just the longer length of the fingerboard will have been fretted, as this can be done immediately after it has been fitted to the neck; however, for the shorter piece it must first be fitted to the soundbox with extreme accuracy



93 Attaching fingerboard – the pins prevent accidental movement



94 Levelling the fingerboard with a plate glass sander



95 Tapping frets in with a soft-faced hammer



96 Fret depth gauges

and the slots cut and frets fitted afterwards. Next, a small ebony cap is attached to the heel (**photo 99**) and the whole neck can be reduced to its final shape and cleaned up ready for the first dry fit. A fine quality rasp helps to remove much of the waste wood around the neck (**photo 100**), and the final millimetre or so can be removed with a sanding stick. The profile of the neck beneath the fingerboard is usually 'D' or 'C' shaped: 22mm deep at fret 1; 24mm at fret 7; and 25.5mm at fret 9. The width of the neck at the nut is 52mm or 54mm, and at fret 12 it is 62mm or 64mm.

The top nut & saddle bone

Each of these two parts are made from bone, though some makers have used very hard woods such as ebony. It is possible to go to a butcher and buy cattle bone, boil it for several hours (beware of the pong in the kitchen), then steep it in ley for a couple of days, and finally make up your own saddles and nuts. Yes, nuts! It is best to go to a luthiers' supplier and buy them in, however, as they are really not expensive (**photo 101**).

The saddle must first be made to fit tightly, but comfortably into the slot in the front of the bridge and should initially sit around 3mm above the slot on the treble side and 4mm above it on the bass side. The exact height of the saddle



97 Checking the frets are level

is determined later when the action is set (i.e. the string height above the frets).

The top edge of the saddle is sloped down towards the tail end of the guitar to help the strings pass easily through the holes drilled in the tie block, and to prevent the strings from later buzzing as they are struck. For the third string (i.e. the 'g') the slope is reversed to help compensate for the extra thickness of the nylon, which can otherwise result in intonation problems (**photo 102**). When the saddle bone is fitted, the front edge will be rounded by just 0.5mm, which will help with intonation across the other strings caused by the increase in tension as they are depressed onto the fret. Note also that fret 12

is spaced at the halfway point between the nut and the saddle.

The top nut is stouter than the saddle at around 5.5-6mm thick. It spans exactly the width of the fingerboard at the top end. As with the saddle the edge is rounded, this time towards the headstock end, and grooves are cut into the nut to allow the strings to sit neatly in place. The grooves are put in place with fine round-edged files and should each be half as deep as the diameter of the string it will receive. This sounds complicated, but a set of fret files can be purchased from a supplier, or a fine set of needle files used carefully can fit the bill (**photo 103**).

Getting the string grooves in the right place



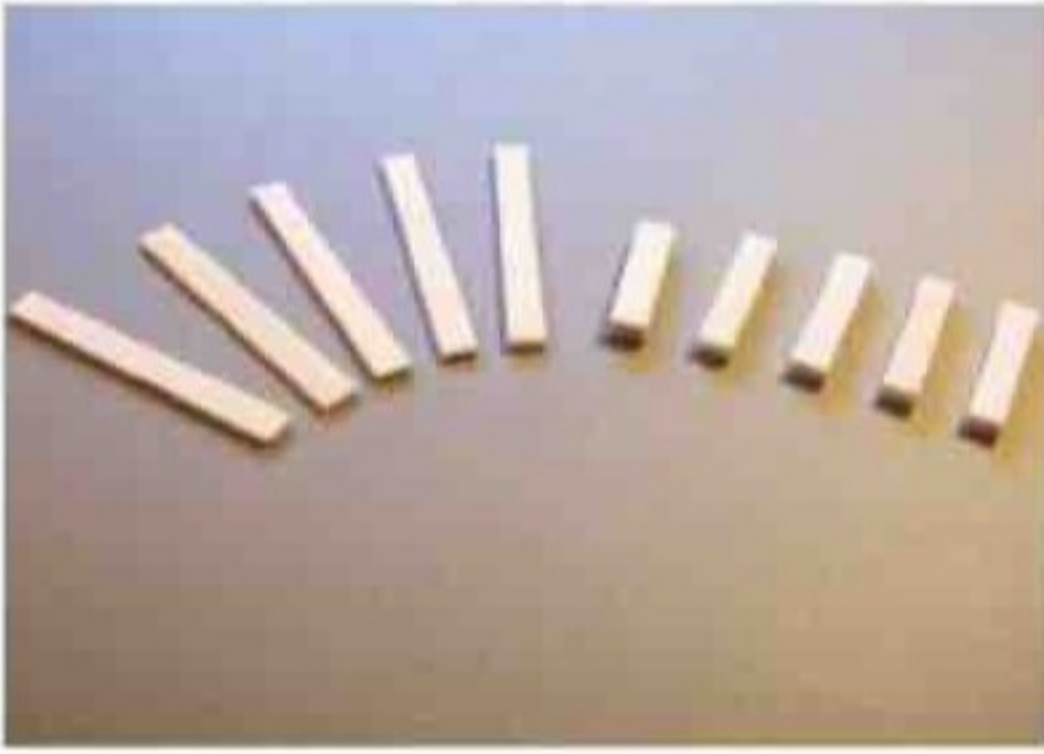
98 Fret trimming tools



99 Ebony heel cap fitted



100 Neck cleaned up



101 Bone nut and saddle blanks

is important, as, for example, if the groove is too close to the end of the nut, then the string can roll over the edge of the fingerboard when it is pushed down by the fingertip. It is usual to place the top 'e' string groove at 5mm from the treble end of the nut, and the lower 'E' string groove 4.5mm from the bass end. The remaining four grooves are equally spaced in the remaining gap.

The finish

As with fan bracing, adhesives and timbers, there are many types of finish to choose from. The most popular nowadays are nitrocellulose lacquer, some oil-based finishes and a variety of polyurethanes. Some makers use urea formaldehyde resin plasticised in alkyd, while others still swear by French polish, despite the attendant difficulties of the latter. Over around a quarter of a century of instrument building, I have settled on the American product made by General Finishes, which is an acrylic resin and carries the name 'High Performance Water Based Top Coat – Satin' (photo 104). It has low VOCs and is environmentally friendly. It can be cleaned up with water and dries either to a satin finish or can be buffed to a gloss (note also it is available in gloss). It can be sprayed or brushed on. All in all, it works well with most types of musical instrument. Once the finish has been applied and buffed to a satisfactory sheen, the Halsschraube can be employed to put the whole instrument together (photo 105), then strings can be put on (photo 106).

Stringing up & setting the action

The choice of strings for a classical guitar is vast, and more often than not relies on the players' own taste. Some will go for low or normal tension nylon, which may give a mellow sound; others will go for so-called carbon strings at higher tensions offering more volume and often a sharper sound. Due to the potential for movement at the neck



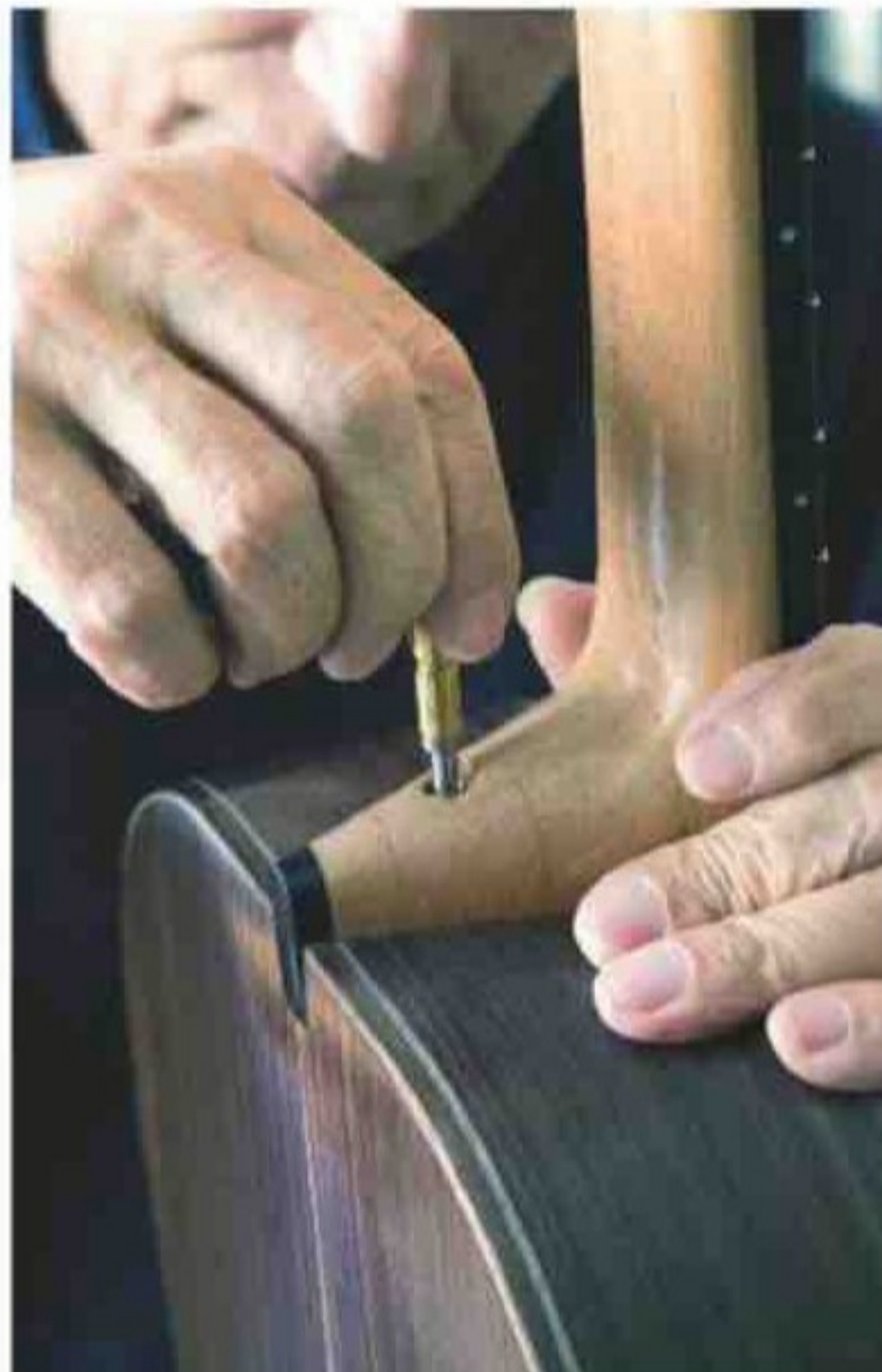
104 General Finishes acrylic resin



102 Finished bone saddle

join, however miniscule, I would recommend normal tension strings. As a starter I usually recommend D'Addario EJ45 Normal Tension, though lately have been attracted to the Savarez 'New Cristal Cantiga Premium' and 'La Bella 2001' strings (photo 107). The Savarez strings are available from the London Guitar Studio in Duke Street and the other brands are normally available in music shops. Whatever strings are chosen, steel ones should never be fitted to a classical guitar. I have seen so many good instruments damaged because the owner has inadvertently fitted acoustic or even electric guitar strings. Having said that, the famous Paraguayan guitarist, Augustin Barrios, always liked to fit a steel string for his top 'e'; however, his recurrent return trips to his repairer are almost as legendary as his playing! Beware.

One of the most hotly contested issues in the world of guitar playing is action. Some players, particularly of flamenco, and steel string instruments, like a relatively low action. Classical players often like a higher one. Normally the action is first measured at the nut end and is the distance between the top of fret 1 and the underside of the string. This height is normally set at around 0.7mm for all six strings, or the thickness of a standard credit card. The next part of setting the action takes us to fret 12,



105 Assembling the guitar with a Halsschraube



103 Filing top nut string grooves

where again the action is determined by the distance from the underside of the string and the top of fret 12. For most classical players the action can be set here at 2.7-3mm for the top 'e' string, and 3.4mm to 4mm for the lower 'E', with the remaining strings having a graded action dependent on the flatness of the slope on the top of the saddle. Some players like the top of the saddle to be flat from end to end and others like a slight upward curve. Either way, the back edge of the saddle must still be rounded over towards the tie block.

At the bridge end, the underside of the 'e' string should sit at 11mm above the soundboard, and the 'E' at 12mm. Flamenco players will usually clip at least 1mm off these measurements and possibly 2. Tying the strings is an important part of getting things right. First, the string should be passed through the hole in the tie block and secured so that it will not slip. There are several YouTube tutorials available online, and a good guide in Rik Middleton's book *The Guitar Maker's Workshop*. The string is then extended up the fingerboard and over the top of the correct roller and the tuning button turned. Try to trap the loose end under the windings and this will help to ensure the string does not slip. I often tie a knot in the lower 'e' and the 'b', particularly at the bridge end, as they are rather thin.



106 Putting strings on



107 Examples of strings by D'Addario, Savarez and La Bella

This helps to anchor them in place while the roller pulls it to the correct tension. The tuning regimen is E, A, D, g, b, e where when the 'b' is held down at fret 1 the note is middle 'c'.

The flight case

Having spent so much time making this guitar, it would be a real shame to get the case wrong! It must, as has often been mentioned before, comply with the requirements of an overhead locker in an aircraft, so 55 x 40 x 20cm. To begin with, a box is made up in the usual way, and the top cut off with a fine floorboard saw to ensure the lid and rest of the box fit together properly. The lining is made as mentioned earlier from 1cm thick rubber foam covered in crushed velvet. Each panel is held in place with a thin bead of epoxy running along the uppermost inside edge with double-sided carpet fitter's tape holding the lining to the rest of the box sides. It is clear that when the neck goes into the box it cannot simply sit on the back of the soundbox as the tuners could do serious damage to the rosewood. I therefore put two blocks into opposite corners of the box, each of which hold the neck just off the back of the soundbox. The headstock end is supported by a block, which has a 'V' shaped mortise cut into the top and lined with soft leather



111 How the fingerboard locks into the soundbox



112 The bolt and clock key

108 Inside view of carrying case showing supporting blocks



to hold that end of the neck. The heel end of the neck also has a block with a mortise lined with leather but also with a hook-and-loop strap, which could be pulled tight holding the heel firmly down on the block (**photo 108**). Simply for 'belt and braces', I also made up a pad of foam covered in crushed velvet to lie between the neck and soundbox, just in case (pardon the unintended pun) (**photo 109**). So, now it is time to fly off into the sunset,

accompanied by your lovely classical 'air guitar' above your seat and safely stowed while I work on the next commission in the workshop (**photo 110**). ✕



109 Foam pad to insure against accidental damage



110 Hard at work in the workshop

SUPPLIERS OF MATERIALS, TOOLS & ACCESSORIES

- www.stewmac.com – for all materials, tools, plans, drawings and accessories
- www.touchstonetowoods.co.uk – for timber and tools, rosettes and bindings/purflings
- www.tonetechluthierssupplies.co.uk – for timber and a wide range of tools
- www.luthierssupplies.co.uk – for timber, tools, rosettes and tuners
- www.madinter.com – for exotic timber, tuners, rosettes and tools
- www.tonewoods4luthiers.co.uk – for beautiful, exotic timber
- www.dictum.com – for fine quality tools
- www.londonguitarstudio.com – for strings, sheet music and many accessories
- www.magic-guitar-parts.com – for good quality tuners
- www.smallwonder-music.co.uk – for inlay materials, purflings, etc.

READING LIST

- *The Guitar Maker's Workshop* – Rik Middleton – ISBN 1-86126-040-7
- *The Classical Guitar, Design and Construction* – Donald McLeod and Robert Welford – ISBN 0852190778
- *Guitar Making Tradition and Technology* – William Cumpiano and Jonathan Natelson – ISBN 0811806405
- *Making a Spanish Guitar* – Jose Luis Romanillos – ISBN 13008619001
- *Classical Guitar Making* – John Bogdanovich – ISBN 9781402720604
- *Making Master Guitars* – Roy Courtnall – ISBN 0709048092
- *Make Your Own Classical Guitar* – Stanley Doubtfire – ISBN 0805238336
- *Classical Guitar Construction* – Irving Sloane – ISBN 0860012328

The vital spark

Robin Gates revisits the work of 20th century master carver Gino Masero, featured in the April 1966 issue of *The Woodworker*

As an amateur woodworker concerned with marking square, sawing straight and planing surfaces flat, the work of master carver Gino Masero strikes me as nothing short of miraculous. Mundane thoughts on tools and techniques are swept away by the feelings stirred by such lovingly sculpted figures and natural forms. I find myself thinking way beyond the practicalities of the craft, just as paint and brushes are the last things which spring to mind when I gaze upon a Turner landscape or Monet's water lilies.

Well alright, after a bit, captivated by the power in a flexing muscle, the twist of a leaf in the breeze, or the fold in a hanging garment, I may try to picture the gouges that he used, even working backwards to the block of wood and the blows of the mallet wasting away what originally hid all this lively detail. But it doesn't diminish the wonder I feel in the woodcarver's magic wrought by eye, hand and sharpened edge – it only makes the achievement more wondrous to know the simplicity of the physical process.

A woodcarver he would be

Flicking through the April 1966 issue of *The Woodworker*, I found this one-page portfolio of Gino Masero's work sandwiched between articles on making a Windsor chair and a carrying case for a camping stove. The 'Mermaid' figurehead for a cocktail bar, the 'Figure of Christ' for St. Mary Magdalen's School, the 'Virgin Kneeling' from a crib set, and a coat of arms in progress for Berkshire County Council, are introduced by the briefest of biographical details from the carver himself. I found more information at the website www.gino.masero.co.uk where Gino's descendents have gathered further illustrations of his work.

Born in Scarborough in 1915, Gino took his first step towards a career in carving wood in the unlikely surroundings of the kitchen at Southend's Palace Hotel, where his Italian father was head chef. He carved a tureen from a block of salt, to be used as a table decoration, and the hotelier was so impressed that he suggested Gino pursue his obvious talent by studying art. There followed an uncertain few years balancing evening classes with working in a restaurant before Gino happened to meet the woodcarver Louis Dupuis, and the die was cast – a woodcarver he would be.

Gino Masero

"I was born at Scarborough, of a North Italian father and English mother. My training as a carver was in the London workshop of R. M. Cross, Architectural Woodcarver. Today I work in London, specialising in the carving of figures and coats-of-arms".



Mermaid.

Designed for a private client as a figurehead decoration for his boat-shaped cocktail bar. Quebec pine, 17 inches high.

Coat of arms (unfinished).

For Berkshire County Council. Lime, 4 ft. by 5 ft.



WOODWORKER, APRIL 1966

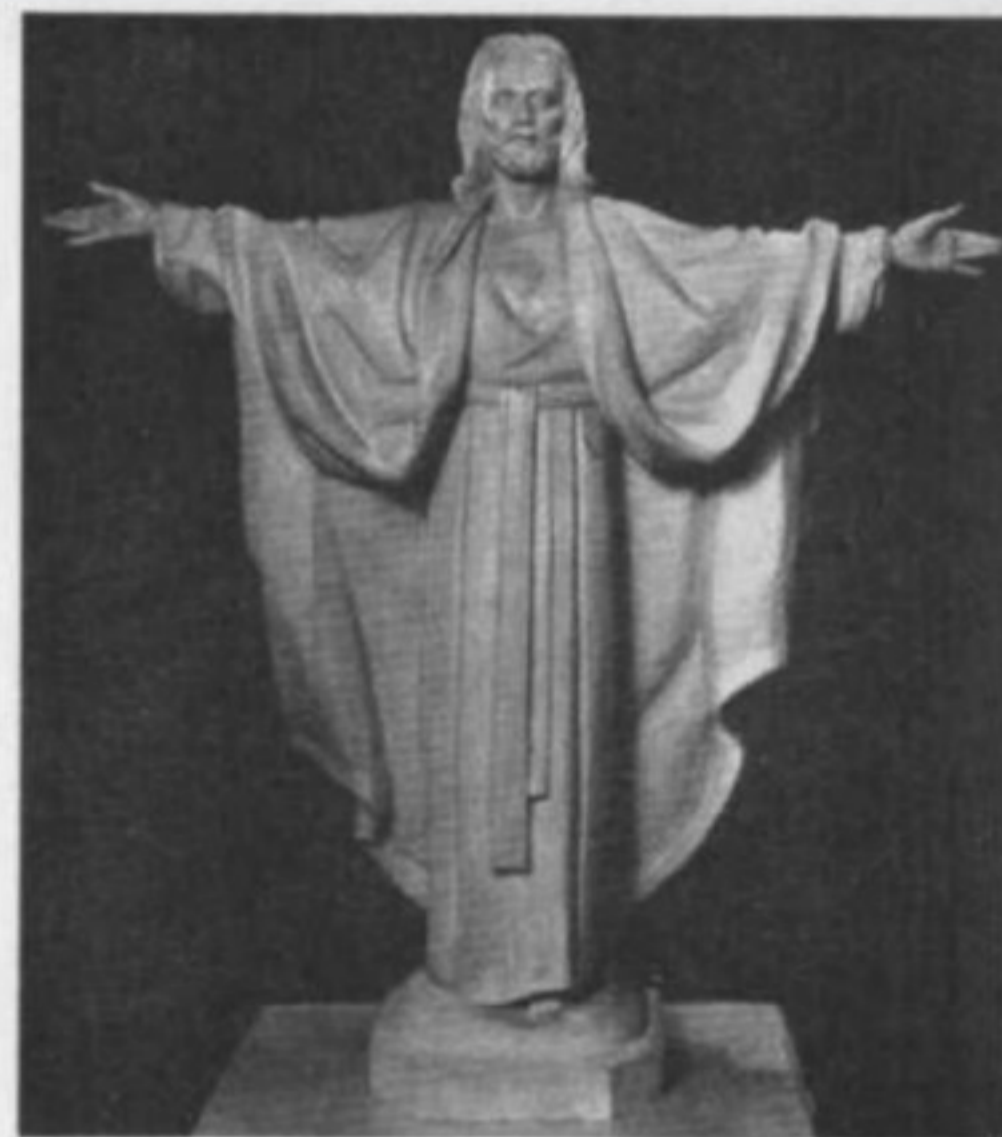


Figure of Christ.

Carved in Quebec pine, it stands 22 1/2 inches high. For St. Mary Magdalen's School, N.W.2.



Virgin kneeling.

Part of a crib set for St. Mary's Hampstead. Quebec pine, 30 inches high.

From carving that block of salt, Gino scaled the rungs of his profession to be one of a mere handful of carvers entrusted with restoring the intricate in-the-round works of 17th century master Grinling Gibbons.

Life force

When Gino Masero died in 1995 he left a body of work that's simply mind-boggling in its scope and quality. As a carver for The College of Arms, he turned his hand to fantastical beasts as easily as to foliage and lettering, while also carving ornamental headstocks for musical instruments, and even the prow and stern posts for a Viking ship. But it's in figures where Gino's flair for capturing humanity's mysterious life force shines. It's as though you haven't merely met the figure of

the person but they've somehow communicated with you, and for that surely the vital spark must have passed from the hands of the creator through the tools and into the very grain of the wood. Writing for *The Woodworker* in 1967, Gino lamented that architectural and sculptural woodcarving was 'only to be seen in churches and places of civic pride' with new carving being 'relegated to replacing and restoring older works'. 'Why,' he asked, 'has it almost become a thing of the past to the general public?'

Now that wood is replacing less sustainable materials in construction, bringing with it opportunities for decoration that only wood provides, perhaps there'll be a concomitant increase in training for woodcarvers. We can but hope. ✕

TORMEK®

LOOK OUT FOR OFFERS ON TORMEK PACKAGES THIS AUTUMN

UP TO 50% DISCOUNT ON
ACCESSORY KITS WHEN
BUYING A TORMEK T-8



TNT-708 Woodturner's Kit



HTK-706 Hand Tool Kit



Come and
see a live demo!
The North of England
Woodworking Show,
Harrogate
15-17 Nov 2019.

Offer valid at participating retailers until 1 December 2019, or while stocks last. For more information on Tormek products, visit www.tormek.com. For details of offers and a full list of retailers, visit UK Importer BriMarc www.brimarc.com/tormek.



Organised by

JB JEREMY BROUN

In collaboration with

The Woodworker
& Good Woodworking

AXMINSTER
Tools & Machinery

triton

THE WILSON
CHELTENHAM ART GALLERY & MUSEUM

THE ALAN PETERS FURNITURE AWARD 2020

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



Alan Peters' 'Fan table'

PRIZES OFFERED

1st prize

£1,000 Axminster Tools & Machinery voucher

2nd prize

£500 Triton Tools voucher

3rd prize

£300 Judges' prize

Winning pieces will be exhibited at Axminster's Nuneaton store and then at The Wilson Gallery (Cheltenham Art Gallery & Museum).

Award deadline is **30 May 2020**. Entries can be submitted any time up to this date. A £20 entry fee applies and a maximum of two entries can be made (£20 per entry).

The judging ceremony will be held at Axminster's Nuneaton store on 29 June 2020, and an exhibition at the store will run from 1–13 July 2020.

Following this, the pieces will then be exhibited at The Wilson Gallery – dates to be confirmed.

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

For further information, please contact either Group Editor, Tegan Foley (tegan.foley@mytimemedia.com), Organiser, Jeremy Broun (jb@woodomain.com)

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

Any woodworker who is a resident UK citizen over the age of 18, and who has a passion and talent for designing and making contemporary furniture, is invited to submit up to two items of furniture that echo the philosophy of Alan Peters. Judging is based on the appropriate use of wood, the quality of workmanship, functionality and originality of design. Both one-off designs and potential batch-produced designs are encouraged.

Applicants should be familiar with the work of Alan Peters prior to applying and are encouraged to read Jeremy Broun's 64-page video-integrated online e-book, which is offered free-of-charge (via the website link opposite).

The man behind the award

Alan Peters OBE (1933–2009) was one of Britain's most prominent furniture designer-makers of the latter part of the 20th century. He was apprenticed to Edward Barnsley and had a direct link to the English Arts and Crafts Movement. He was hugely influential internationally in his practice, teaching and publications. Above all, his respect and understanding of how wood behaves and the value of hand skill, yet moving tradition forward, resulted in the creation of many timeless pieces. He created affordable functional furniture, which was made to last, making an art of his craft in some of his subtle innovations.

History of the award

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



Anais Dancet's '10 Degrees' stackable stool – a 2012 winner of The Alan Peters Award For Excellence

Award judges

Jeremy Broun (organiser) – designer-maker and co-exhibitor with Alan Peters 1978–2002; **Andrew Lawton** – designer-maker who worked with Alan Peters and on his last commission; **Keith Newton** – early apprentice and employee of Alan Peters for 21 years.



Chris Wiseman's 'Oak Within' sideboard – 2016 winner of The Alan Peters Award For Excellence



Alan Peters chest with silver inlay



Alan Peters and Jeremy Broun in 2005



Alan Peters chest

Autumn essentials from IronmongeryDirect

The UK's largest online supplier of ironmongery, **IronmongeryDirect**, offers a wide range of high-quality products and tools for tradespeople working on joinery and cabinetmaking projects. However, with so much choice available, it can often be difficult to know which products are best to invest in. Here are some of our essential recommendations for this autumn.

Vida All Purpose Screw range

Designed to suit an assortment of materials, Vida screws tick all the boxes. With no pre-drilling required due to the easy-start slash, the screws feature a pozi recess head that prevents cam-out and improves torque. The improved double countersunk head design decreases the likelihood of head shear and eradicates the need for manually countersinking.

The screw's low torque coating improves insertion time, provides extra driving torque and also protects from corrosion.

While the 40° deep single thread provides a secure fixing with high pull-out resistance, the easy-start slash allows for insertion close to the edge with minimum risk of the timber splitting. The screws are available



in single packs, and now in three trade packs. These offer selections of the most popular sizes, making Vida screws suitable for a limitless range of applications.

Curved Metal Wheel Sash Pulley

Traditional sash windows contain a number of intricate mechanisms, which, in order for the window to operate smoothly and effectively, need to work together in perfect harmony. As such, it's crucial to use the highest quality fittings when replacing or restoring sash windows.

The Square Large Ball Bearing Pulleys come in a range of sizes and are an ideal choice for sash windows where quality and style is of equal importance. Suitable for windows weighing up to 75kg, these pulleys have a rivet-free faceplate and come in a range of finishes – including polished brass, satin nickel and polished chrome – making them perfect for both traditional and contemporary homes.



Motion Cabinet Runner range

With a large number of variations available, choosing the correct cabinet runner for a project can often be challenging. The Motion range,

available from IronmongeryDirect, includes multi-purpose runners to suit a multitude of cabinet styles.

Products in the range include the soft close Double Extension Motion Ball Bearing Drawer Runners, which are crafted from durable zinc-plated steel and available in a range of lengths starting from 250mm. These are available alongside specialist options, including heavy-duty runners, which take a weight of up to 80kg and go up to 900mm in length.

For an all-in-one solution, consider the Motion Innobox Metal Drawer Runner Pack, which contains runners, drawer sides and adjustable front brackets and has pre-drilled holes, allowing for quick and easy fixing onto the back and base of any size drawer.

IronmongeryDirect is the UK's largest specialist ironmongery supplier, with over 17,500 products in stock, available for next day delivery when you order by 8pm Sunday to Friday and by 4pm on Saturday. Free delivery is available on orders over £45 together with free returns.

For more information, visit the website – www.IronmongeryDirect.com

– or call their team of specialist advisors direct on **0800 168 28 28**.



 **Universal Tool**

AIRCAT
PNEUMATIC TOOLS®

MAKE YOUR NEXT WOODWORKING PROJECT EASIER WITH OUR 6700-DCE SERIES ELECTRIC PALM SANDER

Available in 3", 5" & 6" Pad Sizes

- **VERY QUIET:** 70 d(B)A noise level.
- **COMFORTABLE:** 0.5m/sec² vibration level.
- **COMPLETE PACKAGE:** Comes with either 6", 5" or 3" VELCRO® sanding backing pad, a 4 ply 100% twisted wool 6" polishing bonnet and a 6" foam polishing/compounding pad, DC Converter with 20ft cable.

Model No.	Pad Size (in)	Model No.	Pad Size (in)
AC6700-DCE-6	6	AC6700-DCE-5V	5
AC6700-DCE-6V	6	AC6700-DCE-3	3
AC6700-DCE-5	5	AC6700-DCE-3V	3

V-Models Include Vacuum Base

SALE
£99.95

Price includes VAT & Delivery to UK Mainlands

Prices good while supplies last. Place your order today!

universal.co.uk

Tel: +44 (0) 1494 883300

Email: sales@universal.co.uk





WOODWORKER'S ENCYCLOPAEDIA **PART 10**

Cooped up, coppicing, cord, cove and cross shakes all feature in part 10 of Peter Bishop's timber directory

Coop & Cooper

A 'coop' is the old name for a cask, tub or barrel, hence the name 'cooper' is someone who makes them. He or she practises the art of cooperage or coopering, which produces the desired container.



Traditional Cooper, George Smithwick

Coppice & coppicing

Coppicing is a pruning technique that encourages multiple growths from a single root stock. It can be repeated over time and the resultant growth harvested. Hazel and willow are the two favourites for this, but ash and chestnut can also be successfully coppiced. At the core of this technique is the need to have available timber that has grown to a size in which it meets the end



A round-bottom or coopering plane is used to turn the flats into curves

use specification. Traditionally this would be for making hurdles, chair parts, stakes and charcoal, etc. The root stock has its upper growth cut off just above ground level and from this the new growth will sprout. Depending on the cycle, the secondary growth could be harvested in, say, five years or so and then the process repeats itself. If enough root stock is available, the crop can be regularly harvested to provide a continuous supply. Coppicing should not be confused with pollarding, which we'll discuss soon.



Coppicing 10-year old hazel



A manual copy lathe machine



Minimax woodturning copy lathe

Copy lathe

A copy, or copying lathe, does what it says on the box. By using a pattern these lathes can be set up to reproduce the same profile time after time. Their most obvious use would be the volume production of stair spindles. The type of machine that produces these will be in a factory environment. Smaller, simpler versions of the copy lathe are available. Ones in which the low volume workshop can make their own patterns and produce, shall we say, four legs for a table. Copy lathes, or the facility to copy on a lathe, can be useful. However, I much prefer to do it by eye thus adding slight variations and a little more character.



A cord of wood for sale

Cord or cord wood

This is a traditional method of measuring smaller, harvested wood. It is still used on woodland estates and rural areas today. A piece of cord wood is usually 4ft long or thereabouts, which is just over 1.2m. A complete cord is measured as a stack of wood, which is 4 x 4 x 8ft, say 1.2 x 1.2 x 2.4m. The gross volume of the stack is 128 ft³, or approximately 3.6m³. Lengths of firewood are sold in this way. When thinning out woodlands, workers might be told to cut all fuel wood logs into cord lengths. A firewood supplier might then buy this cordwood, from the forest stack, and cut it into blocks for resale and so on.



The thick and knobby dark grey bark, which covers the cork oak tree, is known as 'cork'



Cork oak, showing the dark reddish bark shortly after harvesting

Cork

Cork trees are a particular type of oak (*Quercus suber*), found in countries such as Portugal and Spain. Historically Portugal has been the main supplier of cork products, especially those used in the wine industry. During harvesting, partial removal of the thick bark takes place. The cork tree then continues to grow and further batches can be harvested in the future.

