

EST. 1901

THE ORIGINAL AND STILL THE BEST

The Woodworker

Autumn 2015

www.getwoodworking.com

& Woodt

Tom Smith's *flight of fancy*

- Spline dovetail joint
- Simple jewellery box
- WorldSkills 2015
- Offcuts bonanza



CHAMFER TABLE



SEARCH & DESTROY



TURNING SQUARE

PLUS: HAND-MADE MOULDINGS ■ 4 TOOL & KIT TESTS

mytime media WOODWORKING GROUP



9 771752 352204

30

£4.25

woodworks

Carving, Craft, Pyrography and Toy Making all in one place



When it comes to wood carving machines - Pick the Best
FOREDOM

The leading manufacturer of flexible shaft rotary power tools in the world

Order online at

www.woodworkscraftsupplies.co.uk

A Family business, giving family service and family values

or phone on

01633 400847

Woodworks Craft Supplies, P.O.Box 102, Caldicot NP26 9AG

Welcome



It's generally around this time of year that the pace of work seems to pick up a bit, in my case this has gone from flat out to borderline frantic. Everyone seems to be very keen to have their cupboards, wardrobes, etc. finished 'this week' or even sooner. I don't know why this should be, perhaps it's a deeply ingrained primeval urge to make a safe and secure dwelling for the winter months ahead, a need that still resonates with us after hundreds of thousands of years.

Battleships in action

I guess it's not such a bad thing to be busy though, it's all too easy to forget those times when you're scratching around for work and generally feeling under-employed and surplus to requirements. This is a very good time of the year for woodworkers, however – not only is there the encouraging atmosphere of like-minded souls beaver away in their sheds and workshops, but there's usually a show or two around and all manner of offers and deals on new and used kit to be taken advantage of.

This reminds me that I took part in a Mini Maker Faire the other week; mostly for kids, it was a whole load of entertaining demonstrations and workshops to encourage young people into the wonderful world of making. A lot of it was hi-techery and computer-based, like 3D printing, interactive electronic games and such, but on my stand I was

proudly flying the flag for the lo-tech world of woodworking. It was the first outing for my battleship and submarine (see page 28) duo, and proved to be universally popular with both kids and adults. Between them they kept me busy all day long loading up the sub's torpedo and rebuilding the doomed destroyer. I was pleased (and very relieved) that both vessels kept on working the whole time, something of a tribute to the original WW designs I followed to make them.

Social woodworking

Yes, there's little as satisfying as completing a job successfully, and then witnessing the favourable reactions of others, preferably complete strangers. There's also the opportunity for some good feedback to help you improve your own work and to make things even better next time. Any opportunity to meet and mix with other woodworkers is an opportunity worth taking, and I'd encourage everyone to be on the lookout for the chance to discuss their work with their peers either at a club or even just at a local trade outlet. While we all know people who would rather talk about work than actually do any, just remember – listen to your inner caveman and make sure you join in the making and preparation for the colder months ahead.

Mark

You can contact Mark on mark.cass@mytimemedia.com



If you can't always find a copy of the magazine, help is at hand! Complete this form and hand it in at your local store, and they'll ensure that a copy of each issue is reserved for you. Some stores may even be able to arrange for it to be delivered to your home. Just ask!

Subject to availability

Please reserve/deliver my copy of *The Woodworker* on a regular basis, starting with issue _____

Title _____ First name _____

Surname _____

Address _____

Postcode _____

Telephone number _____

If you don't want to miss an issue



WOODWORK

15 Multi-functional simplicity

Furniture making course graduate Matthew Whitely takes us through the steps for making one of his final projects and shares his secrets of construction, problems encountered and ideas for its improvement

22 Boxmaking brilliance

Andy Standing shows you how to make the spline dovetail joint as well as a simple jig. Popular with box makers, this attractive joint is known for adding strength and decoration

28 Submarine commander

Taking inspiration from a similar project originally published in 1964, Mark Cass puts his spin on a wooden submarine and destroyer

35 Waste not, want not – part 1

In part 1 of his series on using offcuts, Robin Gates teaches us how to bring purpose to our woodworking – after all, waste not, want not! Make a maul and clogs, plus a guard and gripper

43 Flight of fancy

Inspired by the natural world, Tom Smith creates realistic looking images of various birds, animals and flowers. Here he takes us through the stages for creating one of his magnificent barn owls



28 Submarine commander

67 A simple jewellery box

Ian Wilkie has always encouraged his grandsons to come into his workshop and see what he was making, even when they were quite small. Here are the guidelines Ian's grandson followed as he went about making a jewellery box for his mother

72 Skills around the world

A few issues ago we reported from the national finals of the WorldSkills selection competition but now, after the winners have been announced, we bring you all the details and consider what goes into making an award-winning tradesperson

15



SUBSCRIBE & SAVE UP TO 38%

PLUS: RECEIVE A FREE
BOSCH SCREWDRIVER BIT SET,
& A BOSCH 7-PIECE HOLESAW
SET



SEE PAGE 64
FOR DETAILS

OFFER CLOSSES 30 OCTOBER 2015

TURNING

51 5: Choosing timber

Having finally chosen and installed your lathe, tools and accessories, the time has come to select some timber

59 Transverse bowl

Carrying on with the transverse theme, this month Colin Simpson makes a bowl in the same style and also shows you how to create a handy 'cradle chuck', which will help to facilitate your turning

ON TEST

78 Triton SuperJaws XXL SJA300

80 Draper MT300 Oscillating Multi-Tool Kit

82 Proxxon GE 20 Engraving Device

83 Nobex Octo folding square

REGULARS

- 3 Welcome
- 9 News
- 11 News & Diary
- 13 News from D&M Tools
- 64 Subscriptions
- 89 Marketplace
- 84 Readers' letters
- 90 Archive

74 Clever handwork

Sometimes you need to match up a missing moulding, and there's no chance of buying a short length off the shelf – well, fear not, as Mark Cass shows you how to solve that problem by creating running mouldings by hand



The Woodworker & Woodturner

Autumn 2015

Published by MyTime Media Ltd
Enterprise House, Enterprise Way,
Edenbridge, Kent TN8 6HF

Tel: 0844 412 2262
From outside UK: +44 (0)1689 869840
www.getwoodworking.com

SUBSCRIPTIONS

UK - New, Renewals & Enquiries
Tel: 0844 243 9023
Email: Help@tww.secureorder.co.uk
USA & CANADA - New, Renewals & Enquiries
Tel: (001)-866-647-9191
REST OF WORLD - New, Renewals & Enquiries
Tel: +44 1604 828 748

BACK ISSUES & BINDERS

Tel: 0844 848 8822
From outside UK: +44 1604 828 748
Email: Help@tww.secureorder.co.uk
Website: www.myhobbystore.co.uk

EDITORIAL

Group Editor: Tegan Foley
Email: tegan.foley@mytimemedia.com
Editor: Mark Cass
Email: mark.cass@mytimemedia.com

PRODUCTION

Designer: Malcolm Parker
Retouching Manager: Brian Vickers
Advertising Production: Robin Gray

ADVERTISING

Business Development Manager: David Holden
Email: david.holden@mytimemedia.com
Tel: 01689 869867
Online Sales: David Holden
Email: david.holden@mytimemedia.com
Tel: 01689 869867

MARKETING & SUBSCRIPTIONS

Subscriptions Manager: Kate Hall
Subscriptions: Sarah Pradhan
Tel: +44(0)1858 438798

MANAGEMENT

Head of Design & Production: Julie Miller
Group Advertising Manager: Rhona Bolger
Email: rhona.bolger@mytimemedia.com
Tel: 01689 869891
Chief Executive: Owen Davies
Chairman: Peter Harkness

mytime media
print & digital media publishers

© MyTime Media Ltd. 2015
All rights reserved ISSN 1752-3524

The Publisher's written consent must be obtained before any part of this publication may be reproduced in any form whatsoever, including photocopying, and information retrieval systems. All reasonable care is taken in the preparation of the magazine contents, but the publishers cannot be held legally responsible for errors in the contents of this magazine or for any loss however arising from such errors, including loss resulting from negligence of our staff. Reliance placed upon the contents of this magazine is at reader's own risk.

The Woodworker & Woodturner, ISSN 1752-3524, is published monthly with an additional issue in summer by MYTIME MEDIA Ltd, Enterprise House, Enterprise Way, Edenbridge, Kent TN8 6HF, UK.

The US annual subscription price is 59GBP (equivalent to approximately 98USD). Airfreight and mailing in the USA by agent named Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

Periodicals postage paid at Jamaica NY 11431.
US Postmaster: Send address changes to The Woodworker & Woodturner, Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA
Subscription records are maintained at CDS GLOBAL Ltd, Tower House, Sovereign Park, Market Harborough, Leicester, LE16 9EF.
Air Business Ltd is acting as our mailing agent.



When you have finished with
this magazine please recycle it.

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



'THE' TOOL SUPERSTORE

HAND, POWER TOOLS & MACHINERY SPECIALIST

DM-TOOLS.CO.UK

YOUR TRUSTED PARTNER

D&M Tools has been family owned and managed since 1978. 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.

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.



1 HR DELIVERY WINDOW

We use DPD Predict for the majority of our deliveries (except heavy or oversize items) so you will receive a 1 hour delivery window via email or text meaning you don't need to wait in all day.

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.

Here you will 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.

More details on our website:
www.dm-tools.co.uk



MAKE A DATE IN YOUR DIARY...

MASSIVE CHOICE FROM THE BIGGEST BRANDS!



THE UK's No.1 BRANDED HAND, POWER TOOLS & MACHINERY EVENT



KEMPTON PARK RACECOURSE
9-11th OCTOBER 2015

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



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



FREE CATALOGUE
- OVER 650 COLOUR PAGES



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:

★★★★★
"Amazingly quick, good value, text to the hour delivery time, impressed - Great company, no nonsense, cheap prices, the best delivery service I get alerted by text on the day of the hour of delivery, so I don't have to wait around on site for it to turn up. So useful I will definitely be purchasing more from this shop."

★★★★★
"Why didn't I find this shop years ago?!! - Excellent stock and service - both in the shop and online. Damaged item replaced promptly with no fuss - great. I'll certainly be going to them first in future."

★★★★★
"Excellent service - Great price, great tool, great service won't use anyone else anymore contacted all the way though transaction right up till delivery. Would highly recommend D&M tools."

★★★★★
"One of the best I've used - If you need power or hand tools then these are the guys to go to. In store they are a great help. The online shop is top notch as well, if you are not sure about a product give them a call, the staff are knowledgeable and helpful. Delivery is always prompt. I use D&M Tools all the time for kit."

★★★★★
"Quality Product at a Fantastic Price - DM Tools had the quality DeWalt tool I was after at the best price. The whole procedure from searching their very user friendly web site, until the delivery by a customer focussed courier was painless. I have to commend the staff at DM Tools and would recommend them if you are after quality products and good customer service at a wallet friendly price"

www.trustpilot.co.uk/review/www.dm-tools.co.uk



Einhell

WELL DONE.



THE ALL PURPOSE WET & DRY VACUUM CLEANER COLLECTION FROM EINHELL - NO TASK IS TOO DIFFICULT OR MESSY FOR THE WET & DRY VAC

1500 W Wet & Dry Vacuum Cleaner (30 L) with Power Take Off
TE-VC 1930 SA | Art.-No. 23.421.95



RRP
£89.99
(INC VAT)

Designed and built for the effective removal of:

LIQUID

DIRT

DEBRIS

GLASS

DUST



Dust extraction facility available on all Wet & Dry Vacuums



On-board power outlet for power tools – Ideal for workshops and outdoor work.



Drain screw to conveniently empty liquid from the chamber.

Features

- 30 L robust stainless steel vessel
- Power take off facility
- 5 Second automated power off system for working in sync with other power tools
- Water drain screw



Robust stainless steel chamber

1250 W Wet & Dry Vacuum Cleaner (20 L)
TH-VC 1820 S | Art.-No. 23.421.67

RRP
£59.99
(INC VAT)

Visit www.einhell.co.uk to view UK stockists, watch video guides, order accessories, download user guides and for general assistance for all Einhell manufactured products.



CUSTOMER SERVICE

For all questions related to our Einhell manufactured products. Please call our customer service team.

Mon - Thurs
8.45am - 5.00pm

Friday
8.45am - 3.15pm

TEL: GB - 0151 649 1500
IRL - 1890 946244



NEW FOR 2015

2 YEAR GUARANTEE ON ALL PRODUCTS

24 HOUR ACCESSORIES



Dust extraction facility available on all Wet & Dry Vacuums

Features

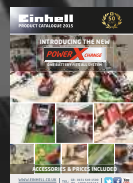
- 20 L robust stainless steel vessel
- 4 Piece castors
- Accessory bracket



Robust stainless steel chamber

1250 W Wet & Dry Vacuum Cleaner (15 L)
TH-VC 1815 | Art.-No. 23.402.90

RRP
£49.99
(INC VAT)



Scan this QR Code to download the 2015 catalogue



Dust extraction facility available on all Wet & Dry Vacuums

Features

- 15 L Plastic drum
- 4 Piece castors
- Accessory bracket
- Blow adapter



AVAILABLE FROM:

amazon.co.uk

Argos

Amazon, Amazon.co.uk and the Amazon.co.uk logo are trademarks or registered trademarks of Amazon EU S.à.r.l. or its affiliates.

In brief...



FIRST CLASS COMBINATION SQUARE

The 150mm Starrett 10MH-150 metric student combination square is a simplified combination square, specifically designed to make Starrett accuracy and quality available to students at a price they can afford. No bubble, no scribe,

the 150mm blade is not interchangeable with standard size versions. Both sides of the hardened steel blade are engraved with full mm on one edge and half mm on the other. The precision ground cast head features a crinkle finish – perfect for beginner woodworkers who are looking for quality at an affordable price. Priced at £39.50 and available from www.workshopheaven.com.



100% COMPATIBLE ADAPTOR

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

A robust, chrome-plated, low-friction baseplate and guide rails align and lock onto the track with micro and macro adjustability. While designed specifically for the Triton guide track system and plunge track saw, the adaptor is 100% compatible with Festool and Makita track rails. The adaptor costs around £42 from stockists – see www.tritontools.com to find out more.

THE CANADIAN EDGE

A brand new range of bench chisels from Canadian edge tool manufacturer IBC are now available from Johnson Tools. This will be the first time the long awaited range of IBC chisels has been available for UK customers to buy. Years in development, the IBC premium chisels have been a labour of love, which has fruited a beautifully crafted range of chisels more than capable of performing on the level of other well-known premium American and Canadian brands. Prices start from £55.95 each – see www.johnsonstools.co.uk for further details.



EDGEBANDING ON THE GO

Axminster Tools & Machinery is now selling two new portable edgebanders from Le-Matic. These machines can be used for applying veneers to straight or curved panel edges in PVC, ABS, laminated and solid woods. Both have many patented features not found on other portable edgebanders.

BR500 edgebander

This advanced model, priced at £947.95, has a number of ergonomic and intuitive controls. It features a feeder on/off switch, a measured guide in increments of 1mm, a glue pot handle with two positions and an easy-to-reach knob regulates the flow of glue amount. The digital temperature control system has two modes: one with a range from 80°-155°C and the other with a range of 120°-200°C. It also feature a variable speed range of 2-6m/min.



BR300 edgebander

Priced at £815.95, the BR300 has many features similar to the BR500. The main differences lie in the temperature control, which is a simple twist dial providing accurate control over the glue application and giving a temperature range of 120°C–200°C ±1°C. Both models are ideal for on-site work or integration into a woodworking workshop. See www.axminster.co.uk.