Cornice

A cornice is that fancy bit of moulding running round the top of a wall, a column, a free-standing piece of furniture or round the top of your kitchen units. Some are large; some are small; some are

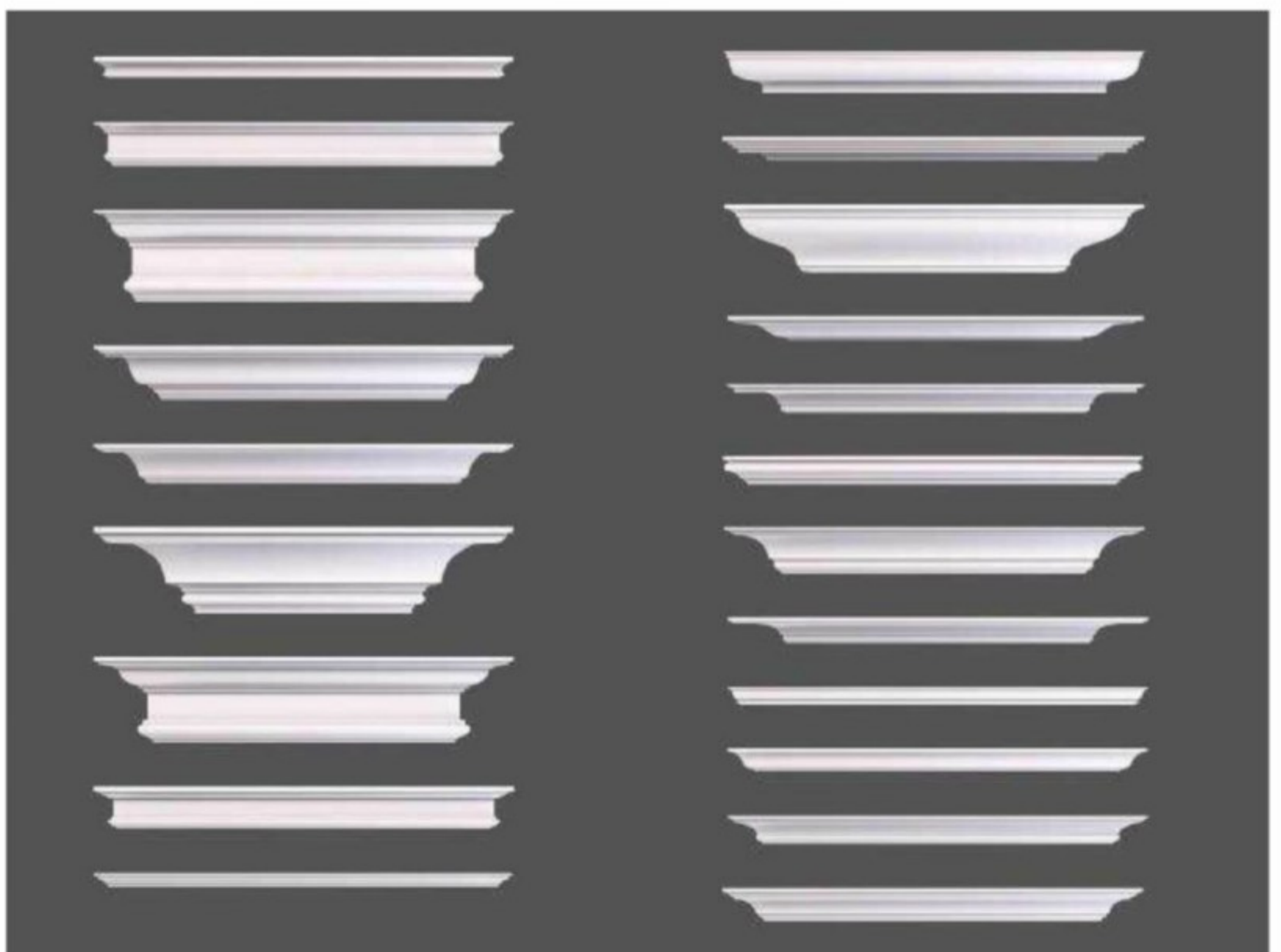
easily available in DIY stores; others are made to order. A cornice can be made from wood, plaster and other man-made products. They might be in one piece or made up of a series of mouldings that are linked together or overlaid to create the desired profile.



Four-piece wood screw countersink from Rockler

Countersink

There are special tools that we all, no doubt, have in our workshops to create the relief countersink hole. With sloping sides, they'll allow your screw head to sink below the surface, making a nice tidy job that doesn't snag on anything.



Various cornice profiles

Country cut

This is a trade term that might mean slightly different things to different people but, in essence, it's the same thing. Importers might consider country cut wood to come from the country of origin and still as originally produced, not re-sawn. When referring to country cut from a home-grown sawmill, we will still be talking about it being in its original size but also commenting on the fact that it is oversize. So when someone tells you it's 'country cut', you should expect the dimensions to be generous and enable you to then cut smaller full-size sections from it.



Plain coving from WM. Boyle

Cove & coving

A concave or hollowed out moulding that can be used in a similar fashion to cornice moulds.



Axminster Trade Clamps HD G clamp

Cramps

We briefly discussed cramps under the clamp heading earlier on. As mentioned, I tend to call all the smaller devices cramps and the longer ones clamps. The most common clamp we use is probably the 'G' clamp in its many guises. It gets its name from the shape, which is pretty obvious! We only had simple metal ones when I started out, but I have discarded these in favour of the quicker, one-handed versions. Unless you are aiming to exert extreme pressure at a single point, then those cramps that operate with a pistol-type grip will be the most flexible. For intricate work, you might need to invest in a number of cramps; it's always best to have too many than too few. For occasional use a pair of deep-throated ones will also come in handy.

Creosote

Creosote is a well-established, oil-based preservative treatment that has traditionally been applied to railway sleepers, telegraph poles, fencing and similar rural uses. There are simple and sophisticated ways in which this preservative can be used. Simple brush application is one but do wear protective clothing and be in a well



Painting a timber building with creosote

ventilated place if you follow this route. 'Steeping' wood in hot baths of creosote is an option. If the wood it's being applied to is dry enough, it will naturally draw the creosote into the outer layers of its cell structure. Air-tight metal cylinders that infuse the wood with preservative under pressure or using vacuums will be the quickest way to achieve the desired penetration. Carried out properly, any preservative treatment should extend the life of the wood it is applied to.

Cross-banding

This is a decorative technique that enhances the appearance of a show wood surface. Cross-banding is usually made from short-grain strips of veneer that are applied to surface edges. They are often separated from the main panel by a narrow, inlaid strip of an alternative wood. The short-



Oval rosewood coffee table with satinwood cross-banding

grain, cross-banded pieces will contrast with the main grain direction proving a simple or dramatic contrast to the whole.

Cross-cut

Cutting across the grain is cross-cutting and can be applied to logs through to lumber and hand-operated through to power-driven. When I was a lad, I used to help my father harvest firewood using a two man (or boy) cross-cut saw. There's a technique to using one of these: you don't push, you pull only. I hated it! I wished my dad had a chainsaw but he couldn't afford one. Cross-cut saws used in the workshop will have more teeth per inch than a rip saw for cutting down the length. The finer blade will help avoid too much break-out and loose chipping to the sawn edge. The whiskers, on the back side of the cut, are known as 'spelchings'. If you want to avoid these, as best you can, back up the piece being cut with a bit of gash stuff. Do this with your powered cross-cut saw as well.



5ft cross-cut saw

Cross-grained

This refers to planks that have irregular grain patterns that don't run with the length but might be at alternative angles. These can be found where the grain has deviated around a knot, or, in some tropical hardwoods, it's a feature of that particular wood. It's often difficult to get a good planed surface with cross-grained timbers. Adjusting the angle of cut sometimes helps to avoid tearing out the alternate grain patterns.

Cross shakes

A shake is a fracture and, in this case, is one that is across the grain. In the main they are found in tropical hardwoods but are not only restricted to this group of timbers. Some cross shakes are difficult to see in sawn timber and only show up when the surfaces are planed. They'll appear to be fine lines running across the grain. They may be from side to side, part way or in series. Depending on their size they will most likely reduce the structural integrity of the plank or



Cross shake: fractures across the grain in which the fibres are broken transversely or are crushed by compression

planks. They'll also show up on a finished surface, especially if it is stained. There are two schools of thought on how a cross shake is created. The first is that it's a natural phenomenon that has occurred during the growth of the tree. The tree might have been exposed to a sudden trauma, maybe high winds in a hurricane or something similar. Growth continues after the event and the shake is incorporated within the overall structure of the trunk. The other likely cause is when the tree is felled. The sudden impact on hitting the ground causes damage, the shakes, which shatter the grain across the width. Both opinions have merit. The second certainly does seem to occur with lighter, more brittle timbers. Whatever the cause, cross shakes should be avoided if possible unless used in a carcass that's not of structural importance. ✕

NEXT MONTH

In part 11 of this series, Peter will look at more terms including crown cut, curl veneers, dead knot and deciduous

**REAL
DEALS
FOR YOU**

THE MAGIC STARTS HERE

Visit www.realdealsforyou.com to find your nearest stockist

MORE THAN 30,000 PRODUCTS FROM OVER 250 LEADING BRANDS



Forgefix 1200 Spectre Screw Organiser

£24.99 INC VAT



RRP
£29.99



Dewalt 300W Multi-Tool with Accessories

£119.99 INC VAT



RRP
£139.99



**BETTER
THAN HALF
PRICE**

Faithfull 15 Piece Sabre Saw Blade Set

£12.99 INC VAT



RRP
£34.50



**BETTER
THAN HALF
PRICE**

Milwaukee Locking Plier Twin Pack

£19.99 INC VAT



RRP
£41.99



**SAVE
£30**

**AS SEEN ON
TV**

Einhell 650W Reciprocating Saw

£49.99 INC VAT



RRP
£79.99



**AS SEEN ON
TV**

**SAVE
£48**

Irwin Marples 8 Piece Splitproof Chisel Set

£69.99 INC VAT



RRP
£118.50

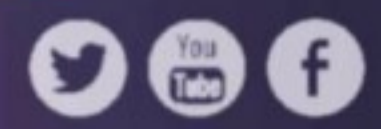
CAN'T FIND WHAT YOU'RE LOOKING FOR?

We have access to thousands of tools & accessories for every trade and task.

For more details on these magical products and fantastic savings, please visit realdealsforyou.com to find your nearest Real Deals For You Approved Stockist.

Visit us today!

REAL DEALS FOR YOU™



realdealsforyou.com

Available until 31st December 2019 or While Stocks Last



AS SEEN ON TV

Stanley FatMax 576g (20oz) Antivibe Hammer with Bar
£29.99 INC VAT
 RRP £46.50



BETTER THAN HALF PRICE

Bahco 55cm (22") Handsaw
£9.99 INC VAT
 RRP £22.50



BETTER THAN HALF PRICE

Faithfull 12 Medium Carpenter's Pencils
£4.99 INC VAT
 RRP £15.50



Faithfull 2 Piece Hand Rasp Set
£9.99 INC VAT
 RRP £18.50



BETTER THAN HALF PRICE

Faithfull 6 Piece Ratchet Spanner Set
£24.99 INC VAT
 RRP £60.99



AS SEEN ON TV

Lighthouse 200 Lumens LED Rechargeable Mini Torch
£9.99 INC VAT
 RRP £15.50

BRITAIN'S GREATEST ESCAPE

WE'RE GIVING AWAY TICKETS TO THE UK'S MOST EXHILARATING THEME PARK AT ALTON TOWERS RESORT

Visit realdealsforyou.com for full details. Terms & conditions apply.



ORANGERY RESCUE

PART 2

Carrying on from the last issue, joiner **Gareth Jones** continues his tale of orangery repair woes as he has the pleasure of encountering a rather terse land agent

Trial & error

Save money and weight? Why? The price was already agreed, I protested, and I was not going to reduce it because he suddenly wanted cheaper glass. Why on earth not, he demanded. He was lowering my costs, and I should pass this on. Well, because for the lighter frames to work properly, I countered, I would now need to chop bits off the weights, all 16 of them. Until, by trial and error, I had the weights and the windows in balance. Rubbing it in rather unnecessarily, I added I would need more putty, the rebates for much thicker glass having already been worked. As for weight, surely he realised the whole beauty of sash windows was that they had virtually none, being balanced by the aforesaid weights.

We returned to the Orangery, with Henderson continuing to moan about the cost. There we were joined by Tom, and I decided to dig my heels in and call an end to the haggling. To my relief Tom took my side, and I sensed that Henderson's days as his agent were drawing to a close.

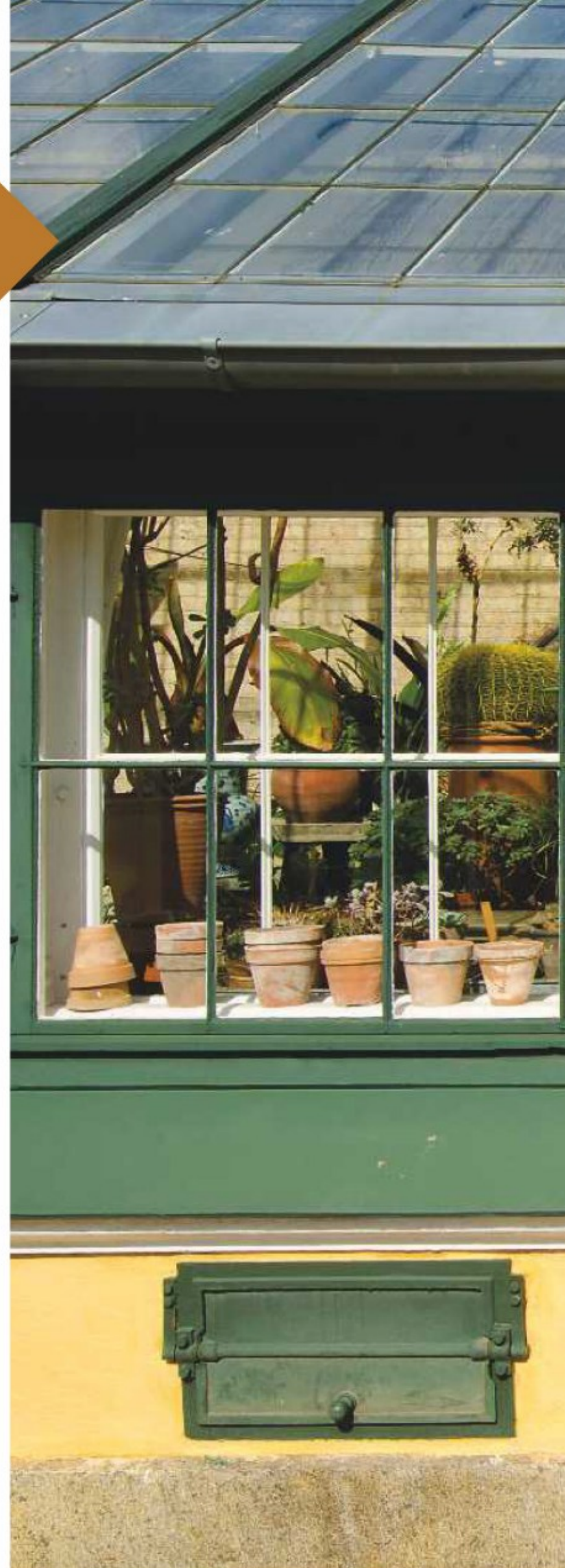
"That sounds fine," said Tom. "When can you start?" Thus Jones the Wood embarked on what was probably the trickiest of many strange joinery tasks that fell to me in my years as a jobbing joiner on the England/Wales border back in the 1970s.

A full description of this job would be tedious, but it did have its moments worth recording. When Mick and I turned up at Bryn Mawr a week later to install the first pair of sashes, I found an elderly guy already in the orangery, done up in his Sunday best but with a joiner's folding rule sticking a little obviously from the top pocket of his blazer. "Oh, Gareth," said Tom, "I want you to meet Glyn Hughes. He was our estate joiner until he retired a few years ago. He made the original windows, and he's a bit upset with me for not letting him make the replacements. So I told him he could help you fit the new ones."

Nervous

I was already very nervous indeed about how well my new windows would fit into the Norman arches in the brickwork, and Glyn's presence was an acute embarrassment. He would be fault-finding from the word go, wouldn't he? The young joiner who had robbed him of a prized job on his beloved hall? Every little slip on my part would be cause for joy in his old carpenter's heart! I would have felt the same in his place. So with awful misgivings on my part about having Glyn to 'help', Mick and I fitted the lower light into its slots and wedged it in place.

I had cut the bottom rail slightly over width to be on the safe side, expecting the top rail of that frame to stand slightly proud of the bottom rail of the top frame, with a nice fit possible by narrowing the bottom rail if necessary. There is an element of hit-and-miss when you fit a wooden structure into a bricked space distorted by mining subsidence and topped by a neo-Norman arch. And for woodworkers who have not yet had the pleasure of making a pair of sash windows, let me point out that a very important feature of the job is achieving a perfect fit between the



top rail of the bottom light, and the bottom rail of the top one, not just for appearance's sake but so as to allow the closing pivoted latch to slide neatly across a level surface into its housing, securing the whole window. So far it all looked good, and mounting a tall ladder I invited Mick to pass the upper light to me for its first trial fit.

A cheque in the post

I had already resolved that the moment any disparities became apparent between the shape of the arch and that of the frame as I raised it gently into the opening, I would stop moving the frame upwards, so as to avoid giving Glyn the satisfaction of detecting the error until I'd had a chance to reduce it by planing.

In all modesty it never occurred to me that the top light would turn out to be a perfect fit straight off. Henderson had insisted on leaving the tarpaulin in place to keep the draught off his pineapples, so I had created a template in MDF working either in the dark or my own





NEXT MONTH

Tune in for more joinery tales, as Gareth Jones recounts a rather amusing story concerning a hot air balloon basket and a Volvo

shadow from a site light below. Onwards and upwards went the frame, an inch or two at a time, still sliding snugly. Sides, bottom rail (matching the other with no need for trimming), and the sweeping arches. Everything fitted to perfection. It was little short of a miracle. A perfect fit, first go!

"Bloody hell!" said Glyn, unable to keep the admiration from his voice. "You know what you're doing, don't you?"

Well I didn't really, but I was starting to believe I did. Needless to say, the other windows were more troublesome, but by the time we installed them Glyn had lost interest in us and was back pottering in his garden.

Within a month the job was done, and I called in the estate office to present my bill while Mick swept up. It was the first job we had done at Bryn Mawr, and Henderson quickly dashed any hopes I had that with credit not having been discussed, we might be paid on the spot. "Royal Guardian Exchange say the total claim is too big for them to pay off in one go. They are paying us in

three monthly instalments starting at the end of next month. I'll be sticking your bill in the hat with the others, and paying it off a third at a time," said the grumpy agent, as if doing me a huge favour when really I should have been paying him, for the privilege of rubbing shoulders with the aristocracy, not to mention being allowed into a building out of a fairy tale.

Now what really annoyed me about this outrageous suggestion was not so much the way he was fobbing me off and keeping me waiting for much needed cash flow, which was bad enough, but that he had supported it with a silly and obvious lie that a child could have spotted, implying that a major insurance company was incapable of honouring its commitments. Back at the hall the affable landowner was helping Mick stick the tools in the van.

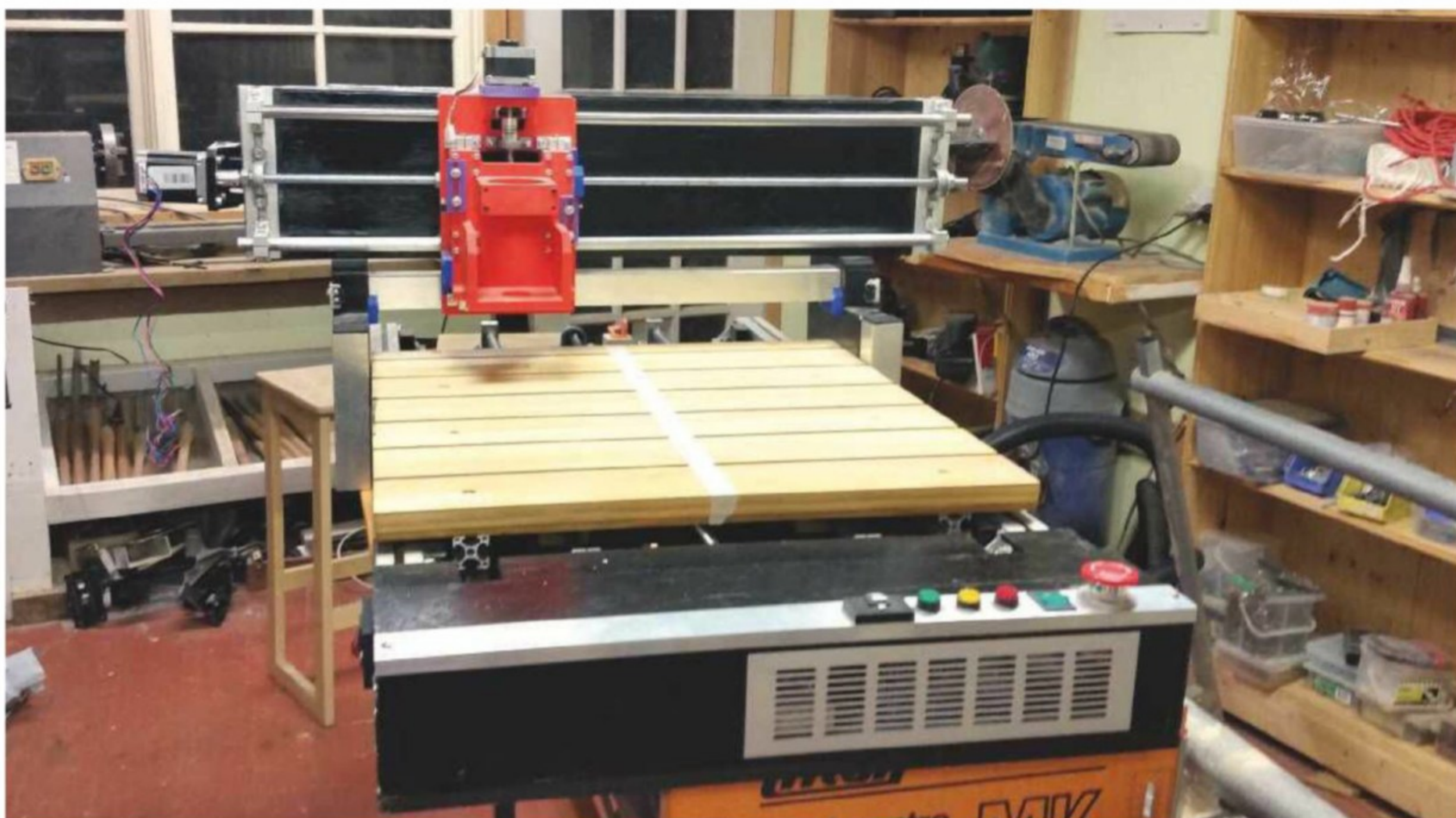
"Everything all right, Gareth?" he asked. "Well no, actually," I replied, and told him about my encounter with the agent. "Yes, he's an odd one, that," said Tom. My post the next morning included

a cheque from Lord Melcroft's Coutts account for the full amount, with a nice note of thanks.

A dying breed

Fortunately men like Geoffrey Henderson were already a dying breed, as the landed gentry dispensed with these hangovers from the days of bailiffs and stewards, and generally cut costs by keeping their estate management in the family with surveyors and other professionals on a retainer. Outfits like the National Trust and English Heritage also hastened their demise, now accounting for an ever increasing share of the nation's interesting properties like Bryn Mawr, which I am happy to say is still in Tom's family.

A couple of years ago I attended a party at Bryn Mawr Hall and sneaked into the orangery. My windows still looked like new. I have never regretted giving up journalism for carpentry. It still gives me enormous satisfaction to know that much of my work will be in use long after I have gone and been forgotten. ✕



The author's home-built CNC router

CNC & THE HOME WORKSHOP

Roger Spratley explains the basics of CNC machines, how they can be used to augment the tools you already have, as well as expanding what you can do

“What do you think of this?” I asked proudly as my carpenter friend and I stood in my modest workshop. We were looking at my latest creation – a CNC router made in wood and for less than £250. “I dunno,” he replied, a mixture of awe and fear in his eyes, “It looks... complicated.” Undeterred, I invited comments from my family, early 20s daughter first. She looked all around the shop, and as her eyes drifted roofward, I exclaimed with all the paternal patience I could muster, that the machine she was leaning on, was in fact, the one under discussion, to which she explained that she was an “arts major” and feigned interest while I tried to explain what said beastie actually did.

I fared no better with my wife, who seemed suspiciously overjoyed with my new project, and when I quizzically looked at her, she exclaimed: “You made us a foosball machine!”

What is a CNC machine?

So, this obviously, is what a CNC machine isn't, and what this article will attempt to explain, what it is and more importantly, how it can be used to augment the tools you already have, while expanding what you can do and hopefully, adding even more enjoyment to our craft.

CNC rather unhelpfully stands for 'Computer Numerical Control', which is a sure way to make most people's eyes glaze over, as they look

lovingly at their hand chisels, but, very simply put, it's a machine that most of us are very familiar with without even knowing it. Chances are, you use a printer to print out your documents – this is a simple CNC machine. Now, simply wave a magic wand and increase its size, remove the printer carriage head and put in place your trusty Dremel, laminate trimmer or router (depending on

how much you increased its size), and replace the paper with a nice piece of wood. Send your picture of the family crest that you have downloaded and imported into your software package to this new wood printer and watch as the router carves the picture into the wood. In reality, it isn't that simple, but this is the basic idea.

At this point, I expect the two camps to voice



Roger Spratley with his homemade CNC router



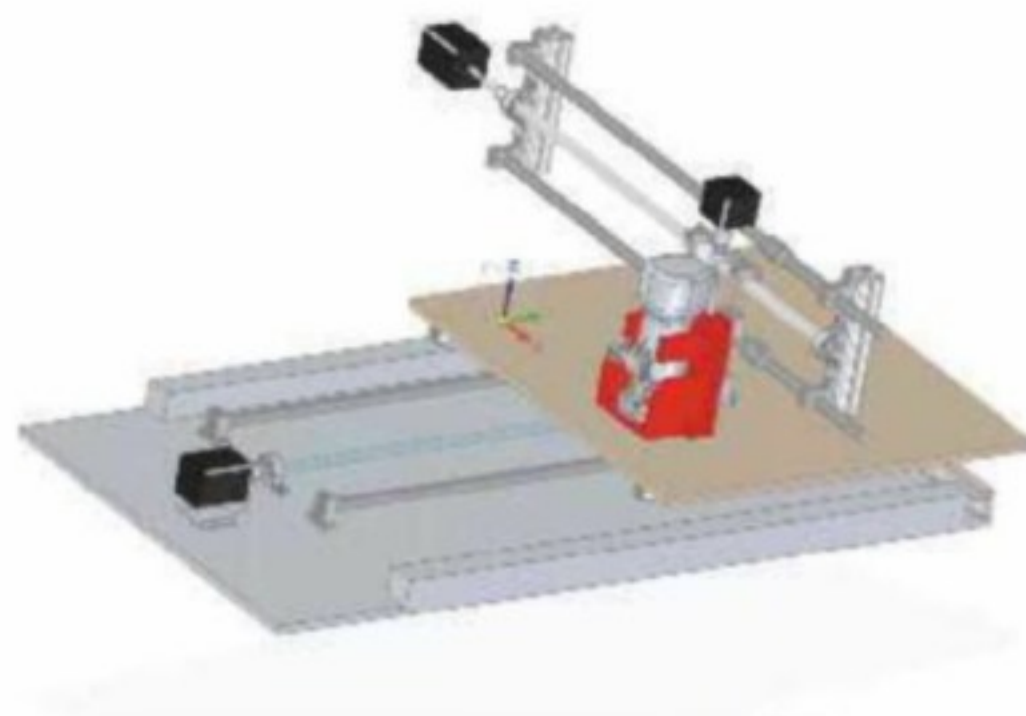
1 A stepper motor can be bought for £15 on eBay

an opinion: the first is 'The End of All Good Things', which will exclaim that this is yet another nail in the coffin of traditional woodworking, and that these days "everything is done on the computer" and "what is the point of people taking a lifetime to learn these skills if all you have to do is press a button, and it will be done for you?" The second camp will exclaim that "you can't stop progress" and that "people complained 200 years ago when they invented the motorised egg beater." The truth, gentle reader, as always, lays somewhere between the two.

What it can do best

Any repetitive task requiring accuracy and precision, such as a matching set of door fronts with routed patterns, inlaid or raised designs, and lettering for plaques and boards. Among other things, a CNC router can take the place of a hand-held router and a set of templates. If I were to copy a design without a CNC, I would download the pattern onto paper, print it one to one, and then paste it onto my piece of MDF and make a template. I would then mess it up by applying a pointy metal tool that rips the paper, leaving me with bits missing and a vague idea of where the pattern was. So, if I do make an error with the template, or don't like a certain part of the design, in hindsight, I have to bodge or remake the template. A pattern is so much easier to change on the screen than when it is committed to wood. As an example, I build electric guitars, and these are made of a solid block of hardwood, 45mm thick. Traditionally, I would use a router and template to make pockets for the electronic bits and the place where the neck is bolted on.

This must be done accurately, and I normally have to remake the templates as they get eaten by the router over the course of a build. This is a perfect job for the CNC, as it means I can tweak my designs quickly and easily and ensure repeated precision. However, I don't cut the guitar out on a CNC, as routing through that thickness of wood is a better job for a bandsaw, which can do the same job, quicker and easier. Horses for courses – it's just another (albeit very powerful) tool in your arsenal, which needs to be used to its strengths and not as a one-tool-to-do-all tasks, remembering also that it is, at the end of



2 The three vice concept

the day, a remotely guided overhead router, and as such all safety precautions, such as protective eyewear and ear defenders, should be worn at all times.

So, having established that a CNC router can be a substitute for a hand-held router and a set of templates, guides and jigs, how does it work?

How it works

It starts with a stepper motor (photo 1), which is a normal motor such as one you would find on your cordless driver, but instead of making complete revolutions, it moves in small increments, like when your cordless drill runs flat, and you pull the trigger, it moves slightly and dies. These movements on a stepper motor (not the dying one) are extremely precise, and the heart of why the CNC is so accurate. Now, imagine you have a wood vice: you remove the handle and couple this stepper motor directly to the screw. You can now move your vice by steps, to precise measurements in and out by pressing a button on your keypad. Add another one of these assemblies and lay the two of them one on top of the other so they form a cross, keeping space between them. The one going back and forth is called the 'Y' axis (yes, just like at school – those dreaded graphs) and the one that goes from side to side is called the 'X' axis. Let's build these into a frame, with the 'Y' axis on the bottom; this has our workpiece riding on one of the vice jaws. Above that is our 'X' axis, which has attached a third assembly pointing downwards and holding the router (our 'Z' axis).

Rather than having to press buttons to make each axis move, the software takes our design, and translates it into a series of steps, which it then sends out to each stepper motor. So far so good – we have three axes: one that carries the work forward and backward past the cutter, the 'X' axis that carries the router mounted on the 'Z' axis, side to side, and the 'Z' axis, which plunges the cutter in and out of the work. This type is called 'fixed gantry' as the table moves the work back and forth on a table, and the gantry or frame holding the 'X' and 'Z' axes are fixed. The most common type is a 'moving gantry', where the bed stays still but the gantry carries the router forward and back across the workpiece. I built the fixed gantry, as to me it was easier to construct.

The smart stuff

What's made this technology so compelling so suddenly is cheap parts from Asia and smaller smarter, cheaper electronics. At the heart of

this is a little device that you will find on eBay for £10, which is designed to power a remote garage door, air conditioner, lights or anything else controlled by an app on your phone. It is simply a small computer, which anyone can make their own programs for and use to run any project they like. It accepts the code from a program on your laptop, and sends commands to make the motors move. Chances are, if your child or grandchild has a Lego Mind storm, the cute little robot they make with this will be powered by an Arduino (photo 3).

CONSIDERATIONS

Footprints

Hands up all those who couldn't possibly want any more workshop space? Thought so. Some of the more compact 'skeleton' types, which are little more than a frame to which motors are bolted, such as the X Carve, can be mounted onto a shelf that can be folded flat against a wall, like an ironing board. Bench-top machines of 200-300mm square can be mounted under a bench. As always, what you need the machine for will govern its size, price, and ultimately, whether the benefits outweigh the considerations.

Noise & dust

This is perhaps the biggest hurdle to overcome. Routers are noisy and produce an awful lot of wood dust during the reasonable short intervals that we tend to use them for. Now imagine how much of both they will produce if you set them to run for a few hours machining a medieval hunting scene on a panel for a food hamper you are making? Substituting the router for an air- or water-cooled spindle is a very noise effective option, as these run extremely quietly, but the cost will normally be between £100 for a 400W version with a simple speed controller, to £250+ for a 2hp, which will have (hopefully included) a special inverter controller to run it. The alternative is to make a sound deadened cabinet for it. These are usually plywood or MDF panels lined with insulation foam and some method for preventing the hot air cooking the motors. There are lots of designs on YouTube, which are pretty simple to build, but they do take up room. As a result, dust extraction is a must. Normally there is a special plastic 'shoe', which has an opening for the 33mm hose used on a shop vac or vacuum cleaner, and the body of which is a brush, which fits over the router bit.



3 Arduino Uno and Shield



4 Inventables X Carve

OPTIONS

Buy one

Like everything else, a cursory look will turn up a bewildering number of options, ranging from £100s to £1,000s of pounds. Make sure you know what you'd like to use this machine for, and your budget. Also, if you want convenience, it costs. For example, most woodworking supply shops will have a very handily packaged machine, which comes with everything so you can simply plug in and start making wood dust, but, the cost for convenience, buying through these outlets, can be in the thousands. Alternatively, an X Carve by Inventables, or similar, is reasonably priced, has everything you need included, a proven record of customer service, and all the help you could need, in the form of online forums and YouTube 'how to' videos that describe it step-by-step.