ORDER BY 8PM
GET IT NEXT DAY

IronmongeryDirect

MASTERS OF OUR TRADE

UK'S BIGGEST RANGE IN STOCK!

GET YOUR
FREE
CATALOGUE

0808 168 28 28 IronmongeryDirect.com

C3 31 STARTER SET



C3 31 Comfort COMBINATION MACHINE + STARTER-SET

- 4.0 HP (3.0 kW) motor
- Format sliding table 2000 mm
- 1100 mm outrigger table
- Precision mitre index system
- 1300 mm crosscut fence for outrigger table
- Planer fence tilts from 90° to 45°
- Surface planer table length 1400 mm
- Planing width 310 mm
- Remarkably user friendly
- Allows rapid retooling

6.718,05

5.390,00

Save up to 1.328,05 £ excl. VAT



Universal saw blade Ø 315 mm, Z 48



Cutterhead set Universal cutter head (steel made)



AF 12 dust extraction extractor

with dust bag quick change system

In brief...

ANY OTHER BUSINESS

Encouraged by Kathy, my apprentice, I've lately been making efforts to tidy up the Neon Saw workshop. Although I've only the sketchiest of systems, I find everything works best when you know where things belong and always return them there, no matter how arbitrary the placing.

In the spirit of establishing and maintaining order in the magazine then, we've started this new AOB column as a place for general things, random stuff and the occasional announcement. The experienced reader may notice one or two minor changes this issue and probably for a while yet to come. There won't be anything radical, startling or even controversial going on, just more of the standard mix of projects, technical tips, tools and features.

Going electronic

One change which has affected us all is the ease with which we can all now communicate electronically. My first request then, for anyone

thinking about writing in with an advert for our Marketplace page, is to try out the email option as this will make life much easier. We'll still process the written page forms, but if you could go digital from now on, that'd be great.

Get in touch

I'd also like to remind everyone that I'm always interested in hearing of your woodworking experiences. Unusual things that happen are always enjoyable to hear about, and so are unusual tools or equipment, especially if you have a photo to go alongside. Contributions are forever welcome, and remember, this magazine belongs to all woodworkers, whoever and wherever you are; it's down to us to keep it going for the future generations to come. For news of unusual kit, general woodworking amusement, stories of wonderment, or just anything you want to share, email mark.cass@mytimemedia.com. For Marketplace adverts, use: thewoodworker@mytimemedia.com.

DIARY

OCTOBER

Southern Fellowship of Woodworkers' Open Day

3 The Cross Barn, Palace Gate Farm, Odiham, Hampshire RG29 1JX
01962 849 387
www.sfwwo.org.uk

'The' Tool show

9-11 Kempton Park Racecourse, Staines Road East, Sunbury on Thames, Middlesex TW16 5AQ
0208 892 3813
www.thetoolshow.com

Axminster Skill Centre courses

16 Introduction to Leigh jigs *
19-20 Natural-edge bowls
22-23 & 31-1 Nutcracker figures
26-27 Beginners' woodturning
26-27 Wood machining
27 Spindle moulding *
29-30 Christmas decorations & gifts (2 days)

* Course held in Sittingbourne, Kent
Unit 10 Weycroft Avenue, Axminster
EX13 5PH 0800 975 1905
www.axminsterskillcentre.co.uk

Tweed Valley Forest Festival

23-1 Peebles Community Centre, Walker's Haugh, Peebles, Scottish Borders EH45 8AU
01721 740 260
www.forest-festival.com

West Dean College courses

23-25 Steam-bent and inlaid tray
23-25 Woodturning – textured bowls
West Dean College, Chichester, West Sussex PO18 0QZ
01243 811 301
www.westdean.org.uk

Surrey Association of Woodturners' Open Day

25 Mytchett Community Centre, 140 Mytchett Road, Camberly, Surrey GU16 6AA
01252 373 073
www.sawoodturners.org



EASY DRAWER SLIDE INSTALLATIONS

The new Universal Drawer Slide Jig holds drawer slides into position to ensure level, even installment. The jig fits most types of drawer slides, and thanks to an innovative locking wedge, the jig is able to hold the slide securely for installation. Cutouts in the jig body allow access for drill and driver bits as you secure the slide with screws. Once the slide is fastened, just slide the locking wedge open to release the jig from the newly installed slide.

An adjustable indexing rod can be extended from the top or bottom of the jig to set slide height settings to ensure each pair of slides will share perfect lateral alignment. Another handy feature is that the indexing rod can be stored onboard when not in use. Available from www.rockler.com priced at £19.65.

STAR OF THE SHOW

Manufactured in Japan, Starbond CA adhesive is non-toxic, non-flammable, waterproof and has a guaranteed 20 month shelf life, thanks to the triple-distillation process which Starbond undergoes, making it a product of choice when performance, quality and shelf life are at issue.

Starbond CA glue is supplied in a greater range of viscosities, i.e. runniness, than any of its peers. This ranges from the super-thin variety recommended for penetrating and stabilising soft and friable timber to the gap-filling thicker grade. Prices start from £4.20 for 25g, see www.toolpost.co.uk for more details.



ORDER BY 8PM
GET IT NEXT DAY

IronmongeryDirect

MASTERS OF OUR TRADE

UK'S BIGGEST RANGE IN STOCK!

GET YOUR
FREE
CATALOGUE

0808 168 28 28 IronmongeryDirect.com

The North of England Woodworking & Power Tool Show



Gt Yorkshire Showground Harrogate (HG2 8QZ)

20 November 2015 10am - 5pm
 21 November 2015 10am - 5pm
 22 November 2015 10am - 4pm

SK Promotions

www.skpromotions.co.uk • T: 01474 536535

Make life easy and pre-book your tickets.

Telephone **01749 813899** or write to SK Promotions,
 The Old Sun, Crete Hall Road, Northfleet Kent, DA11 9AA

Name:

Address:

Post Code:

No of adult tickets ~~£10.00~~ @ £8.50

No of concession tickets ~~£9.00~~ @ £7.50

Cheque / P.O. to SK Promotions £

PLEASE ENCLOSE A STAMPED ADDRESSED ENVELOPE.

For show details either visit www.skpromotions.co.uk
 or phone 01474 536535.

Should you not wish to receive further information
 on our woodworking shows please tick

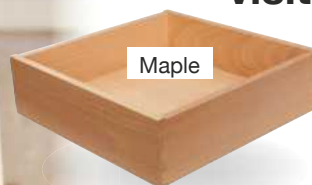


Add the perfect finishing touch to your project.

Let us take care of the drawers while you get on with the creative stuff...

- High quality, bespoke dovetailed drawers available in Beech, Maple, Oak or Walnut
- Choose from standard drawers, shaped sides or handle cut-outs
- Fully finished, lacquered and ready to install
- Each drawer built to your exact specification
- Fast turnaround times

Call us today for a quotation or visit proboxdrawers.co.uk



Maple

Standard drawer



Beech

Handle cut-outs



Walnut

Shaped sides



Available with or without runners. Choose from either Blum or Grass soft-close runners

Tel: 01280 825776

Email: probox@qs-sales.com

www.proboxdrawers.co.uk



What's new from



'THE' TOOL SPECIALISTS • WWW.DM-TOOLS.CO.UK • 020 8892 3813



'THE' TOOL SHOW '15
WWW.THETOOLSHOW.COM

9-11 OCTOBER '15 KEMPTON PARK

We look forward to seeing you at **'THE' TOOL SHOW 2015** at the prestigious Kempton Park Racecourse at Sunbury-on-Thames, on the weekend of **9-11 October 2015**. 'THE' TOOL SHOW is the UK's premier hand, power tools and woodworking machinery exhibition for DIY amateurs and trade professionals and is now in its 15th year. Don't miss this opportunity to see the very latest tools and equipment demonstrated by all the leading manufacturers. New for 2015, Milwaukee will be exhibiting with their 'Big Red' truck. Several brands will be showing new products for the first time in the UK, plus you can pick up exclusive deals and special offers, which are **ONLY** available to visitors to the show. There is ample **FREE** parking plus **FREE** show guide and **FREE** admission. Make a note in your diaries and visit www.thetoolshow.com for more details.



TOOL CONNECT – THE INTELLIGENT WAY TO MANAGE YOUR CORDLESS SYSTEM

MANUFACTURER: DeWALT

D&M GUIDE PRICES: 5.0Ah DCB184B – £154.95
2.0Ah DCB183B – £96

The new DEWALT 18V DCB18 XR Bluetooth Slide Li-Ion Batteries pair with Apple and Android smart devices via the free **Tool Connect™ App**. This innovation gives DEWALT users the ability to control their compatible DEWALT batteries remotely via a Bluetooth device. From the Tool Connect™ App home screen, users can select an individual battery to view its diagnostics and change settings.

Tool Connect allows you to quickly and easily check tools are present, saving you precious time at the end of a day's work. It allows you to lend tools through check-out and check-in functionality, ensuring you're in control at all times. It also allows you to check battery health, so you know exactly which tools need charging before your next job. Compatible with all slide on DEWALT Li-Ion 18V tools, the new batteries are available in 2.0Ah or 5.0Ah.



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



SPRAY-WAX

High quality oil-wax finish - especially developed for professional users!

- > Extremely tough and hardwearing
- > Very water and dirt resistant
- > Suitable for children's toys (EN 71.3)
- > Microporous, breathable finish, which does not crack, peel, flake or blister



Call or visit website for stockists.



+44 (0)1296 481 220
www.osmouk.com



Wood-Mizer

from forest to final form



**25TH ANNIVERSARY *
LT40 SPECIAL OFFER**

25% OFF

The LT40 electric, stationary sawmill with hydraulics

THE BIGGEST DISCOUNT EVER!

LT40

A 25 year legacy of sawmilling excellence

- 11kW electric
- Advanced PLC2 electronic Networks
- Standard hydraulic log handling
- Loading arms
- Claw turner
- Clamp
- Side supports

Only 25 are available at this price. RESERVE YOURS TODAY!

Wood-Mizer UK
Hopfield Barn
Kenward Road, Yalding
Kent ME18 6JP
+44 1622 813 201
www.woodmizer.co.uk
info@woodmizer.co.uk

* Options and accessories are regular price. Offer valid from 1 October until 31 December 2015. Other offers are available for all other sawmill models. Cannot be combined with any other offers.

John Davis Woodturning Centre

... a working woodturning centre run by Woodturners for Woodturners **not just a shop**

nova Comet II Variable Speed Midi Lathe



- Solid cast iron bed
- 2MT head and tailstock spindles
- 300mm(12") swing, 420mm(16 1/2") between centres
- 750W(3/4hp) motor with variable speed
- Forward and reverse function

elipse Half Mask

- Latex and silicone free, lightweight TPE face piece
- Doesn't steam up your glasses
- Can be worn under visor



Replacement filters available

The Old Stables, Chilbolton Down Farm, Stockbridge, Hampshire SO20 6BU

email: admin@johndaviswoodturning.com

Shop Open: Mon - Sat 10am - 5pm, Sun 10am - 2pm

www.johndaviswoodturning.com

Tel: 01264 811070



BY MATTHEW WHITELEY

Multi-functional simplicity

Furniture making course graduate Matthew Whitely takes us through the steps for making one of his final projects and shares his secrets of construction, problems encountered and ideas for its improvement

I have just graduated from the Fine Woodwork Diploma, a furniture making course at the Building Crafts College in Stratford. From September, I am going to be continuing on at the college for a further year as a 'Maker In Residence' to develop my furniture making business. The wide chamfer table was designed and built as one of my three final projects.

Concept

We were given free reign in terms of concept, the only restriction being that the primary material should be wood and that the project should be achievable within the



All the components for the wide chamfer table

time limit and with the facilities and space we had available at the college. I started by setting myself a brief to create a table that could function as either a desk or a small kitchen table to seat four people. I was also thinking that the table could be a prototype for possible batch production at a later date. I decided that the table would be knock-down so it would be easy to move and to pack for storage or delivery.



3 The ends of the rails are profiled on the router table to form the concave necessary to meet the legs



4 Precision drilling is required to ensure the rail bolts and threaded inserts will always line up

and how it would support and attach to the table top. A key influence was the 'Span table' by Wales&Wales and Joined+Jointed, I wanted to recreate the effect of these strong self contained elements that come together to create a harmonious whole. I broke the frame down into two end 'A' frames and three rails and decided to bolt through the frames into the rails making a feature of the exposed bolt heads. I wanted to avoid the kind of hidden fixings that would usually be associated with cheap flat pack furniture.

Once I had the basic design, I consulted ergonomic guidelines in some furniture making books and made a full-scale mock-up in pine and MDF to make sure that the legs and rails would allow adequate room for four adults sitting around the table, **photo 1**. I also made a 1:4 scale model, **photo 2**, to give a better idea of how the final table would look from various different angles. I combined all this information to produce the final technical drawings for the table.

Materials

I had really liked the colour and grain of the American white ash we had used at the college on an earlier project so decided from the beginning that the solid frame would be made from ash. To maintain a clean look to the forms I had designed, I selected boards that were all lighter in colour and had no 'olive' patterning.

I decided to make the top out of layers of MDF, that I could shape to create the wide

chamfers, then finish by gluing a veneer for the top surface and painting the underside.

In my design I had these four distinct areas of material or colours: the leg frame, the table surface, the table underside and the bolt heads. Taking the ash frame as a starting point, I took samples of finished ash with me to select veneer. I found a really interesting European walnut veneer that had been cut from a board close to the edge of the tree, so it had all the warm, golden orange colours but almost none of the

black, purple, dark brown colours that you would usually get with European walnut.

Once I had finished samples of the ash frame and the walnut veneer together I selected colours for the table underside and the bolt heads to complement them. I decided on strong colours as you would only see a thin stripe of the table underside and the bolt heads would appear relatively small against the ash rails. I ordered a heavy-duty Rustoleum paint mixed to the specific colours and packaged into aerosol cans.



5 Multiple dowels provide a large gluing area for necessary strength

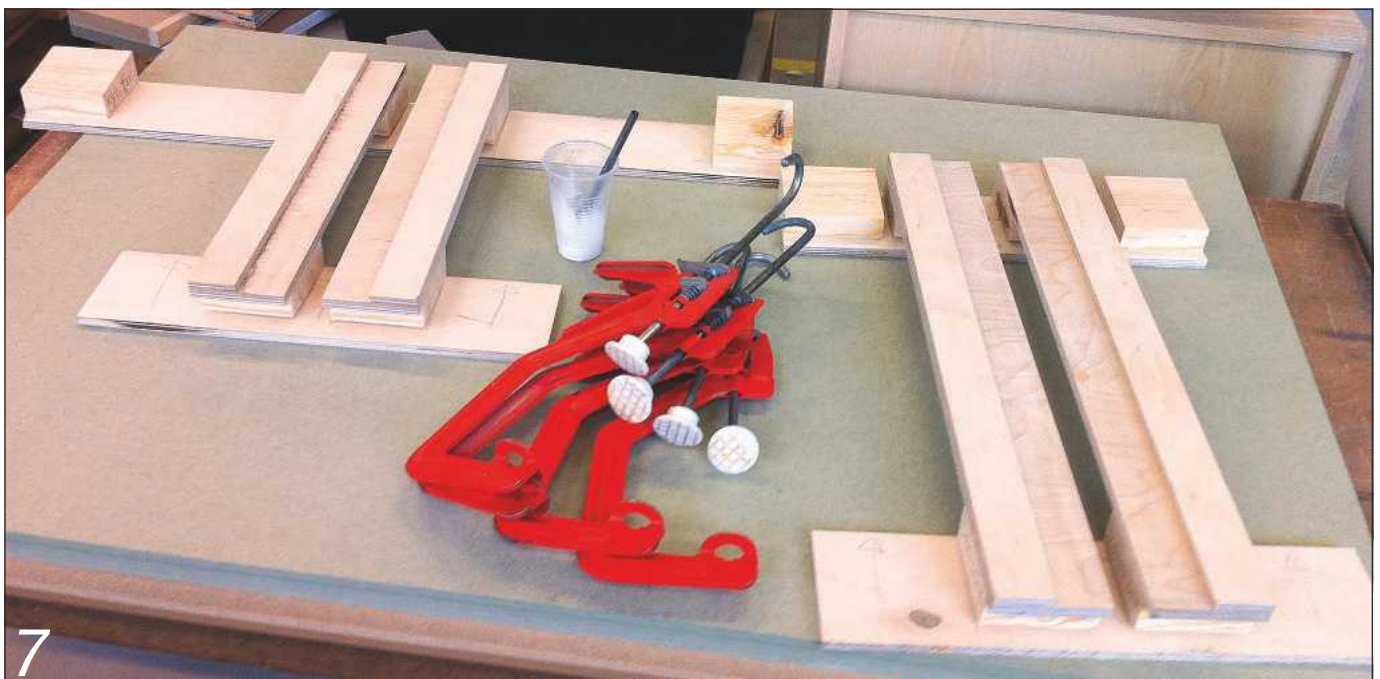


6

The end frames are clamped up; note that the clamp blocks are also profiled to improve grip and reduce glue-up stress!

Construction

The end 'A' frames were put together with PVA glue and dowels. To achieve a tight, clean joint between the rails and the round section of the legs I used two large, matching router cutters, **photo 3**. A bull-nose cutter to create the round section of the legs and a round-nose box core cutter across the ends of the rails. The rails that run between the two end frames have dowels (for location) and threaded inserts (for the bolts) fixed into either end. I had to make a number of drilling jigs to ensure that all the holes for the dowels and inserts were drilled in the right locations and angles and that the components lined up with each other correctly, **photo 4**. The cross rails are



7

It's worth making the time to custom make routing aids instead of relying on random scraps from the workshop floor!



8

Here the chamfer routing jig is seen in use at the start of a bit of a routing marathon

also reversible, so the positions of dowels and inserts had to be consistent, **photo 5**.

The top was made from three layers of 9mm MDF, laminated together with a layer of walnut veneer on the top surface and another balancing veneer sandwiched between the top and middle layers of MDF. I laminated the layers together with PVA glue in a vacuum press bag.

I created two router jigs, **photo 7**, which would run against the edges of the table top and hold the router at the right angle to produce consistent wide chamfers along all four sides of the table. I used a router template to round the table's corners. The underside of the table was finished with an orbital sander and by hand with sanding blocks, then painted with aerosol spray paint.



9

After the routing, the underside was sanded after a coat of a thin resin to seal and protect against paint bleed later

Problems encountered & resolved

Because of the veneer laminated on the surface, I knew that I was going to have a problem with the edges of the table warping when I removed the material to create the chamfers. I decided to make up the full thickness of the table top from three pieces of 9mm MDF, which meant I could add a balancing veneer in between the top two layers. This extra veneer also served to strengthen and support the very thin edges of the table top.

Where I had removed so much material from the MDF, I was left with large surfaces of exposed MDF, which can be tricky to finish successfully. To solve this problem, I started by using a higher grade of moisture resist MDF, which is denser. With a little experimentation I found a very thin epoxy casting resin, which would soak several millimetres into the exposed surfaces, and could be sanded back to a very smooth, even and non-absorbent finish. This resin also served to strengthen and stiffen the thin edges of the table top.

When I did initial tests soaking the resin into the MDF, I found that even where I had masked off carefully the resin bled through from behind into the edges of the veneer,

photo 9. I solved this by applying several coats of oil to the veneer after shaping the table top, but before soaking the resin in. The oil, once dry, acted as a barrier to prevent the resin bleed through.

Because I had to do quite a lot of work on the top after oiling the surface, it managed to pick up a few bad scratches. Once the table underside had been painted, I came back to the veneered surface and scraped and sanded the scratches out. When I applied a new coat of oil, it settled and dried unevenly on the surface, where I hadn't sanded the veneer back far or evenly enough. To remedy this I used an extra fine grade wire wool to work into the glossy, raised areas of wax until the surface was even again and it could take a final coat of oil.

Special finishes

For the table frame I used an Osmo Raw Polyx Oil, which contains a little white pigment, to retain the light, clean look of the ash. For the walnut veneer on the surface I applied several coats of Osmo Top Oil, which would provide a harder wearing surface and is a fairly neutral oil, so would enhance the unusual colours in the veneer rather than yellowing or darkening them like a Danish oil would.



10

After an enthusiastic paint job, the frame bolt heads provide a colourful contrast detail to the green of the table edge



The completed table

The end frames, minus the table top



To create the very smooth, even surface of the underside of the table, I first soaked a thin epoxy casting resin into the MDF, which I could sand back to a very smooth finish. I then used two coats of an industrial Rustoleum aerosol spray paint, which was self priming, straight onto the prepared surface. The stainless steel bolt heads were cleaned with white spirit, keyed with fine abrasives, masked off and painted with a similar paint in a contrasting colour, **photo 10**.

Conclusions

Formally, I think the table is a success. It has simple, clean lines with some subtle, surprising details in the shaped underside and coloured bolt heads. As intended, it functions well as both a desk for a single user or a small kitchen table for four. I also managed to achieve a good quality of finish throughout; the join between the veneer and painted surface is crisp and even, the inserts and bolts line up nicely and the cross rails are reversible and interchangeable.

As a prototype for batch or mass-production it is not completely successful and the design and processes will need refining to make production more efficient. The biggest problem is the complexity of forming the table top. There are several time-consuming processes and lots of hand finishing that would make the unit cost per top prohibitive. I have been thinking about the possibility of casting the top and then gluing the veneer to the top surface after it has been polished or finished. To prevent the top warping, I would need a combination of a strong, stable casting material and an adhesive for the veneer that wouldn't move or shrink.

Although I am pleased with the way the bolts look against the ash rails, they also need a little refinement. The paint I used for the bolt heads is not strong enough to stand up to many scratches from the Allen key. With a large enough scale of production, I would look to having the bolt heads specially manufactured with integral colour. The other problem is that it takes a little too long to tighten all the bolts. This could be solved by carefully tuning the lengths of the bolts and the depth of the inserts, but it may be that a different type of fixing altogether would offer a more elegant solution.

Another option to simplify production would be to have the whole table frame glued together as one component. It would mean that the table wouldn't pack down as small for storage or delivery but it would still be easy to move around in two parts and would make assembly quicker and easier. **WWW**



INSERT BITS



BIT HOLDERS



EXTENSIONS



POWER BITS



DOUBLE-ENDED POWER BITS



ANGLED DRILL DRIVE



MAGNETIC SCREW COLLAR



DOUBLE-ENDED BITS

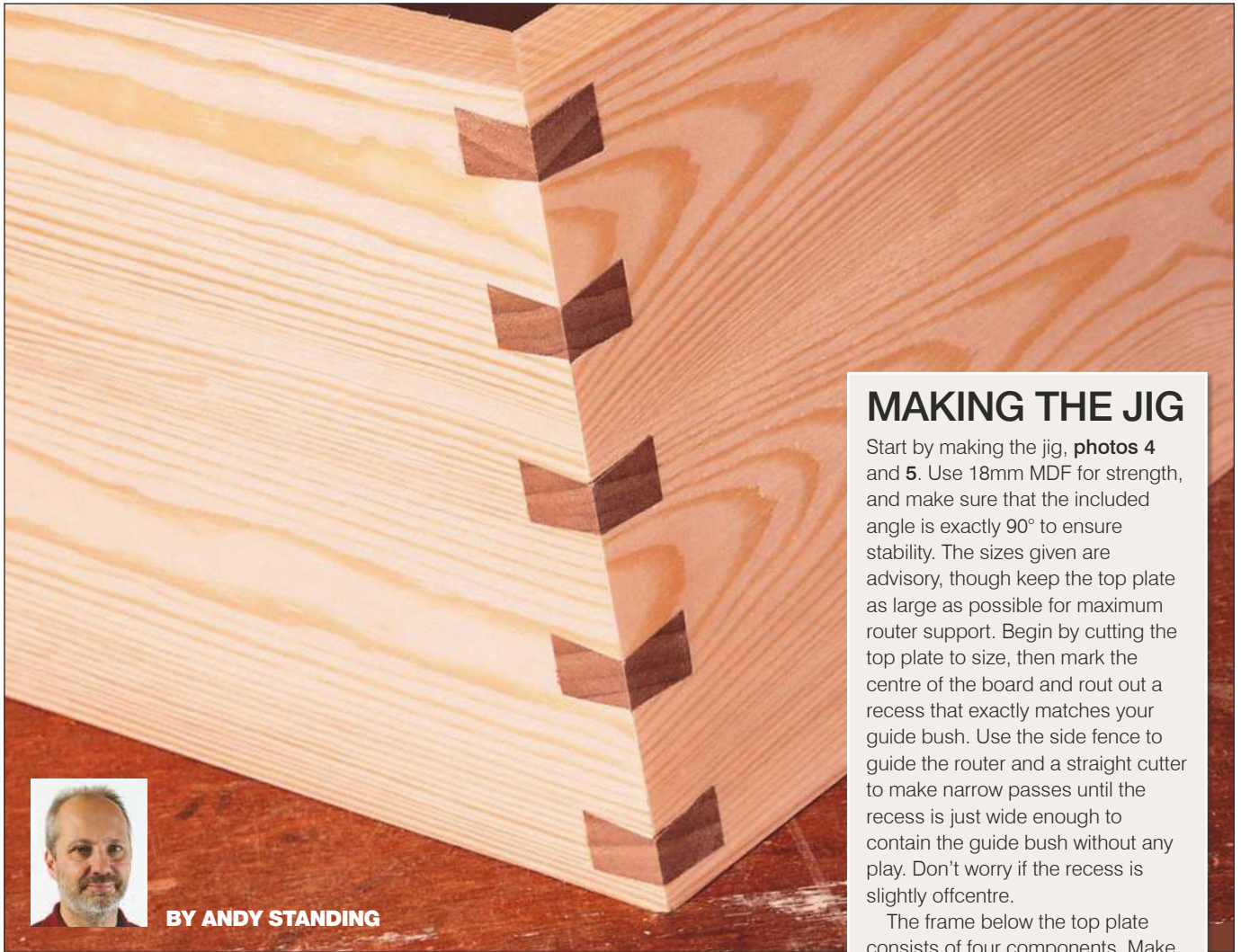
DOUBLE-ENDED VERSATILITY

**THE NEW IRWIN IMPACT PERFORMANCE SERIES™ BITS.
DO MORE WITH YOUR DRIVER THAN EVER BEFORE.**

With single and double-ended bits, extension accessories, and a broad range of tips and lengths, the Impact Performance Series is the most versatile on the market and has what it takes to get any job done. We even used it to make this ad.

irwin.co.uk

IRWIN
TOOLS



BY ANDY STANDING

Boxmaking brilliance

Andy Standing shows you how to make the spline dovetail joint as well as a simple jig. Popular with box makers, this attractive joint is known for adding strength and decoration

The spline dovetail is a joint that can be used both for strength and decoration. It can be especially attractive on small carcasses and is particularly popular with box makers. It is simple to make and the only tools needed are a router fitted with a dovetail cutter and a tilting arbor table saw. However, you do need to make a simple jig first. This can be modified to suit your particular router/guide bush combination. The design here uses a 24mm guide bush. [www](http://www.getwoodworking.com)

MAKING THE JIG

Start by making the jig, **photos 4 and 5**. Use 18mm MDF for strength, and make sure that the included angle is exactly 90° to ensure stability. The sizes given are advisory, though keep the top plate as large as possible for maximum router support. Begin by cutting the top plate to size, then mark the centre of the board and rout out a recess that exactly matches your guide bush. Use the side fence to guide the router and a straight cutter to make narrow passes until the recess is just wide enough to contain the guide bush without any play. Don't worry if the recess is slightly offcentre.

The frame below the top plate consists of four components. Make sure that the angle between the supports is exactly 90° and that the top plate sits on it at exactly 45°. Once the boards have been cut to length and mitred, cut a slot in the mitred ends – make it the same width as the guide bush slot and about 40mm long. This is where the cutter will pass through the sides of the box, so you need good clearance.

Glue and screw the jig tightly together. Pre-drill the MDF to avoid splitting the core and countersink the screws so that they won't foul the router.

The dovetail splines are inserted through an assembled mitre joint, so the first step is to assemble the joint and glue it up. Use biscuits to help hold the joint in alignment.



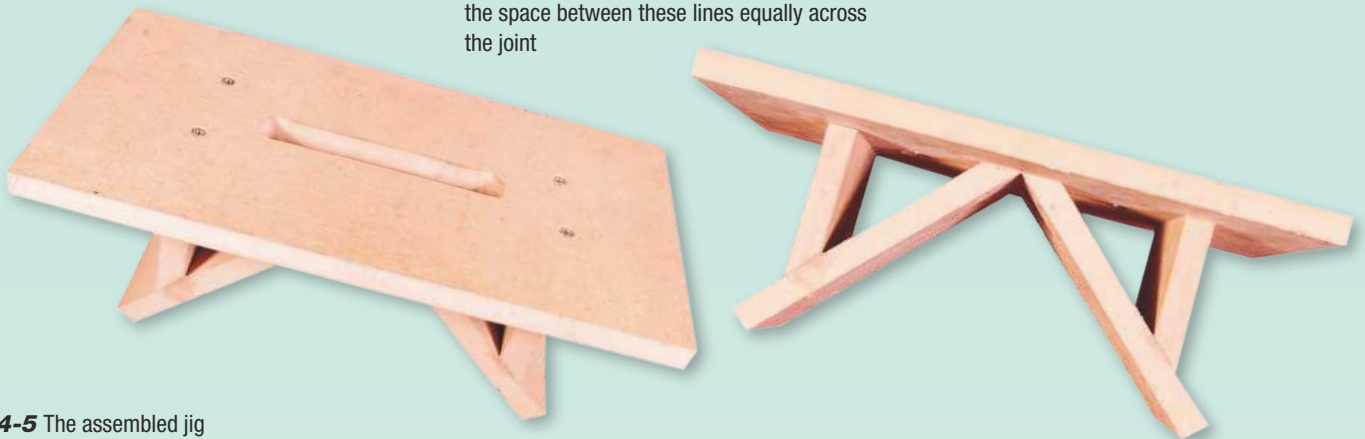
1 Clamp your mitre joint in the bench vice so that it faces upwards



2 Mark out the dovetail spacings across the joint. Keep the outside splines away from the edge, so start by marking a line about 10mm in from each edge for the outside pair, then divide the space between these lines equally across the joint



3 The marked workpiece is now ready for machining



4-5 The assembled jig



6 In order to set up your jig accurately, make a setting bar. This should fit snugly in the guidebush groove and have its centre clearly marked