If all you need is a little unit to engrave signs with a Dremel, or produce trinkets for craft fairs, then any number of cheap, Asian units on eBay will offer amazing value for less than a couple of hundred pounds, or if you want to use a laminate trimmer or small router to cut shop jigs, templates, wooden signs, carved frontispieces, identical drawer fronts, etc. in 400mm square stock, then a machine can be bought for under £500 that will serve you well.

Naturally, the more power, the more cost, as the machine has to cope with the cutting forces that the more powerful router will generate, and for something in the range of 1hp+, the machine will suddenly rise from sub £500 to £1,500 and

above. Here is obviously where the DIY route can save serious money, but honestly, if all you want is a small machine to do the odd inlay work, then it's going to be cheaper and easier to buy the Asian eBay special.

Build your own

Contrary to public opinion, you don't need a degree in engineering or computer science, but you will need a creative mind, an analytical brain, a record of being able to see a project through from conception to completion and some knowledge on how stuff goes together. In short, skills that most people reading this will already possess. However, there is mains voltage that goes to the power supply, and if adding a laser cutting attachment – see 'further uses and options to consider' – ensure that you comply with its safety instructions, as these units can cause severe eye damage or possible blindness, if mishandled.

Let's face it, hardly any of us can justify more money spent on our hobby, so if you have invested your last few pounds on a subscription to this fine magazine, but still want to build a CNC router, then the method I employed was to use Father's Day, birthdays, etc. to send out a handy list of eBay links to the family. Be prepared for the questions that will follow, however: "Yes, I do understand that a '750mm ballscrew' sounds like a medieval torture device, but it is in fact part of the machine your mad father is building in his dotage, shut away from society, and should therefore be encouraged." You'd be surprised as most of the stuff you need is really cheap, and surprisingly good quality for the money, and by building it yourself, you can tailor it to exactly the size and purpose you require.

Makerspace

Think of this as a building with all sorts of different CNC machines – 3D printers, routers, mills, laser cutters and engravers. For a modest fee, you can send your design and have it fabricated for you, without the expense of buying your own, or the space that such a machine can occupy. Makerspace forums are huge and well established, and chances are, one exists around your area. It's also a great way to meet like-minded people.

Further uses & options to consider

So, given our opening premise that a CNC is like a printer with the print head substituted for a router, it follows that we can further substitute the head, and as the rest of the machine essentially remains the same, we can have a multi-function machine just by using our imagination, and a few cheap add-ons from our friends at eBay. Apart from engraving metals and plastics, inlay work, carving patterns and designs, routing decorative shapes, shop jigs and fixtures, we can change the head for a laser cutter costing less than £100, and cut shapes, signs, panels and designs in plastics, foam, cardboard and even paper.

Change the head again for a heater/extruder head and add a spool of plastic filament, and you can create any part you want out of plastic, without needing an injection moulding machine. This is great for creating parts that you cannot make or machine using conventional methods, as a 3D printer creates the same image again and again, creating layers that form a solid. Any feature can be made within any feature, lending itself to self-contained moving assemblies, or if you'd rather, plastic action figures for the kids. Sharp eyed readers among you may have noticed that my home-built special has a red router carrier; this was made on a 3D printer. I could have made it in wood, but this way, I could design it with the rest of the machine, and thereby ensure everything fitted properly.

Conclusion

A CNC is a great addition to any well-stocked workshop and can give functionality that is not easily possible by other means. Hopefully, this has helped you to decide if such a beastie is in your future. In my case it was, and then all I had to do was work out what I was going to use it for and where the heck I was going to put it – all after it was built. ✖



5 Bench-top CNC – £350 on eBay



6 Laser cutter head – £80 on eBay



7 3D printer head – £20 on eBay

nova™

Smart Tools, Powerful Solutions

AWARD-WINNING
DESIGN AND TECHNOLOGY
FOR OVER 30 YEARS

nova™ Voyager DVR Drill Press (code: 58003)

The world's first smart Drill Press combines the best features of drill presses with state of the art technology to make your project work more efficient, fun and safer. The NOVA Voyager DVR Drill Press is the most versatile drill press on the market. It combines the proven technology with some great new features.

**NEW TO
UK**

Using the unique DVR technology, the direct drive motor is incredibly smooth with no pulleys or belts to vibrate.

The NOVA DVR™ series are the only smart machines on the market, the ONLY machines to feature intelligent ADAPTIVE CONTROL™ software that works for you to produce optimum conditions for your specific projects.

FEATURES

- Sensors for superior safety, use and maintenance: Load, Depth, Vibration and Emergency Stop
- Powerful 1.75HP motor handles wood, metal, plastic and glass
- 50-5500rpm variable speed for variety of projects (default is 50-3000rpm, option in settings to increase to 5500rpm)
- No belts, quiet and smooth operation.
- Intelligent Speed Selection to get the correct speed for the application
- Slow Start Pilot Hole function
- Tapping Assist function
- Digital speed readout
- Electronic braking
- Load readout
- Self Start feature
- Digital Quill Depth readout
- Dial knob for precise speed adjustment
- Forward/Reverse
- 6" of quill travel in 2 revolutions of the handle
- Adjustable mechanical stop

£1599.99 Inc. vat

"Computer controlled DVR motor is poised to revolutionise drill presses... a machine for our time."

Woodworker's Journal

nova™ Voyager Drill Press Fence Accessory (code: 9037)

First in a line of exciting accessories for the NOVA Voyager, this fence accessory will allow you to drill consistent holes along the same plane every time, as well as provide support for larger pieces of wood.

£57.99 Inc. vat



Distributed in the UK & Ireland

STOCKISTS INFORMATION

Visit www.teknatool.com for a list of authorised dealers

Craft Supplies
BE INSPIRED, BE CREATIVE



2019 PETER SEFTON FURNITURE SCHOOL Graduate Showcase

Here we take a closer look at the award-winning work of the 2018-19 Long Course Graduates on the **Peter Sefton Furniture School Furniture Design & Maker's Course**

The pieces shown in this article were designed and made by students on our Furniture Design & Maker's Long Course, which started in September 2018. What a long way our students have come in such a short time! When they joined the long course, most had little or no experience of furniture making; now they have created these fantastic pieces.

We wish all our students every success with their future commissions, new businesses and jobs! – *Peter Sefton*

COURSE OVERVIEW

From cabinetmaking and fine woodworking, to woodturning, veneering and machining, Peter's hands-on approach ensures all students develop the skills and confidence needed to become successful furniture makers.

THE PETER SEFTON FURNITURE SCHOOL

The award-winning school is the only private purpose-built furniture school in the UK. Set within three acres of grounds on a 17th century farmstead, at the foot of the Malvern Hills, the Peter Sefton Furniture School is an inspiring and idyllic place to learn, with excellent transport links. You will have your own bench and personal workspace in the dedicated hand tool workshop and full access to the latest woodworking equipment in the machine workshop.

Peter is an award-winning master craftsman and furniture maker with over 35 years' experience as well as being a qualified lecturer and assessor. He is a Liveryman of the Worshipful Company of Furniture Makers' and has devoted more than 20 years of his professional career to teaching and mentoring.

All students have a 100% success rate

of going on to find employment, and many graduates are now running their own businesses.

WHY CHOOSE THIS COURSE?

The long course is aimed at students aspiring to design and make bespoke furniture to professional standards, either for your own enjoyment or to develop a career as a professional furniture designer and maker. The course is suitable for all ages and abilities.

If you are training or re-training for a new career, the vocational course offers an alternative to those considering universities. The School accepts students aged 18+ and teaches you how to design and make fine furniture, along with the business skills needed to start your own workshop. For those looking to earn a living as an improver or a designer in another workshop after graduation, you will develop the practical skills required, while gaining the necessary professional experience and confidence required to get a job.

And for those students looking for a new direction, the School nurtures your skills and takes you in the direction you are interested in. If you simply want to produce beautifully designed and constructed one-off pieces for your own enjoyment, the course can be tailored to your own requirements and pace.

WHAT WILL YOU ACHIEVE?

You will build a portfolio of individually designed and hand-crafted pieces and will gain the Peter Sefton Furniture School Diploma. ✂

CHARLES COLBOURNE – Parabola Side Table

Made from pearwood and sycamore, the piece was designed to be a strong focal point in a high ceilinged room. Charles was keen to explore parabolic curves created by successive straight lines intersecting a right-angle as applied to a piece of wood furniture. He has sought to use linear components to produce a multi-faceted naturalistic form that grows upwards from its base. "In some ways the result is almost industrial," he says, "perhaps like an iron bridge, yet is equally reminiscent of a tree springing from its roots." The design acts like a truss, is inherently very strong, yet the look remains incredibly light

Dimensions: 1,700 × 510 × 1,000mm

Going forward...

Charles intends to set up his own workshop, which will allow him to start designing and creating his own pieces

WINNER

'Outstanding Furniture Design' prize, sponsored & presented by the Gordon Russell Museum, along with the 'Best Use of Solid Timber' prize, sponsored by Whitmores Timber

ANDREW PINCHER – Riverbed

A head and foot board bed, with a design of bullrushes and dragonflies to give a riverbank scene. Walnut is used for the frame, head and foot board. The details are glacial maple reeds and stems, along with turned banksia nuts and a marquetry dragonfly inlay

Dimensions: 1,900 × 1,370mm

Going forward...

Andrew hopes to carry on making and designing items as well as setting up his own business



MARK CLARE – GEOEGG – un Oeuf is enough

An experimental collectors/curio cabinet, predominately in maple. The concept evolved over a 12-month period and has culminated from many sources of inspiration. The 'shell' is formed from 96 pieces in eight layers, each one containing 12 pieces. "I designed and manufactured the rotating door mechanism specifically for this piece," says Mark. "A challenge to maker and machine." Additionally, over 30 jigs were designed and made to support the production of this piece.

Mark says that having completed the course, he now feels confident to design and make furniture on his own

Dimensions:
approximately
650mm
diameter
× 1,800mm
high



JEREMY SMITH – Quilted Maple Hall Table

Jeremy designed his project with the prime purpose of enabling him to practise key skills. These skills, which are all transferable to the work he sees himself doing in the future, were as follows: working with solid wood and veneers in combination; traditional drawer construction and fitting; jointing to produce strong and stable joints for a piece of furniture designed to look slender and elegant, but to be inherently robust; inlaying delicate strings of contrasting timber; tapering square legs on all four faces; edge moulding; designing and constructing jigs to enable more precise work; and achieving a refined and durable finish

Dimensions: 1,140 × 440 × 900mm



Jeremy comments that he has truly pushed himself and the machines at the school to the limits of accuracy, as well as gaining an appreciation of the power of the jig to simplify processes and make them repeatable. "It is only when I get a chance to reflect quietly that I will be able to fully comprehend my achievements," he says

JON ROBINSON – '45' Dining Table

A dining table with a clever mechanism that makes extending the table a simple process. The frame is made from oak with a table top of bookmatched cluster oak veneer surrounded by a boxwood inlay with oak lipping. Chamfers feature heavily throughout the piece, which was inspired by a trip to the Gordon Russell Design Museum and learning about the Arts and Crafts, and Cotswolds design, movements

Dimensions: 1,400 × 880 × 750mm (closed); 1,800 × 880 × 750mm (extended)

Going forward...

Jon is now working at the Wood Workers Workshop and is in the process of setting up his own workspace



WINNER

'Visitor's Choice Favourite Piece' prize, sponsored by Wood Workers Workshop, along with the 'Best Student Finisher' prize, sponsored by Fiddes & Son

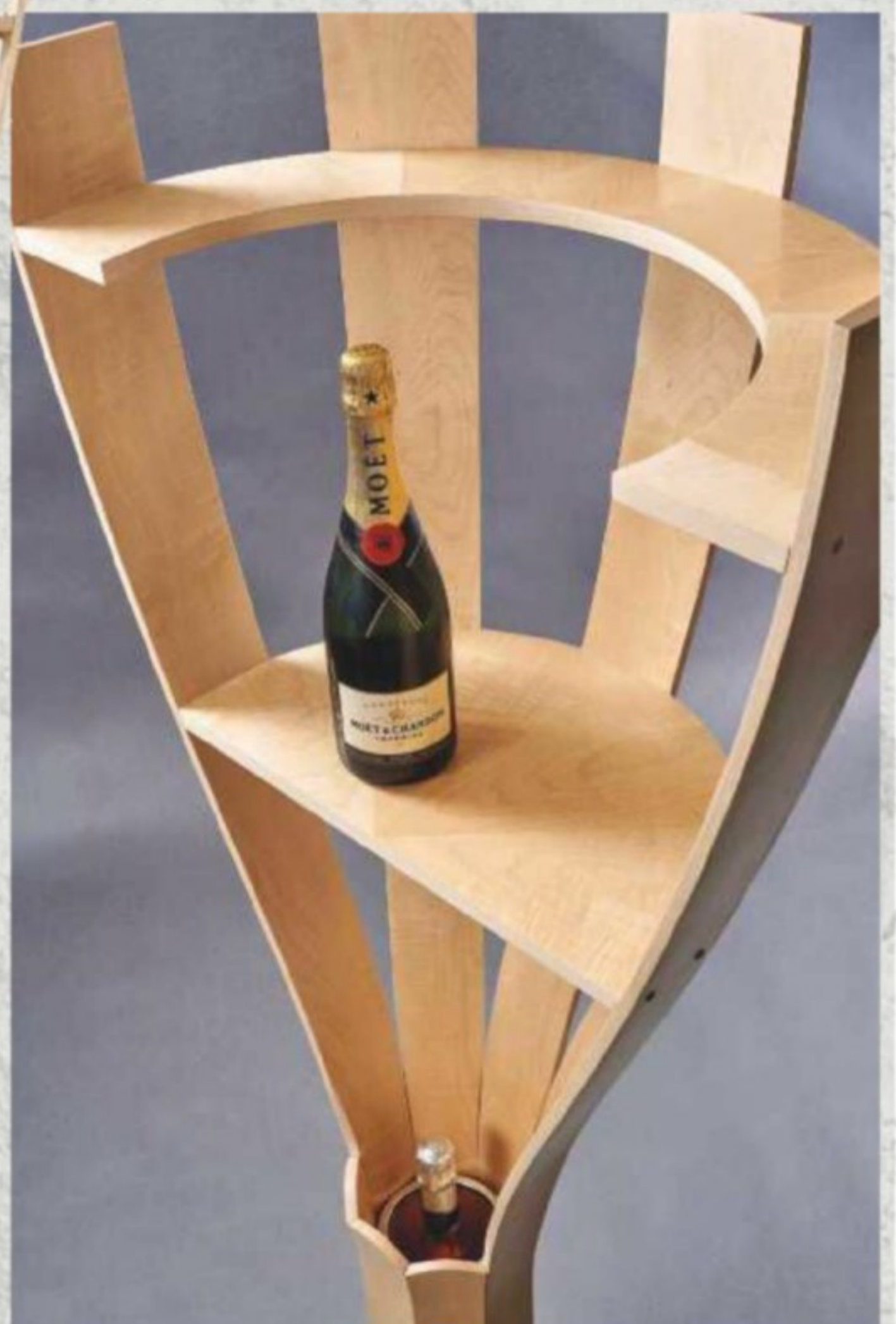
TIA OWEN – Zampânia

Inspired by a champagne flute, the laminated construction and curly maple veneer mimic its elegant curve. With two shelves to house champagne bottles and glasses, as well as a bottle cooler stored in the stem

Dimensions: 1,700 × 650 × 450mm

Going forward...

Tia hopes to set up her own workshop and sell small items of furniture from there. She says that taking the course has allowed her to develop more of an understanding of hand tools and machining of timber, as well as broadening her knowledge of machines



WINNER

'Most Creative Design' prize, sponsored by The Furniture Makers' Company

FERNLEY CARD – No Rush

One of the first pieces of furniture Fernley made was an ash chair with a rush seat: "I like the style and techniques of green woodworking and wanted to use this as an inspiration for a piece of fine furniture."

His piece, 'No Rush' (as it will have a rush effect olive ash veneered front, and as he has been stubbornly taking his time to get it just the way he wants it), has ash legs each with 16 hand-planed facets and a suspended solid oak cabinet. This will have a drop front olive ash veneered writing surface. The veneering will be multiple strips of hand-cut olive ash arranged to represent the pattern formed on a woven rush seat

Dimensions: 1,212mm high x 492mm diameter x 918mm wide



Fernley says he has achieved a high level of geekiness regarding planes, callipers and sharpening, and is pleased with the pieces he has made during the year, having learned a great deal about the importance of using the correct product and method of application to achieve a high quality finish



WINNER
 Unsung Hero' prize,
 sponsored by
 The Furniture Makers'
 Company



Fernley Card receiving his 'Unsung Hero' prize, presented by Tony Smart of the Furniture Makers' Company



Charles Colbourne receiving his prize from Peter Sefton



Jon Robinson demonstrating how his '45' Dining Table extends

AWARDS GIVEN

Unsung Hero

Tony Smart from the Furniture Makers' Company presented a copy of *Design of the 20th Century*

Outstanding Furniture Design

Ray Leigh from the Gordon Russell Museum presented a cheque for £250

Best Use of Veneers

Mundy Veneers donated a copy of *Veneering – A Complete Course* plus a £75 gift voucher

Most Innovative Piece

Tony Smart from the Furniture Makers' Company presented a copy of *Modern British Furniture*

Favourite Piece using Wood Machining

Hammer Felder UK donated a copy of the *Spindle Moulder Handbook*

Best Use of Solid Timber

Whitmores Timber donated a copy of *Understanding Wood – A Craftsman's Guide to Wood Technology*

Best Student Finisher

Sean Feeney from the Furniture Makers' Company presented a selection of French polishes and waxes, donated by Fiddes & Son

Visitor's Choice Favourite Piece

Wood Workers Workshop donated a £50 gift voucher to the winning visitor chosen on the day, plus a £50 gift voucher to the winning student

FURTHER INFORMATION

If you are interested in next year's long course, from September 2020 to July 2021, please visit www.peterseftonfurnitureschool.com. Alternatively, to arrange a visit to the School, call 01684 591 014



WIN!

1 OF 2 TRITON T6PHJ POCKET-HOLE JIGS

A revolution for the production line, Triton's new T6 pocket-hole jig with SpeedDrive™ makes drilling pocket-holes four times faster – read on for details of how you can win one



What's in the box?

- 1 × jig
- 1 × stepped drill bit (long shaft)
- 1 × collar & hex key
- 1 × 6in square driver
- 20 × 1½in screws
- 10 × wooden plugs
- 2 × modular support arms
- 2 × short stopper
- 1 × manual
- 2 × storage boxes for drill bits, etc.

Key features

- Built-in quick-lock and release clamp to easily lock and release workpiece from the jig.
- SpeedDrive™ eliminates need to remove drill bit when creating multiple pocket-holes for four times faster drilling.
- 12-42mm (½-1½in) jaw capacity for working on a range of different wood thicknesses.
- Bench mountable, so provides stability during repeated workshop use and saves set up time.
- Modular aluminium work supports stabilise larger workpieces and speeds up drilling multiple pocket-holes.
- Hardened steel drill guides for longer life and accurate drilling.
- Integrated depth collar setting guides from 12-42mm to quickly set the depth collar to match wood thickness.
- Adjustable jig drilling height to suit workpiece thickness and match drill depth collar setting.
- Dust extraction connection for a dust and chip-free workspace during prolonged use.

The T6PHJ Pocket-Hole Jig from Triton is the stable, straightforward and fast way of creating joints on the bench at home, or in the workshop.

SpeedDrive™ holds the drill and drill bit in place, keeping hands free to move the workpiece quickly into the next drilling position. No more time wasted removing and repositioning the drill – simply re-clamp and drill again.

Create strong, accurate, concealed joints in minutes. There's no need for glue, which means less mess and no waiting. Create anything from simple picture frames to complex and impressive pieces of furniture.



For more information on this and other innovative products from Triton Tools, see www.tritontools.com.

HOW TO ENTER

To be in with a chance of winning 1 of 2 Triton T6PHJ Pocket-Hole Jigs, just visit www.getwoodworking.com/competitions and answer this simple question:

QUESTION: How many times faster is the T6PHJ at drilling pocket-holes?

The winners will be randomly drawn from all correct entries. The closing date for the competition is **29 November 2019**

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

ME AND MY WORKSHOP

Walter
Havinga



Walter working on one of his commissions

This month, join us as we take a look around the workshop of Devon-based Musical Instrument Engineer, **Walter Havinga**

1. What is it – and where is it?

A not-big-enough space above my guitar shop, in Ashburton, Devon.

2. What's the best thing about it?

It's full of beautiful guitars, and every day I get to meet beautiful people.

3. And what's the worst?

The folk who walk in with some rubbish they've bought off eBay, and want me to transform it into something special.

4. How important is it to you?

It's 50% of my business; the shop is the other 50%.

5. What do you make in it?

Bespoke items, often not otherwise available, and often for vintage instruments.

6. What is your favourite workshop tip?

I try hard to be realistic, but to make sure everybody has their expectations exceeded.

7. What's your best piece of kit?

I love my 3D printer.

8. If your workshop caught fire, what one thing would you rescue?

It would have to be a guitar, but which one? It changes all the time!

9. What's your biggest workshop mistake?

Employing a man with 'experience'.

10. What's the nicest thing you've ever made?

An old guy in his 70s brought in an ancient guitar he'd learned to play as a child. It was completely smashed, but three months later, after I'd re-built it, he strummed a chord and broke down crying.

11. And what's the worst?

Occasionally I lovingly repair a vintage instrument and then see it dismantled into parts for sale – eBay again.

12. What's the best lesson you've learned?

Patience.

13. If you won the lottery, what would you buy for your workshop?

Oh, that's easy – an Erlewine Neck Jig – a revolution in fretwork designed by Dan Erlewine. You'll have to Google it! ✂

NEXT MONTH

In the next issue, we look around the workshop of full-time furniture/boxmaker and tutor, Mark Farrelly, who lives in Penrith, Cumbria.

We'd love to hear about your workshops too, so do feel free to send in a photo of your beloved workspace, and please answer the same questions as shown here – just email tegan.foley@mytimemedia.com

Duo-Doweller DDF 40



Simple. Versatile. Precise.



The DuoDoweller DDF 40 introduces greater ease and efficiency to the task of drilling accurate dowel holes. Its hallmarks are a broad range of applications, a new ergonomic design for easy handling, and absolutely aligned, stable joints. Whether in the workshop or on site, no other hand-held power tool can produce such high-quality joints.



CONTACT US:

01484 400 488
01484 711 012
sales@nmauk.com

www.nmatools.co.uk
Unit 1, Brookfoot Business Park,
Brighouse, West Yorks, HD6 2SD

FOLLOW US:

NMATOOLS
@NMA_TOOLS
mafell_uk

SMALL CHANGE

Featuring a cleverly hidden secret opening, **Peter Dunsmore** remakes this novelty money box from the March 1951 issue of *The Woodworker*, but adds a few modern techniques

This neat little project was originally featured in the March 1951 issue of *The Woodworker* and makes a wonderful gift for a child. It is a money box in the shape of a book with a hidden opening device, but to be effective it does require some careful work. The original was made using primarily hand tools but I thought I would bring this project slightly up to date, using a router yet still retaining the original design. It's great fun to make and provides an opportunity to use up the smaller offcuts of timber found in the workshop. I had a small piece of American walnut and a length of Canadian maple (**photo 1**) that provided sufficient timber to complete this. Both timbers have the advantage of being hard-wearing and the colour contrast works well. The benefit of cutting the three pieces of walnut from one block is that the colour of the pieces will match and it can be arranged that the grain will flow through the spine of the book and into the covers much less obviously than if three separate pieces were used.

After cutting the timbers to thickness, let them settle for a while under a weight while



the stresses in the timbers relax. I have a couple of blocks of cast-iron weights that were salvaged from the inside of an old washing machine, which were ideal for this (**photo 2**). After cutting both 'book covers' to the dimensions shown, use a 3mm straight cutter to cut the grooves (**photo 3**), into which will fit the maple. Remember to make a handed pair if you've planned for the grain direction on the walnut (**photo 4**).

Working the pale wood

Maple is used to make what would be the pages of the book and to add to the effectiveness, cut a shallow cove or dip into the front edge of the book. After cutting the timber to section, use the

grooves cut into the walnut to mark the length of the timber (**photo 5**). A cove cutter fitted to a router table could be used for this stage, but it is just as easy to wrap some abrasive paper around a piece of dowel and form the shallow cove by hand (**photo 6**). Maple is a very hard wood but it won't take long to form the necessary shape.

Next, cut two rebates into each end to a depth of 3mm, onto which will fit the top and bottom of the book pages. This could be cut by hand but a much neater finish can be achieved using a straight cutter in a router table. The difficulty here is the width of the timber as there is no support for the maple as it is passed across the cutter. The method I use works very efficiently



1 Little timber is required to complete this project



2 Keep the timber under weights for a while



3 Set the depth of cut to 1.5mm

NOVELTY MONEY BOX

WITH SECRET DEVICE FOR OPENING

THIS novelty is easily made, but calls for careful work if the secret opening device is to be effective.

Fig. 1 (right) shows the box upside down and open. It is made to represent a book, part of the rounded back pulling outwards and drawing the bottom with it, thus allowing the box to be emptied. Coins are inserted through a slot in the top (H), Fig. 2B.

Construction.—Fig. 1A gives details of the book "covers," which are grooved to a depth of $\frac{1}{16}$ in. to take the top and bottom. When these are prepared, E and F (Fig. 2B) are cut to size, then glued in position between the covers, as at Fig. 2A. The top (H) and bottom (G) are prepared slightly full in length, width and thickness, then tried in their grooves and trimmed until a fairly tight fit is achieved. (H) is now glued in its groove, its end being shot flush with (E).

The rounded back should be prepared in one piece, slightly full in length. At the bottom end it is treated as shown in Fig. 2C, so that (G) may be glued into the groove running round the inside. Incidentally, it is not essential for this groove to run right round. Providing grooves are worked on either side, (G) could fit into these and simply butt against the back. The slot on the face takes the triangular tongue, shown in Fig. 1, whose function is to break the light which might otherwise show through and betray the method of opening. The top end of the back is simply recessed to bring it level with (H).

Lines are now marked across the back with a cutting gauge at the points shown in Fig. 1, and the back sawn right through on one of the marks with a dovetail saw. When (G) has been glued in position on the smaller half of the back, it is run into its groove between the covers,

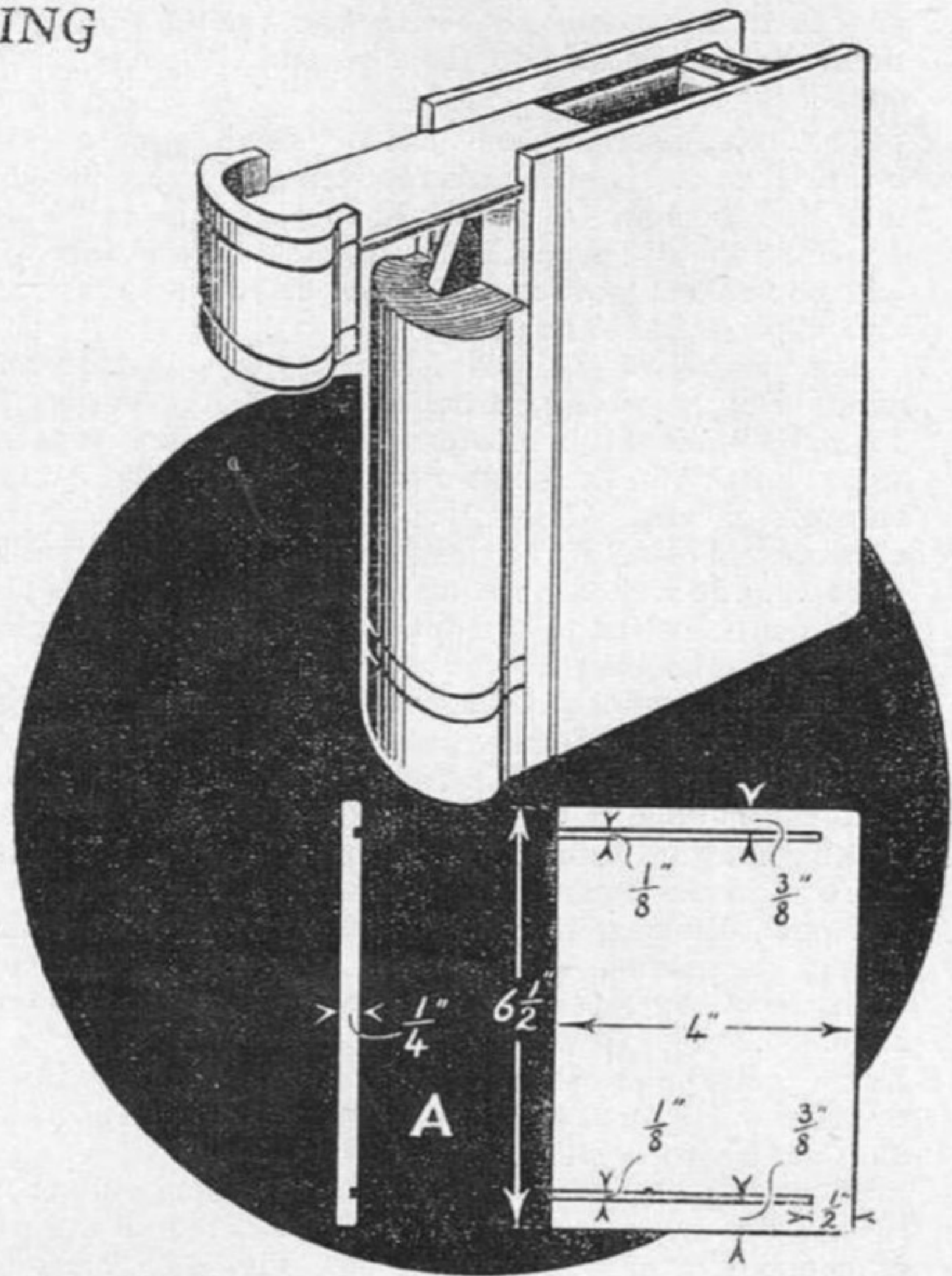
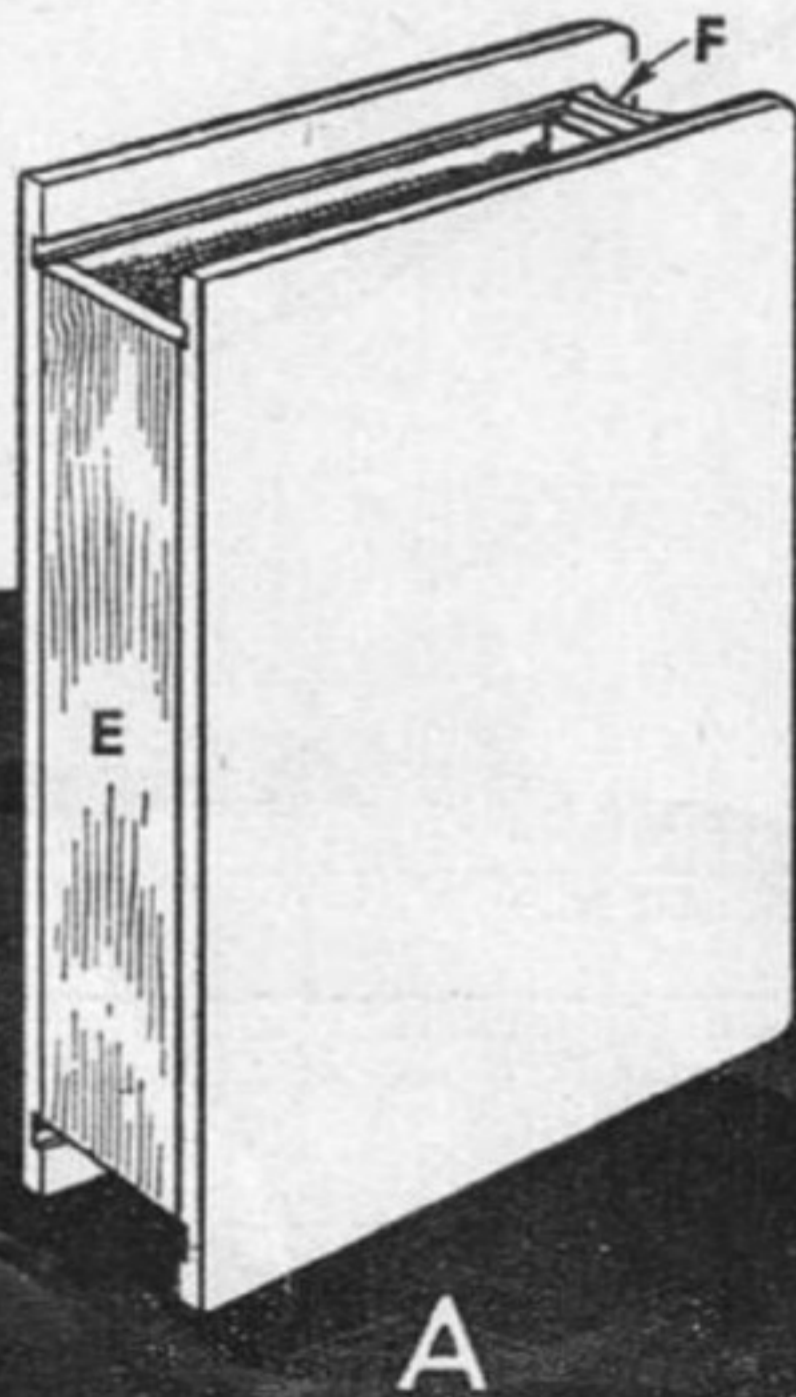