7 Insert the setting bar through the jig and line it up on the marked lines

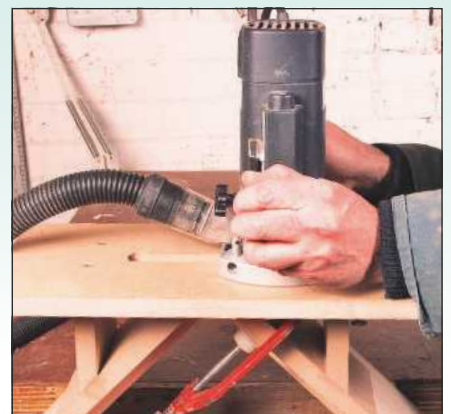


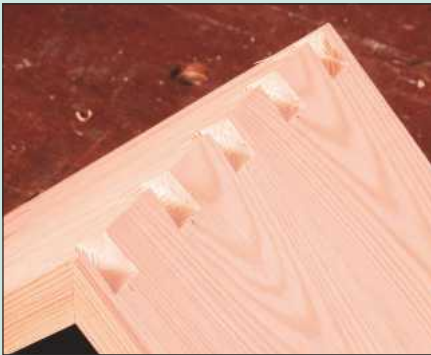
8 Clamp the jig in place



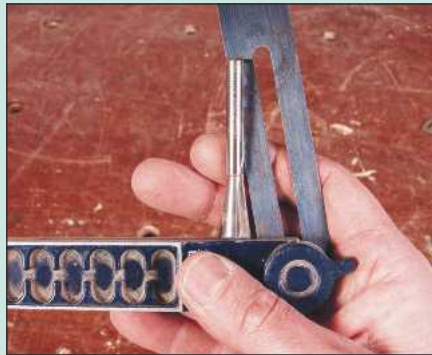
9 Fit the router with a guide bush and dovetail cutter

10 Stand the router on the jig and plunge the cutter until it just touches the top of the corner joint. Set the depth about 10mm below this. Pull the router back, plunge it to full depth and lock it down. Start the machine and run it through the joint. Switch off without releasing the plunge lock, then re-set the jig and repeat for all the marked positions across the joint





11 After machining, the joint should look something like this



12 Remove the dovetail cutter from the router and set a sliding bevel to match its angle



13 Transfer this angle setting to your table saw. Please note that the crown guard has been removed for clarity



14 Set the rip fence a little wider than the base of the dovetail, and with all guards securely in place, rip down both sides of your timber to make the splines. Make up a long length, and trim it to size later



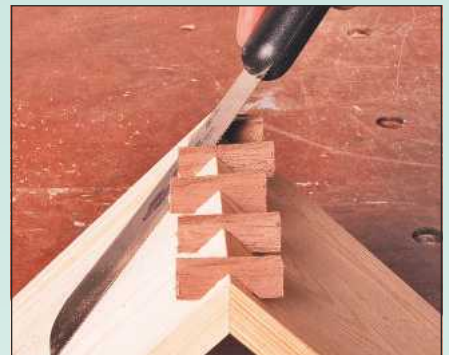
15 To adjust the fit, lay the timber on its side and with the blade still tilted, take shaving cuts off the bottom until the piece will just tap into the dovetail sockets with a light hammer



16 Cut the splines into short lengths, apply a little glue and gently drive them into place with a hammer



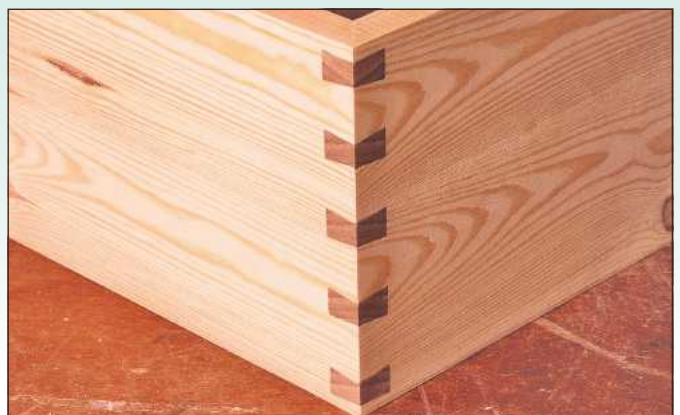
17 Here you can see the oversize splines in place



18 Trim off the waste with a flexible pull saw; this allows you to trim right up to the edge without damaging the workpiece



19 Finally, clean up the joint with a plane then fine abrasive paper



20 The finished spline dovetail joint



TURNERS TOOL BOX
DAVID MARTIN



CREATIVE WELSH WOODTURNING LTD.

Turners Tool Box.Com

WOODTURNING – WOODWORKING – WOODCARVING
TOOLS & ACCESSORIES

LOG ON TO:

www.turnerstoolbox.com



Woodturning Chucks including the:
Robert Sorby Patriot Woodturning Chuck
Axminster Evolution SK114 Woodturning Chuck
All with additional accessories making your time at the
lather a more pleasurable experience



New
Pen Mandrel Support



Bolt Action & Bullet Pen Kits
In a variety of different metal finish's
Including the required sized
Drill bits & the bushing sets



Colt MaxiCut® Forstner Bits:
Metric & Imperial Sizes



Colt HSS-M2 150mm Pen Drill Bits
Sizes from 7mm upwards



Extension Bars &
Morse Taper Adaptor



DELIVERED WORLD WIDE

For more information Visit: www.turnerstoolbox.com

Order online Open 24hrs – All at the click of a button and delivered straight to your door

Email: info@turnerstoolbox.com – Tel: 01873 831 589 – Mobile: 07931 405 131



DRAPER Tools WOODWORKING

ASK FOR A COPY OF OUR CATALOGUE OR VIEW ONLINE: drapertools.com/catalogue



315mm
740W 230V
Two Wheel
Bandsaw
Stock No. 76237



DRAPER Expert
200mm Heavy Duty Soft Grip
Carpenter's Pincers
Stock No. 72172



DRAPER Expert
150mm Heavy Duty
Soft Grip Dual
Action Clamps
Stock No. 02373

OTHER SIZES
AVAILABLE



DRAPER Expert
4 piece 150mm Soft Grip
Bevel Edge Wood Chisel Set
Stock No. 89726



450W 230V
5 Speed
Bench Drill
Stock No. 38256



Clarke

4" BELT/
6" DISC
SANDER

CS4-6D

- Dust extraction facility
- 4" x 36" belt tilts & locks 0-90°
- 225mm x 160mm table, tilts 0-90°
- 370w, 230v motor

£84.99
EXC.VAT
£101.99
INC.VAT

Clarke

6" BELT/
9" DISC
SANDER

CS6-9C

- Includes stand
- 1 Hp/ 230v/ 1ph motor

£209.99
EXC.VAT
£250.99
INC.VAT

Clarke

4" BELT/
8" DISC
SANDER

CS4-8

- Includes two tables
- 550w 230v motor.

£39.99
EXC.VAT
£67.99
INC.VAT

Clarke

1" BELT & 5" DISC SANDER

CBS1-5

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

£64.99
EXC.VAT
£77.99
INC.VAT

Clarke

DISC SANDER (305MM)

CDS300B

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

£119.99
EXC.VAT
£143.99
INC.VAT

Clarke

QUALITY CAST IRON STOVES

OVER 20 GREAT STYLES IN STOCK

11.8kW £89.99
EXC.VAT
£107.99
INC.VAT

6.9kW

6kW

£209.00
EXC.VAT
£250.00
INC.VAT

£249.00
EXC.VAT
£298.80
INC.VAT

FLUES, COWLS & ACCESSORIES IN STOCK

BUCKINGHAM

Clarke

ELECTRIC HEATERS

DEVIL 6003

- Rugged fan heaters with tough steel cabinets
- Adjustable heat output with thermostat

FROM ONLY £39.99
EXC.VAT
£47.99
INC.VAT

DEVIL 6003

Clarke

SHEET SANDERS

CON300

- 110v in stock

FROM ONLY £13.79
EXC.VAT
£16.79
INC.VAT

CON300

Clarke

STAPLE/ NAIL GUNS

CONSN118LI

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

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

CONSN118LI

Clarke

STATIC PHASE CONVERTERS

PC60

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

CONVERT 230V 1PH TO 400V 3PH

PC60

Clarke

POWER PLANERS

CEP1

- 82mm cutting width

FROM ONLY £23.99
EXC.VAT
£28.99
INC.VAT

CEP1

Clarke

BELT SANDERS

BS1

- Ideal for surface removal, sanding and finishing

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

BS1

Clarke

PLANERS & THICKENERS

CPT800

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

FROM ONLY £169.98
EXC.VAT
£203.98
INC.VAT

CPT800

Clarke

MULTI FUNCTION TOOL WITH ACCESSORY KIT

CMFT250

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

FROM ONLY £36.99
EXC.VAT
£44.99
INC.VAT

CMFT250

Clarke

OSCILLATING BOBBIN SANDER

COBS1

- Provides exceptional finishes for deep & wide work pieces, front edges & narrow inner curves
- Dust collection port
- Inc. 5 sanding sleeves/ bobbins
- 330mm table height

ONLY £119.99
EXC.VAT
£143.99
INC.VAT

COBS1

Machine Mart

NOW 65 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS



Clarke RANDOM ORBITAL SANDER CRO51

£29.99
EXC.VAT
£35.99
INC.VAT

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

INC 5 DISCS

Clarke ELECTRIC POWER FILE CPF13

FROM ONLY £24.99
EXC.VAT
£33.99
INC.VAT

- Variable belt speed
- Tilting head
- Black & Decker

INC 5 DISCS

Clarke VAC KING WET & DRY VACUUM CLEANERS

FROM ONLY £47.99
EXC.VAT
£57.99
INC.VAT

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

Clarke SHEET SANDERS CON300

FROM ONLY £13.79
EXC.VAT
£16.79
INC.VAT

MODEL	SHEET SIZE	MOTOR	EXC.VAT	INC.VAT
CON300	190x90mm	150W	£13.99	£16.79
Makita	230x115mm	330W	£32.99	£39.99
Makita	112x102mm	200W	£54.99	£65.99

Clarke BELT SANDERS BS1

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

• Ideal for surface removal, sanding and finishing

• ABRASIVE SANDING BELTS IN STOCK

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

Clarke BOLTLESS SHELVING BENCHES

• Simple fast assembly in minutes using only a hammer

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

WHEN YOU BUY ANY MIX OF 5 FROM THIS RANGE SAVE AT LEAST £17.99 INC.VAT

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

ALSO EXTRA WIDE INDUSTRIAL UNITS AVAILABLE

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

Clarke BANDSAWS CBS300

NEW RANGE

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

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

£349.98
EXC.VAT
£419.98
INC.VAT

ONLY £449.00
EXC.VAT
£538.80
INC.VAT

FEATURES: MAGNIFIED MITRE GUIDE, BLADE TENSIONING CONTROL, FLEXIBLE LED WORKLIGHT, SOLID GROUND CAST IRON TABLE, MULTI-STEP DUST EXTRACTION OUTLET, REMOVABLE DUST TRAY, DRIVE-BELT TENSIONING, QUICK RELEASE FENCE.

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

Clarke STAPLE/ NAIL GUNS CONSN118LI

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

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

SPARE NAILS / STAPLES IN STOCK

ELECTRIC AND CORDLESS MODELS IN STOCK

MODEL	TYPE	STAPLE/ NAIL GAUGE	EXC.VAT	INC.VAT
CESN1G	Electric	22/18	£19.98	£23.98
CCT48	Cordless	4.8v NI-MH	£29.98	£35.98
CESN2G	Electric	18/18	£39.98	£47.98
CONSN18LI	Cordless	18v Lithium-Ion	£109.98	£131.98

Clarke BELT SANDERS BS1

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

• Ideal for surface removal, sanding and finishing

• ABRASIVE SANDING BELTS IN STOCK

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

Clarke PLANERS & THICKENERS CPT800

FROM ONLY £169.98
EXC.VAT
£203.98
INC.VAT

• Ideal for DIY & Hobby use

• Dual purpose, for both finishing & sizing of timber

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

Clarke

TABLE SAWS CTS100

- CLK3 LEG STAND KIT FOR CTS100 - £29.99 INC.VAT.
- LEG STAND KIT FOR CTS11 - £27.59 INC.VAT

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



*Moulded base

MODEL	MOTOR	BLADE	EXC.VAT	INC.VAT
CTS800B	600W	200mm	£69.98	£83.98
CTS11*	1500W	254mm	£139.98	£167.98
CTS100	1500W	254mm	£159.98	£191.98

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°
- 230V/50Hz, Motor: 1800W.
- Shown with optional leg kit CLK5 £22.99 exc.VAT £27.59 inc.VAT

£119.98
EXC.VAT
£143.98
INC.VAT

Clarke 255mm MULTI-PURPOSE TABLE SAWS

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

MODEL	MAX DEPTH CUT	TABLE SIZE (mm)	EXC.VAT	INC.VAT
FURY5*	54mm	73mm	£149.98	£179.98
RAGE5*	55mm	79mm	£269.00	£322.80

*FURY power: 1500w (110v available)
*RAGE power: 1800w/230V (110v available) table extensions included

Clarke CIRCULAR SAWS CON185

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

• Great range of DIY and professional saws

- Ideal for bevel cutting (0-45°)

*Includes laser guide

Clarke STATIC PHASE CONVERTERS PC60

PRICE CUT NOW FROM £209.99
EXC.VAT
£250.80
INC.VAT

• Run big 3 phase woodworking machines from 1 phase supply

• Variable output power to match HP of motor to be run

CONVERT 230V 1PH TO 400V 3PH

MODEL	MAX. MOTOR HP	FUSE	EXC.VAT	INC.VAT
PC20+	2HP	10Amps	£209.99	£250.80
PC40+	3.5HP	20Amps	£249.00	£298.80
PC60+	5.5HP	32Amps	£299.00	£358.80

MODEL	MOTOR	MAX CUT	EXC.VAT	INC.VAT
GCS185B	1200W	65/44	£34.99	£41.99
GON185	1600W	60/40	£36.99	£43.99
CCS2	1300W	60/45	£59.98	£71.98

*# was £71.98 inc.VAT

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT CMFT250

FROM ONLY £36.99
EXC.VAT
£44.99
INC.VAT

• Great for sawing, cutting, sanding, polishing, chiselling & much more

- 250w motor
- Variable speed

Clarke OSCILLATING BOBBIN SANDER COBS1

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

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

ONLY £119.98
EXC.VAT
£143.99
INC.VAT

NEW

Clarke
MORTISING MACHINE CBM1B
 Accurately creates deep square recesses • Table size 150 x 340mm
 Maximum chisel cap.76mm • Robust cast iron base & column ensures stability & accuracy • 95mm depth of cut

"It is fast and accurate with a good solid feel...Excellent value for money, I'm really pleased with it."
 See www.machinemart.co.uk

CHISELS AVAILABLE FROM
 £6.99 EX VAT £8.39 INC VAT



FOR OVER
15,000
 PRODUCTS

INCLUDING
NEW
Xtra
 WOODWORKING MACHINES
 visit machinemart.co.uk

NEW 500 PAGE
CATALOGUE

1100
 PRICE CUTS &
 NEW PRODUCTS



GET YOUR FREE COPY NOW!

- IN-STORE
- ONLINE
- PHONE

0844 880 1265

Clarke WOODWORKING VICES

FROM ONLY **£13.49** EX VAT
£16 INC VAT

Record WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke	Bolted	150/152/61	£13.49	£16.19
Stanley	Clamped	72/60/40	£16.99	£20.39
Record	W75B	Clamped 75/50/32	£19.98	£23.98
Clarke	WV7	Bolted 180/205/78	£24.99	£29.99

Clarke 10" SLIDING COMPOUND MITRE SAW

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

FROM ONLY **£129.98** EX VAT
£155 INC VAT

CMS10S2

MITRE SAWS

Makita

FROM ONLY **£56.99** EX VAT
£68.39 INC VAT

TH-SM 2534

• Quality Range of Mitre saws and blades available

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

Clarke DUST EXTRACTOR/CHIP COLLECTORS

FROM ONLY **£129.98** EX VAT
£155 INC VAT

METABO ALSO AVAILABLE

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

MODEL	MOTOR	FLOW RATE	BAG CAP	EXC.VAT	INC.VAT
CD35B	750W	850 M ³ /h	56Ltrs	£129.98	£155.98
CD7B	750W	850 M ³ /h	114Ltrs	£149.98	£179.98

Clarke CORDLESS DRILL/DRIVERS

BOSCH Power Tools

Clarke CONTRACTOR

CON18LI PSR18

powered by **Li-Ion**

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

* Was £77.99 inc.VAT

MODEL	VOLTS	BATTS	EXC.VAT	INC.VAT
CGD180	18V	1	£36.99	£44.39
CGD240	24V	1	£39.98	£47.98
Bosch PSR18	18V	1	£54.99	£65.99
CON18NI	18V 2 x Ni-Cd		£29.98	£71.98
CON18LI	18V 2 x Li-Ion		£24.99	£101.99

airmaster TURBO AIR COMPRESSORS

FROM ONLY **£79.98** EX VAT
£95.98 INC VAT

tiger

8/250

HUGE RANGE OF AIR TOOLS IN STOCK

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

MODEL	MOTOR CFM	TANK	EXC.VAT	INC.VAT
Tiger 8/250	2HP	7.5 24ltr	£79.98	£95.98
Tiger 7/250	2HP	7 24ltr	£99.98	£107.98
Tiger 7/250	2.5HP	9.5 24ltr	£119.98	£143.98
Tiger 8/510	2HP	7.5 50ltr	£129.98	£155.98
Tiger 8/510	2.5HP	9.5 50ltr	£149.98	£179.98
Tiger 16/510	3HP	14.5 50ltr	£219.98	£263.98
Tiger 16/1010	3HP	14.5 100ltr	£269.98	£323.98

Clarke MITRE SAW STAND

CFMSS1

• Suitable for most sizes/makes of saw
 • Inc. outriggers & rollers

FROM ONLY **£64.99** EX VAT
£77.99 INC VAT

NEW FOLDING MITRE SAW STAND IN STOCK - COMMW1 ONLY £119.98 INC VAT

Clarke ROTARY TOOL KIT

CRT40

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

Kit includes:
 • Height adjustable stand with clamp
 • Rotary tool
 • 1m flexible drive
 • 40x accessories/consumables

Clarke 5PCE FORSTNER BIT SET

• Contains 15, 20, 25, 30 & 35mm bits • Titanium nitride coated for improved cutting finish

FROM ONLY **£9.98** EX VAT
£11.98 INC VAT

CHT365

Clarke PORTABLE THICKNESSER

• Max thickness capacity 130mm
 • Planing depths adjustable from 0-2.5mm
 • Powerful 1250W motor • 8000rpm no-load speed

FROM ONLY **£189.98** EX VAT
£227.98 INC VAT

CPT250

Clarke BOSCH Power Tools

JIGSAWS

FROM ONLY **£12.98** EX VAT
£15.98 INC VAT

*DIY #Professional

‡ Was £59.98 inc.VAT

CJS380

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EXC. VAT	INC. VAT
Clarke CJS380*	420W	55/6mm	£12.98	£15.98
Clarke CON750*	750W	80/10mm	£24.99	£29.99
Bosch PST700E*	500W	70/4mm	£44.99	£53.99
B & D KSTR8K-GB*	600W	85/5mm	£66.99	£80.39

Clarke 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

PRICE CUT
 FROM ONLY **£49.98** EX VAT
£59.98 INC VAT

WAS £65.98 INC VAT

CDTJ12
 Router not included

Clarke 6" BENCH GRINDER WITH SANDING BELT

• For sanding/shaping wood, plastic & metal

FROM ONLY **£49.98** EX VAT
£59.98 INC VAT

CBG6SB

• Supplied with coarse grinding wheel & sanding belt

Clarke BENCH GRINDERS & STANDS

• Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

STAND AVAILABLE FROM ONLY £39.98 EX VAT £47.98 INC VAT

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

CBG8W features 8" whetstone & 6" drystone. # With sanding belt

MODEL	DUTY	WHEEL DIA.	EXC.VAT	INC.VAT
CBG6RP	DIY	150mm	£29.98	£35.98
CBG6RZ	PRO	150mm	£39.98	£47.98
CBG6RSC	HD	150mm	£49.98	£59.98
CBG6SB#	PRO	150mm	£49.98	£59.98
CBG6RWC	HD	150mm	£54.99	£65.99
CBG8W (wet)	HD	150/200mm	£55.99	£67.19

Clarke HARDWOOD WORKBENCH

• Includes bench dogs and guide holes for variable work positioning • 2 Heavy Duty Vices • Large storage draw • Sunken tool trough • LxWxH 150x62x855mm

FROM ONLY **£129.98** EX VAT
£155.98 INC VAT

CHB1500

BISCUIT JOINER

• 860W Motor
 • 11000rpm Operating Speed
 • 14mm Cutting Depth

FROM ONLY **£39.98** EX VAT
£47.98 INC VAT

ACCESSORIES IN STOCK

*DIY

MODEL	MOTOR (W)	PLUNGE (mm)	EXC.VAT	INC.VAT
CR1C*	1200	0-50	£39.98	£47.98
Bosch	1400	0-55	£79.98	£95.98
POF1400ACE				

BJ900

Clarke SCROLL SAWS

FROM ONLY **£69.98** EX VAT
£83 INC VAT

• 120w, 230v motor • 50mm max cut thickness
 • 400-1700rpm variable speed • Air-blower removes dust from cutting area

CSS16V

*Includes flexible drive kit for grinding/polishing/sanding

Clarke CONTRACTOR CR2 ROUTER

FROM ONLY **£109.98** EX VAT
£131 INC VAT

• Powerful heavy duty machine ideal for trade use
 • Variable speed control from 7,400-21,600 rpm • 2100W motor • 0-60mm plunge depth.

INCLUDES 15 PIECE SET WORTH OVER £20

Clarke DRILL PRESSES

CDS3

DRILL STANDS

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

Drill not included

Clarke 13" MINI WOOD LATHE

FROM ONLY **£134.99** EX VAT
£161 INC VAT

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

CWL325V

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 80G	01392 256 744	MIDDLESBROUGH Mandale Triangle, Thornaby	01642 677881
B'HAM GREAT BARR 4 Birmingham Rd.	0121 358 7977	GATEHEAD 50 Lobley Hill Rd, NE3 4YJ	0191 493 2520	NORWICH 282a Heigham St, NR2 4LZ	01603 768402
B'HAM HAY MILLS 1152 Coventry Rd, Hay Mills	0121 7713433	GLASGOW 280 Gt Western Rd, G4 9EJ	0141 332 9231	NOTTINGHAM 211 Lower Parliament St.	0115 956 1811
BOLTON 1 Thynne St, BL3 6BD	01204 365799	GLoucester 221A Barton St, GL1 4HY	01452 417 948	PETERBOROUGH 417 Lincoln Rd, Millfield	01733 311770
BRADFORD 105-107 Manningham Lane, BD1 3BN	01274 390962	GRIMSBY ELLIS WAY , DN32 9BD	01472 354435	PLYMOUTH 58-64 Embankment Rd, PL4 9HY	01752 254050
BRIGHTON 123 Lewes Rd, BN2 3QB	01273 915999	HULL 8-10 Holderness Rd, HU9 1EG	01482 223161	POOLE 137-139 Bourne-mouth Rd, Parkstone	01202 719713
BRISTOL 1-3 Church Rd, Lawrence Hill, BS5 9JJ	0117 935 1060	ILFRORD 746-748 Eastern Ave, IG2 7HU	0208 518 4286	PORTSMOUTH 277-283 Copnor Rd, Copnor	01772 505881
BURTON UPON Trent 12a Lichfield St, DE14 3QZ	01283 564 708	IPSWICH Unit 1 Ipswich Trade Centre, Commercial Road	01473 221253	PRESTON 53 Blackpool Rd, PR2 6BU	01772 703263
CAMBRIDGE 181-183 Histon Road, Cambridge, CB4 3HL	01223 322675	LEEDS 227-229 Kirkstall Rd, LS4 2AS	0116 261 0688	SHEFFIELD 453 London Rd, Heeley, S2 4HJ	0114 258 0831
CARDIFF 44-46 City Rd, CF24 3DN	0209 2046 5424	LIVERPOOL 69 Melton Rd, L4 6PN	01522 543 036	SIDCUP 13 Blackfen Parade, Blackfen Rd	0208 3002069
CARLISLE 85 London Rd, CA1 2LG	01228 591666	LINCOLN Unit 5, The Pelham Centre, LN5 8HG	0151 709 4484	SOUTHAMPTON 516-518 Portsmouth Rd.	023 8055 7788
CHELTEMHAM 84 Fairview Road, GL52 2EH	01242 514 402	LONDON 6 Kendal Parade, Edmonton N18	0208 695 5684	SOUTHEND 1139-1141 London Rd, Leigh on Sea	01782 287321
CHESTER 43-45 St. James Street, CH1 3EY	01244 311258	LONDON 503-507 Lea Bridge Rd, Leyton, E10	020 8558 8284	SUNDERLAND 13-15 Rhyope Rd, Grangetown	0191 510 8773
COLCHESTER 4 North Station Rd, CO1 1RE	01206 762831	LONDON 100 The Highway, Docklands	020 7488 2129	SWANSEA 7 Samlet Rd, Llanamner, SA7 9AG	01792 792969
COVENTRY Bishop St, CV1 1HT	024 7622 4227	LONDON 500 The Highways, Docklands	01582 728 603	SWINDON 21 Victoria Rd, SN1 3AW	01793 491717
CROYDON 423-427 Brighton Rd, Sth Croydon	01325 380 841	LUITON Unit 1, 326 Dunstable Rd, Luton LU4 8JS	01622 769 572	TWICKENHAM 83-85 Heath Rd, TW1 4AW	020 8892 9117
DARLINGTON 214 Northgate, DL1 1RB	01304 373 434	MAIDSTONE 57 Upper Stone St, ME15 6HE	01621 241 1851	WARRINGTON Unit 3, Hawley's Trade Pk.	01925 630 937
DEAL (KENT) 182-186 High St, CT14 6BQ	01332 290 931	MANCHESTER ALTRINCHAM 71 Manchester Rd, Altrincham 0161 942 666	0161 241 1851	WIGAN 2 Harrison Street, WN5 9AU	01942 323 785
DERBY Derwent St, DE1 2ED	01302 245 999	MANCHESTER OPENSHAW Unit 5, Tower Mill, Ashton Old Rd 0161 223 876	0161 223 876	WOLVERHAMPTON Parkfield Rd, Bilston	01902 494186
DONCASTER Wheatley Hall Road	01382 225 140	MANSFIELD 169 Chesterfield Rd, South	01623 622160	WORCESTER 48a Upper Tything, WR1 1JZ	01905 723451
DUNDEE 24-26 Trades Lane, DD1 3ET					
EDINBURGH 163-171 Piersfield Terrace	0131 659 5919				

21457RH 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.

OPEN 7 DAYS

4 EASY WAYS TO BUY...

IN-STORE
 65 SUPERSTORES

ONLINE
www.machinemart.co.uk

MAIL ORDER
 0115 956 5555

CLICK & COLLECT



BY MARK CASS

Submarine commander

Taking inspiration from a similar project originally published in 1964, Mark Cass puts his spin on a wooden submarine and destroyer



Regular readers may well recognise this light-hearted project from earlier this year when we featured the original version in our 'Archive Page' feature. Spring-powered, the destroyer will 'explode' when accurately struck amid ships by a torpedo fired from the submarine. Made from scraps and oddments that most workshops will have lying around, it's a fun job but actually offers quite a challenge for the home woodworker.

A mix of springs

My first step was to source a few springs. The original article mentioned a letterbox spring (basically a cranked torsion spring with 'legs') for the destroyer, and a simple compression spring, **Photo 1**, to power the



A spring 'corral' or similar is recommended to keep all of the small components from getting lost at sea

torpedo firing mechanism on the submarine. I bought a selection mix from my local ironmonger as they weren't expensive and, as the job was a bit of an experiment, it would give me some useful choices.

Destroyer

Sourcing the material for the hull of the destroyer was as straightforward as rummaging about near the chop saw; I expect most of us have got a variety of short lengths tucked away somewhere. I'd suggest hardwood, but pretty much anything will do, as long as you think you can form a neat recess into it. I made a rough practice hull first; this enabled me to see what the exploding mechanism needed and how it would work. Armed with this knowledge, I was able to accurately mark out the spring housing and the firing rod hole in my oak blank, **Photo 2**. A bit of work with a mortise chisel later, and I was able to fit the spring to its required depth. The spring is simply anchored with a long panel pin from one side or with two from two. The hull can be drilled and the anchor pins driven in quite easily, but maximum accuracy must be employed for the positioning, length and depth of the trigger stop pin.



Fig 1: Destroyer hull – recommended dimensions

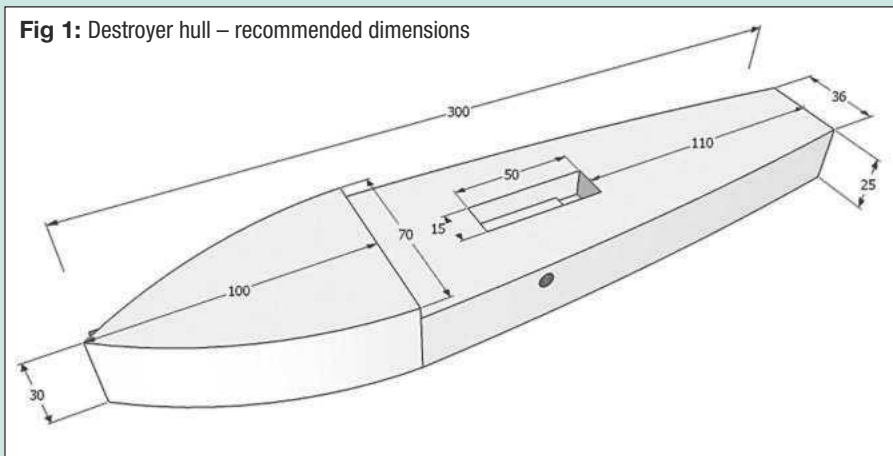


Fig 2: Submarine – recommended dimensions

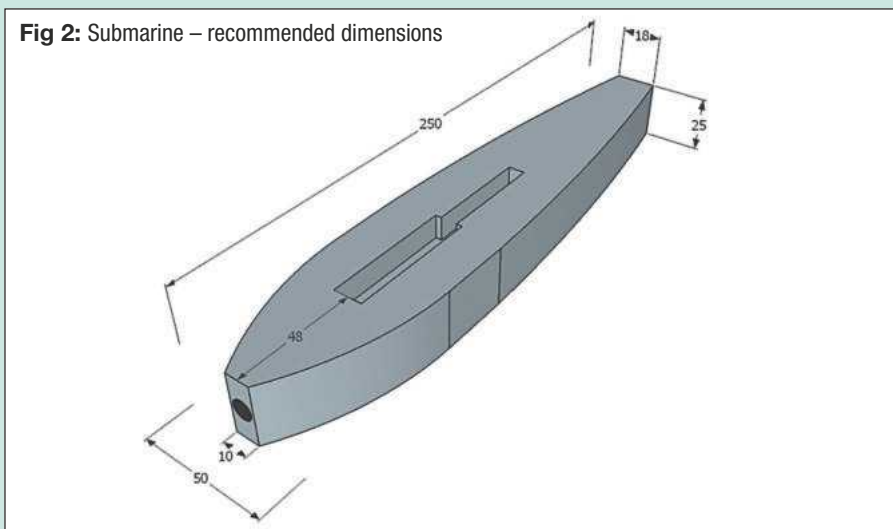
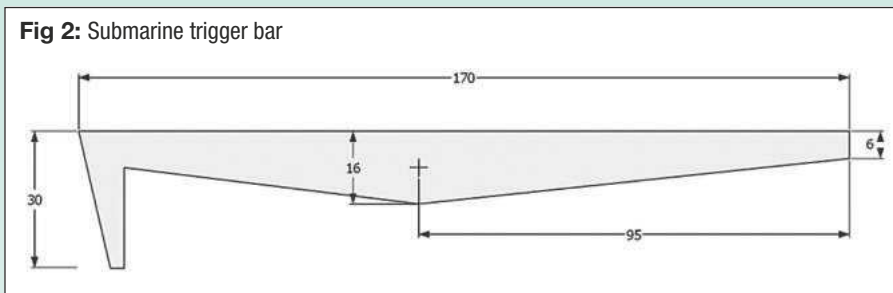


Fig 2: Submarine trigger bar



2
The boat blank, carefully marked and drilled for the firing rod



3
The mortise housing is chopped out for the torsion spring

The trigger stop pin is responsible for holding the longest leg of the torsion spring, and effectively keeps it 'cocked' and primed to go. Its release – leading to the effective destruction of the ship itself – is brought about by the firing rod being driven into the spring housing by the power of the torpedo striking the ship's hull and pushing the spring leg beyond the pin. It's important to get this bit right, and I would strongly recommend a softwood trial. If you're careful, you can punch the trigger pin deeper into the hull with a punch or drift, but it's tricky to get it further out if it goes too long.