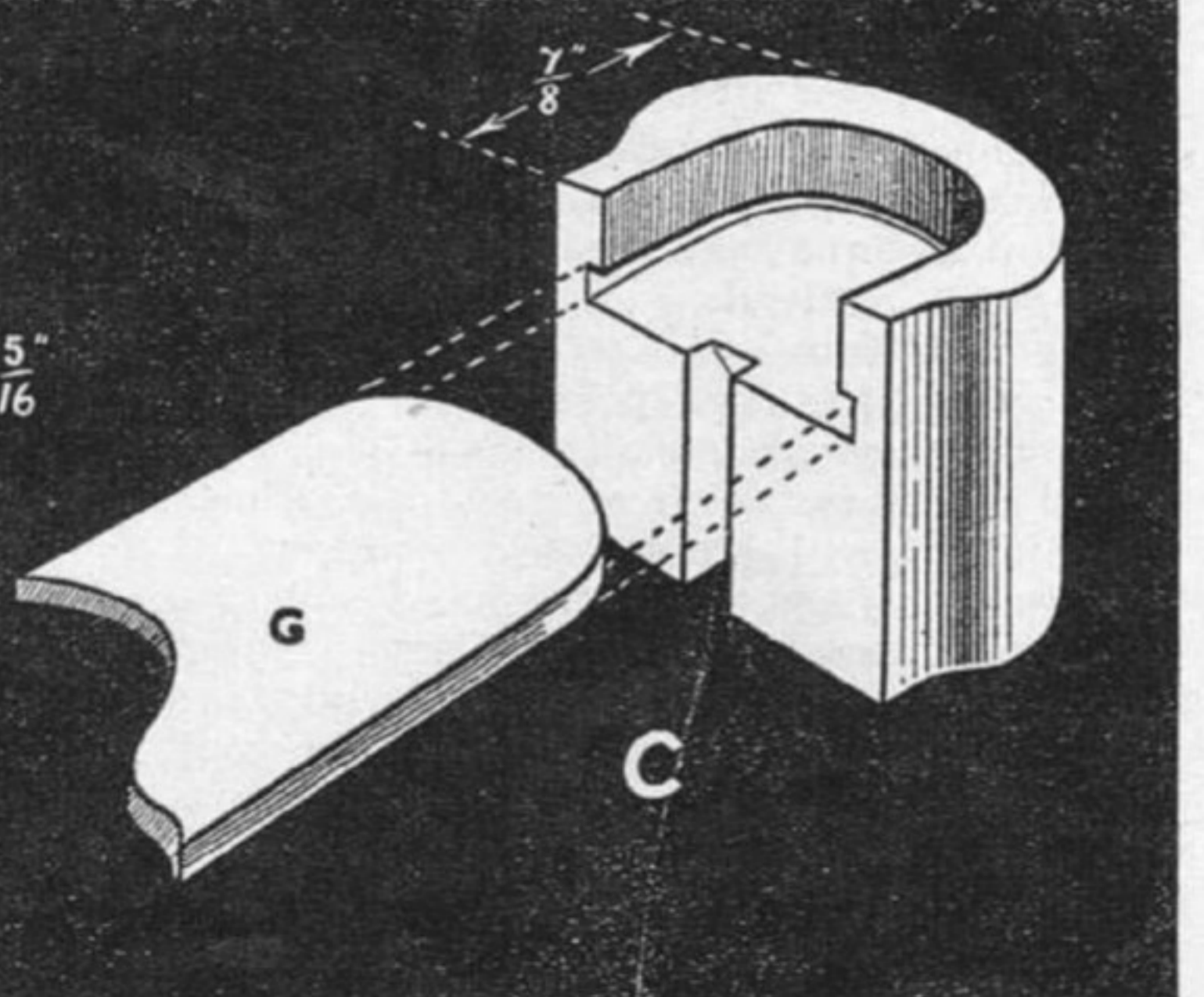
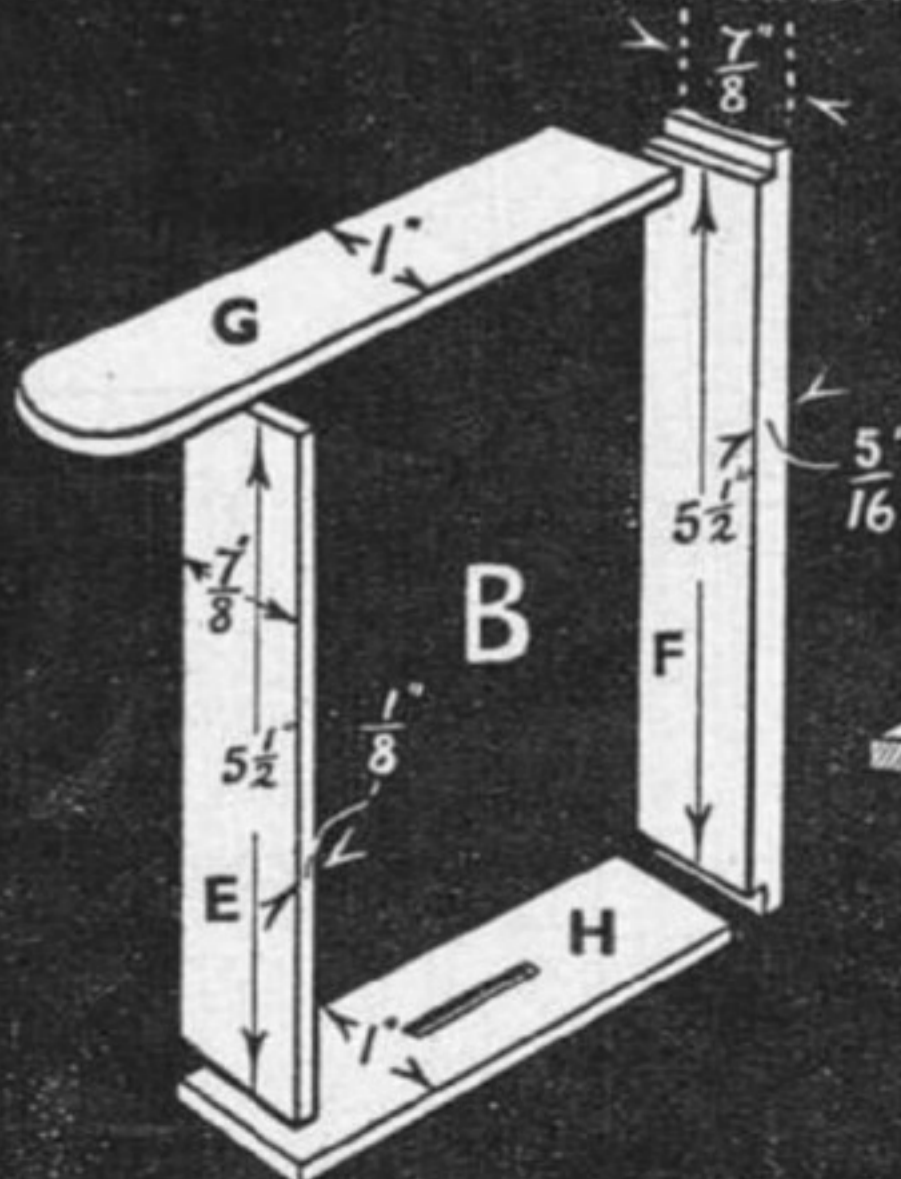
FIG. 1 (Above). INVERTED VIEW OF BOX SHOWING HOW SECRET OPENING OPERATES
When closed, the joint across the back appears as one of the decorative lines

FIG. 2 (Below). CONSTRUCTIONAL DETAIL
G & H fit into grooves inside "covers," H being glued in position

and the rest of the back glued to (E), so that the dry saw cut has the appearance of one of the decorative lines. Finally, the back is shot flush with the covers at top and bottom. (853)



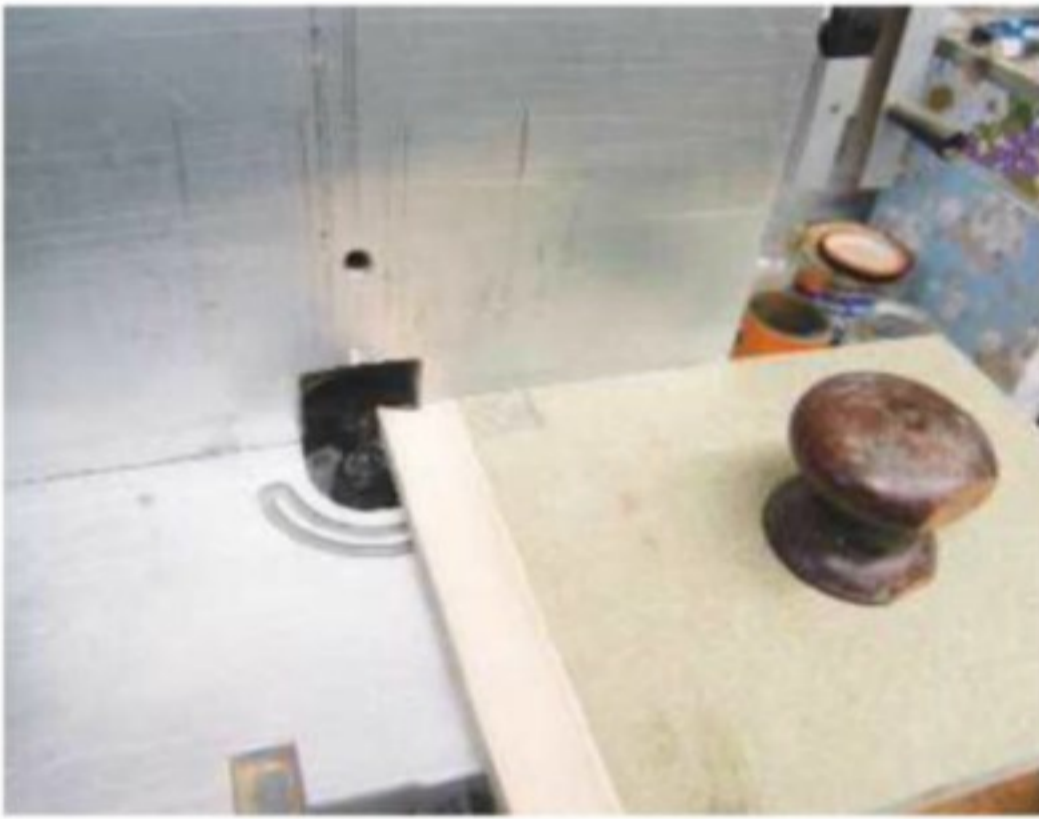
The original money box article was featured in the March 1951 issue of *The Woodworker*





4 Remember to make handed pairs

and involves cutting an offcut of MDF to about 150mm square ensuring that one corner is at 90°. I found an old drawer knob, although any suitable scrap could be used, to form some kind of handle on the MDF (**photo 7**). The photo is self explanatory but basically, you need to first set the cutter to the depth of cut required, both vertically and horizontally. Press the jig against the table fence with the maple held firmly against the jig,



7 A simple jig is made for the router table



8 A neat rebate is the result, with little breakout



10 A dry run is advisable before applying any glue



5 Mark the lengths of maple using the grooves as a guide

and the end also against the fence. The jig can now be slid across the table in unison with the maple and the rebate quickly cut. Now turn the maple round and repeat the process on the other end. An advantage of the jig is that the MDF supports the maple at the end and thus avoids any breakout of the wood. The result is a very neat little rebate only requiring the careful setting of the cutter depth (**photo 8**).

For the project to be successful, it really requires accurately cut timbers so that the method of opening the box isn't obvious. Part of this involves the timbers being cut square and sliding almost seamlessly into the front timber just cut. The method I find that gives good results is to use a disc sander with the fence set exactly square to the disc and to push the timber carefully against the disc (**photo 9**). Don't press too hard as it is all too easy to burn the end of the wood with the heat generated. Slide the maple into the book cover and check that all goes together satisfactorily (**photo 10**). Repeat the process for both the top and bottom



9 A carefully set disc sander is a fantastic tool in the workshop



11 Only apply adhesive to the two longer lengths

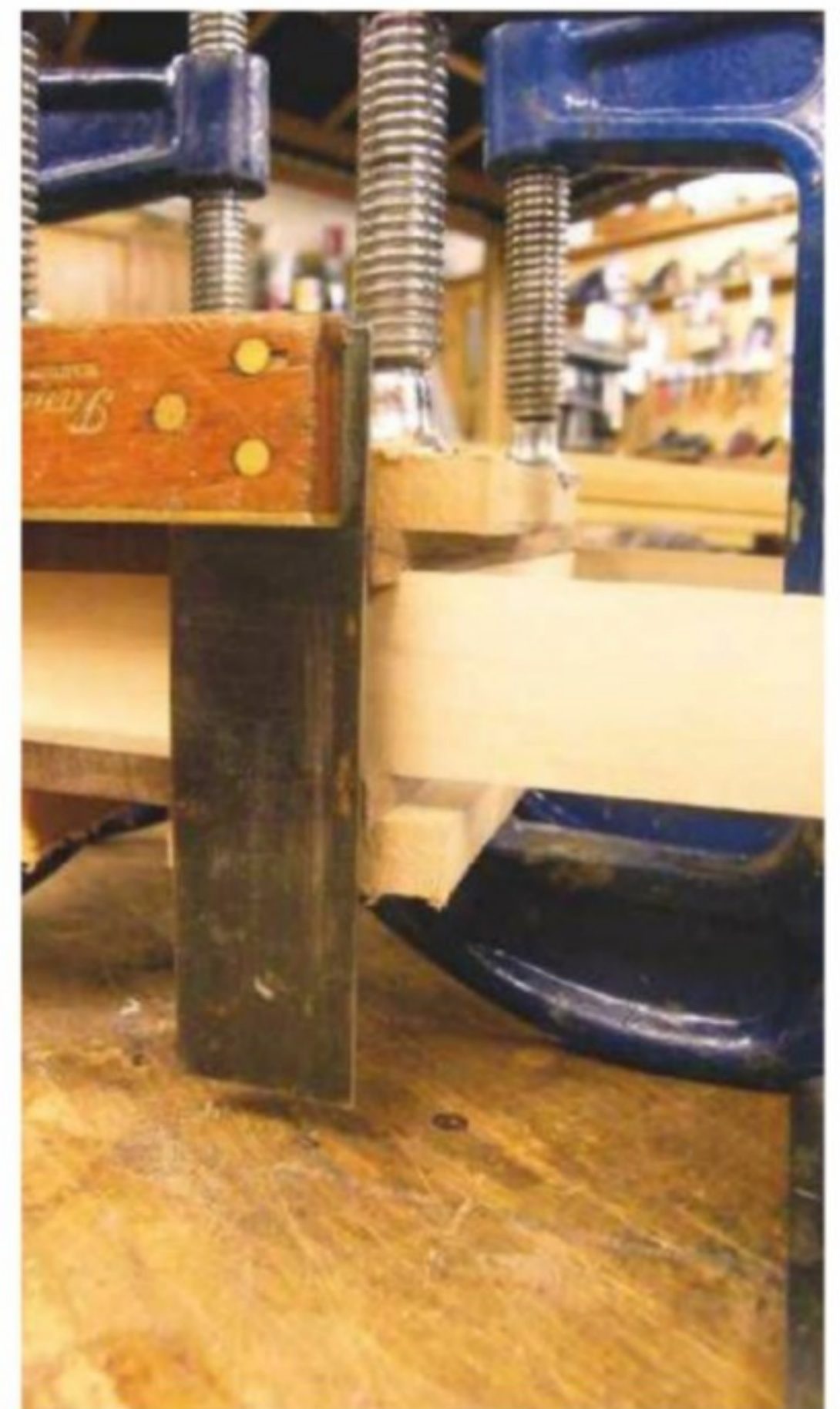


6 Shape the ends of the leaves using abrasive paper wrapped around a dowel

maple pieces, but at this stage leave them over length. This will all be cut to accurate length later. The back piece of maple needs to be cut to the length as measured in between both rebates. When you are satisfied that all fits together, use adhesive to glue both the back and front strips in place on one book cover, ensuring that all is square. Use the top and bottom maple strips to ensure everything lines up correctly (**photo 11**). When this part has dried, clamp the top book cover in place checking with a square that the back edges are level with each other as the glue dries. This is important as the spine of the book needs to sit squarely in place at a later stage (**photo 12**). Check that no adhesive seeps out securing the top and bottom strips in place. These need to slide out but be held in position as the glue dries in order to keep the walnut flat.

Making the spine of the book

Next, cut the walnut to the width of the closed book section and about 4mm longer than the height of the book. Originally, the two recesses

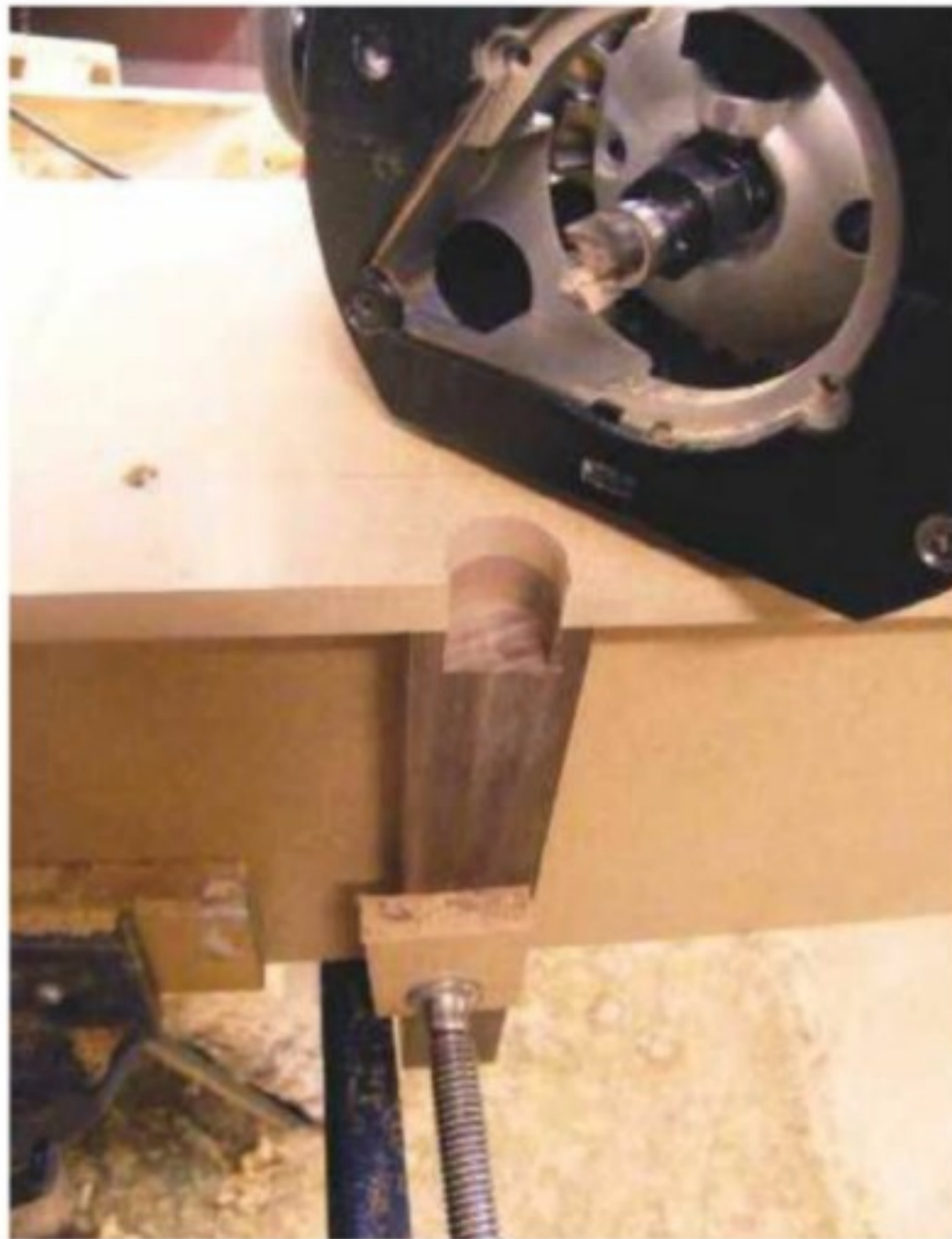


12 Check that the book covers are in line with each other



13 Let the MDF overhang by the thickness of the walnut

at both top and bottom of the spine would have been drilled and chiselled out and that would be OK, but the end result may not be particularly neat. The following method involves spending a few minutes making a template from some MDF and using a bearing-guided trimmer router cutter. As can be seen in **photo 13**, two pieces of MDF are screwed together at right angles to each other, with an overhang the thickness of the walnut. I used a 22mm diameter router cutter to cut a slot to a depth of 19mm using a straightedge clamped on top of the MDF, which acts as a guide. Clamp the spine in place on the jig centrally underneath the slot, ensuring the walnut is perpendicular to the top. Fit a bearing-guided

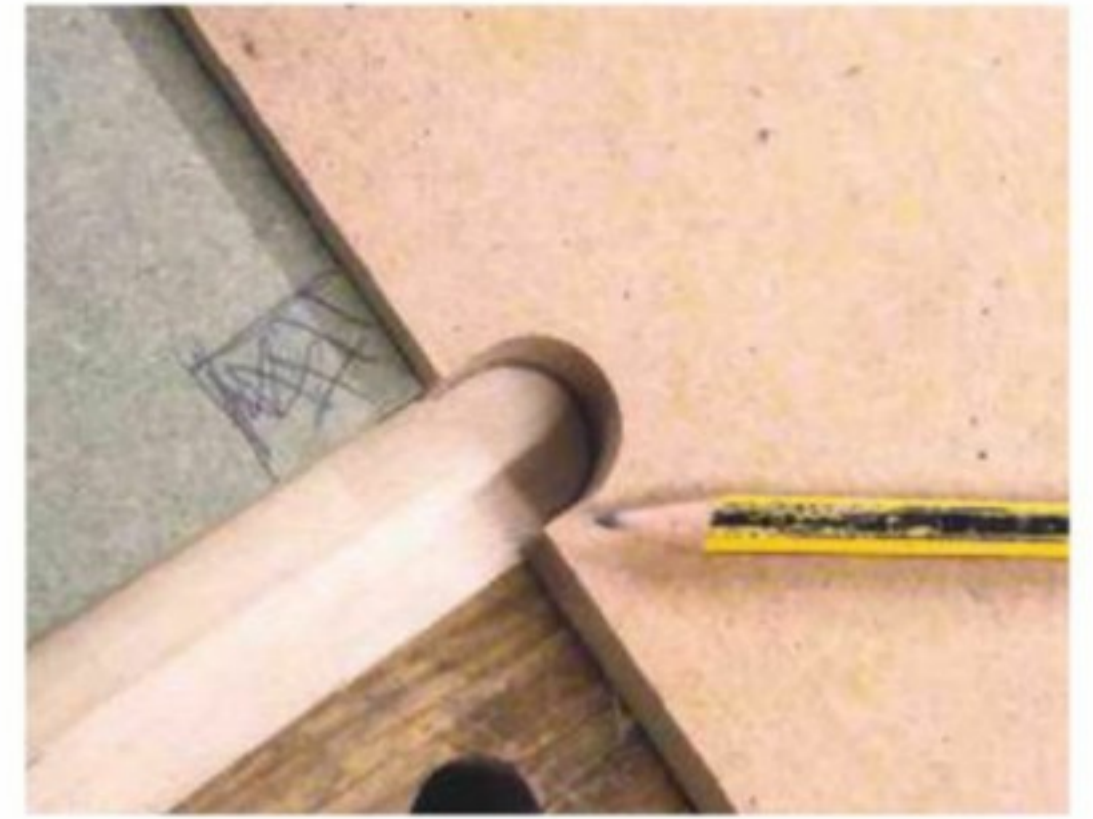


14 The walnut must be perpendicular to the MDF template

trimmer and set the depth of cut so that the base of the rebate will be level with the lower edge of the grooves in the book covers (**photo 14**). Repeat this for the other end of the spine.

You can now take a piece of maple and fit this under the jig (**photo 15**) before drawing the curve onto the maple. Cut this to the line and fit the maple into the spine. A sharp blade can be used to mark the inside of the walnut using the maple as a guide (**photo 16**). A little bit of careful work with a small chisel will produce a small groove all the way round the inside. Trim the end of the maple to fit into the groove, which will result in a seamless join (**photo 17**).

The slot for the money should be cut using



15 Use the template to pencil the shape on the maple

a 4mm straight cutter on the router table to a length of 40mm before fitting this part to the box (**photo 18**).

Fit the maple into the book spine and ensure it sits square to the walnut, then repeat this step for the base end of the box. It is important that this piece sits square, particularly the base part, as it needs to be flush to the project. Make any necessary adjustments with a small file (**photo 19**) but don't glue anything together just yet.

The spine of the box is finished to the shape shown using a combination of a rounding over bit and a cove cutter to the profile shown (**photo 20**) or, alternatively, a small block plane and some abrasive paper could be used.

Completing the box

You now need to make the spine of the box in one piece, so it is about 4mm longer than required. Mark where the spine is to be cut and saw apart with a fine-toothed saw. Check the disc sander is set square in both planes and level the ends of both sawn surfaces (**photo 21**). Temporarily fit the longer spine piece in place on



16 Use a sharp blade to score the inside of the spine



17 Remove sufficient waste with a small chisel



18 A 4mm straight cutter is wide enough for the coins



19 The maple strips must sit so that they are perpendicular to the spine



20 The router table makes light work of shaping the spine



21 The table and fence must be square to the disc to ensure an accurate finish



22 Adjust the length on the sander



23 Finally, glue the spine in place and clamp until dry



24 An old cabinetmaker's trick

the box with the maple money slot in position, then secure with masking tape. Fit the maple bottom into the box (**photo 22**) and adjust the length of the walnut on the disc sander until a tight sliding fit is obtained. When this is achieved, you can then glue the spine in place. There is no need to glue the maple as it is secured on all four sides by the walnut. I found it easier to clamp this with the opening piece in place, which helps to ensure everything lines up satisfactorily (**photo 23**). When this is dry, use a little epoxy adhesive to glue the box bottom to the spine and secure in position until dry. Take care not to let adhesive spill out as this part needs to slide out when the glue has cured.

To camouflage the opening of the money box, score a couple of horizontal lines around the top and base of the spine to imitate stitching. A neat little trick to achieve this is to use a file to flatten the top of a screw, which will produce

a sharp edge (**photo 24**). The screw can then be driven square into a block of wood to the depth required and the screw edge used to score a couple of lines on the top and bottom of the spine (**photo 25**). Keep the scrap block flat onto the spine ends as the edge of the screw scribes

the walnut spine. Finally, apply a finish to the walnut. I used a couple of brushed coats of button polish (**photo 26**) before finishing with wax buffed to a soft sheen. I avoided applying any finish to the maple as the white of the wood contrasted well without being dulled with shellac. ✕



25 Keep the wood flat on the end of the case



26 Button polish brings out the walnut's warmth



27 The completed project should look something like this

A treat for the festive season

Buy a subscription to any of these titles this month and receive a **FREE** bottle of Famous Grouse Whisky*



Limited availability *Save up to* **40%!**

Woodworker
 EBONISED ELEGANCE
 SAVE **27%**
 13 ISSUES FOR £44.99
 FULL PRICE £61.75

Boats
 PATRIA
 A very classy European lady!
 SAVE **30%**
 13 ISSUES FOR £49.49
 FULL PRICE £70.55

RCME
 DIESEL REPAIRS
 SAVE **37%**
 13 ISSUES FOR £46.99
 FULL PRICE £74.99

- Free bottle of Famous Grouse 70CL (*over 18's only)
- Delivered conveniently to your door
- Subscriptions start with first issue of 2020
- Greetings card supplied with gift subscriptions

Offer ends 6th December 2019

Patchwork & Quilting
 £200
 SAVING **22%**
 12 ISSUES FOR £46.99
 FULL PRICE £59.88

Stamper
 46 Makes
 SAVING **23%**
 12 ISSUES FOR £45.99
 FULL PRICE £59.88

hi-finews
 MINI MAESTROS
 SAVING **31%**
 13 ISSUES FOR £47.75
 FULL PRICE £68.99

Hi-Fi Choice
 Standmount stars
 SAVING **27%**
 13 ISSUES FOR £47.75
 FULL PRICE £65.38

HOME CINEMA Choice
 SONY'S BRIGHT STAR
 SAVING **25%**
 13 ISSUES FOR £48.99
 FULL PRICE £65.13

MODEL ENGINEER
 BEAM Compass
 SAVING **40%**
 26 ISSUES FOR £65.99
 FULL PRICE £109.20

MODEL ENGINEERS' WORKSHOP
 Kilde's Scroll
 SAVING **26%**
 13 ISSUES FOR £47.99
 FULL PRICE £64.87

match fishing
 FAR-BANK LIBERTIES
 SAVING **20%**
 13 ISSUES FOR £45.75
 FULL PRICE £57.20

POLE FISHING
 Bullard Behaviour!
 SAVING **25%**
 13 ISSUES FOR £40.99
 FULL PRICE £54.60

TOTAL CARP
 SAVING **24%**
 13 ISSUES FOR £49.40
 FULL PRICE £64.87

STAMP
 Marianne
 SAVING **23%**
 12 ISSUES FOR £43.99
 FULL PRICE £57.00

MODEL COLLECTOR
 MATCHBOX 2020
 SAVING **20%**
 13 ISSUES FOR £44.99
 FULL PRICE £56.55

Prefer a Digital or Bundle Sub?
 Offers available online at:
www.mytimemedia.co.uk/magazine-offers/

SUBSCRIBE SECURELY ONLINE:
WWW.MYTIMEMEDIA.CO.UK/XMAS19P2
 CALL **0344 243 9023**** AND QUOTE **XMAS19P2**

**Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minutes allowances. There are no additional charges with this number. Overseas calls will cost more.

TERMS & CONDITIONS: Offer ends 6th December 2019. *UK print subscriptions offer only. Gift has limited availability. Over 18's only. Please drink responsibly. If this is a gift subscription please ask to begin with the first available issue in 2020. MyTime Media collects your data so that we can fulfil your subscription. We may also, from time to time, send you details of MyTime Media offers, events and competitions but you always have a choice and can opt out by emailing us at unsubscribe@mytimemedia.com We do not share or sell your data with/to third parties. Details you share with us will be managed as outlined in our Privacy Policy here <http://www.mytimemedia.co.uk/privacy-policy>. Please visit www.mytimemedia.co.uk/terms for full terms & conditions.



LETTERS

★ LETTER OF THE MONTH

ROUTER REVIEW

Dear Tegan,

May I comment on a couple of items from recent issues of *The Woodworker*? I found the review of the Triton router interesting (*WW* Jul), particularly as I have one that I purchased earlier this year. I made my purchase based on the controllable 'fixed base' feature. I have used routers for many years but only in recent times had the need to buy a replacement, which is a plunge tool. Quite simply, I found the plunge feature 'scary' to use! On initial use I always felt that I was applying so much pressure to the tool that both it and the workpiece would move uncontrollably and dangerously. I also have similar concerns with all plunge tools in my toolbox, but with the Triton router, I find I'm much happier using the plunge feature – something I can only put down to the spring, which holds the tool up, being better balanced against the weight of the moving head.

I think that Triton should supply a 1/2in collet rather than the 8mm along with the 3/8in one. I can't say I've ever seen any 8mm bits in this country. Also annoying is the need to buy another baseplate to use guide bushes, but on the whole I'm really pleased with it. Yours truly, **Wilf Tanser**

Dear Wilf, thank you for your feedback. All woodworkers need to have a healthy respect for noisy, fast-moving, sharp power tools. They are dangerous and can do you an awful lot of harm if things go wrong. The router is a particular menace, especially for novices, as it is unstable on edges and has an exposed cutter that, when it catches, creates unexpected noise and a pull that is very disconcerting – and scary. I recommend attending a training course if you are at all unsure about using a plunge router (or any other power tool). I have run sessions which cover clamping work, safe and correct use of the tool or machine, recognising when things are not right and what to do about it, plus cleaning and maintenance.

The wind-down plunge feature on the Triton router gives good control, but is really for setting up the depth and it is not the same as being able to free plunge. The need to use a lot of pressure to get a router to begin plunging suggests that something is not right, and putting up with the problem is not the way to proceed. Assuming that the plunge lock is off, the cause might be dirt and dust, a lack of lubrication, incorrect alignment of the plunge bars, wear, or a combination of these. It may be that the problem is present from new; power tools are not always ready to use out of the box and understanding what to do may require the experience, which could be gained from a course.

I agree that a 1/2in collet would be more useful than the 8mm version. I didn't understand the need for base plates at first, but they are an excellent time saver if you do a lot of routing; I set up several for



The Triton MOF001 dual-mode precision plunge router, which was recently tested in the July issue

different jobs, and they can be interchanged quickly as required. They also help to keep the main router body in good condition and can be replaced if worn or damaged.

*The Triton router is certainly a very fine machine and excellent value for money. Best wishes, **Jonathan Salisbury***

CASTING RESINS FOR WOODTURNING

Hi Tegan,

What would you and your team recommend as a suitable two-part casting resin that is suitable for woodturning, and available in the UK? I fancy trying to create wood/resin objects – many examples of which you can find on YouTube. Best regards, **Dr Colin R. Lloyd**

Hi Colin, thanks for the email. I am happy to pass on my (limited) experience of using resin with wood. I earned my living turning wood and didn't have a lot of time experimenting. Now semi-retired I can afford to 'play' more, which is what I have been doing with resins.

I think the use of a pressure pot will depend on what you want to do with the resin/wood combination. I do not have a pressure chamber and have had reasonable success with casting resin. I use a hot airgun to very gently heat the resin to pop the air bubbles, but I have only cast or poured resin in no more than 15-20mm. If you want to cast thicker resin, you will need to consider the exothermic reaction or pour successive layers.