Making the ship

Once you're happy with the workings of the wrecking mechanism, you can concentrate on the actual making of the ship itself. Tackling mine, it wasn't long before I realised my shortcomings as a naval architect, but I managed to keep it looking vaguely nautical with some of the features I remembered from old movies of the 1960s. I sawed down to the lower deck on the bandsaw, then shaped the hull to something approaching a boat shape, **photo 6**. Then it was just a case of covering the spring housing with a lightweight ply deck and piling on the superstructures and warship features.

I went for a simple bridge, some kind of tower arrangement, a rack of depth charges and a couple of gun turrets, **photo 7**. The rear gun was made from an offcut of 28mm dowel, and a piece of mop-stick handrail made the larger bow guns. It's best to drill and glue the thinner 6mm dowel for the guns into an over-length piece of 'turret' and cut it down afterwards. This prevents the short-grain above and below the guns from chipping out as it's drilled. All the other pieces simply rest in place for as long as the destroyer remains un-hit.

Probably the trickiest bit to make on the ship is the firing rod, **photos 5a, b & c**. Referring back to the original job published in 1964 (and already 40 years old at the time), I saw that the firing rod protruded from the hull and was probably hand operated in its original guise. Responding to reader requests for a naval adversary, E. F. Scott designed and made the submarine to shoot a dowel torpedo, but you'd have to be a real crack shot to hit the tiny target of a rounded dowel tip.

I felt the need to make this a bit bigger and so attached a small plate to my own firing rod; this lasted for a few fast and hostile encounters before coming adrift and needing to be refixed. Clearly vulnerable, and with my Mini Maker Faire looming – during which I expected both vessels to

schepach

HS105 10" Tilt Arbor Sawbench

Designed to fill the gap between entry level sawbenches and serious professional machines, the new Schepach HS105 tilt arbor sawbench offers an exceptional specification and is amazing value for money. Even at first glance it stands out as "top of its class". A good size extending cast alloy saw table with mitre attachment as standard. Rigid fence with micro setting. Dual handwheel for R&F & micro tilt settings plus a 48 tooth TCT sawblade as standard.



£219.95
Inc VAT
INTRODUCTORY OFFER



HS80 8" Benchtop tilt arbor sawbench

£99.95 Exc VAT



HS100S 10" tilt arbor sawbench

£139.95 Exc VAT



HS120o 10" tilt arbor sawbench c/w dual rip + mitre fence

£259.95 Exc VAT



HS120 10" tilt arbor sawbench c/w Sliding table carriage

£299.95 Exc VAT



CALL 01484 400488
ALL PRICES DELIVERED UK MAINLAND. ORDER BY 22ND DECEMBER FOR GUARANTEED CHRISTMAS DELIVERY. STOCK SUBJECT TO AVAILABILITY ALL PRICES VALID UNTIL 31ST DECEMBER 2015

NMATOOLS.CO.UK
info@nmauk.com



4

Drilling a guide hole for the one of the pins, which will keep the main spring in position



5a



5b



5c

Detail of how the firing rod clears the spring leg of its retaining pin



6

Shaping the destroyer's hull; note use of offcuts to mark out the starboard side



8

The superstructure is now in place; note hole for firing rod



9

New improved firing rod with robust 'show' spare on left

be constantly deployed by a day's worth of kids and adults – I felt the need to make a replacement or two, **photo 8**. Joining a small target to the end of a smaller dowel is pretty demanding, and the only way to go is to pilot the dowel before screwing into it, **photo 9**. Again, a trial run is recommended.

Submarine

On the face of it, this job looked to be on par with the destroyer in terms of technical difficulty, but my first advice here would be to make a practice run of the missile firing mechanism. I tried out a variety of compression springs to fire a dowel torpedo, **photo 10**, and was wryly amused when an early version knocked out one of my strip lights overhead.

Once you feel like you've mastered the spring housing, you can replicate it on a submarine-sized blank. Again, hardwood is preferred, and, as well as being more robust, it allows for greater accuracy. I'd recommend drilling the torpedo 'tube' before shaping your submersible, **photo**



7

The gun turrets are best drilled over-length then trimmed down afterwards

11, and making sure it enters the spring housing just where you want it. The hardest part for me was making the trigger mechanism. With a fair bit of slack all round, and given the general crudeness of the device, a sophisticated solution was always going to be out of my reach, despite trying. After consulting the original document, I decided to go for the tried and tested method described therein. This involved pivoting a flat brass bar inside the sub's conning tower, one end of which simply hooks over the washer on the end of the firing pin while the other waits in mid-air for the commander's trigger plunger.

I used a bit of thin ply to estimate the size and shape of the trigger, and simply tried and tested as to where it all should be positioned. When I was fairly happy that it

might work, I cut and shaped a leftover piece of brass plate on my bandsaw and filed it all up afterwards. Brass is definitely the best option for this key part of the job, sufficiently hard and rigid but shape-able with basic tools. When complete, the trigger bar went into the conning tower and was anchored at its fulcrum point by a trimmed 50mm panel pin carefully positioned and drilled. I fitted up an oversize deck of thin ply and cut the slot through which the trigger tip would pass to engage the firing pin when cocked against the spring. I had to experiment a little until I found the optimum position for the tower and hence the trigger tip/spring end concurrence, **photo 13**.

The whole sub could now be shaped; the conning tower screwed into place and the deck temporarily fixed into position. There was a nervous moment or two when the first couple of firing attempts didn't go entirely to plan, and a spot of extra filing on the trigger tip was called for. Finally it all seemed to be functioning as planned, and it was then just a case of screwing



10 Torpedo firing mechanism softwood trial and hardwood marked out ready. Note wedged washer to reinforce spring-stop shoulders

11
Drilling the torpedo 'tube' – accuracy is recommended



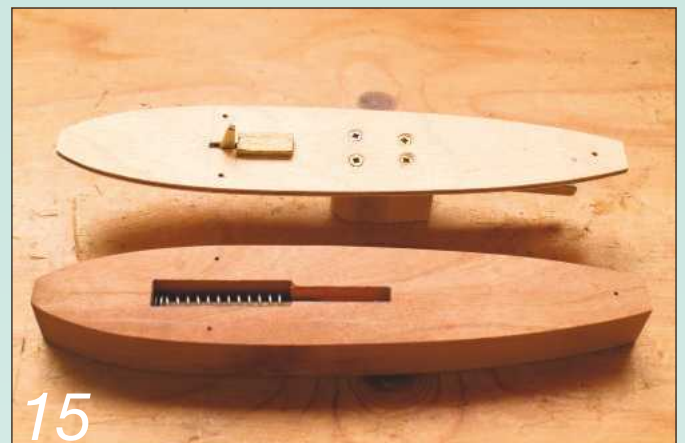
12 Conning tower roughed out and slotted for the brass trigger bar



13 Working out the optimum trigger position by trial and error



14 The sub's component parts; note small block to retain firing spring



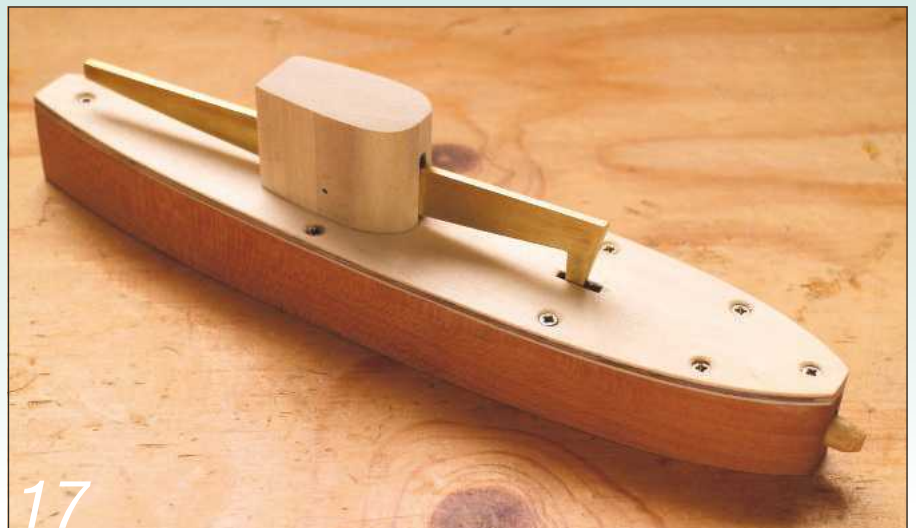
15 Detail of washer-tipped firing pin; care is needed to avoid a split

16
Firing spring assembly. Note washer screwed into dowel end



the deck down and preparing a couple more torpedoes from 8mm dowel (ends reduced to give room to the trigger tip).

All in all it's a satisfying project, especially when you crack the submarine's torpedo launch, and particularly gratifying when the destroyer can be 'sunk' from range with the first shot, **photo 17**. There's no end of scope for paint and decoration, but just be careful not to gum the workings up with runs and drips. Bon voyage and happy hunting. [www](http://www.getwoodworking.com)



17 The finished submarine, primed and ready for action

The Ultimate Power Carving Experience Just Got Better!



NEW Merlin 2®



Miniature Chainsaw Carving Perfected!

The World's Smallest Chainsaw Completely Re-Engineered!

More Efficient, More Powerful, More reliable. Better, Quieter Performance. Smoother, Less Vibration. More Comfortable Carving. Carve Easier, Better, Longer. Just what you've all been asking for! Read all about it at www.StarkieSharp.com.

Lancelot & Squire

Massively Increase Your Productivity!

Cut, Carve, Shape, Notch, Trench & Groove in Seconds!

Shown Lancelot & Squire in Tandem with Universal Nut

Safe, smooth carving with up to 44 Teeth cutting fast at 10,000+ RPM. Both Lancelot & Squire fit 115mm Angle Grinders.



Squire 18 Fine or 12 Coarse Tooth 85mm Discs Lancelot 22 Fine or 14 Coarse Tooth 100mm Discs



Shown Basic Merlin 2®

Tungsten Carbide Sanding Discs Galahads!



See through to your

You'll find working with these Galahads truly amazing! You'll sand faster than ever before saving time and effort.

Fit 115mm Angle Grinders.



RCB



RMR



RFG



FCB



FMR



FFG

Also available with a Flat Profile Below

Richard Starkie Associates, Timber Cottage, Wistow, Leicester, LE8 0QF Email: sales@starkies.com
Tel. 0116 259 2022 Call Free 0800 0588 911
(Ask for a KATS call back)

www.StarkieSharp.com
(Please quote TWW 10/15 when ordering)



BY ROBIN GATES

A hand-held auger clamp eases sharpening with a file

Part 1

Waste not, want not

In part 1 of his series on using offcuts, Robin Gates teaches us how to bring purpose to our woodworking – after all, waste not, want not!

Every so often my woodworking grinds to a halt under the sheer volume of clutter on the bench. The tools are easy to clear – they go back to where they came from. It's the timber offcuts that are the problem; they refuse to stand with their siblings that are still two yards long and neither do they sit well on shelves designed for better things. So they remain on the bench, daily being shoved this way and that like the building bricks of a toddler too distracted to put his toys away.

These days, however, I do have a way of dealing with this recurring problem. When I can't slide a block plane without triggering an avalanche, I spend an hour making things solely from the offcuts. Woodworkers have been doing this since the year dot I know, but perhaps there's something in these ideas to bring a sense of purpose to some offcuts of your own.

No plan

Making things from offcuts isn't as easy as it sounds. You don't start with a plan, you start with a heap of timber allsorts, which you felt sure would be useful one day but which now appear utterly useless. If you have an open fireplace, then the best thing to make of the situation might be heat. But for an offcut which is all that remains of a happy project or a bough lugged home on my shoulder, I find this a cruel fate. Pieces like these can be snapshots of treasured moments as difficult to part with as family photographs.

The key criteria to keep in mind with offcuts are simplicity and usefulness. Forget carving the Elgin Marbles into an odd foot of skirting board, the objective is merely to turn a piece of space-filling scrap into something handy with the minimum of delay and effort.



Maul hewn from a cherry log

Maul and clogs

A worthwhile project if you have a hardwood log lying spare is a maul, a cylindrical one-piece mallet, **photo 1**, used for whacking everything from froes to mortise chisels and tent pegs. Having sawn one-third of the way through the log all round, you apply the axe to the end-grain and split away the waste to leave the handle, which only requires finishing with a pocket knife. I made this one from a piece of cherry. After long use on the narrow back of an iron froe, it eventually grew battered and ineffective, at which point I consigned it to the wildlife garden for insects to set up home and simply made another. The maul

is a model example of the eco-friendly disposable tool.

I use my old Record G-clamps constantly. They're so solidly engineered and reliable, real bullet-proof technology, but my glee in using them to calm a glue-up panic can be tempered by disappointment when I slacken the jaws and find ugly 'half crowns' embossed on my timber surfaces. One answer is to insert wooden spacers beneath the jaws, but how fiddly is that, rummaging for convenient blocks when you are already juggling the timber and clamps and have the glue bottle wedged between your teeth. You just don't seem to have enough hands. A better answer is to prepare the jaws in



Clogs for a G-clamp, bored with a centre bit



Clogs protecting the work while clamping

advance with close-fitting wooden clogs, **photos 2 & 3**.

The offcuts I used for these were pieces of 2 × 20mm batten left over from the wall plates supporting a work top. A 44mm centre bit bored part way through the timber gave the clogs a snug fit on the jaws so they would be ready for action the next time I needed to clamp.

Guard and gripper

There are two mistakes I know of with a screwdriver. One is to use the wrong size blade, which results in mangling the screw head; the other is to let the blade slip from the slot and stab the timber. I excel at both.



The screw guard protects the work if the blade slips from the slot



Elm nail gripper keeps fingers at a safe distance

Give me a pump-action Yankee screwdriver and the work will look like Lady Gaga has danced across it in her steel-tipped stilettos.

I'm tackling the first mistake by re-grinding my old screwdriver tips to fit the most commonly used slotted screws, but for the second fault, I've taken to using a screw guard when driving screws home in delicate surroundings, **photo 4**. You could make this as large or small as you need but for mine I used a scrap of elm around 100 × 60mm. Just make sure the hole clears the head of the screw or you'll fasten the guard to the work.

While I'm confessing I'll own up about nails too. The smaller they are the more likely I am to very precisely clout my fingers with the hammer when getting them started. Again, a scrap of elm came to my rescue in the shape of a nail gripper, a narrow piece about 12 × 125mm with a tapering slot sawn in one end. I find that extending the cut beyond the slot puts extra spring in its jaws. Now with the nail jammed in the slot my fingers holding the gripper are out of harm's way and I can also see the point of the nail more clearly to position it better. The gripper also works when nailing in a tight corner and when hammering nails overhead. Elm is suited to the task because its crossed grain resists splitting, **photo 5**.

V for victory

Hand-powered augers are great for boring deep holes but they're hard work if the spurs and cutting lips are dull, as I discovered when boring a tunnel to house the flex of a table lamp. When I came to sharpen the unwieldy auger, I found it uncomfortable to hold bare-handed and awkward to grip in the bench vice,

The answer was to make a hand-held auger clamp (see lead image), in this case from a keepsake piece of trunk from our Christmas tree but you could use any round-ish offcut, **photo 6**. All it needs is a 'V' channel ripped along its length, a fraction wider than the auger, and a length of dowel planed with a cam-shaped section, which locks the auger in place under thumb pressure. With this device you can comfortably hold an auger as close as required and in good light by a window, easily adjusting the angle to place the file where needed.

Another handy block with a 'V' channel has its origins in a pallet found broken on the beach like a wrecked ship. Having relaunched a plank or three and bombarded them with stones, I hung onto this block for the pleasure of bowling it at nothing on the way home, then kept it almost by accident.



A pallet block with a 'V' channel holds round work when planing end-grain



The plywood swarf catcher slots around the hand-powered grinder



The swarf flies mainly downwards towards the operator's feet



A few turns of the wheel generates a lot of swarf



10 Spruce offcut marked with a 1 in 8 gradient for folding wedges



11 Making wedges is also useful practice with the hand saw

For months it served at the bench merely soaking up the saw cuts and chisel blows, but then one day, when struggling to plane the end-grain of an irregular cylinder, I ripped a 'V' channel in one face and it supported the work perfectly. Used in pairs, and of somewhat better quality, a similar thing turns up in old texts under the name 'joiner's saddle', used when planing the long grain of table legs and spars.

Swarf catcher

My hand-cranked grinder is invaluable for

restoring the edge of old plane and chisel blades but its coarse wheel generates a lot of swarf. Most of this is propelled downwards, covering my shoes and the floor in a grey mist of steel.

All that's required to avoid such a mess is a small plywood offcut, **photo 7**. At around 125 × 330mm, with a 63 × 125mm cut-out to fit around the wheel, and held in position by the grinder's built-in clamp, it makes a highly effective swarf catcher, **photo 8**. But I still have to watch out for the minute pieces of hot metal which lodge in

the wheel and are thrown out in all directions – eye protection is imperative here, **photo 9**.

Folding wedges

Splitting, lifting, levelling, clamping – the wedge does it all and symmetrical pairs are especially adaptable. Each pair is cut from a single block so they have identical slopes. When the pair is re-assembled, their outer faces lie parallel and by knocking the wedges together or apart, the thickness of their overlap can be adjusted as they slide over each other. For closing up a space and applying controlled force where needed, this simple device is a real joy to use.

Having experimented with slopes that were too steep to stay put and too shallow to knock apart, I've found a good compromise of security and control is offered by a slope of about 1 in 8, **photo 10**. For my offcuts of 69 × 41mm spruce this required a rise of 20mm over 150mm; if using a bevel gauge, set it to 7° to achieve a similar slope. Have the length of the wedge running with the long grain or the thin end will be prone to snapping off and resist the urge to clean up the sawn faces because their friction improves grip. Chamfering the corners with a block plane lessens the risk of splintering when persuading the wedges into position. My current bench is without a vice but I've found that with folding wedges, I can clamp a board very securely on its edge for planing. Now I'm wondering if a vice is even necessary... **WWW**



12 Folding wedges supporting a board on edge for planing. Who needs a vice?

NEXT MONTH

Robin looks at more ingenious uses for your offcuts, including edge guards and bench hooks

A new panel sizing saw specifically designed for the smaller workshop! The new Scheppach Forsa 3.0 offers 1.6m panel cutting capacity with the advantage of a full 87mm depth of cut for solid timbers. Like all Scheppach Precisa and Forsa sawbenches the Forsa 3.0 is bristling with German technology from head to toe. Designed specifically for those who where floor space and budget are foremost in their considerations. Micro scale with settings to within 1/10th mm on the rip fence included. Available in either single or three phase electrics.



Simply State
Order Online
Preferred supplier

4
YEAR WARRANTY
Terms and Conditions apply

**Deutsche
Qualitätsprodukte
seit 1927**

FREE!
250mm TCT sawblade
80T for boards,
laminates & MDF
Save £99.00 Ex VAT

Forsa 3.0
1.6m Precision Panel Sizing Saw
Professional Series



Forsa 4.0 + 4.1*
1.6/2.1m Precision Panel sizing saw
Professional Series



Forsa 8.0*
2.6m Precision Panel Sizing Saw
Professional Series



Forsa 9.0*
3.2m Precision Panel Sizing Saw
Professional Series

Also available. Precisa Series of Classic circular sawbenches with optional pre scoring function.

* All prices below include Pro STC & TWE. Substantial price reductions available if standard solo outrigger table required. All prices ex works. Carriage extra. Forsa 4.0 / 4.1 - tail lift required. Forsa 8.0 / 9.0 - fork lift truck required. P3 models inc extra support table & clamp

Model	Product Group Series	Specification Includes (as per quoted price)	Mc HP / Scorer / Volts	Depth of cut & length of stroke	Price Exc VAT - Plus Carriage	Price Inc VAT - Plus Carriage
Forsa 3.0	Professional	Inc Professional STC + TWE	5.2 / - / 415v	87 mm x 1.6 m	£2,166.67	£2,600.00
Forsa 4.0 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 1.6 m	£2,995.00	£3,594.00
Forsa 4.1 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.1 m	£3500.00	£4,200.00
Forsa 8.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.6 m	£4650.00	£5,580.00
Forsa 9.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 3.2 m	£4,800.00	£5,760.00

STC = Sliding Table Carriage. TWE = Table Width Extension. TLE = Table Length Extension. P3 models inc extra support table & clamp.

In brief...



MOUNT STEWART CELEBRATES COMPLETION OF £8M RESTORATION

Mount Stewart, on the shores of Strangford Lough in Northern Ireland, recently re-opened after a three year, £8million restoration project, which saw this grand house returned to its former glory. Visitors can now enjoy the reinvigorated and re-decorated house with previously unopened rooms, including the butler's silver store and billiard room. Hundreds of new items will also be on display to include internationally significant items, which the conservation charity has on loan from the Estate of the Marquess of Londonderry.

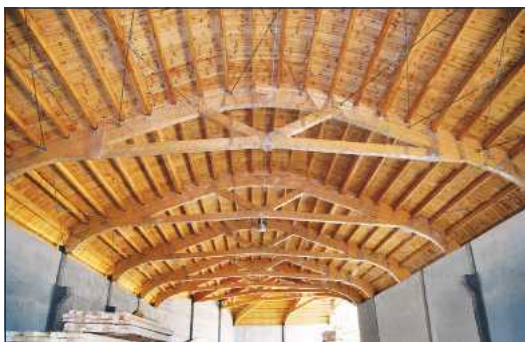
Among the striking items on display is the Congress of Vienna Desk, which belonged to Viscount Castlereagh when he was British Foreign Secretary at the close of the Napoleonic Wars and is said to have been used at the signing of the Treaties of Paris and Vienna in 1814 and 1815.

To find out more about visiting this stunning property, see www.nationaltrust.org.uk/mount-stewart.

TIMBER EXPO LINE-UP KEEPS ON GROWING

Preparations for the first Timber Expo to take place at UK Construction Week are well underway, as a string of industry leaders sign up to exhibit at the show, which takes place at the Birmingham NEC from 6–8 October.

One name that has been recently added to the line up is Metsä Wood, the UK's leading supplier of timber materials for the construction industry. With a deep heritage in UK construction, supplying innovative timber solutions that draw their influence from the company's global presence for many years, Metsä Wood is an industry heavyweight. The company delivers premium quality timber products and systems that are sustainable, traceable and fully certified.



Supported by a comprehensive seminar schedule coordinated by leading industry association TRADA, the show has also gained the backing of several prestigious event partners including the Structural Timber Association (STA), the British Woodworking Federation (BWF) and BM TRADA.

Also, the timber industry's leading awards, the annual Wood Awards come to the fore here as well. This year the designers and judges will present the shortlist for 2015 with a discussion on how to win a coveted award. Wood in Architecture has its place here too. Complementing the Wood Awards, Wood Architecture will include a panel discussion considering the most interesting developments in timber across the world. Bringing together nine shows under one roof, UK Construction Week will be the biggest construction trade event the UK has seen in years. See www.ukconstructionweek.com.

£12,000 PRIZE BUNDLE FOR APPRENTICE OF THE YEAR

Following a nationwide search for the best future trade professional in the UK, 21-year-old Nadia Connabeer – from Totnes in South Devon – has just been named as 'Screwfix Apprentice of the Year'. On top of Nadia's £10,000 prize bundle of tools, equipment and courses, her College at Bridgwater is awarded an additional £2,000 of funding.

Nadia has just completed a Level 3 Furniture Design & Manufacture course and currently works as a bench joiner at Hayman Joinery of Ivybridge. The judges were not only wowed by her



obvious skills and enthusiasm, but also by her creative abilities and her strong ambition to eventually teach her trade to others.

And there's more excitement on the horizon – Nadia has been nominated for the CITB's Pride of Construction award, and is shortly off to Holland on an apprentice exchange scheme – yet she still gets a huge kick out of drawing up an idea and turning it into reality with chisel and plane. One of her favourite quotes is: "Choose a job you love – you'll never work a day in your life," and this young woman seems set for a fulfilling future. We wish Nadia all the best in her future endeavours.



P1CC Precision Jigsaw

Quality • Innovation • Performance

Beyond all expectation

P1CC Precision Jigsaw Package
c/w Tilting Base & 800mm Guide Rail

£412.50 Ex VAT

£495.00 Inc VAT

P1CC Precision Jigsaw (Saw only)

£365.83 Ex VAT

£439.00 Inc VAT



The P1cc jig saw re-writes the rule book when it comes to jigsaws. With its powerful 900w motor the P1cc has an impressive 114mm depth of cut and a patented built in extraction system that keeps the work piece clean at all times. Although the P1cc can take standard bayonet type sawblades, Mafell have developed the unique CUnex W1 blade that even allows the tightest curves to be cut with 90° precision guaranteed! With optional tilting base plate angled cuts can be performed with ease & both base plates can be used in conjunction with Mafell guide track systems.

Call NMA or visit our website to find your nearest Mafell stockist



N M A T O O L S . C O . U K
Email: info@nmauk.com Tel: 01484 400488

Birds Royd Lane
Brighouse
West Yorkshire
HD6 1LQ

ADD A NEW DIMENSION TO YOUR WORK WITH

Visit our Online Store Today!

(web address at bottom of this advert)

metalcraft™

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 "MTW15" we will send you our new demo DVD free of charge

J & C R Wood Ltd, Dept MTW15, 66 Clough Road, HULL HU5 1SR
01482 345067 | info@jandcrwood.co.uk

www.metal-craft.co.uk

the WoodRat® is not just here for the dovetailing



WoodRat's Mortise Rail MR4 clocks in the length and position of any number of mortises. Each pair exactly placed on opposing stiles – simple, accurate and very quick!

see it in action - www.woodrat.com



www.routercutter.co.uk

your online mechanism for resourcing quality tooling specializing in 'industrial grade savvy'

Our online stocks are genuine and all goods are mailed from the UK.

Whiteside have been manufacturing quality industrial grade router bits for more than 30 years. Proudly made in North Carolina USA. Router bits designed & engineered for the Woodworker.

We now also stock **Southeast Tool Inc.** router bits and accessories. Tools from the smiley people. Made in USA.



Contact

Website: <https://routercutter.co.uk>

Email: sales@routercutter.co.uk

Office address: ROUTERCUTTER.CO.UK

South Point / Old Brighton Road
Lowfield Heath / Crawley
West Sussex / RH11 0PR / UK

IN STOCK NOW:

The "ULTIMATE"

PATTERN & FLUSH TRIM BITS 2+2 Compression Technology

Bearing guided for every workshop

UDP9112 Pattern Bit

UDFT9112 Flush Trim Bit

UDC9112 Combination Bit

by WHITESIDE

ALSO NOW IN STOCK:

2 flute spiral bits with metric "D"

1/4" shank, 5mm cutting diameter

1/4" shank, 6mm cutting diameter

1/2" shank, 8mm cutting diameter

1/2" shank, 10mm cutting diameter

1/2" shank, 12mm cutting diameter

Custom made in the USA by WHITESIDE

Special price on WHITESIDE RDS200A

1/2" shank, down cut spiral

D = 12mm; c/l = 50.8mm; o/a = 101.6mm

GBP 35.00 per piece



WHITESIDE MACHINE COMPANY

Nominated in both categories by Fine Woodworking Magazine June 2007 - in an 18 bit road-test evaluation

Author's Choice - BEST OVERALL / Author's Choice - BEST VALUE



BY TOM SMITH

Flight of fancy

Inspired by the natural world, Tom Smith creates realistic looking images of various birds, animals and flowers. Here he takes us through the stages for creating one of his magnificent owls



Intarsia is a technique that uses pieces of wood of different size, shape and species, to create an image that gives an illusion of depth. The different pieces of wood are carefully selected for their colour, grain pattern and texture so that there is no need for paint or stain. All of the colours you see are the natural colours of the woods. After the woods have been selected, they are cut, shaped and polished and glued back together like a jigsaw. Here I will take you through the steps for creating a barn owl using this technique.

The first step in creating one of my sculptures is to do a line drawing of the bird I want to make. It starts off as quite a basic outline, then I add the individual feather outlines and draw



1 Here you can see my design and piece templates – notice the different coloured dots I use



2 The different parts of the owl start to take shape as I make my way through the cutting process



3 When all the pieces have been cut using the scrollsaw, they can be resassembled to create the shape of the owl, as shown here



4 Carving the body of the owl is completed using a variety of tools and an Arbortech Mini Carver power tool

in the areas of different colour and depth. This eventually gives me a template for each piece of wood, which I later cut on the scrollsaw. Every outlined area is then marked with the required grain direction. Each area is numbered and given a coloured dot, **photo 1**, which corresponds to the type of wood I want to use for that particular piece. The end result is a map, which I can use to keep track of where each piece of wood belongs.

Individual components

The next part of the process is to separate out the different pieces of the drawing by cutting around the outline of every piece, **photo 2**. When I first started, I did this all by hand with multiple copies of the drawing

and a Stanley knife, but now I do it all on the computer with a graphics tablet, which saves time and allows me to make small changes throughout the design stage. All the outlines are then applied to the woods I want to use using spray mount, making sure that the grain direction and species of wood matches the required grain direction and colour on the design. Normally I use timber that is 25mm thick, which gives me some thickness to carve into later on while allowing me to cut it accurately. Generally, the thicker the wood is, the harder it is to cut accurately on the scrollsaw.