If, like me, you want to fill shallow voids in wood or cast resin with wood of a small scale, I do not believe a pressure pot is necessary. If you want to impregnate rotten or 'punk' wood to harden it then I think a pressure pot would be beneficial. My understanding is that a pressure pot compresses



Colin Simpson's 'Blue Planet', which was turned using a combination of burr elm and resin

the air bubbles such that you cannot see them. It doesn't speed up curing time.

The last time I demonstrated at Yandles this company were there – www.elichem.co.uk. Their rep was very knowledgeable and I'm sure that if you contacted them, they would happily advise.

*I hope this helps. Best wishes, **Colin Simpson***

DOVECOTE PROJECT

Dear Tegan,

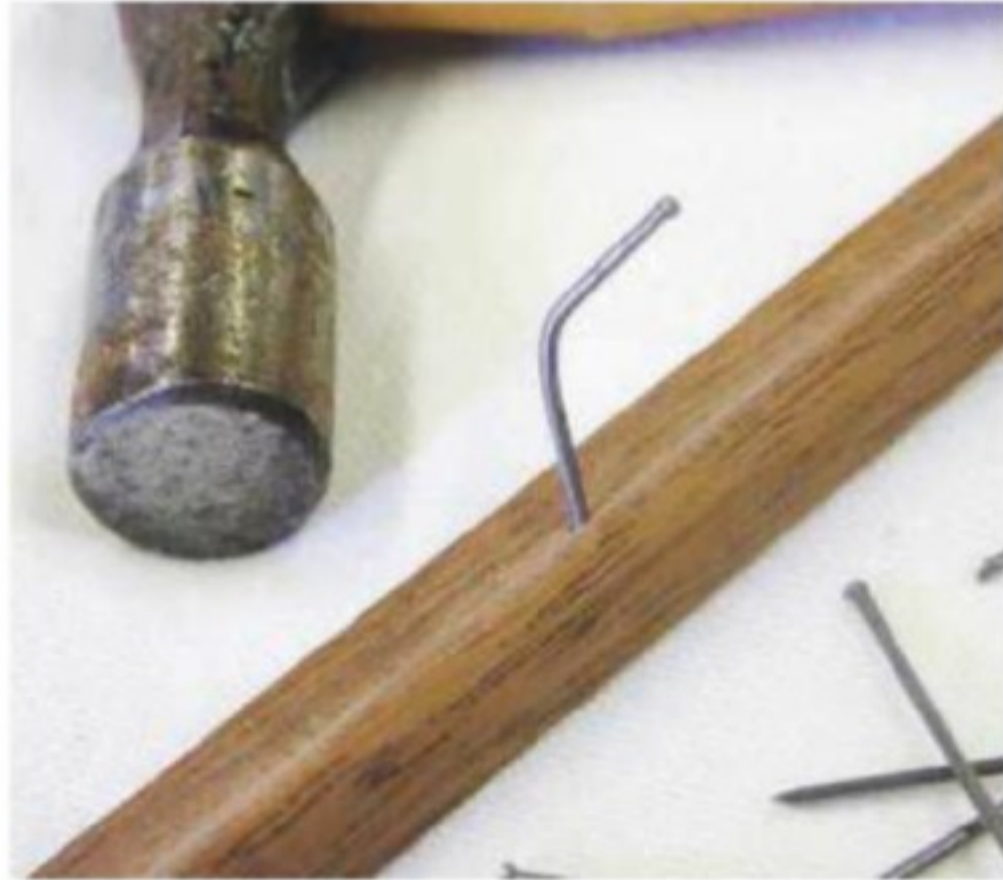
I'm a newcomer to the wonderful world of woodworking and your informative magazine. I recently made this dovecote for our garden



Chris' six-sided dovecote was made entirely from scratch – pretty impressive for a beginner!

READERS' HINTS & TIPS

For the next four issues, in conjunction with Veritas and BriMarc Tools & Machinery, we're giving one lucky reader per month the chance to get their hands on a fantastic low-angle jack plane, worth over £250! Ideal for shooting mitres, working end-grain and initial smoothing, this must-have hand tool also features a combined feed and lateral adjustment knob for fast, accurate changes to depth of cut. To be in with a chance of winning this fantastic piece of kit, just email your top workshop hint or tip to tegan.foley@mytimemedia.com, and if you can, please also attach a photo illustrating your tip in action. Good luck! To find out more about Veritas tools, see www.brimarc.com



A bent pin



The process of cutting the head off



The 'spade' type top



An alternative method using a very fine drill bit. Ideally the drill bit shaft needs to be the same diameter as the pin but as long as it's not bigger than the head, it will hold. Of course, in both examples, you should only pre-bore the pin hole in the outer piece that is being fixed to another piece/section. If you drill right in/through both, the pin won't hold and will easily put out

USING MOULDING PINS

Dear Tegan,

A tip that was given to me some years ago by a joiner friend concerns the use of moulding pins. Being very thin, these are easily bent if hammered slightly offcentre, and are also prone to going off course and protruding from the side when used on the edges of thin section hardwood, as in assembling a small box for instance.

These dangers can be eliminated by nipping the head off a pin with pincers or wire cutters. This gives a spade end to the pin, which can then be used to drill the hole exactly vertically and to the correct depth, especially if used in a bench drill. This works safely every time. Keep up the good work with an excellent magazine.

Best wishes, **Gordon Robinson**

(see attached photo) and thought I'd share it with you and, hopefully, your readers. I discovered that there are many dovecote plans online, but I wanted to have a go on my own and build one from scratch. It was a very enjoyable project with a great result, even if I do say so myself! However, the hardest bit I found with this, and other projects, is angles. I know experienced carpenters and joiners have a fundamental knowledge regarding angles for staircases and pitched roofs, for example, but I don't know where to start. I understand basic angles and degrees on paper but putting them into practice is another matter altogether. For example, with this dovecote I struggled to calculate the correct compound mitre angle to bring the six-sided roof together with perfectly fitting joints to minimise water ingress. In the end I succumbed to square cuts and a basic triangle shape roughly butted together; I had to line the roof with a membrane before cladding with cedar shingles. I appreciate you're limited to the articles your contributors are willing and able to provide the magazine, but if you could find someone to explain all aspects of woodworking angles/mitres (especially a six-sided roof) I'm sure I, and many other novices, would find the article very interesting and most helpful.

Thank you very much.
Regards, **Chris Jepson**

Hi Chris, many thanks for taking the time to write in and I'm so pleased to hear you're enjoying the magazine. I love the dovecote and it looks like you've done a great job, despite struggling with the angles, which you obviously managed to overcome despite the problems in understanding them. Hopefully some readers may share their suggestions on making this aspect of woodworking easier. I will have a think and see if any of our authors would be able to help with an explanation, but it may prove more fruitful to put this out to the magazine community. If anyone is able to offer their help, and willing to write an article on the subject, please email me directly.
Best wishes, **Tegan**

WRITE & WIN!

We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about the magazine's features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently the new Trend 1/4in 30-piece Router Cutter Set, worth over £100. Simply email tegan.foley@mytimemedia.com for a chance to get your hands on this fantastic prize – good luck!



NEW FLEXIBLE CURVE ROUTING GUIDE TEMPLATE ACCESSORY

An 8mm thick mini flexible curve used to make templates, enabling a shape to be cut repeatedly with precision.

- Used in conjunction with a self-guided cutter, a router or router table.
- Alternatively a standard cutter can be used when guided with a guide bush.
- Includes fixing screws.

Product Ref.	Length	Price
CURV/8X500	500mm	£32.40 <small>INC VAT</small>
CURV/8X1000	1000mm	£62.40 <small>INC VAT</small>



trend
routing technology

www.trend-uk.com
enquiry@trendm.co.uk
01923 249911

Classic Hand Tools[®]



The finest
hand tools
for your
finest
woodwork

Order online at: www.classichandtools.com or visit us Mon-Fri 10am-4pm
Hill Farm Business Park, Witnesham, Suffolk, IP6 9EW Tel 01473 784983

hand tools and wood chisels specialist

Ashley Iles - Henry Taylor - Robert Sorby - Joseph Marples
Veritas - Clifton - Thomas Flinn - Flexcut - Ice Bear...

Multi-Profile Japanese Sharpening Stones

280g: **£15.00**
1000g: **£15.00**
3000g: **£17.00**

All items in stock, ready for dispatch..
*unless marked otherwise all prices inclusive of VAT



Kevlar Gloves (pair)

for only
£5.00



Henry Taylor
'Diamic' brand
woodturning tools
have been
produced in
Sheffield by skilled
craftsmen, from
the finest steel for
more than one
hundred and fifty
years.

sharpening
Tormek T4's & T8's

chisels

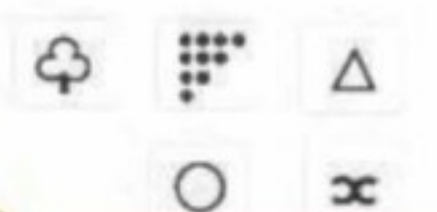
plane blades

measuring and marking

See Our NEW Improved Website
www.toolnut.co.uk

tool storage

punches





FOLLOWING DREAMS

If woodworking is your passion, then go for it, advises **Anselm Fraser**, Principal of The Chippendale International School of Furniture – after all, life is too short for regrets

A new group of students has just started on our professional course and, as always, they come from across the world. Not only is our nine-month course truly international, but our students are men and women of greatly different ages. Some are seeking a new career in retirement; others are looking to change careers and follow their creative passion. For me, that's one of the problems with the higher education system: young people are told that, to be a success, they must go to university. Partly, every school is judged on how many of its pupils go onto university, and therefore cajole their students in that direction, but partly also, we've come to believe that university better offers a pathway to happiness and riches.

The trouble is that, for many young people, university is the wrong choice. It gives them a degree, often in a subject that they don't intend to pursue, and lands them in significant debt. Then, having gone into a safe job, they realise years later that they have a choice to make. Follow your heart, and find your passion, or just trundle on doing a job that gives you little

or no satisfaction. It's the reason why so many of our students fall into that category: they are creative people whose previous careers gave them no outlet for their creativity.

A universal unity

It's wonderful to see those students blossom during their time with us, finally doing something that they should, perhaps, have done years ago. It's why I'd like to see a sea-change in our thinking about higher education. Yes, for many people it's the absolute right choice – particularly if they intend to practice, for example, as lawyers or accountants – but for too many others, university is simply a stepping stone to a qualification that they don't need, and may come to regret. What I would like to see is a greater emphasis on choice, and to get rid of the stigma that not going to university equals failure. We're all born different, with different skills, and greatly differing hopes and aspirations, but the one thing we all want is to be happy and, for those of us in the woodworking world, it's something that does offer us a huge amount of satisfaction.

On our course last year, we had, among others, a former graphic designer, market gardener, trawlerman, oil rig engineer, builder and teacher – all people with different pasts, but now with a shared future as professional woodworkers. As a new term starts, I like to think that our students come to the school as strangers, but leave as friends. It's a nice thought because, while our students speak many different languages, they all learn the universal language of woodworking. That's something that unites us all: a love of something that is both practical and creative, involving every part of our brain and body.



David Hall, former teacher



Tom Smyth, former market gardener



Heather Jones, former graphic designer

Trial & error

So, here's a thought from Thomas Edison, who largely invented the modern world, and who said that: "Genius is 1% inspiration and 99% perspiration." It's an apt quote from someone who invented, among other things, the phonograph, motion picture camera and the first practical light bulb. But Edison wasn't someone much given to 'eureka' moments as, believe it or not, he wasn't much gifted in chemistry, mathematics or physics – he wasn't an Archimedes or an Einstein. He simply came up with an idea and then, by trial and error, got it to work. Then, more trial and error, and he'd make it better and better still.

In engineering, this is known as the brute force method. If something doesn't work, try something else. It was a perfectly good approach for Edison, and it's a perfectly good approach for today's woodworkers. It's about coming up with that initial bit of inspiration to illuminate the piece of furniture you want to make. It's then, by trial and error, working out how to make it and then, more trial and error, actually making it.

The trouble is that we live in a Twitter world – our attention spans have dwindled to that of a goldfish. We still want to make great furniture, but we'd like to make it in 10 minutes.

No, no and no. It takes sweat and tears (hopefully not blood) to become a craftsman or woman. Maybe 10,000 hours of boredom and blisters to master your chosen craft. That's why our school is open from 8am until 8pm, and we can always tell the students who will do well by the amount of time they put in. They're often the less naturally gifted, but they're the ones who will absolutely master their craft through practice, practice and practice. Often, the ones who put in that effort and practice are the students who have come to us with university degrees and careers in something else. They're the ones who absolutely know that they have now made the right decision to follow their dreams rather than go through a lifetime of the humdrum.

So, my advice is: if woodworking is your passion, go for it! And don't be fooled into taking an expensive university degree you might live to regret. After all, life is too short for regrets. ✕

FURTHER INFORMATION

To find out more about The Chippendale International School of Furniture's professional and other courses, see www.chippendaleschool.com



WHAT IS IT ABOUT DAVID LLOYD?

Edward Hopkins wonders

David Lloyd is a traditional cabinetmaker: he is whistling as he works when I call. His workshop, in one of the old airfield buildings at Dunkeswell, East Devon, is a bit of a clutter. It is of a good size, but stacks of timber take up space doing nothing, and racks of dusty offcuts hang on the walls. He's far from alone in this: I bet your workshop is much the same. "Some people," he says, "sweep up at the end of the day and put their tools away. Are you one of them?" I'm not. It is a waste of time to put away tools that first thing in the morning you'll have to get out again.

The next thing you'll notice is the size of his machines: a panel saw with all its outriders like a beached catamaran; a Sedgwick 16in planer/thicknesser (16in – the stuff of dreams!); a spindle moulder with power drive that is too complex to take in at first glance. And wood. As I said. Everywhere. He wonders sometimes what prospective clients might make of it. He does from time to time open both doors and blast the place with an airline, but I suspect he hasn't done that recently. It doesn't matter, and he doesn't need to worry about his clients. On a low setting-out table is a dry-assembled oak

frame destined to be part of a wardrobe cut into a roof. You know immediately that it is well made. And then you wonder why, or at least I did. The tenoned rails are mitre-shouldered into the stiles (**photo 1**). "Why did you do that?" I asked him. "It must double the time." He concedes that it does, but it is the best way for a moulding to turn a corner. It is the woodworker's refinement of the mason's mitre. Or you could look at his dovetails (**photo 2**). He doesn't use a jig: "It would take too long to set up because often all my drawers are of different sizes, and besides, I enjoy cutting dovetails by hand." There you have it. I don't need



1 A haunched mitre-shouldered mortise & tenon: the best way to take a moulding round a corner



2 A pedestal desk with classic, faultless dovetails. "I love making dovetails; they're so satisfying." Drawer components are in ash. The fronts are plywood veneered in burr walnut; a job he subcontracts, then trims the blanks to size

but his interaction with them might take up only a few hours in several weeks. Is he sociable? "No." He enjoys one-to-one contact but recoils from groups. I sympathise.

Beginning

I ask him how it all began. I am shocked. I think that if I hadn't asked, he wouldn't have told me, and I wouldn't have noticed. He's a practical man, able and adaptable in the physical world. He started off as a motorbike mechanic and was made redundant. That didn't shock me. Then he had a motorbike accident and lost his left foot. That did. Pause.

He took time out with his new girlfriend, Alice, later to be his wife, living on a narrow boat. They fetched up near Thame where he worked for six months in a pine factory. It was rough work, but he found that he liked it. Then, needing a career change, though he can't remember how he afforded to do so, he signed up for a full-time, one-year course at Rycotewood.

"What did Rycotewood teach you," I asked. "That I could do it," he replied; "and that I enjoyed it." He does what he does, not primarily to make money, but because he wants to; and because

he likes to please his customers; he likes to give good value. What better set of reasons to work? The whistling is real.

Not everything at Rycotewood took root, however. He struggled with free design. As I looked through his portfolio, I could see that piece after piece was immaculately made. It was also conservative. His inspiration comes largely from the Arts and Crafts movement where form follows function, and where good design shows its subtle side. He did not connect with the design teacher on the course: he didn't 'get it', and, he says, "I still don't get it." His project piece, the 'Tulip Cupboard' (**photos 3 & 4**) is startlingly different to his later work and, I thought, exciting, but the concept was not entirely his and he's not happy with the result. "It isn't fully thought out."

Quality & saleability

David was 31 when he jumped in at the deep end and trained at Rycotewood. For the next five years he worked with a maker in Banbury, and for three after that, with a maker in Tiverton before setting up on his own – all a very logical progression. He wonders now, what comes next. He'd like to teach. He'd like to run courses,

to go on. If you want to get the measure of the man, look at his work.

We talk for a while and I feel that I'm getting to know him. "You seem to be contented," I suggest. "I am," he replies, "but I'd rather be contented with a bit more money." We talk about the process of pricing. David admits to job insecurity and has put in low quotes rather than risk having no work. Now, with more enquiries coming in he can begin to be bolder, and can afford to lose one job because two more are in the queue. At last he can be rewarded for extra design time, problem solving and the myriad of additional tasks a project involves. He has so much work on the books that he needs assistance, but this too brings difficulties. One eye is always on his helper, diluting his concentration on his own task, and dissolving the tranquillity of the workshop.

David, like many of us, is a solitary bee, and is happy working alone. It's a funny one this. It doesn't look like a good deal. His principal reward is the satisfaction he provides for his customers,



3 The Tulip Cupboard. The cut-outs are backed by blue glass. I like this, and as a student project I think it shows his potential, but for David, it was not a happy piece. He doesn't like the supporting batons or the light fitting assembly. "The doors were what I was making. The cabinet behind was a bit of an afterthought." It now resides in his garage





4 A lovely piece with poise and restraint; a solid oak dresser with Arts and Crafts echoes: all David's design. Notice the chamfered/octagonal legs, and the corresponding detail on the corners of the top and pediment, tying the piece together. I like the simplicity of the pediment: I think it is quite bold to be this modest. The main detail is metalwork

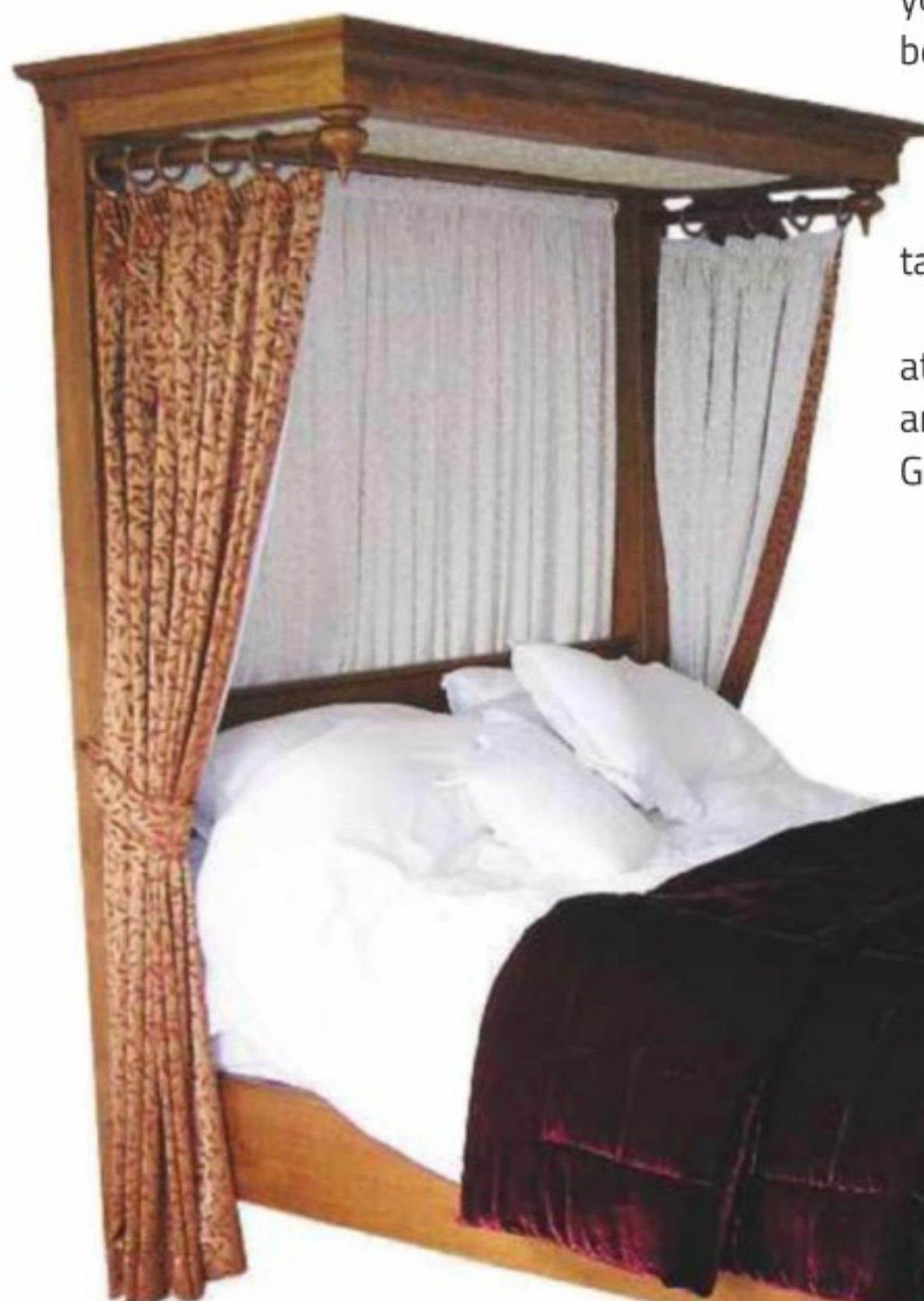
but his present workshop would not be suitable. What will he do?

I think his quandary is unnecessary. He already knows the answer. I ask him what his advice would be to aspiring makers. It is nothing to do with woodwork. "Get a good grounding in running



6 David collaborates with architects, designers and customers with clear ideas. This staircase involves a curved handrail, which is difficult enough, but also a continual curved string! Wouldn't you politely decline? I would

a business. Timekeeping. Self-discipline. But also know your clients. Aim for the sort



7 A half-tester bed made as a replacement for an heirloom lost in a fire. Oak and walnut



5 Coffee table in teak with bevelled glass. I ask if he finds teak difficult to glue. It is oily and best wiped with methylated spirit before using PVA: "It glues alright with polyurethane glue," he says. Does he use that much? "No." Messy, isn't it? "Horribly"

of client you want to work for. Not just because they have the money for the work you want to do, but because they're the sort of people you want to communicate with. Be more forthright with quotes."

Half of this, he's done well. He enjoys collaboration with designers. They gain, because they have been involved in the project, and this relieves him of the need to originate design. The other half is not his strength. Here, dare I say, Rycotewood has failed him. He has not been adequately rewarded for his excellent work. He hasn't made enough money.

There are many of us like David. We love making things; we're happy in humble surroundings, largely alone. We don't want to stand up and shout about our work: we want it to sell itself. It doesn't.

Distinguish between quality and saleability. You might think that to sell you have to be a top quality maker (which David is). Wrong. To sell, you have to actively sell. If you do this, you will be financially successful even if your work is not top notch. Selling and self-promotion are skills in themselves and though they don't come easily to all of us, they can be learned (I'm talking theoretically here: I still don't do it myself).

Exhibitions are one way (photo 5 was taken at the Honiton Show some years ago) but they are expensive in time, money and effort. The Guild of Craftsman connection produced some



8 Porch with oak truss and door. A collaboration with the customer and a mason using Portland stone to echo a fireplace. David's work is fine, but I'd question the overall balance. Doesn't the (rather beautiful) truss diminish the door? The stonework might have been sacrificed (why imitate an interior feature?) in favour of a wider, heavier doorway

TECHNICAL Home truths

work but only just paid for itself. He has no showroom. Few people will accidentally pass his workshop, and if they do, they'll have little idea what goes on inside.

A thought occurs to me. Dunkeswell airfield is now an industrial complex consisting of spanking new units and dilapidated old ones. At the end of his road, in a gigantic hangar, is an auction house, one of the biggest in the country. Several days every month, a river of people flows by his door, a proportion of which has a personal or professional interest in the acquisition of all manner of hardware including... furniture! What would it cost him to put up a billboard? Next to nothing.

Do or die

Next year, he says, is do or die. This is awful. Such skill and talent should not be allowed to die. Now the story bites its tail. We work alone; we like working alone, but that means we have to do it all from making the tea, to fending off insistent documentary film makers (joke). There are enough strictures inherent in furniture-making without the additional demands of marketing.

What each of us needs is an agent: a bluff, blousy, charming and irresistible ambassador who, for a mere 15% (which they will generate) points out to all and sundry potential customers, whether they're initially interested or not, quite how wonderful our work is, 'and how customers' lives are going to be so much the less unless they commission a piece, which, from a man like David, is as good as an investment, and is certainly an



9 Another student piece, the task being to replicate an existing Chippendale-style chair. This is David's first attempt at carving. That tells you something about his natural talent. Steamed Swiss pear has a pinkish hue and is crisp and creamy to work

investment in the future of our children who will one day inherit the piece; the piece becoming an heirloom and additionally emotionally valuable. Consider a major wedding present that really means something, and will enhance day to day life for the rest of their years; carrying a memory of you the matriarch/patriarch who sponsored it;



10 A case for a barograph in oak. A copy of an original piece, with size differences and the addition of a drawer

bolting that memory in solid fact; a heritage piece not part of our throwaway culture, but lasting, even for centuries, sustainable and respectful of our endangered ecosystem. So to be sure that David can fit you in, contact him straight away before his order books begin to bulge and you've missed your opportunity. You may not get another. That sort of thing. Maybe. ✕

FURTHER INFORMATION

David Lloyd – Cabinetmaker

Tel: 01404 891 800

Web: www.davidlloyd cabinetmaker.co.uk



11 Not your average kitchen cupboard. A copy of a 1920s piece complete with enamelled work surfaces (the original had little glass drawers) and leaded panes. Limed English oak

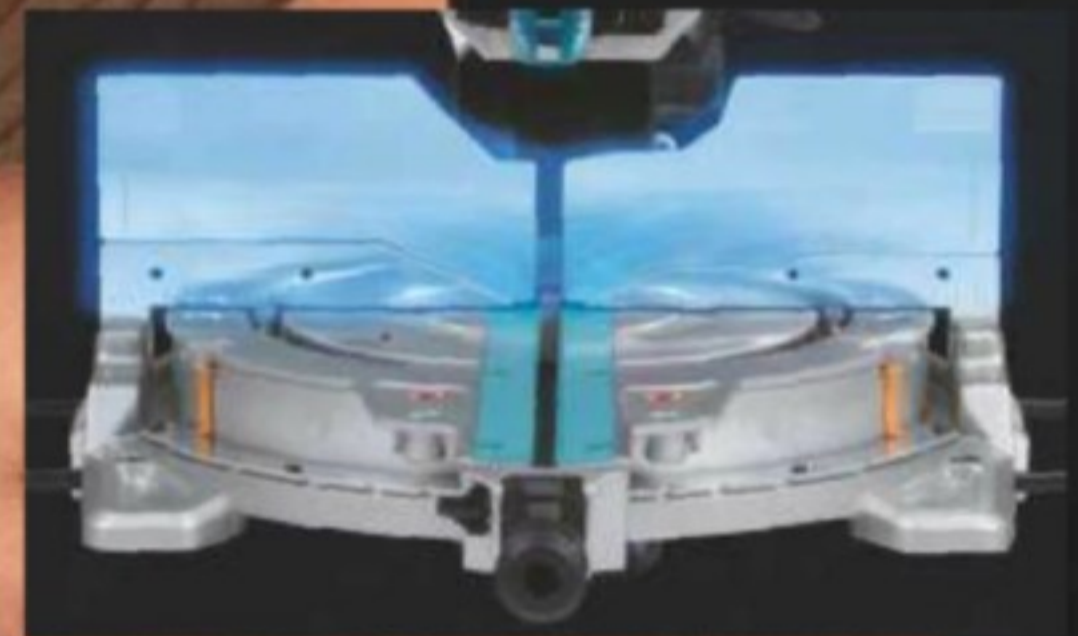
OUR NEW DXT MITRE SAWS



Improved two port dust extraction system



Saw can be placed against a wall and still slide freely



Quick and easy to remove guide fences for bevel cuts

DXT

Deep and Exact Cutting Technology

Slide Compound Mitre Saw

305mm: LS1219

305mm + Laser: LS1219L

260mm: LS1019

260mm + Laser: LS1019L

Makita

Visit www.makita.uk.com to see our full range

AROUND THE HOUSE WITH PHIL DAVY



There are many reasons why people build stuff, whether it's from wood or any other material. For most of us it's a hobby (which may become an obsession) or perhaps we like a challenge or want to acquire new skills. It may be out of necessity, the need to save money, or possibly to relieve boredom. For a handful of people it's attempting a world record. You can't help admiring Wiltshire modeller Barry King, then, who is building a scale model of Salisbury Cathedral. So far it's taken him over six years to complete the west front, using a mere 800,000 sticks in the process. He reckons it should take another 15 years to complete the project, estimating a total of six million sticks. I can't see many people queuing up to snatch the title from him, but I could be wrong!



Barry King and his incredible matchstick interpretation of Salisbury Cathedral

USEFUL KIT/PRODUCT FAITHFULL ANGLE GAUGE

Most woodworkers will have come across Faithfull products, even if they've never actually owned one. Good, reliable hand tools that do what they're designed for but are perhaps not always too inspiring. That perception could well change, however, with the introduction of their new Prestige range, a collection of high quality measuring and marking tools. These may not be the cheapest tools out there, but then most woodworkers appreciate quality and are prepared to pay for it. And each product has a 10-year warranty, too.

All tools are made from black, anodised aluminium, with clear laser-etched graduations and markings. First up is the angle gauge, a simple protractor that's lightweight but still sturdy. With a diameter of around 150mm, the protractor is marked in 1° increments from 0-180°, as you'd expect. Midway along the bottom edge is mounted a swivelling bar that acts as a pointer at one end. This is elegantly shaped, with a narrow indicator line that enables you to read off the angle on the outer scale.



Attached with a knurled thumbscrew, adjustment is a cinch, the 270mm bar staying firmly locked where you need it. Both bar and protractor are 2.5mm thick, so they're unlikely to bend.

Conclusion

This gauge is accurate and easy to read, not always the case with some measuring kit. All in all, this is a straightforward tool that works well.

SPECIFICATION

Size: 150 x 270mm

Typical price: £21

Web: www.faithfulltools.com



The angle gauge is a simple protractor that's lightweight but still sturdy



The swivelling bar is elegantly shaped, with a narrow indicator line that enables you to read off the angle on the outer scale

THE VERDICT

PROS

- Build quality ensures accuracy

CONS

- No end hole for storage on hook

RATING: 4.5 out of 5

USEFUL KIT/PRODUCT FAITHFULL MITRE SAW PROTRACTOR

Using a sliding bevel to determine an internal or external angle is all well and good, but it doesn't actually show the angle required in degrees. Often, you next have to draw this angle on to a piece of wood or board without disturbing the tool's blade setting. You may then need to use a protractor to read the angle, then halve this if cutting a mitre or similar. Alternatively, bisect the angle with a compass if you enjoy a spot of geometry. All a bit tedious, but for setting up or marking accurate mitres that aren't actually

45° it's a reliable solution. If using a mitre saw you then need to set the blade accurately for the cut.

A digital angle finder makes life somewhat easier, though you'll still need to halve the read-out. Faithfull have a neat alternative with their mitre saw protractor, especially if you're not keen on digital readouts.

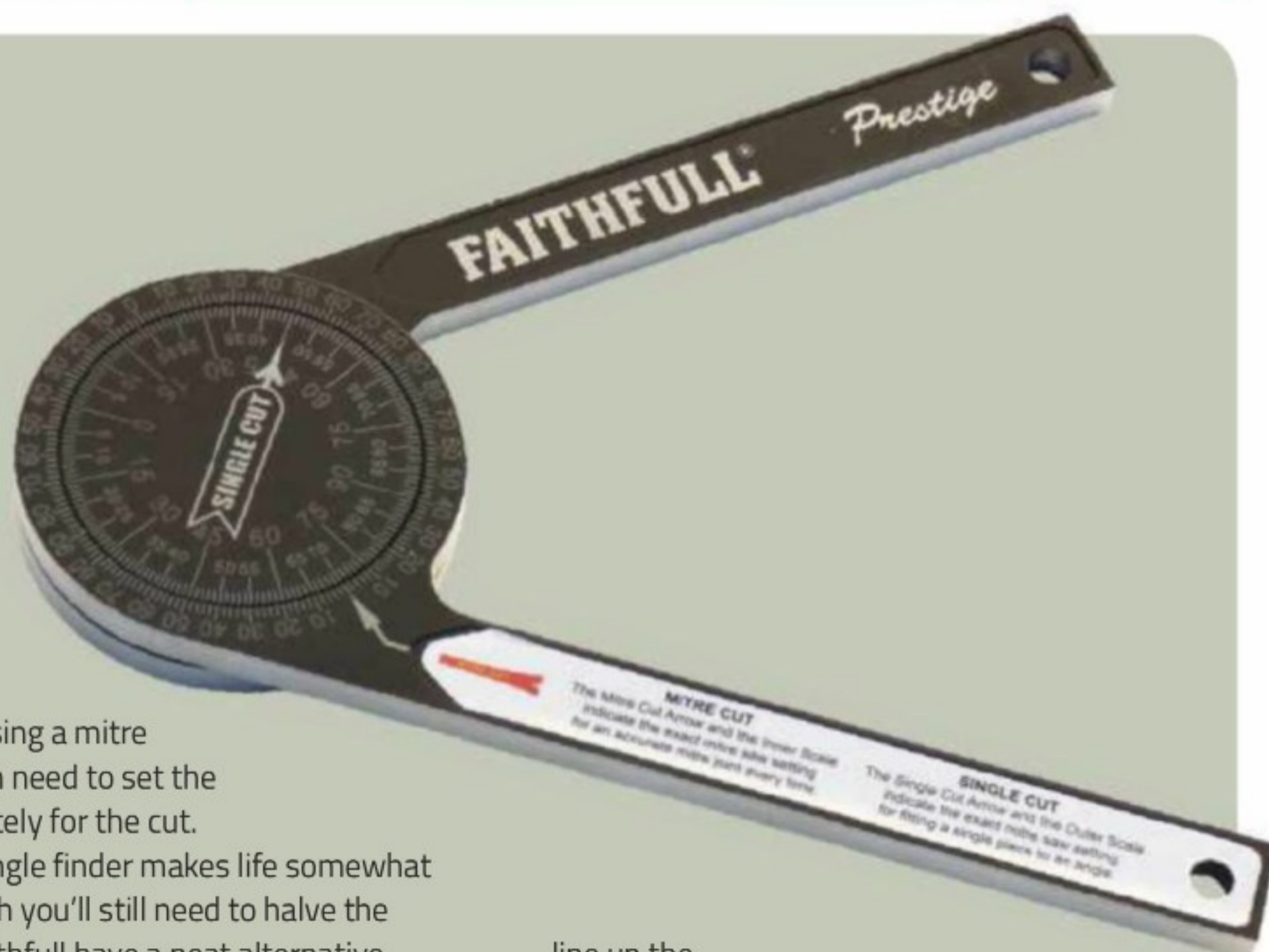
Consisting of twin arms that can be rotated to any position, this is a substantial tool. Both arms are 6mm thick solid aluminium and nicely finished. They're connected by a hex screw underneath, providing a satisfying sliding action as you open them out. There's enough resistance so they stay exactly where you've set them to, though. Overall length is 185mm in closed format.

Clear inner and outer scales rotate around each other as you move the arms. For a single cut you

line up the appropriate arrow with the outer scale. For setting a mitre cut you line up a different arrow with the inner scale. It sounds complicated but it's easy in practice.

Conclusion

This protractor is fairly compact, so you could store it in a pocket if necessary. It's great to use for tasks such as fitting skirting, where walls are not always square. It should make setting up your mitre saw that bit easier.



There's enough resistance so the arms stay exactly where you've set them



For a single cut you line up the appropriate arrow with the outer scale



For setting a mitre cut you line up a different arrow with the inner scale



It's great to use for tasks such as fitting skirting, where walls are not always square



The gauge can also be used to set the exact blade angle required on a mitre saw

SPECIFICATION

Typical price: £35.96
Web: www.faithfulltools.com

THE VERDICT

PROS

- Lovely sliding movement

CONS

- Don't throw it in the toolbox!

RATING: 5 out of 5



WINTER PROJECT GARAGE ROOF

Takes: 10 days

Tools you'll need: Circular saw, cordless drill, impact driver, jigsaw, mitre saw, SDS drill

WORKSHOP ROOF REVAMP

With the arrival of winter, Phil Davy gets to grips with a garage workshop roof revamp to ensure his valuable tools and machinery are protected from the elements

There are probably thousands of woodworkers across the country who use a garage as a workshop. Some may even keep their car in it as well, though that's probably stretching things a bit... A garage may be a fantastic resource, but they're not without their problems. Aside from security issues, probably the biggest problem is the flat roof, assuming it's a single-storey construction. Invariably these are covered in layers of bituminous felt, which have a limited lifespan. Once felt has lost its battle with the elements – scorching sun, torrential rain, ice and snow – the roof begins to leak. Patching up this felt is usually a temporary measure, and sooner or later it will need to be replaced. This means stripping off the old felt and installing a new covering.

Leaning joists

Intending to convert my recently acquired garage into a workshop, it didn't take long to discover the felt was in a pretty poor state following last winter's heavy downpours. Anything stored inside had to be covered with plastic sheeting to prevent

getting soaked, with buckets placed strategically around the floor to catch drips. Not only did the felt need stripping off, but the joists also needed to be replaced. Whoever built the garage had cut corners and used second-hand timber – never a good idea. Some joists had woodworm, while their dimensions were random, with varying thicknesses and depths. And joist spacings weren't uniform, either.

Any flat roof should have a slight fall (minimum 1:60) to allow rainwater to run off. Where a garage is attached to a house the fall is invariably away from the building, with guttering screwed to a fascia board to collect the water.

During construction, joists are usually installed level with each other, with tapered furring pieces nailed above them to create the necessary fall. Rather oddly, on my garage the roof slopes from front to back. This may have been so that guttering would only be visible from the rear, as there's also a low parapet running down the side. To create the fall, the original joists were tilted over, so they were actually in line along the top. A strange way to build a flat roof and

far more complicated than it needed to be... Whatever, without removing a fair amount of blockwork beneath the parapet wall it meant we had to install new timbers the same way. The original joists had been housed into the side wall of the house, though these weren't evenly spaced, either. Although the dimensions seemed like overkill, it was cheaper to buy 225 x 50mm softwood than anything smaller in size. And this was joinery grade timber, too, with very few knots.

Rubber membrane

Although the old roof consisted of flooring timber, these days it's more economical to fit sheets of 19mm OSB (oriented strand board) to the joists. Also known as sterling board, you should always use exterior grade (OSB 3) material for roofing work. It's water-resistant, cheaper than plywood and has excellent load-bearing qualities.

Having had my fair share of patching up flat roofs over the years, I opted for an EPDM system (a synthetic rubber membrane), rather than traditional felt. Made by Firestone, the thin membrane is glued to the surface and actually has a far longer lifespan than felt, plus it's cheaper.

At least the new roof should be watertight for a good few years to come. I'm toying with the idea of adding insulation and fitting a ceiling, though the new timber looks fantastic from below. It seems a shame to conceal the joists, though ultimately it will depend on noise levels and heat loss. Watch this space!



1 The bituminous felt on the existing garage roof was in a bad way, having cracked in several places. It needed replacing urgently before winter



2 Although some of the old joists were sound, several had woodworm. Using second-hand timbers had certainly been false economy here



3 Water was coming in through the roof in several places, making it hazardous above electrical cables, light fittings and two consumer units



4 Stripping old roofing felt is often easier with a spade or similar tool. There are likely to be two or three layers on a flat roof, along with nails



5 With the debris removed you can start removing the deck boards, working across the roof. Make sure you have at least one ladder in place first



6 The existing joists had been built into the wall, so sawing through makes them easier to remove. Make sure cables are not in the way



7 Measure and cut the first joist to length. If using a circular saw, use a guide clamp to ensure each cut is at 90°



8 Brush a couple of coats of preservative on to the sawn ends. The remaining surfaces will be sprayed once the joists are fixed in position



9 Starting at one end of the garage, place the first joist in position. This one sits on blockwork at each end and will be secured with steel straps



10 Where recesses in the wall are poorly spaced you may need to cut new ones. Use an SDS hammer drill to bore holes before using a bolster



11 Notch joists around pipework or other obstructions. Insert joists into the wall and fill each cavity with mortar once they're finally in position



12 Cutting new holes in the outer parapet may disturb the structure, so it can be easier to fix joists with galvanised steel 'L' brackets



13 You may need to trim joists using steel hangers. These are nailed and enable you to make fast, strong butt joints at 90°



14 Bend the straps tightly over the top of adjoining joists. Use galvanised wire nails, starting from the bottom and working up



15 Here, most of the joists are fixed in their final positions. Use a long board as a straightedge to check that upper surfaces are all in line



16 Where there's insufficient space for hangers you can fix joists with 6.0 x 100mm screws. Drill pilot holes and drive home with an impact driver



17 Lay the first OSB sheet across the roof, checking one edge is centred along a joist. Sheets should be fixed with markings face down



18 For accuracy, cut sheets to size with a circular saw. Use a guide clamp for a neat edge, or fix a straight batten temporarily in place



19 Fix the sheets down to the joists with countersunk screws, rather than nails. Nails could lift over time and puncture the roof covering



20 Joints should be staggered where the sheets are butted together. To allow for expansion, use 3mm thick spacers between each board



21 You'll need to cut several smaller pieces, but don't assume internal corners are square. Check the sheet edges butt together centrally over joists



22 Use a jigsaw to cut boards around obstacles. These don't need to fit too tightly against the walls as any gaps will be covered by arris rails



23 Arris rail is fixed around the perimeter of the roof tight to the walls. Cut sections to length with a powered mitre saw or with a hand saw



24 Screw each piece of arris rail to the decking. It enables the roof covering to continue smoothly upwards, rather than resulting in a sharp bend



25 The finished roof with arris rails fitted. It should be completely flat, with sufficient fall to allow rainwater to run off effectively into the guttering



26 The gap at the end of the adjoining roof is filled with a piece of OSB board. Use a sliding bevel to determine the angle for marking and cutting



27 Once the roof covering is completed the arris rail is covered with lead flashing. The wall is chased out with an angle grinder to create the groove



28 Sweep the roof clean, ready for the EPDM covering, which is cut in one piece. Once up on the roof, this is unrolled and the sides folded over



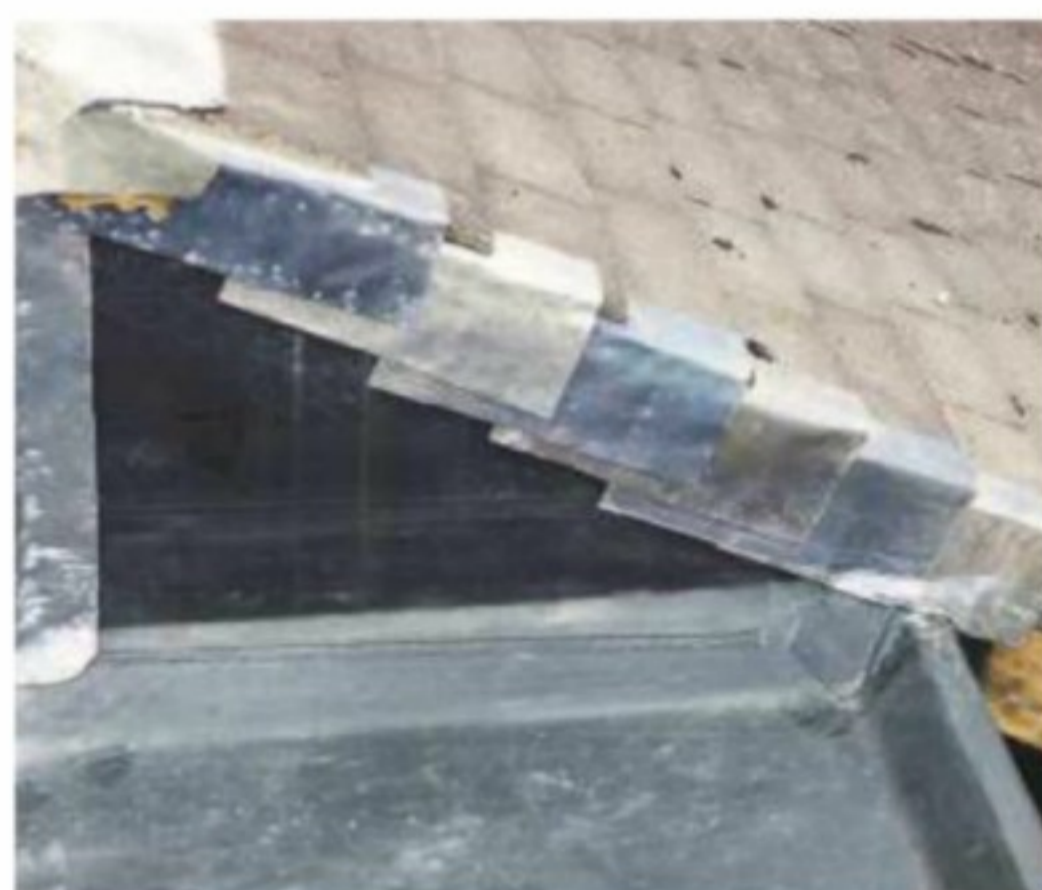
29 The rubber is glued to the decking with an industrial adhesive. This is applied with a roller and the membrane unfolded and spread across the roof



30 An industrial contact adhesive is used to glue the rubber up and over the parapet wall. It's then tightly tucked beneath a horizontal batten



31 The membrane covers the perimeter arris rails. Lead flashing is then shaped, slotting into the gap around the wall and finished with sealant



32 Overlapping lead flashing is cut and folded under each tile on the adjoining roof. This forms the first line of defence against the elements



33 Corners and upstands are covered with tough, self-adhesive rubber strips. These are stretched in place to follow the contours underneath



34 The completed roof and parapet wall, covered in a single piece of EPDM sheeting. Hopefully this will last for a good many years!



35 Trimming joists around the consumer units and other obstacles made a tricky job rather easier. Lighting cables will be re-routed along joists



36 Fascia boards will be fitted to the front and rear joists, sliding into the gap behind the rubber. Decorative cladding will be nailed across the front

Tradition • Innovation • Passion

BASA 3

306mm Vario Speed Bandsaw

TRADE

205mm 306mm



OFFER PRICE
£469.99
SSP £499.99

- Unique adjustable vario drive
- Cast-iron table tilting from -8° to +45°
- Quick-clamping lever for saw blade
- Maximum depth of cut 205 mm
- Throat depth 306 mm
- Precision rip fence with magnified scale which can be set both left and right of bandsaw blade
- Leg stand with wheel kit included

HBS30

200mm Bandsaw

HOBBY

80mm 200mm

IDEAL HOBBY BANDSAW

- Powerful induction motor for quiet and precise cutting
- Extension Table size: 300 x 380 - 520mm



OFFER PRICE
£149.99
SSP £169.99

INCLUDES 3 SAWBLADES

HBS261

245mm Bandsaw

LIGHT TRADE ONLY

120mm 245mm



OFFER PRICE
£229.99
SSP £249.99

- Extension Table Size: 300x380 - 535mm
- 2 x Blades + Mitre guide

HBS250

245mm 2 Speed Bandsaw

LIGHT TRADE ONLY

120mm 245mm



OFFER PRICE
£249.99
SSP £269.99

- Solid table which is tiltable from 0° to 45°
- Extension table size: 300x360 - 520mm
- Long ripping fence

PLUS BUNDLE OFFER

Buy any other machine on this advert and get the

HA1000 for just
50L Dust Collector

OFFER PRICE
£99.99
SSP £119.99



OFFER ENDS: 31st December 2019. Carriage paid UK Mainland ONLY. All Prices INC VAT

VISIT WWW.NMATOOLS.CO.UK FOR SPECIAL PRICES & MUCH MUCH MORE!



TURNING ALCHEMY: WOOD INTO METAL

Is **Les Thorne's** latest piece made using wood or metal, or perhaps a combination of both? Read on to discover his trade secrets and how he uses woodturning alchemy to create stunning items such as this one

Making wood look like something else is not a new form of decoration by any means. Timber has been gold leafed, painted, and the Georgians were particularly fond of decorating timber to look like marble. I was introduced to the alchemy of turning wood into metal by Nick Agar in combination with a book that showed you how to make carved wooden figures look like old bronzes with verdigris wax. This series of work will feature much more over the coming months, and as I was working on this particular piece, I was thinking of ideas for boxes and bowls in smaller and larger sizes than the one shown here, so watch this space.

A thing that worried me as I got towards the end of the project was how accurate I needed to be with the drilling, but there is a little flexibility in how the legs are attached, and luckily I seemed to get it right first time. The question is, have I got away with making the legs and rim look like they are no longer made of wood? Well, a couple of people have seen it in the workshop and asked who did the metalwork for me...! ✕

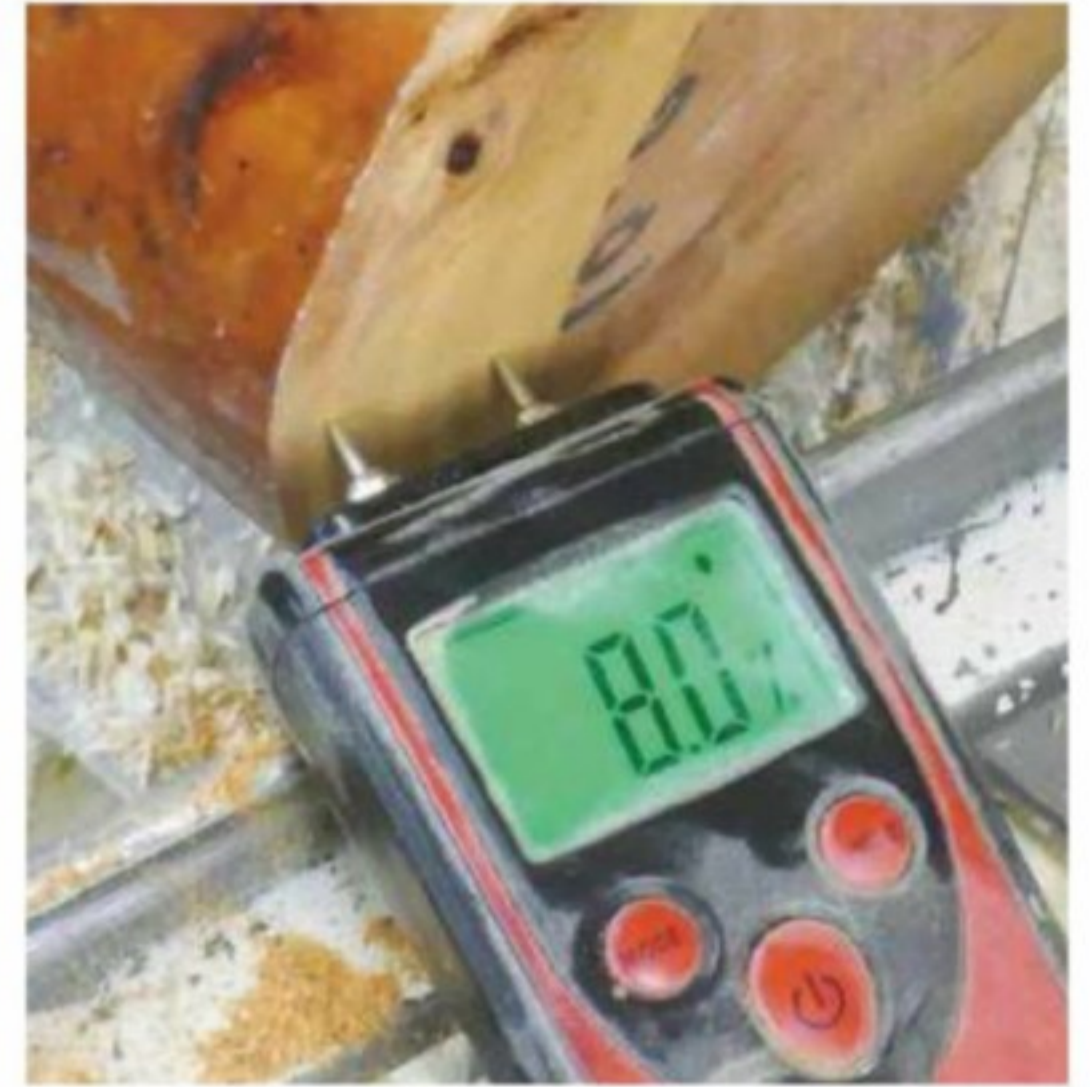




1 The shape of the legs in relation to the bowl is an important part of the design, so to get it from my head into reality meant making a mock-up from an old roughed-out bowl and some MDF



2 The bowl section is made from yew wood and you can tell from the low price tag how long it's been in my store! The bark inclusions and splits should mostly disappear in the shaping of the bowl



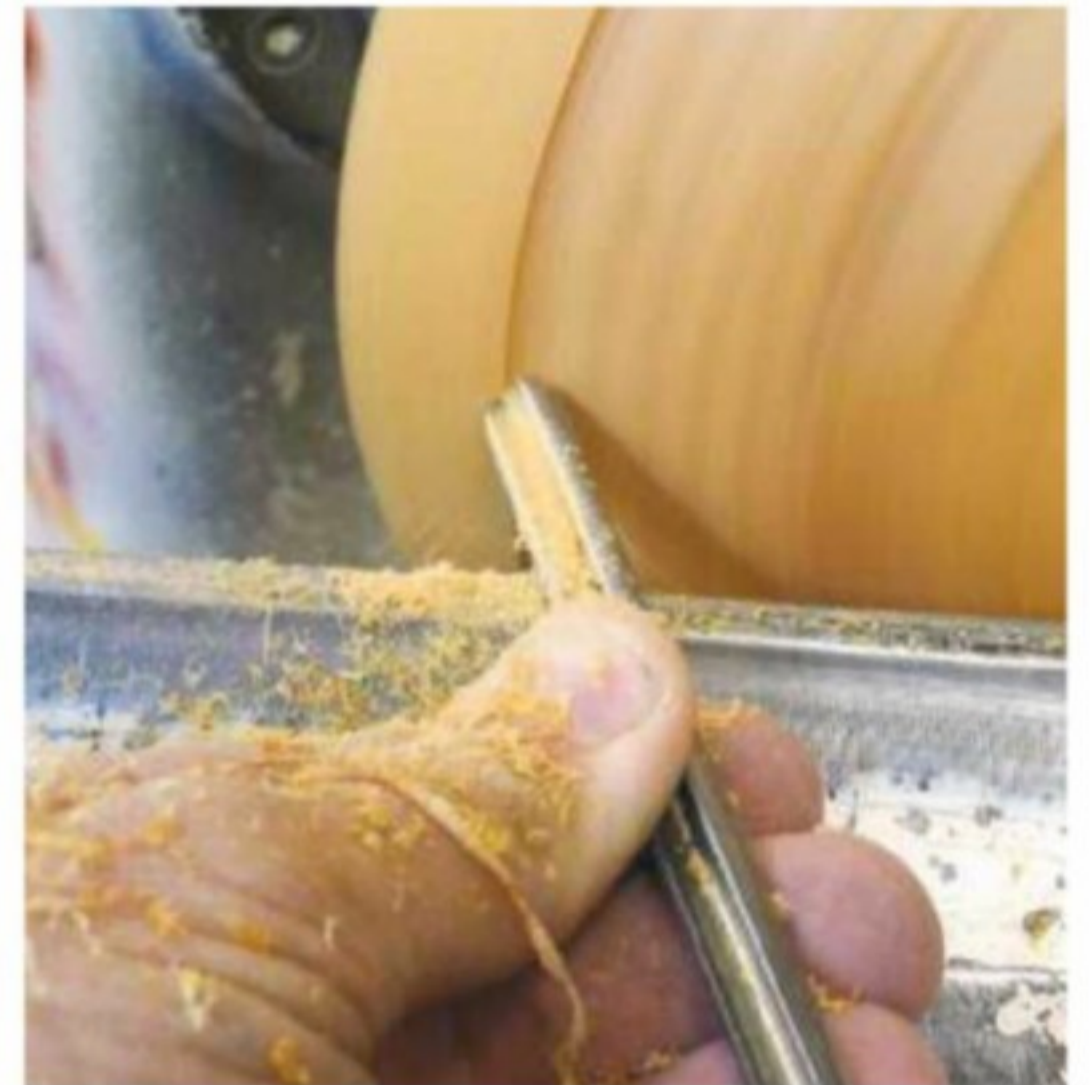
3 The stamp on the front says part-seasoned and that's often used as a disclaimer, especially when the timber is air-dried. The moisture meter is saying 8% so I don't think there is any problem with this blank being seasoned



4 A common occurrence in yew is this type of silver shake. If you see it, make sure that it doesn't affect the strength of the timber. In this case it's only on the edge and I will be able to hide it when it comes to adding texture and colour later on



5 I am using a spigot on the base as opposed to a recess as it allows me to remove it and give the bowl a round bottom. The dividers are set to the diameter of my chuck jaws



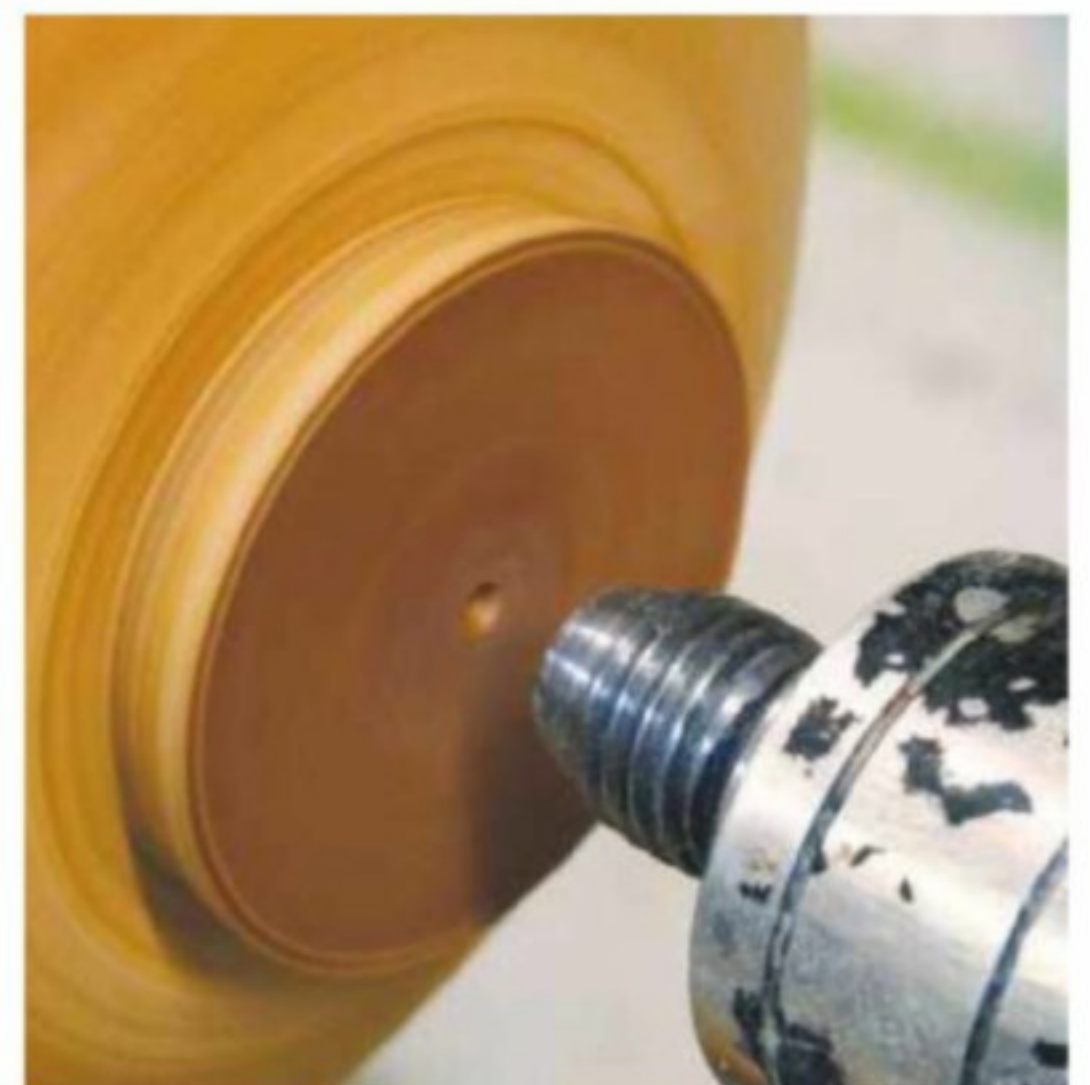
6 I turn very little yew in my production work, so it's a pleasure to work with a piece every now and then. The small bowl gouge with a 40° grind leaves about as good a finish as possible when you get the bevel in contact with the surface of the bowl



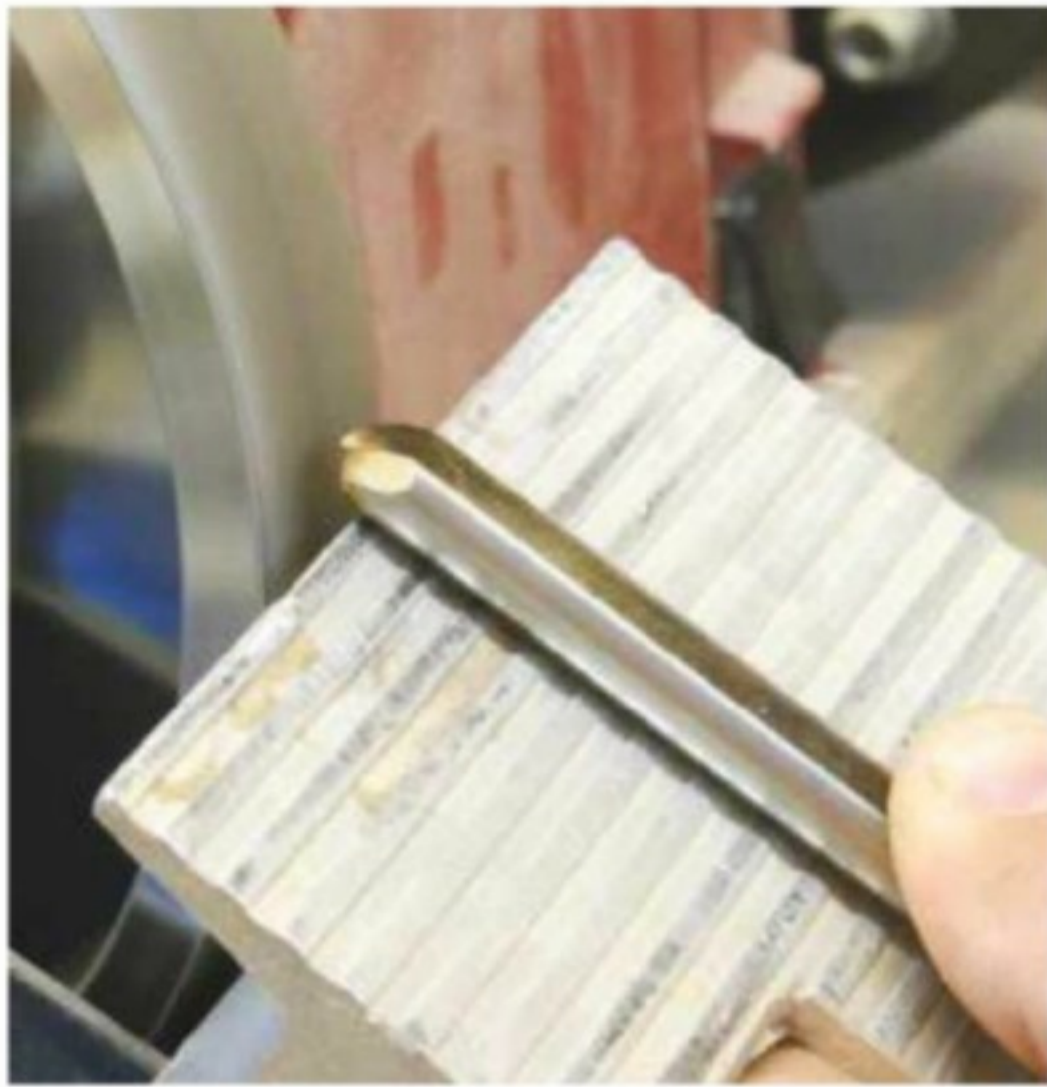
7 I am using the MDF legs from the sample piece as my template for the curve. If you are trying to get a really good shape on a bowl, there is no shame in using something as a guide. All you have to do is keep removing timber until it fits the curve



8 The texture on the rim is achieved with a ball-type cutter mounted in a mini drill. When doing this kind of decorating, make sure your hands are in a comfortable position. I prefer to move the bowl against the drill bit rather than moving the drill to the wood



9 It's important to accurately mark the centre of the spigot so you can remount the bowl and remove the spigot. I've just brought the tailstock up and made a mark in the bottom



10 I start the hollowing of the bowl with my small bowl gouge. The 40° gouge is sharpened by first setting the grinder's platform to the correct angle. The tool is presented to the wheel straight on before swinging from side to side, which gives the best angle possible on the tool



11 The texture will go across the top and slightly inside, so that's the first part to complete. The small groove is important as that's the junction between the textured and natural wood



12 Once textured and before painting, I like to get the surface as smooth as possible. A combination of a brass rotary brush and abrasive cloth will prepare this for the first coat of colour



13 After sealing the texture with sanding sealer, I lightly cut back the surface before using ebonising lacquer. At this stage, I'm not worried about keeping within the lines as this area will be turned away with the overspray



14 Next, I apply silver gilt cream to the surface with a brush. I've only put the minimum amount of silver on the bristles before lightly rubbing across the high points of the texture. There are plenty of videos on YouTube that show dry brushing techniques



15 Once the surface is covered with silver, you can then buff it off. The gilt cream is a wax and will buff up nicely giving you a metallic sheen that will greatly add to the overall effect. At this stage I give the edge a quick spray with satin lacquer



16 The rest of the bowl can now be turned. The part directly under the coloured rim has to be treated with care as you want to keep the contrast between the two surfaces as crisp as possible



17 When the small gouge vibrates due to the overhang off the toolrest, it's time to switch to a bigger tool. I've increased the angle to 55° on this 13mm gouge, which will allow the bevel to rub much easier in the bottom



18 There's no substitute for your fingers when it comes to checking whether the curve is correct in the bottom. I use my fingers like a pair of callipers to see if the curve on the outside matches that on the inside



19 Sand the inside down to 400 grit making sure you don't generate too much heat, as this can cause the end-grain to case harden and crack. Next, after sealing, give the inside a spray with acrylic satin lacquer or a paste wax



20 The outside needs to be turned once again, being careful not to remove any of the texture and colour. I've trapped the top edge against an MDF-covered faceplate using light tailstock pressure



21 Here I'm merging the spigot into the curve of the bowl with the small gouge and then when happy with the final shape of the outside, sand the surface to 400 grit – the same as for the inside



22 I now need to accurately mark three lines on the outside; this will position the legs evenly around the bowl. I have 48-point indexing on the Oneway lathe, so I can easily put pencil lines on some masking tape stuck to the bowl



23 Drill a 10mm hole in the base of the bowl; this will accept the spigot from the drop finial. The best way to do this is on the pillar drill, which is much more accurate than trying to do it by hand



24 Any old piece of scrap wood is fine for the finial – this just happens to be a piece of oak. I hold the 20mm square stock in some pin jaws and then turn a simple flame shape with a 10mm spigot, which suits the hole I previously drilled



25 The finial is treated in the same way as the rim and legs. I did try having it just plain black at the start, but it definitely looks better textured and coloured. Clean the paint off the spigot before gluing to the base



26 The shape of the legs can then be transferred onto some planed 15mm beech – I already had this piece in the workshop. It does seem a waste of wood so I'll have to come up with a project which makes use of the offcuts



27 Stick three pieces of beech together using some double-sided carpet tape, then cut them out on the bandsaw. You need to cut slightly outside of the pencil line at this stage



28 If you don't have access to a bobbin sander, you can make a rotary drum sander for the lathe. The three legs are still stuck together at this stage, which ensures they will all end up the same shape



29 The legs are textured using a different burr – here I'm using a SaburrTooth carbide as it's a little more aggressive and makes the lumps and bumps more pronounced. I'm using the toolrest as a hand-rest while doing this, which makes the tool much more controllable



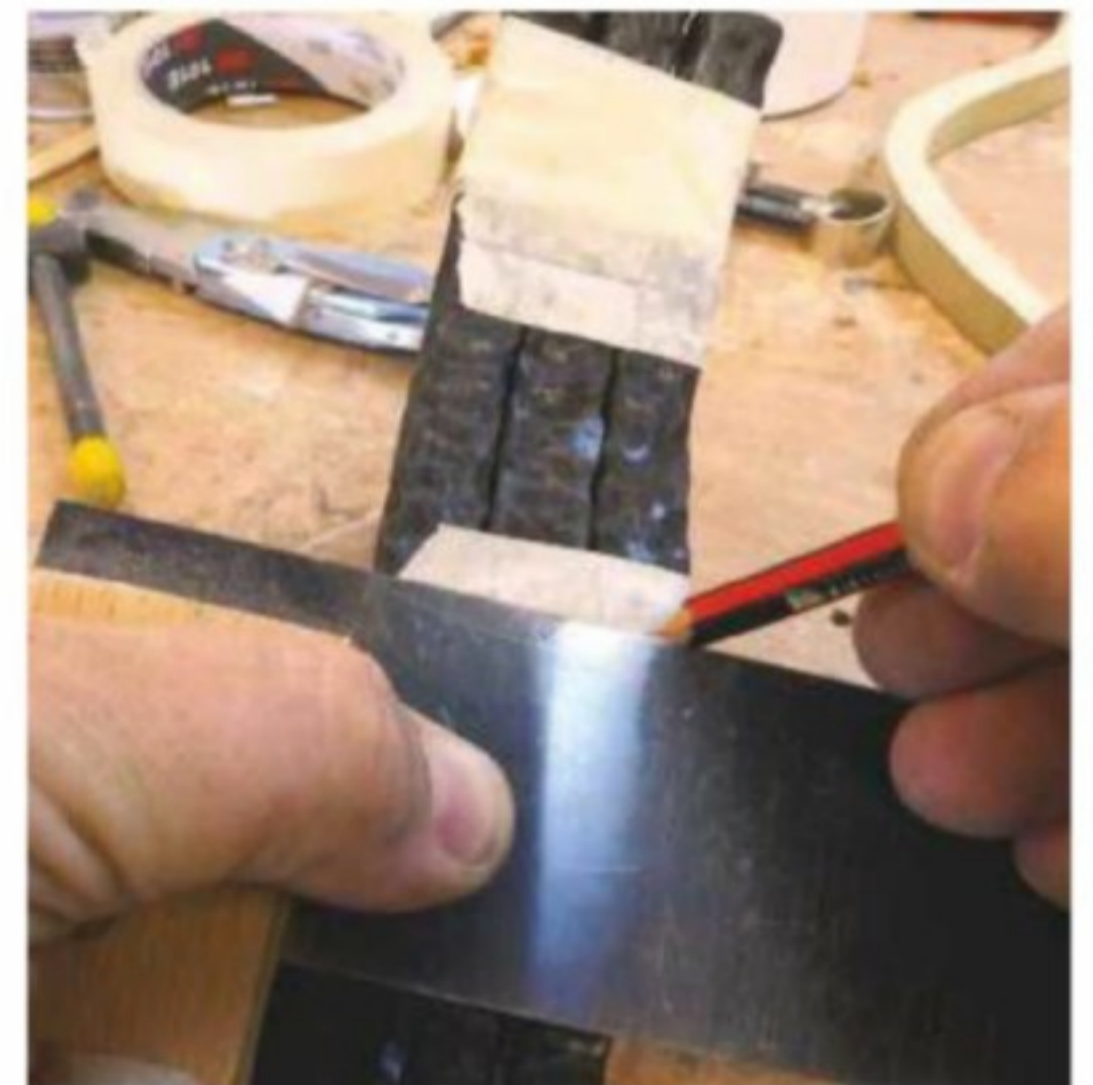
30 The burr leaves a rough surface, so I give the texture a going over with a blowtorch. This softens up the texture and makes the legs feel smoother, especially after cleaning up on the lathe-mounted brass wheel



31 Holding the legs so they can be sprayed is just a matter of gluing them to a piece of scrap wood with a hot glue gun. When the paint is dry, I'll go over it with the silver gilt cream before spraying with the clear lacquer



32 To keep my options open, at this stage, I'd not drilled the bowl. I'd actually wanted to use real metal pins, but at the last minute I changed my mind and went for 6mm dowel sprayed black. Using a bradawl meant the drill started in the right place



33 The position of the holes on the bowl can then be transferred to the legs before drilling with 6mm holes. Keeping the angle of the holes at right angles to all the curved surfaces seems to work quite well



34 Next, glue the pins in with PVA glue together with a tiny amount of medium viscosity CA adhesive, which should be applied to the hole first. This is because the CA goes off so quickly, which means it will hold the pin in position until the PVA is dry



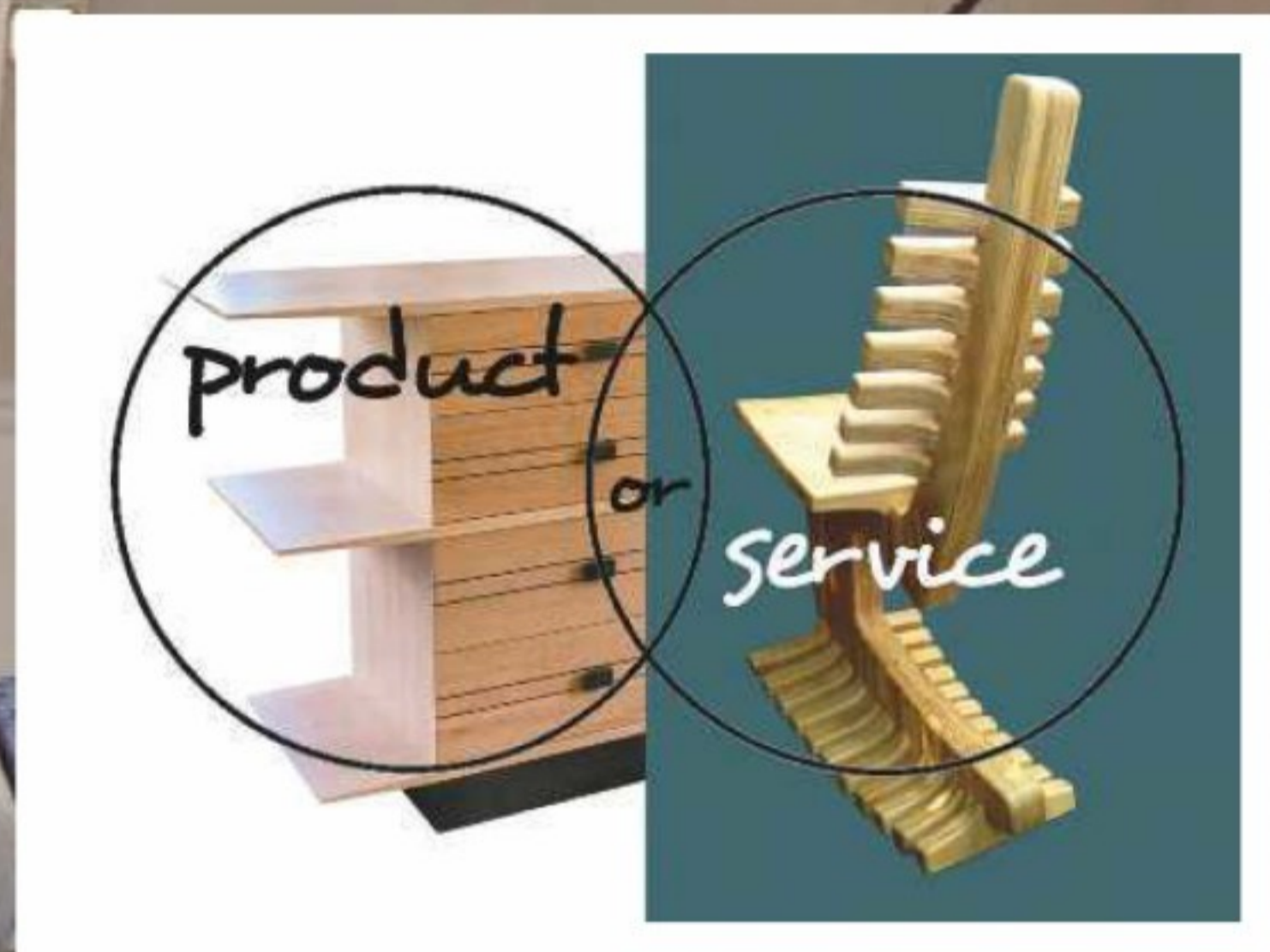
35 Once you're happy with how the legs look and the angle on the bottom is correct, allowing them to sit properly on a surface, you can glue the legs on. Mine went together with a little bit of tension, which makes the piece more stable



36 The completed carved and textured three-legged bowl should look something like this

FURNITURE PRODUCT OR SERVICE?

Furniture designer-maker **Jeremy Broun** challenges the status quo of the one-off market by inviting fellow maker **Andrew Lawton** to argue the case at the Gordon Russell Design Museum



Jeremy Broun and Andrew Lawton giving the lecture

The trend in furniture making since the 1970s British Furniture Crafts Revival has focused on the somewhat exclusive and expensive one-off market. This is not to say there aren't furniture makers whose work isn't centred around successfully creating a repeatable product to a price, but there appear to be fewer of them.

I suspect the default mode for small-scale makers is rooted in our class system and the village craftsman serving the lord of the manor but the aspirational model, certainly during my furniture making career, is to make very expensive furniture from the manor! And for too long design had been a niche interest until IKEA broke through the class barriers and opened up a design vocabulary to the masses.

It has always baffled me why there has been little conversation or analysis about the relative merits of creating a one-off; at best an expensive prototype destined for one client whose design input could compromise the design, against a developed and refined design-centred product that can be tightly costed with waste material minimised and directed at a broader market? Why do our educators (the furniture schools)

not include a period of time spent on the factory floor learning about the methodology of efficient manufacture when indeed furniture makers are mini manufacturers! But the term 'manufacture' is seldom used. Indeed, when I became involved with the British Crafts media (*Crafts* magazine) in the 1970s, 'batch' was a dirty word when applied to furniture, yet it is the norm if you're a potter!

A difficult craft

The reality for most furniture designer-makers, whether they rely on wealthy clients to commission one-offs, or a passing trade for cost conscious batch-produced items, is to rely on building fitted kitchens to pay the bills. Historically, most designer-makers have relied on part-time teaching (as I did) and a few of the names today charge substantial fees for their private furniture schools. So whatever your access to the market, flair for business and technical and creative skill, furniture has always been a difficult craft to make a living from, not least because of high capital costs, workshop space requirements and a wasteful and risky material.

In 2018 I decided to propose a lecture called 'Furniture – product or service?' and I approached

a long-standing designer-maker and friend Andrew Lawton to deliver it with me, first at the Society of Designer Craftsman AGM in that year, and in June of this year at the Gordon Russell Design Museum in Broadway.

Expense & exclusivity

This was an apt platform considering that Sir Gordon Russell was largely responsible for introducing design to the British public and is known for low-cost accessible utility furniture during World War II.

When Andrew and I pitched our respective arguments to an invited audience of Friends of the Gordon Russell Design Museum, I light-heartedly broke the ice by announcing that the last time I stood up in front of an audience (well, not the very last time) I was invited to speak at the Design Centre in London and a woman friend said to me: "Now Jeremy, you really must smarten yourself up for this one." So she took me on an expensive shopping spree in Oxford Street. On my hard-earned cash I bought an Armani suit and a hideously uncomfortable pair of handmade black leather Italian shoes that looked fantastic. So I went on to say: "Whereas this evening, ladies



Furniture maker Andrew Lawton discussing designs with a client

the design and therefore compromises arise? Andrew seemed an ideal partner in crime as he represented a very English maker with a proven track record for serving an essentially traditional client base, whereas my experience was more speculative in pushing innovative ideas that I could repeat. Despite our different approaches, we share common ground: we are both musicians performing in bands; we both knew the late Alan Peters OBE, who had a direct link with the Arts & Crafts tradition; and we have both had shop windows on busy roads from which to get valuable passing trade. Andrew still has his

and gentlemen, my whole outfit, including shoes, cost £64 from Brimart." Andrew Lawton chipped in at this point and said: "I think you mean Primark, Jez; BriMarc is a tool supplier!" To which I replied: "Oh, is that where you get your clothes from too, Andy?"

Jesting aside, I think few people would have detected the immaculately fitting jacket with its silk paisley style lining was not from Saville Row and not unlike IKEA furniture that is unrealistically inexpensive, but unlike IKEA, is not subject to instant prejudice that it is cheap junk. Well, the testing of an IKEA chair or kitchen drawer is infinitely more rigorous than by a bespoke maker and indeed part of my argument for product centred furniture making is that David can learn from Goliath as is the reverse case when major mass producers create a line of bespoke items as some do.

Clearly, having something that no one else can afford to own is a well-established niche, but probably, like everything else in Britain, is now a crowded marketplace.

But does expense and exclusivity ensure good design, and when the client is paying the price does he/she also call the tune regarding



Jeremy Broun's former shop window



Andrew Lawton's current shop window

shop window; I no longer make furniture full-time, and we are both judges for the Alan Peters Furniture Award (details of which can be found on pages 34-35). It is perhaps the influence of Alan Peters, whose furniture was affordable to discerning but not necessarily very wealthy people, that brought Andrew and myself together to deliver the first joint lecture at the Society of Designer Craftsman AGM.

Lecture summary

Andrew took to the floor first, making some amusing references to his early career training to be a primary school teacher, which clearly he was not cut out to be. He discussed the influence his father (a woodworker who was practising into his 90s) had on him and his early attempts of selling his work at the few furniture galleries that existed. He highlighted that the famous Prestcote gallery, on selling his work, was not interested in taking a repeat of the design, an experience I echoed. He illustrated some of the pros and cons of having a shop window adjoining his workshop, such as people walking in and chatting without intention of buying and recognising amateur woodworkers a mile off by their superior knowledge of timbers, but overall, this was a significant factor in getting his work seen and triggering commissions. He discussed the importance of building client relationships, making what people want and he described the process of early discussions, making mock-ups.

Much of Andrew's furniture is made using home-grown timbers and his business-like approach would establish fairly early on the kind of cost involved in making a customised piece, sometimes tailoring the design to the client's budget, if necessary. A deposit would always be asked for. Andrew described in detail a few case studies of commissions, all superbly clean line understated designs fulfilling their function,



Chest made by Andrew Lawton



A young Jeremy Broun making a rocking chair

drawing from a range of tables, cabinets and chests. He emphasised that he is not an innovator and does not make flamboyant furniture for celebrities, as his work is quieter, and his clients, not necessarily very rich, would likely be well educated people.

In summing up, he said that working with clients on new designs is constantly challenging and rewarding, that it was easier to get a realistic price for all the work involved in a one-off, with the downside being the trap of pandering to clients, wondering what to do with offcuts and the high capital start-up costs of running a well-equipped furniture workshop. This would be daunting to many today. Some of his machines included an old three-phase museum piece bandsaw alongside a state-of-the-art industrial drum sander.

My talk lasted for half an hour or so and focused on the 'product' approach and, similar to Andrew, there is some overlap. I discussed my early entry with limited equipment and no capital, almost being forced to dream up simple ideas that could be repeated, using my high-baked rocking chair as an example. I discussed my inspiration from travels to Scandinavia and seeing how mass-produced furniture was made. Selling from my own rented shop window on a busy major road and also lucky chance meetings resulting in commissions. My early experiences

of selling 'mail order furniture' and brushes over design theft settled out of court, but highlighting the importance of factoring difficulty into a repeat design that is hard to copy. The downside is marketing a product that is tightly costed but the upsides are low initial start-up costs and addressing problems of freighting and minimising material waste. I mentioned the role of robot manufacture (CNC) and highlighted the work of successful makers who had a product to sell, such as David Colwell with his steam-bent chairs. ✕



Table made by Andrew Lawton

FURTHER INFORMATION

The lecture 'Furniture – Product or Service?' has been edited into an 80-minute video download aimed primarily at colleges and is available here: www.woodomain.com/jeremy-broun-lectures



Creative Welsh Woodturning Ltd

Turners Tool Box

WOODTURNING – WOODWORKING – WOODCARVING

TOOLS & ACCESSORIES

Turner Tool Box
DAVID MARTIN

Log On To

www.turnerstoobox.com



NOVA Comet II VS Midi Lathe & G3 Reversible Chuck - PACKAGE DEAL



New Workshop Safety Protection against Dust



Glues

COLT



Next day delivery service (UK) & We deliver worldwide

For more information or to place your order visit www.turnerstoobox.com Order online Open 24hrs All at the click of a button and delivered straight to your door: Or place your order over the telephone: T: 01873 831 589 – M: 07931 405 131 – E: info@turnerstoobox.com Or david.martin70@outlook.com



Protect and enhance the natural beauty of wood with Treatex Hardwax Oil



Table designed and built by Jim Sharples Furniture



Treatex Hardwax Oil

protects and enhances the appearance of all types of internal wood surfaces including floors, stairs, doors, furniture and worktops. Treatex Hardwax Oil is manufactured on a base of natural sustainable raw materials: jojoba oil, linseed oil, sunflower oil, beeswax, candelilla wax and carnauba wax.

- Brings out the timber grain
- Adds warmth to wood
- Easy to apply
- Quick drying
- No sanding required between coats
- Low odour
- Resistant to spills of water, wine, beer, coffee, tea and fizzy drinks
- Withstands high temperatures
- Very durable
- Easy to clean and maintain
- Spot repairable
- Safe for use on children's toys



tel: 01844 260416
www.treatex.co.uk

AFTER WINTER COMES STRING

Get organised with these string boxes by **Dave Roberts**



Can't find your ball of string? Temper hanging by a thread? Never fear! All you need is one of my string boxes. There are some fine examples of string boxes around, usually to be found in

museums, and these early ones were usually turned in lignum vitae, boxwood or sycamore. However, I've turned many boxes of different shapes and sizes over the years, and one of my favourites for the job has to be... Well, if you're familiar with my turning you probably know already: it's yew, which is what I used for these two string boxes. One is turned in the form of an acorn; the other is a barrel with an ebony tap and knob, with small pieces of ebony inlaid to represent nails. We'll begin with the acorn.

Finding character

I selected the wood carefully and chose a piece with plenty of character, checking it over for any shakes. Sometimes shakes are hidden underneath the bark, but this isn't too much of a problem if they're small ones as you can always run a little cyanoacrylate adhesive into them. Pick off any loose bark before you put the blank onto the lathe, then use a spindle roughing gouge to turn it to a cylinder. If you use a parting tool you can square off one end of the blank, and fix it straight onto a screw chuck after you've drilled a pilot hole; this only needs to be small as the screw is required to bite into the timber. If you have a combination chuck, however, use this to give an even more secure hold on the blank (see 'The barrel' sidebar overleaf).

TOOLS YOU'LL NEED

- Jacobs chuck
- Screw chuck
- 7mm, 3mm & 2mm drill bits
- 12mm scraper
- Detail gouge
- Combination chuck
- 50mm Forstner bit
- Spindle roughing gouge
- Parting tool
- 6mm & 9mm gouges

If you drill the centre out first it will cut down the turning time, so fix a Forstner drill (I used a 50mm bit) into a Jacobs chuck, then put it into the tailstock; don't forget to put the lathe on a low speed while drilling the hole. The only successful way of removing the rest of the timber from the inside is with a scraper. When using this tool, don't forget to raise the rest slightly so as to lift the handle, and make sure you keep the tool sharp; the edge of the scraper will soon wear away, so you may find you'll have to re-sharpen it to ensure a good finish.

Once you've finished the inside you'll have to turn a recess for the spigot on the base. Bring the toolrest across the face of the acorn, then gently push the parting tool in. Make sure you

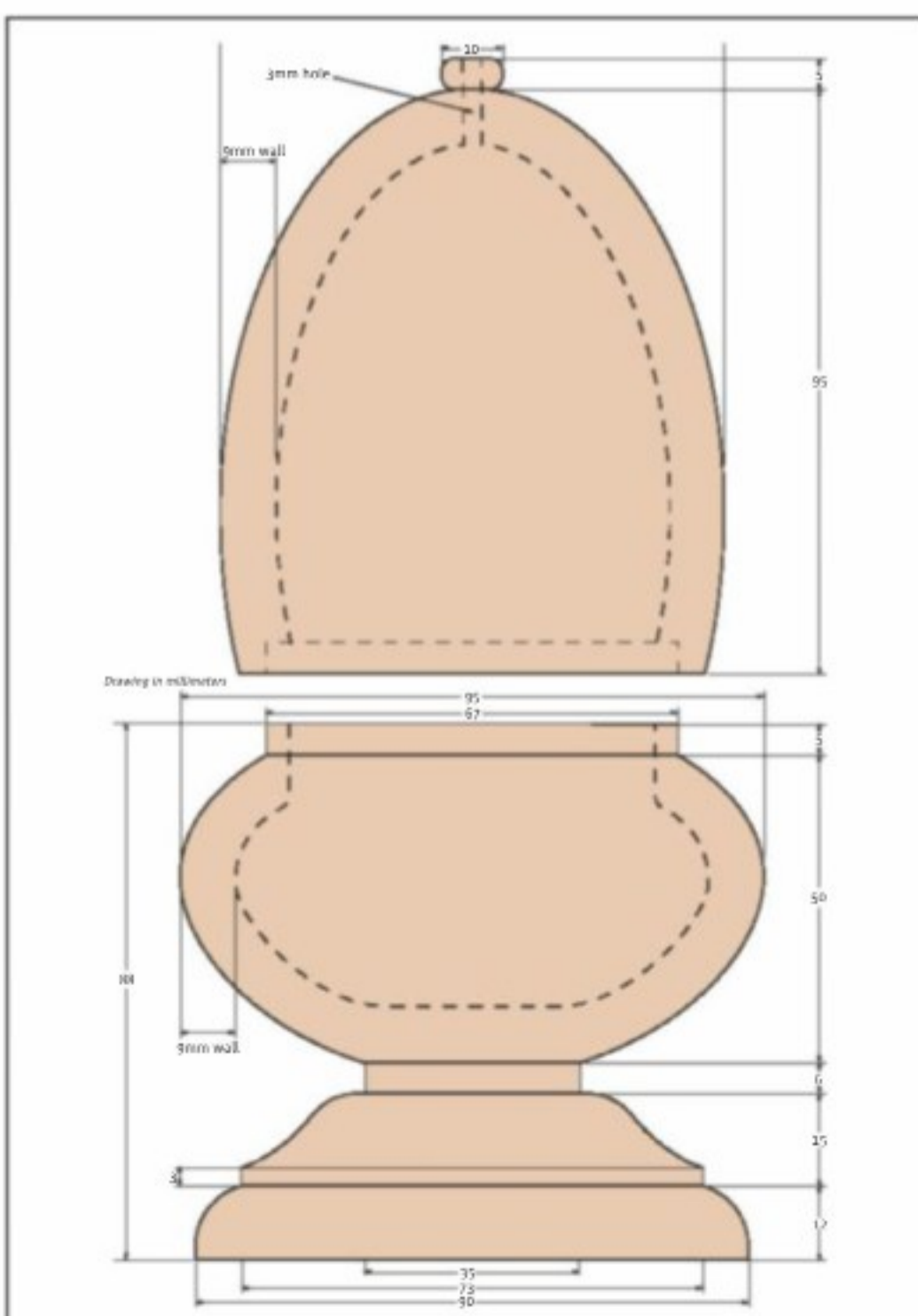


Fig.1 Acorn string box dimensions

keep the sides straight and not tapered. Next, sand and seal the inside, stopping the lathe for the final sanding, working the abrasive with the grain. When the sealer is dry, rub it back with '0000' wire wool, leaving the surface with a good finish ready for a light coat of polish.

Turning the top...

Now that you've turned the inside, and the outside is roughly turned to shape, it's time to finish the acorn. The easiest way to do this is to mount the top of the acorn in a jam chuck. All you need for this is a screw chuck and a scrap piece of wood. Turn a spigot on the scrap wood to provide a tight fit in the recess in the acorn, then bring the tailstock up for support. Now you can turn it to the finished shape, working your way to the top of the acorn; keep a close eye on the profile as it's very easy to lose it at this stage. Use a detail gouge to turn the finial, then sand and seal the workpiece. The finial itself has a 3mm hole for the string, and the best way to ensure that this is dead centre is to drill it on the lathe using a low speed and a 3mm drill fitted in the tailstock via a Jacobs chuck. Alternatively, you could drill it on the pillar drill. ▶



1 Select a piece of yew wood with plenty of character and cut it into two pieces



2 Mount the timber between centres and true it up using a spindle roughing gouge



3 Use the parting tool to square off one end, keeping it slightly concave



4 Drill a hole in the timber and mount it onto a screw chuck



5 Put the lathe on a low speed while you drill a 50mm hole



6 Finish the inside with a sharp 12mm scraper, leaving the surface clean



7 Use the parting tool to turn a recess for the lid, before sanding and sealing



8 Next, reverse the top and form a good fit with a jam chuck...



9 ... bringing the tailstock up for support while you turn it to shape



10 Take your time when turning the finial, ideally using a detail gouge



11 Put a 3mm drill into a Jacobs chuck and drill the hole on a low speed



12 Use a 6mm gouge to turn the inside, then finish off with the scraper

THE BARREL

To turn this barrel I used a combination chuck, mainly so you can see that there are two ways of holding the timber. Once you've turned it to a cylinder, drill out the inside with a 50mm Forstner bit – again, this is a lot quicker than turning it out. Once the hole is drilled, all you have to do is sand it. Providing the Forstner bit is sharp the surface should be left with a good finish, leaving only a little sanding to do.

Use a parting tool to turn most of the outside, as the gentle curve from top to bottom is difficult to achieve with a gouge, especially in between the bands. If sharp, the tool should leave the surface with a good finish providing you take light cuts. Diligent use of Vernier callipers will ensure that the rings, which represent the steel bands on barrels, are equally spaced. The parting tool is ideal for turning the recess in the top of the barrel, which only has to be large enough to provide a seating for the lid.

The eight ebony dots in each ring represent nails, and are just there for decoration. For these, you will have to mark out eight equal spaces on each ring, and the easiest way to do this is using an indexing head; otherwise mark them out manually. I used a cordless drill to make the

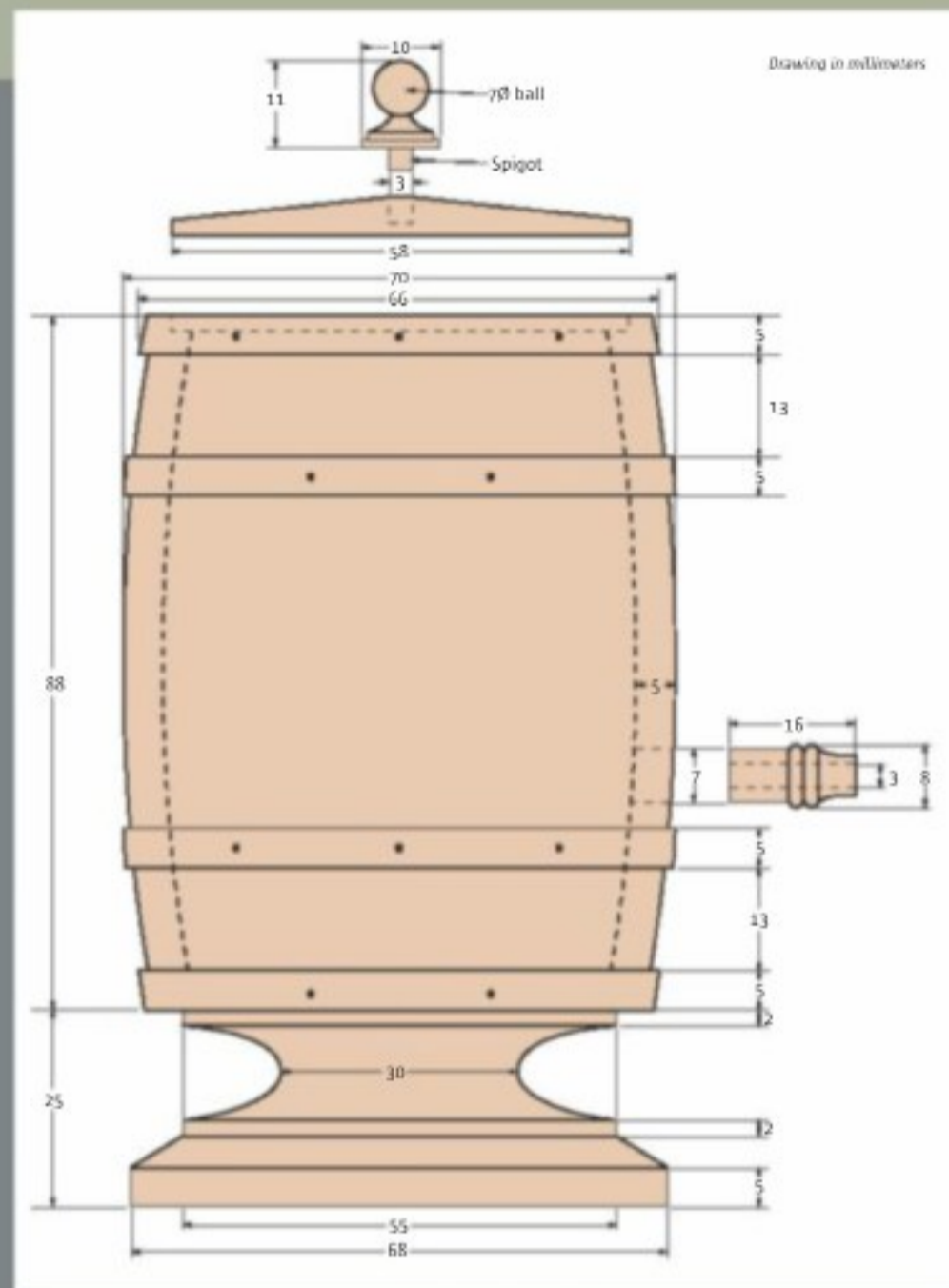


Fig.2 Barrel dimensions

holes for the ebony inlays, which are 2mm wide and 3mm deep. Try to keep the holes in the centre of the band, as it will look so much neater, but be very careful you don't drill right through!

I used ebony stringing for the decorative nails,

and cut off each piece with wire cutters. Put a little PVA glue in the drilled hole and tap in the ebony. When the glue is dry, skim off the ends of the 'nails' with the parting tool, which will leave you with just the foot of the barrel to be turned. When you've finished, sand and seal the workpiece. After parting off, use the timber left in the chuck to make a jam chuck so that you can reverse the barrel and turn the bottom.

For the lid, the grain should run horizontally as this will give it more strength and look better. Actually turning it, however, is difficult because the lid is thin and difficult to hold. The best solution I've found for turning pieces like this is to put a piece of scrap wood onto a screw chuck, turn it flat, then put a couple of strips of double-sided tape onto the face, and press the workpiece on top.

For the tap and finial, I put a piece of ebony into a Jacobs chuck after turning it to a cylinder. I then drilled a 3mm hole for the string, drilling just deep enough for the tap so that I could turn with the parting tool, then use the ebony that was left for the finial. Don't make this too big, as it's only there to provide purchase when you lift off the lid

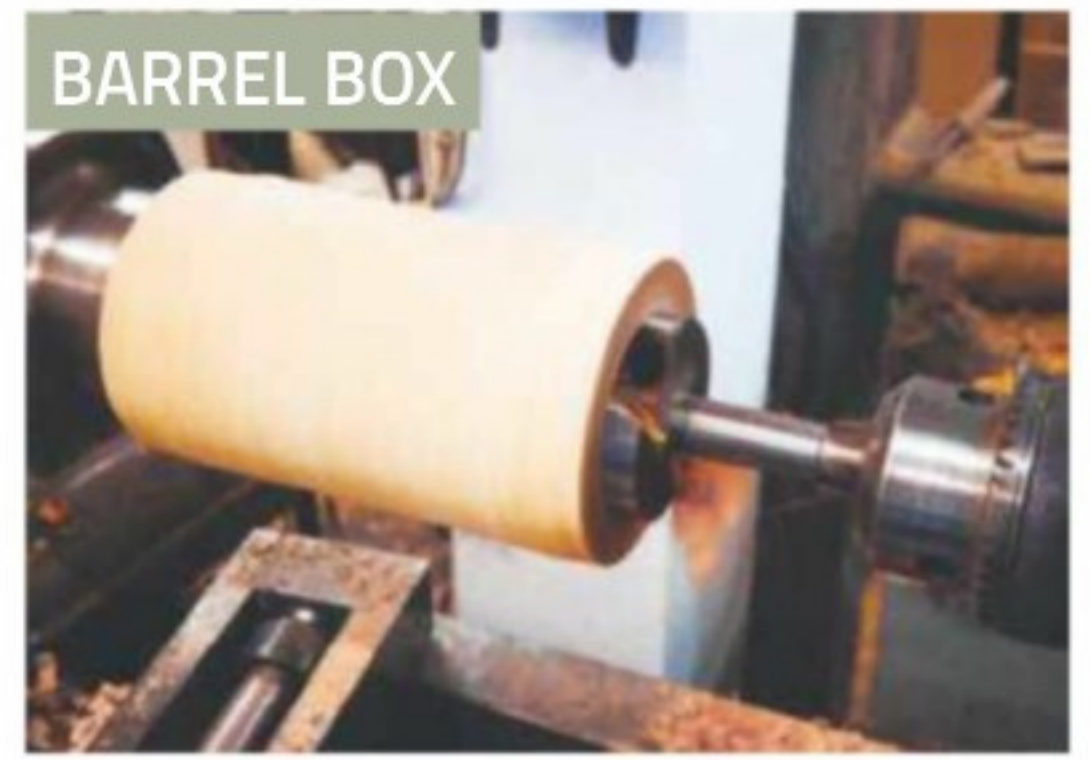




13 Shape the foot with a 6mm gouge and use the parting tool to turn the fillet



14 Reverse it onto a jam chuck while you turn off the bottom with a 6mm gouge



BARREL BOX

15 For the barrel box, drill a hole with a 50mm Forstner bit; the inside just needs to be sanded



16 Use a parting tool for most of the shaping of the outside



17 Turn the recess for the lid, making sure the sides are straight



18 Job done: for a little decoration, drill 2mm holes to insert ebony 'nails'



19 Put a little PVA glue onto each 'nail' and tap them into the holes



20 Turn the lid, holding the jam chuck in place with double-sided tape



21 Use a Jacobs chuck to hold the ebony while you turn the tap and finial

... the cup...

The cup can also be held on a screw chuck or a combination chuck. Turn it to a cylinder and then to finished diameter. The next stage is to turn the spigot to fit the recess. Use the parting tool to form the spigot, which has to be just right, neither too loose nor too tight, as the aim is for a push fit. When you get near to the size, stop the lathe and offer the top to it; you may have to do this a few times, but it's worth the effort to get it right.

Turn the outside of the cup first and leave the bottom section for support while you turn the inside. You can only turn down so far with the gouge, after which you'll have to use the 12mm scraper to finish it off. Again, make sure the scraper has a freshly sharpened edge to maintain a good finish. Once the inside is completed you can move on to the outside. To turn the base I used two tools: a 6mm gouge, and a parting tool; the parting tool will turn the fillet, and the gouge will turn the rest of it.

Sand the workpiece starting with 180 grit and finishing on 400; this will leave the surface with a good, smooth finish. After the sanding comes the sealer: apply a good coat and leave it to dry, which will only take a few minutes.

Then rub back with '0000' gauge wire wool, after which you can apply a light coat of polish.

Now that all the work's done, it's time to part it off. Put the lathe on a low speed, and push the parting tool with one hand while holding the acorn with the other; don't grip it too tight, though – let it run free. You can either part it right off, or work down to a spigot of about 25mm, which you can then saw off by hand.

... & finally, the bottom

I like to see the underneath of a piece turned rather than just parted off, and you can do this by using a jam chuck with a spigot that's a push fit into the cup. Next, bring the tailstock up for support. Slow and careful turning with a 6mm gouge is the key to a good finish here, after which you can give it a coat of sanding sealer. ✕

NEXT MONTH

In the next issue, Dave gets ready for Christmas as he turns two variations of nutcracker



Acorn with string

Coming up in the next issue...

The Woodworker & Good Woodworking
December – on sale 29 November

A TRIO OF FESTIVE PROJECTS FOR YOU TO MAKE

SEND IN YOUR TOP WORKSHOP HINT OR TIP & YOU COULD BE IN WITH A CHANCE OF WINNING A **VERITAS** **LOW-ANGLE JACK PLANE** – WORTH OVER **£250!**



SWIVELLING ADVENT CHRISTMAS TREE

Tibby Singh's clever festive creation allows you to change its shape as you wish with 24 individual Advent calendar compartments incorporated into its branches

CHRISTMAS WINDMILL

Denis Whittaker presents two charming tealight windmill designs, both of which are perfect for celebrating the festive season

CHRISTMAS CAROUSEL

Ken Moore uses his turning skills to create a lovely festive decoration, which makes use of scraps and offcuts

WIN!

A Micro Jig MATCHFIT Dovetail Clamp Pro – worth £89.95!

Create jigs and shop fixtures with this versatile package, courtesy of Wood Workers Workshop



PLUS ■ Andrew Hall: an English woodturner abroad ■ Me & me workshop – Mark Farrelly
The Engineer's Workshop – festive nutcrackers ■ In profile: furniture maker Peter Pålsson
Joinery tales – Lindstrand ■ On test: Triton T6PHJ pocket-hole jig



The Rocking Horse Shop

FANGFOSS, YORK, YO41 5JH Tel: 01759 368737

Finished Horses | Carving Courses | Restorations
Accessories & Hair

INTRODUCING...

MEDIUM ROCKY (PLAN 129)

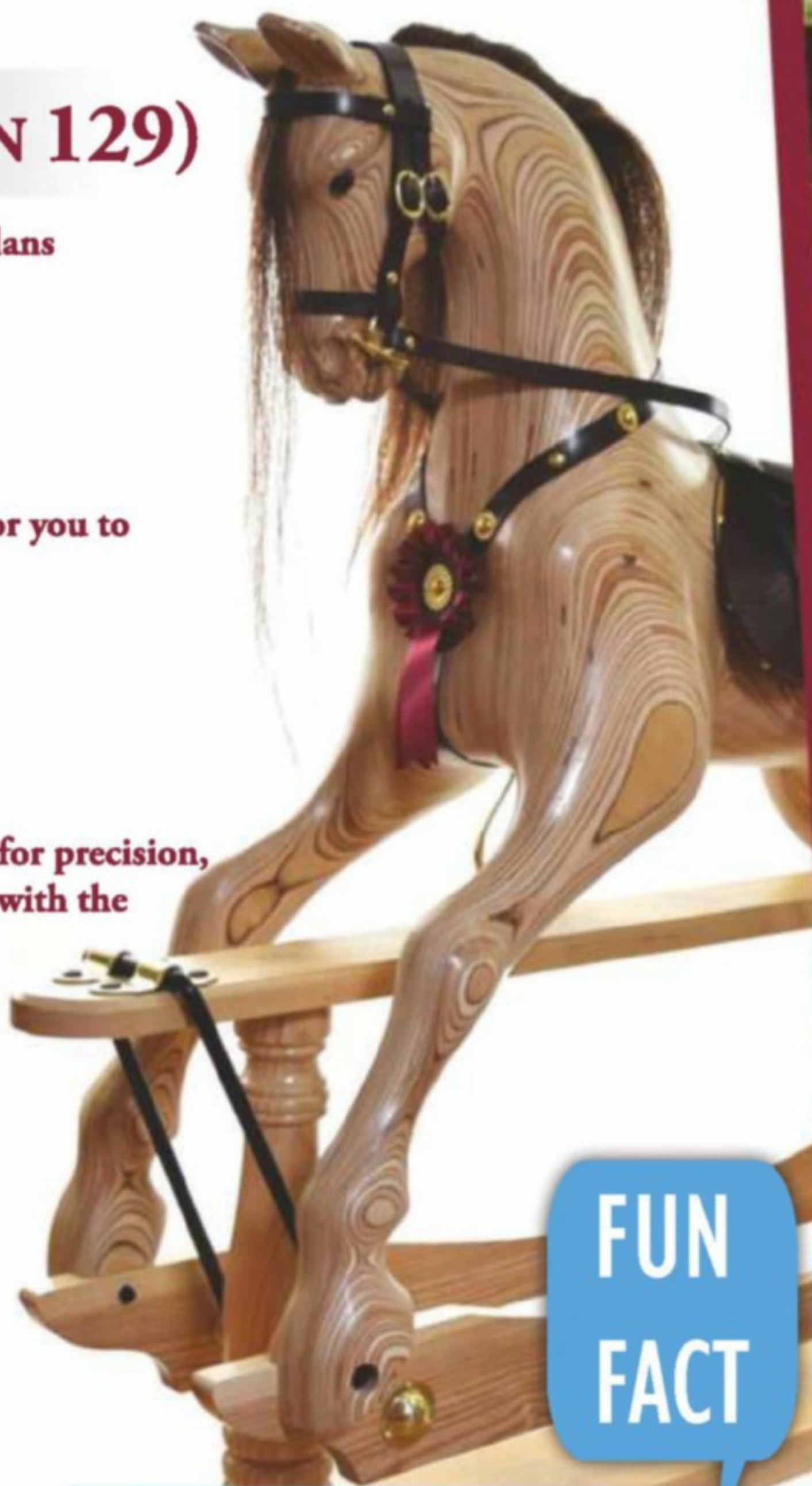
An easy to complete home project using our plans which include:

- > Actual size colour drawings
- > Step-by-Step colour illustrated guide
- > Comprehensive instructions

We also have a wide variety of other projects for you to choose from!

TIMBER KITS

Our Plywood timber kits are cut using CNC for precision, perfect to just assemble the horse and get on with the carving, the interesting bit!



FUN
FACT

DID YOU KNOW?

The Medium Rocky fits on one 8'x4' sheet of 18mm plywood!

We are opening our workshop doors to show you how Rocking Horses are made on....

Wednesday 13th November
10am to 3pm

Please join us for a mince pie with an opportunity to look round and talk to our experts. Christmas Gift Ideas, Special Offers & Discounts



www.rockinghorse.co.uk

Designers, Makers & Restorers Since 1976

COURSES, SPECIALIST EQUIPMENT & TIMBER SUPPLIES



Euro Finishes
Water-based finishes & supplies



GENERAL FINISHES
Official Distributor



Chalk Style Paint - 20 contemporary colours
Milk Paint - interior & exterior, 26 colours



Wood Stains - new formulation, 16 colours
Dye Stains - 14 colours



Glaze Effects - 6 translucent colours
Pearl Effects - 5 pearlescent colours



Flat Out Flat - a true flat sheen top coat
High Performance - clear & extremely durable
Enduro-VAR - for an oil look & feel



Stain Blocker - white primer
Accelerator & Extender

Over 50 YouTube technique videos
Full range on our web site

See web for shops & online stockists
Trade & stockist enquires welcome

Tel: +44 131 661 5553 info@eurofinishes.com
Unit 13, Peffermill Parc, 25 King's Haugh, Edinburgh, EH16 5UY
www.eurofinishes.com



WOOD WORKERS WORKSHOP



Join us at the North of England Woodworking and Power Tool Show
Harrogate 15-17 November 2019, Stand 32

Great show offers on quality brands such as INCRA, JessEm, Woodpeckers, Veritas, Micro Jig, Glu-Bot and iGaging. NEW and exclusive products from PantoRouter, Armor Tool and AUKTools.

Don't miss...
Peter Sefton, an award winning Master Craftsman and Principle Tutor at the Peter Sefton Furniture School will be demonstrating hand tool techniques, chisel and plane sharpening plus selecting and using hand planes.

www.woodworkersworkshop.co.uk

DAVID STANLEY AUCTIONS

1,000 LOTS OF ANTIQUE & MODERN WOODWORKING TOOLS AT:
HERMITAGE LEISURE CENTRE, WHITWICK LE67 5EU

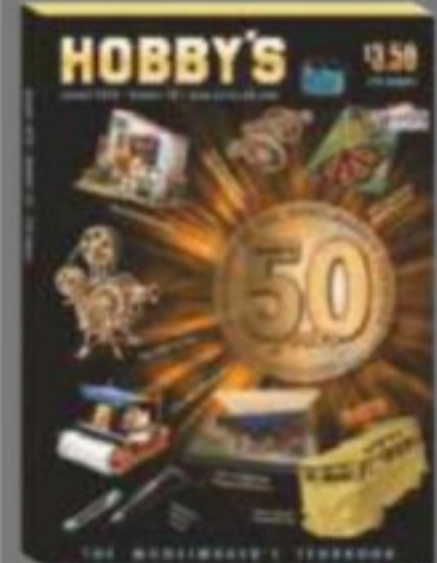
on Friday 15th November 2019 at 9:30am prompt
Viewing Thursday 12 noon till 6:30pm & on morning of sale from 7:30am

CATALOGUES £5 FROM DAVID STANLEY AUCTIONS,
OSGATHORPE, LEICESTER LE29 9SR

Tel: 01530 222320
info@davidstanley.com www.davidstanley.com

HOBBY'S

ANNUAL 2020 - ISSUE NO. 50 - £3.50 P&P FREE



Our range includes Airfix, a full range of Crafts, Mould Making and Casting, a huge range of Tools, Boats and Ship models, Hobby books, Glues, Building Plans and a massive range of Model making supplies.

324 PAGES
Hobby's Knights Hill Square, London SE27 0HH.
Tel: 020 8761 4244 mail@hobby.uk.com
Visit: www.hobby.uk.com

THE MODELMAKER'S YEARBOOK

TOP QUALITY - LOW PRICES!

VSM VITEX ABRASIVES

KK532F Starter Pack (4 Metres) £14.00
Inc. VAT & UK post. 1/2 metre each of grit 80, 120, 150, 180, 240, 320, 400 and 600.

***GRIP-A-DISC* Power Sanding System**
50mm Starter Kit - £32.00 Inc. VAT & post. Contains 50 Discs and Holder.

We also stock: Sorby Tools, Chestnut Products, Pacer Super Glues & VSM belts.

SAE for Catalogue

Jill Piers Woodturning Supplies
2 Kimberley Villas, Southmill Road,
BISHOP'S STORTFORD, HERTS. CM23 3DW
Tel/Fax: 01279 653760

TO ADVERTISE IN

The **Woodworker**

Good woodworking call

Rhona Bolger

01689 869 891

rhona.bolger@mytimemedia.com



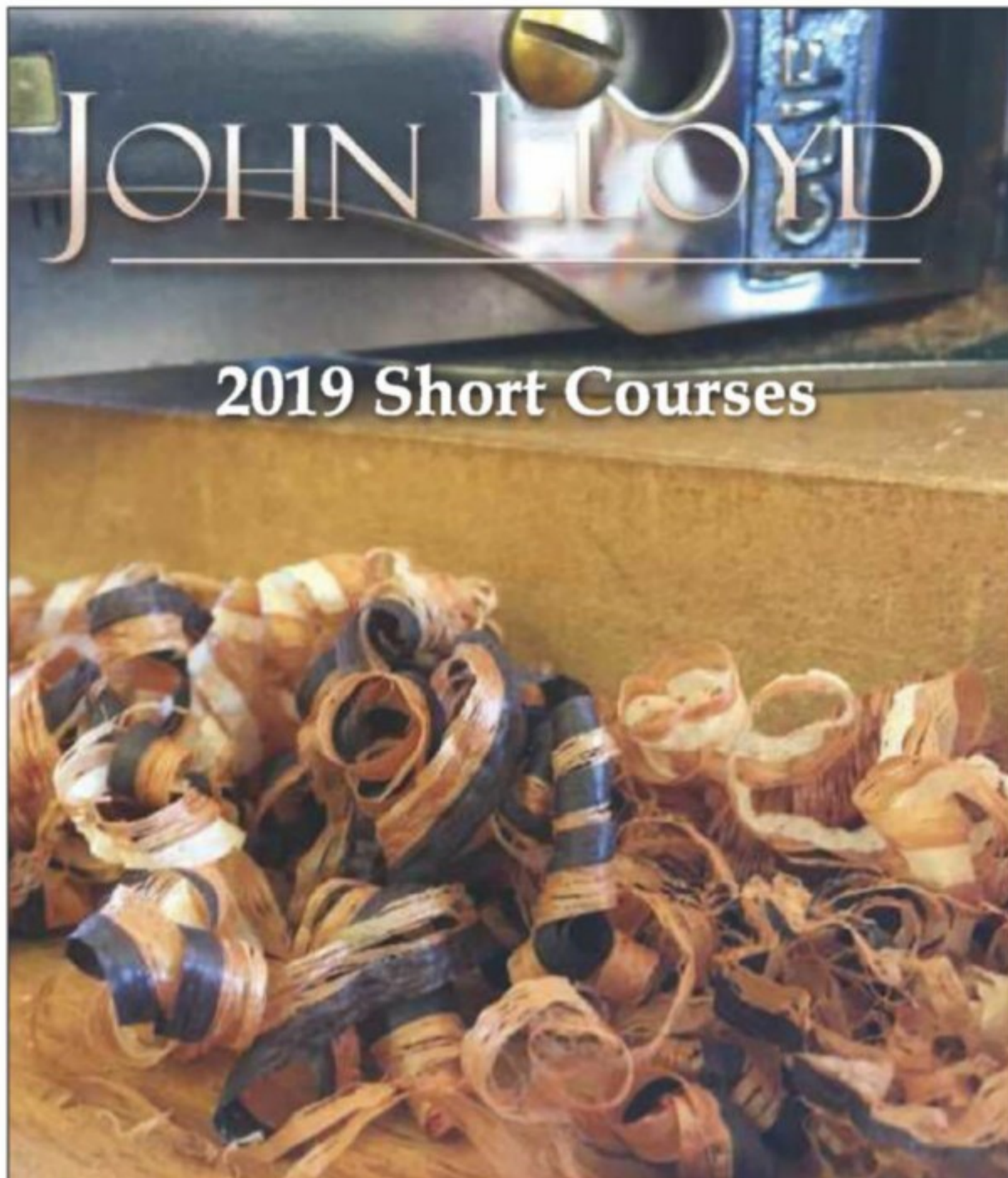


MILK PAINT
Naturally safe Historic Paints since 1974




The original milk paint powder in 20 historic colours
www.oldfashionedmilkpaint.co.uk | Quote WWM01 for 10% off

COURSES, SPECIALIST EQUIPMENT & TIMBER SUPPLIES



JOHN LLOYD

2019 Short Courses

 www.johnlloydfinefurniture.co.uk
01444 480388 | Sussex

Learn to design & create bespoke furniture

Our Furniture Design and Maker's 35-week long course is aimed at students aspiring to design and make bespoke furniture to professional standards, either for your own enjoyment or to develop a career as a professional furniture designer and maker. The course is suitable for all ages and abilities. We also offer a range of short courses for beginners, routing, wood machining or French polishing.

Visit us at the North of England Woodworking and Power Tool Show
Harrogate, 15-17 November 2019, Stand 32




PETER SEFTON
FURNITURE SCHOOL
www.peterseftonfurnitureschool.com

David Charlesworth Tool tuning and fine furniture making courses



Revolutionise your hand tool skills with David's five day Tool Tuning course; ultimate plane tuning, chisel preparation and planing skills. Subsequent courses cover Dovetailing and Drawer Making/Fitting.

NEW Sharpening weekends!

David is a legend of the UK woodworking scene and has a wonderful teaching workshop in an idyllic location in Hartland, North Devon.

See website for full course details & release date of David's New DVDs

Contact David on:
01237 441288 or email: davidcharl@aol.com
www.davidcharlesworth.co.uk

BERKSHIRE

WOKINGHAM TOOL COMPANY LTD

97-99 Wokingham Road
Reading, Berkshire RG6 1LH
Tel: 0118 966 1511
www.wokinghamtools.co.uk
H. P. W. CS. BS. A. D. MO.

LEEDS

D.B. KEIGHLEY MACHINERY LTD

Vickers Place, Stanningley,
Leeds LS28 6LZ
Tel: (0113) 257 4736
www.dbkeighley.co.uk

WEB GUIDE

 **Router cutters**
Spindle tooling
Bandsaw, jigsaw & circular sawblades
Online catalogue & ordering
www.wealdentool.com



MUSICAL INSTRUMENT MAKERS

Musical Instrument Makers' & Repairers' Supplies



Largest selection of tonewoods, tools & parts in the country. Visit our website or order our catalogue. Callers welcome

Touchstone Tonewoods, Albert Road/North, Reigate, RH2 9EZ
Tel: 01737 221064 Fax: 01737 242748
www.touchstonetonewoods.co.uk

THE CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE



Thirty years teaching furniture design, making and restoration

 www.chippendaleschool.com

COURSES, SPECIALIST EQUIPMENT & TIMBER SUPPLIES

SCAWTON SAWMILL

European Hardwoods



Hobbyist
and Trade
welcome!

Delivered Nationwide

01845 597733

www.scawtonmill.co.uk

Unloved? Unuseable? RESTORE IT!



Stanley No.5 'before & after' photo courtesy Peter Hemsley – The ToolPost

Restore Rust Remover & Restore Rust Remover Gel

Remove *only* the rust leaving sound metal unaffected. Cleans and brightens brass and nickel plating. See more stunning 'before & after' examples on our website photo galleries. Find local and international stockists on the website.

Shield Technology Limited.
Unit 69, Grimsby Business Centre
King Edward Street,
Grimsby, DN31 3JH

Tel: +44 (0)1472 360699
Fax: +44 (0)1472 324685
Email: info@shieldtechnology.co.uk
www.shieldtechnology.co.uk

Distributor enquiries welcome

SHIELD TECHNOLOGY
Guarding Against Corrosion

Allan Calder's Ltd Sandpaper Supplies

Unit 2B, Churnet Works, James Brindley Road, Leek, Staffordshire ST13 8YH.



We are supplying top quality brands of sanding abrasives for all types of Wood Turners, Joiners & Cabinet Makers.

Web: www.sandpapersupplies.co.uk

email: sandpapersupplies@yahoo.co.uk

Tel: **01538 387738**

ADD A NEW DIMENSION TO YOUR WORK WITH

metalcraft™

Visit our
Online Store
Today!

(web address at bottom
of this advert)

Easy to use tools that do
not require heat or power



Ideal wherever wood and steel can combine to make stylish...

- Furniture
- Clocks
- Signs
- Frames & Decorative Panels
- and so much more

Call today for our free Catalogue and if you quote the promo code "MTW19" we will send you our new demo DVD free of charge

J & CR Wood Ltd, Dept MTW19, 66 Clough Road, HULL HU5 1SR
01482 345067 | info@jandcrwood.co.uk

www.metal-craft.co.uk

FOR SALE

Record Power square chisel mortiser, mounted on mobile cabinet. Used very little; supplied with six chisels; £280
07837 125 047 (Worcester)



Kreg Jig Master System. Used once, in excellent condition. Unused DVD included. Material support missing; £30 + £10 postage
01724 733 170 (North Lincs)



Axminster pen lathe, complete with bushes, drills & drilling centre vice, brass tubes & assorted blanks, plus a book on pen turning; £100 – collection only
01322 664 388 (Kent)



Edgmatic sharpening system; £40. Also, Rexon scrollsaw, 40cm throat plus blades; £75 – collection only
01322 664 388 (Kent)

Orteguil 78-OR-100 – used mitre cutter – collection only; £250
07956 605 306 (Devon)

Metabo KGS305 12in sliding mitre saw – 240V with 400kg extending leg stand; £400
01409 221 929 (Devon)

Lie-Nielsen 4.5 plane – in good condition, plus Lie-Nielsen block plane; £240 (P&P extra)
07818 410 591 (Murton)

Myford ML8 bandsaw attachment with 2 x blades. Excellent condition; £100
01225 706 533 (Wiltshire)

Hardwoods for sale, including zebrano, tatajuba, boxwood, rosewood, all suitable for woodturning or cabinetmaking – call for details
01223 208 850 (Cambridgeshire)



Trend CDJ.300 dovetail jig with guide bush, cutters & manual. In good condition & comes complete with custom-built case; £75
01322 664 388 (Kent)



Nobex mitre saw – in excellent condition, comes complete with manual & custom-built case; £50
01322 664 388 (Kent)



ML1590 Poolewood lathe, plus Supachuck, 12 turning tools, 1in cleaver & drill (38 x 30in) – collection only; offers around £475
01539 442 478 (Cumbria)

Earlex 3000 complete spraying system – never used & still in original box; £30 plus £5 P&P
07745 161 879 (Ayr)

WoodRat WR5 36in – in excellent condition. Includes usual kit plus plunge bar and mitre box, but not router; £300
01386 430 043 (Stratford-upon-Avon)



Ashley Iles carving set – 17 top quality chisels; £170. Also, Freud 1,000W router & shop cabinet, with steel top; £150 – buyer collects
01942 716 985 (Cheshire)

Fine Woodworking magazines – 218 copies – issues 17-267 (incomplete), from 1979–2018. Sensible offers; collection only
0121 705 4437 (Birmingham)

WANTED

Copies of British Woodworking magazine – issues 1 to 40
01635 34238 (Newbury)

Fence plus guide rails for a Wadkin 10in AG5 table saw
07724 386 061 (Wrexham)

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

Dust extraction spout for DeWalt 1150 planer/thicknesser
023 8089 8123 (Southampton)

Spiers/Norris/Henley planes wanted by private collector; any quote beaten. Ring Ron Lowe on
01530 834 581 (Leics)

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

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

BOOK YOUR FREE AD

Please publish this advertisement in the next available edition of *The Woodworker*. I am a private advertiser and have no trade connections
PLEASE TICK: FOR SALE WANTED

- This space is available only to private individuals wishing to buy or sell woodworking machinery and tools.
- The maximum value of any item for sale must not exceed £500. A small fee is payable for items offered at over £500; please ring 01689 869 852 for details.
- Each coupon is valid for one free insertion in the next available issue.
- The publisher accepts no responsibility for errors or omissions in this section.

Name _____
Address _____

Postcode _____
Daytime tel no. _____
Signature _____

My advertisement (max 20 words please) reads as follows:

Please write your advertisement in **BLOCK CAPITALS** and send it to:

The Woodworker Marketplace, MyTime Media Ltd, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent TN8 6HF. You can also email your free ad to: tegan.foley@mytimemedia.com. Send/email a photograph of your item and we'll include it with your ad for FREE

DRECKING

How to uglify your garden

Now is not the time to lay decking, but if you are tempted to provide a clear, flat area in your garden for barbequing, or reclining in the summer sun, I suggest you leave a good gap between planks. This is not to do with expansion because the timber is soft enough to absorb that. It isn't to allow debris to fall through because it won't: after a while, it will sit in the gap in a wet conglomeration. If crumbs of bread and bits of burger do fall through, the rats who have taken to living underneath will be very appreciative, and may well invite their friends. Neither is the gap to do with drainage: see above; but anyway the runnels moulded into the surface prevent sideways drainage.

I suggest that the gap is a good idea because in five or 10 years' time, or less if fashion dictates, when the wood is rotting and the surface deteriorating, you can get between those planks with a couple of wrecking bars, prise them loose and destroy the whole nasty construction before it destroys itself; possibly, if things get bad enough, taking your ankle with it. I'm not making this up. There's a patch in my soggy decking lying in wait like a crocodile.

The runnels are there as an anti-slip device but they hardly do this either. I've been out today in a sunny break between storms – the decking still wet – and I remembered why I never liked ice-skating. I didn't come a cropper but I had a couple of moments. As I dismantle the decking, I'm taking a bolt-cutter to the protruding nails on the substructure because falling over is one thing but falling onto the sharp end – or either end – of a 4in nail is quite another.

There follows a woodworking equivalent to digging yourself into a hole. Because wood rots and therefore decking is fatally flawed, the commercial mind develops a version that does not rot – some sort of moulded particle plastic. Do we really want more plastic? Not just on grounds of ecology, but aesthetics too. It proclaims artificiality, standardisation and market forces. Timber at least looks natural and, for the first few seasons, smart. You won't spoil the surface of the plastic with nails or screws, and you won't lay them on timber bearers for aforementioned reasons so you'll have to buy into the whole system of boards, bearers and clips. This will make plastic many times more expensive than timber. "But it will last for ever," I hear you say "so it is good value for money." No it won't because it won't get the chance. Something else will come along; plastic decking will become tasteless old hat (it is presently tasteless new hat) and it too will be dismantled. Do remember to keep a gap between the boards.



Alternatives

Back to sunbathing: I have a selection of solutions. The best alternative is, and always has been, rock in its various forms. Make a stout wooden frame as a perimeter and bed it on gravel for drainage. Or set loose concrete blocks in the ground as a perimeter wall. Fill the frame with hardcore, becoming finer and ending up with pea gravel. Either leave it like that or instead of pea gravel, tamp down sharp sand until the surface is level, then loose lay concrete slabs (calculate your frame dimensions accordingly). Apart from stone's inability to rot, this is a better method because all the materials are reusable and will not have deteriorated (much). The lesser alternative, and one that might not have been tried, is to make a solid wooden platform, and cover it with waterproof plastic turf. Admittedly this would be weird, but it could work in a city garden where nature is already in retreat. The deluxe version would be able to tilt up so that it would drain after being hosed down, for no plastic is as fresh as grass.

Talking of tilting: if you insist on using timber decking, remember what decking is. Ships' decks slope outwards and downwards to shed water as quickly as possible. Stationary water is a hazard to sailors, and to the stability of the vessel.

Why don't you build your decking on the slant! This solves all the drainage problems and therefore most of the rot at a stroke. Face it south to catch the sun. You'll probably have to chock up some of the chairs, so that would be a fiddle. Depending on the angle there might be safety considerations regarding the barbeque. You could have to screw a few things down.

Your guests might acclimatise to the gradient but be perturbed when they see the drink in their glass sloping to one side, suggesting that they've had one too many: you may well therefore save on wine and beer. Some foodstuffs will be at risk. If you pinch a banger off the griddle, burn your fingers and drop it, it won't stay still: this is how you make a sausage roll. If you drop a meatball it may bounce off into the surrounding undergrowth and never be seen again. Fit a handrail or, after a summer shower, you might bounce off there yourself.

If you don't want all the work of a hardcore platform; if you think plastic turf a little sick, and a slanting deck somewhat zany, there is a fourth option. You want somewhere to sit in the sun? Somewhere to dine outdoors? How about a patch of lawn? The deluxe version has daisies. ✕

© Edward Hopkins 2019



We share your passion

Whether you're starting a new hobby or looking to upgrade your workshop, we've got the tools and machines for you. With a reputation for excellence in customer service and friendly expert advice, we offer a vast range of quality products from hand and power tools to trade machines and much more.

Get hands-on at your nearest store where live workshops and demonstrations give you the chance to try before you buy.

Search **axminster.co.uk**
or call **0800 371822**

New catalogue

400 pages, 6,000 product lines
Request online or pick up a copy in store



AXMINSTER
Tools & Machinery

Fancy a day out? Visit our **North Shields store** (82 miles from Harrogate) or **Warrington store** (75 miles from Harrogate).

Both stores have in excess of 9,000 products to view, buy and take away plus you can order anything from our full range online.

Axminster • Basingstoke • Cardiff • High Wycombe • North Shields • Nuneaton • Sittingbourne • Warrington



Rated 'Excellent' on  **Trustpilot**

Coronet Herald Heavy Duty Cast Iron Electronic Variable Speed Lathe

"I found the lathe a delight to use. Functionality wise, it did everything I asked of it without fuss and components stayed put when locked in place...I think it is a great midi-lathe which will suit many turners' needs, capacity and space wise."

Woodturning 317



"With large blanks mounted you can use the variable speed control to keep the machine stable and vibration free...Would I recommend this lathe? Yes without a doubt, it's well designed and built to a high standard."

Online Review

"The new Herald - Sets a new standard It surpasses my expectations by a country mile! The size is ideal for the turner with limited space, has outstanding capacity for its footprint and is very quiet indeed... Record Power most certainly have a winner."

Online Review



Heavy-duty spindle lock and 24 point indexing



Features the latest motor technology to deliver huge amounts of torque from the 750 W output motor



Rotating headstock features accurate angle stops and can swivel 360°



Specifications

Maximum bowl diameter:	533 mm
Maximum between centres:	508 mm
Maximum swing over bed:	355 mm
Spindle speeds:	96-3890 rpm
Motor input P1:	1000 W
Motor output P2:	750 W
Thread:	M33 x 3.5
Taper:	2 Morse taper
Weight:	48 kg
Size:	W870 x D290 x H252 mm

Package with Leg Stand
ONLY

£999.95 Inc. VAT

SAVE £150

16009

Package with Bench Feet
ONLY

£899.95 Inc. VAT

SAVE £130

16010

BUY SAME TIME +

16015 Tubular Stand	£129.99	Save £20.00
16011 Cast Iron Bed Extension	£149.99	Save £30.00
16013 Cast Iron Outrigger	£39.99	Save £10.00
16012 Bench Feet	£59.99	Save £10.00



Prices valid until 31.12.2019. E&OE.

RECORD POWER
ESTABLISHED 1909®

Over
100
years
Experience • Knowledge
Support • Expertise



Incorporating some of the most famous brands in woodworking, Record Power's roots stretch back over 100 years.

www.recordpower.co.uk Tel: 01246 571 020