Delicate cuts

When all of the piece templates have been stuck to the correct bits of wood, I can then

start cutting, **photo 3**. Using a scrollsaw with a blade so fine that the saw kerf is less than one millimetre lets me cut literally any shape I want. I can even stop halfway through a cut, spin the wood 180° around the blade and pass it back through the kerf I have just made. The only drawback of using a blade so fine is that with certain types of wood (wenge and oak in particular), the different densities in the growth regions and the grain structure can dictate how the blade passes through the wood. In an ideal world, every cut would be made at 90° to the surface of the wood, but with 'difficult' woods, such as wenge and oak, cuts are often far from square despite my best efforts. Sometimes this can prevent pieces from fitting together properly so I



5 When the carving is complete, the owl starts to look more realistic, as you can see



6 For the sanding stage, each part of the owl has to be completed individually, which means separating them all out



7 I start by gluing the face of the owl, which looks almost lifelike



8 Once all the plates are complete, the design should look something like this – they're then ready for reattaching

have to run the blade around the outside of the piece to square off the edge, or even cut a new piece all together.

The illusion of depth

When all of the pieces have been cut and I'm happy with how they all fit, I work out which areas of the design need to be raised to give an illusion of depth. This is done by using shims made out of different thicknesses of birch ply. These shims are then stacked on top of each other and make up the backer for the completed sculpture. After I have made the raising shims, I point glue the pieces of wood that make up the bird (using CA adhesive) to carving shims. This keeps the pieces of the separate levels together while I carve them.

I don't do any kind of designing for the carving. A mixture of instinct and trial and error lets me carve the different areas until they look right and give the illusion of depth. I use a variety of tools for the carving stages. If I need to remove a lot of material, then I use an Arbortech blade, which is an attachment for an angle grinder, **photo 4**, or a linisher. For finer details, I use a Dremel with various attachments (mainly an 80 grit TCT burr) or carving chisels and occasionally needle files. By using a sharp chisel and a bit of brute force, the pieces are then removed from the carving shims and the edges of the pieces are rounded off using a Dremel with a small 120 grit drum sander attachment, **photo 5**.

Sanding awkward areas

At this point the fun really begins as it's time for every craftsman's worst nightmare – sanding. I sand each piece (apart from the eyes, which I sand to a 12,000 grit finish) by hand to a 240 grit finish to remove all of the scratches from the carving stage, **photo 6**. Because the pieces of wood are often quite small and awkwardly shaped, the best tool for sanding them is usually the edge of my thumb with abrasive wrapped around it, which leaves me with an almost permanently blistered thumb! I'm yet to find a better alternative but if anyone has any suggestions, I'd love to hear them. The final stage of sanding is done with a flap wheel mounted in a pillar drill; this gives the surface of the pieces a nice sheen before the polish is applied.



9

The next stage is to glue the plates together to give the overall finished design

Jigsaw-like gluing

Now that everything is nice and smooth and free from scratches, the pieces that make up each level of the design are glued together like a jigsaw. This creates a kind of 'plate' for each level of the design, which can then be glued to the backer as one piece. Before gluing everything on to the backer, each 'plate' is coated with white polish. I only give the wood a couple of coats of the white polish; this is enough to seal the wood without making it so shiny that it hides the natural characteristics of the different woods. When the polish is dry, then the 'plates' are glued onto the backer, **photo 8**. After leaving the glue to dry and fully harden off overnight, I attach hangers to the backer so that the sculpture can be hung on a wall, **photo 9**. [www](http://www.getwoodworking.com)



African fish eagle

OTHER INTARSIA WONDERS

Inspired by the natural world, Tom creates realistic wooden images of all manner of birds, animals and flowers using the intarsia technique, which he has taught himself from the age of 14. Here are a few other examples of the wonderful work he creates and to see more for yourself, visit www.tagsmith.co.uk



Large peregrine falcon portrait



Barn owl, kestrel and short-eared owl feathers, each measuring 1m tall



A similar barn owl to the one featured, but this time shown from a different angle



A selection of life-size feathers



We are pleased to introduce our New Revised Chair Horse Plan 124r with 5 interchangeable heads.



The LITTLE ROCKY Chair Horse completely revised and improved.

Horse's head can be made with extremely simple shaping or carved.

A great introduction to woodcarving - Special Price, Plan Only £10 + postage

Plan also includes Kangaroo, Elephant and P-rex Dinosaur Head with opening mouth.

Timber & Accessories available *offer ends 30th November 2015, normal price £14.99

Order online www.rockinghorse.co.uk or call 0800 7315418

Ask for our new catalogue, many other Rocking Horse Plans available.



t: 01768 899895

The Wood Workshop

2016 Course Dates now on our website!

Woodworking Courses in the beautiful Lake District

Woodwork Course 1 (Tools and Things)

A self-interest woodwork course where the aim is to give you the confidence and the knowledge to use basic hand tools and some of the more common power tools.

You will be able to pick from a list of projects before you arrive that I believe you can complete in 5 days or less so that you will go home with one of them and you can proudly say "I made that".

I cover the teaching of how to handle tools by getting you started on your project and, as you need to use a new piece of equipment, I show you how. This means that the instruction is fresh in your mind and you do the task there and then.

On all courses there will only be a maximum of 4 at a time, this will mean that I will be available when you need help and advice.

Woodwork Course 2 (Wood and Things)

This is a continuation of course 1 (tools and things) with the emphases on timber, what are acceptable defects in timber and what isn't, how do you write out a cutting list that means something to your supplier, what to look for when buying wood and what to avoid.

You will ideally have done course 1 (tools and things) or have a good working knowledge of how to use hand tools and have used hand held power tools.

The projects for you to pick from will be more complicated and will involve the use of the more sophisticated hand tools and hand held power tools and will include using some of the static power tools in the workshop. We will also be looking at buying timber, making cutting lists and drawing plans.

Woodwork Course 3 (Project Days)

The advanced course is rather different from the previous two.

To come on this course you will need to have done both the other courses and have used your skill at home on your own projects and be ready to take on something more difficult.

WoodRat Courses

This course will teach you all the principles that you need to know!

Visit our website for more information & updates on 2015/16 course information:

www.woodworkshop.co.uk

t: 01768 899895

e: enquiries@woodworkshop.co.uk

The Wood Workshop

7-8 Redhills Business Park, Penrith,
Cumbria CA11 0DT

www.woodworkshop.co.uk

In brief...



KERB APPEAL

Your eyes are not deceiving you, this is in fact a stunning 1:1 scale wooden replica of a 1955 Mercedes Gullwing classic car, which weighs in at two tonnes and is one of only two believed to exist in the world. Furniture Clinic was called on to restore this extremely rare replica, which was painstakingly fashioned from teak.

The wooden car, which comes with front wheels that can steer, was acquired at the start of the year by car enthusiast Jeremy Harvey. It's a beautiful thing and the owner has been told that the cost of the wood alone runs into the tens of thousands and he's had an estimate for the car of around £30,000. The Gullwing is currently in a warehouse although many carpenters have admired it and have told Jeremy what an amazing piece of work it is, and we agree!

TEN TURNERS TURNING – 2016

Following the success of Axminster's prestigious Ten Turners Turning event at Nuneaton in March last year, the company plan to hold a second event in March 2016.

During this two-day event, a range of professional turners will demonstrate their skills and styles of woodturning, explaining any useful tips, techniques and easier ways of achieving the desired result and produce their own trademark turned pieces. Both Friday and Saturday afternoons will see the pros competing against each other and against the clock in the 'Ready Steady Turn competition'.

The line-up for this event includes a host of well-known names in the industry and there will also be a wide range of Jet and Axminster lathes on display.

The dates for your diaries are Friday 11 and Saturday 12 March 2016 from 10am-4pm at Axminster Tools & Machinery, Bermuda Trade Park, Nuneaton CV10 7RA. Although this is a free event, you are advised to turn up early to avoid disappointment.

See www.axminster.co.uk/stores/nuneaton to find out more.



LASER CUTTING GENIUS

Although he started using just X-Acto knives, cut paper and mixed vintage materials, things have now taken off for California-based artist Gabriel Schama, who is currently working on his second kickstarter project.



Before he was able to invest in a large laser cutter for his studio, the process used to involve many stages of meticulous cutting and gluing, fusing geometry and colours to create almost psychedelic patterns. He now uses precisely cut 3mm pieces of mahogany plywood to create densely layered wood relief sculptures that twist, intersect and overlap to create mandala-like forms. Each piece begins as a vector illustration, which is fed into his laser cutter and is then glued and finished by hand. See www.gabrielschama.com.



AXMINSTER COMES TO WALES

Axminster Tools & Machinery will open its eighth store this November in the Cardiff area. Situated at Valegate Retail Park on Copthorne Way (CF5 6EH) to the west of Cardiff city centre, the new store will boast 12,000sq.ft. of retail space. The Cardiff store will be open seven days a week, including bank holidays.

The new store will also display an impressive range of industrial machinery, including models from Axminster's own Industrial Series.

One aspect that will differ from all the other Axminster stores is that some signage will be in both English and Welsh. For more information, see www.axminster.co.uk.

Protect and enhance the natural beauty of wood with Treatex Hardwax Oil



Table designed and built by Jim Sharples Furniture



treatex[®]
Naturally superior wood finishes

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

wood chisel and wood turning tool specialist

Ashley Iles - Henry Taylor - Robert Sorby

All items in stock, ready for dispatch..

*unless marked otherwise

all prices inclusive of VAT



sharpening stones and tools



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.

www.toolnut.co.uk

or call to order on 01424 224269



**AFRICAN WOOD
5KG VARIETY BAG
ONLY £24**

JUST IN..
our new stock of African turning blanks



pot lids
ONLY £3.30

Flexidisc Sander/Grinder

The Flexidisc sander gives a superb finish on wood, metal, fibreglass, car body filler and all hard materials.

Its fast rotation speed achieves sensational results in a fraction of the time normally taken by conventional sanders.

This versatile tool also sharpens chisels, plane blades, lathe tools, axes and garden tools without the rapid overheating of normal abrasive wheels.

This is the ideal tool to prepare your timber prior to varnishing with Le Tonkinois varnish.

www.flexidiscsander.co.uk

Tel: 01628 548840



Le Tonkinois Varnish

Le Tonkinois is a natural oil based yacht varnish. Perfect for outdoor, indoor and marine use. With Le Tonkinois varnish the options really are endless.

Combining unrivalled protection on materials including cork flooring, stone, metal and wood and brilliant permanent penetration, Le Tonkinois varnish leaves absolutely no brush marks and will restore the natural beauty of timber whilst removing your brush marks.

Flexible enough to move with the timber and able to withstand abrasion and impact, Le Tonkinois varnish is resistant to boiling water, UV, petrol, diesel and sea water. It won't crack, chip or peel off, making it perfect for all outside purposes as well as indoor.

www.letonkinoisvarnish.co.uk

Tel: 01628 548840



The Wood Veneer Hub

After three decades of being at the forefront of supplying the automotive, aviation, marine and design industries, Freed Veneers has introduced The Wood Veneer Hub, an exciting online one stop shop bringing a wonderful selection of high quality natural, coloured, smoked and constructional veneers as well as all the tools and accessories a woodworker would need along the way...

...with this includes the exciting and innovative Peel and Stick range.

Available in a variety of different species, all pre-sanded, these fully flexible sheets offer an easy solution to the application of wood veneer for any given job.



Introducing our beautiful
Coloured Veneer Range!

The Wood Veneer Hub assures that no job is too big or small whether you need one sheet or a thousand. With our factory in Valencia, Spain there is no service that cannot be provided whether it be a panel you need produced or an image etched into a veneer sheet.

Visitors are always welcome to the fully stocked warehouse in Leighton Buzzard, Bedfordshire where you will receive the warmest of welcomes as well as the chance to view the large variety of different species.

So whether you are an antique restorer, furniture maker, boat builder or anyone else after high quality veneers then please do not hesitate to give us a call.



Unit 4 Eden Court, Eden Way,
Leighton Buzzard, Bedfordshire LU7 4FY
Tel: +44 (0)1525 851166
E-mail: sales@thewoodveneerhub.co.uk

www.thewoodveneerhub.co.uk



From the log to a piece of art



BY ALAN HOLTHAM

5: Choosing timber

Having finally chosen and installed your lathe, tools and accessories, the time has come to select some timber. The business of choosing suitable wood is not so clear-cut as it is with tools. There are so many unquantifiable variables and you will often become disappointed and frustrated as all your best efforts are thwarted, not only by your unfamiliar tools or your faltering technique, but by the very material you are trying to fashion

Following some basic rules you can minimise the problems and in reality you can make the timber side of woodturning as simple or as complicated as you want. But beware, the whole process of gathering and preparing your own timber can become almost as obsessive as the process of turning it on the lathe. There is a real pleasure in taking a scrappy looking piece of firewood and turning it into a work of art, and from now on every piece of timber has to be scrutinised for turning potential, **photo 1**.



2

Ready to turn straight off the shelf of the specialist retailer



3

Recommending beginners start by buying cheap softwood is wrong



4

The 'hiss' of a sharp tool peeling away the material is wonderful



5

Preparing your own timber means you can cut the size you need, the way you like it



6

A tree surgeon's waste material is a good source of wet timber

The easiest way to acquire your wood is to simply go to a specialist retailer and buy ready prepared blanks off the shelf, **photo 2**. These are usually perfect as regards quality, and should be dried to a state that allows them to be used straightaway. They may appear expensive at first glance, and you might be reluctant to shell out a lot of money in the early stages of your turning career. But bear in mind that you are paying for all the waste material that has been cut away to prepare such a perfect piece, as well as all the storage and drying time, all very significant factors, as you will find if you start preparing your own.

Practice timber and beyond

Beginners are often recommended to start by buying cheap softwood to practice on, **photo 3**, but this advice must be tempered with a note of caution. Softwood is notoriously difficult to turn well, even with years of experience and it is easy to become disheartened if this is all you use. Certainly don't spend a fortune on highly exotic blanks until you have become reasonably proficient, but do buy some cheaper prepared blanks of sycamore or beech. Although relatively plain as regards figure, these turn really well and you will soon be experiencing that wonderful 'hiss' as a sharp tool peels away the shape, **photo 4**. This will inspire you to continue; the torn and dusty grain of softwood will not.

If you are an occasional turner you can quite happily spend your turning career using ready prepared blanks. However, once the bug has bitten and your demand for timber becomes more voracious, you will probably want to start sourcing and preparing your own stock.

This may not be a much cheaper route, though. If you price in all the time and costs involved in finding the raw material, handling it, cutting it up, drying it, and then throwing half away when it warps and cracks, the shop bought blanks are suddenly not that overpriced after all. However, preparing your own timber gives you much better control, as you can cut the sizes you need in the way you like, **photo 5**. There is no doubt that it is eventually a less expensive way in monetary terms, but it takes a while to get there, and because converting and drying timber is such an inexact science, the only true guide is experience.

Wet timber

Tree surgeons are a good source of wet timber as they often deal with more unusual varieties and are glad to get rid of what they regard as waste material, **photo 6**. Such

Garden trees are a rich source of decorative material

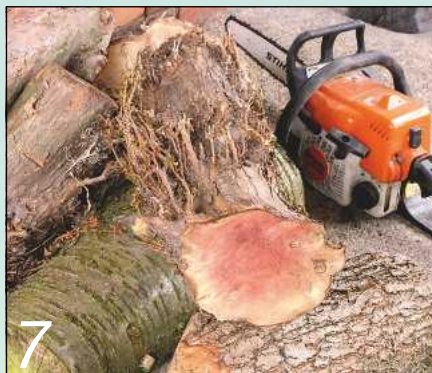


small garden trees and prunings are a rich source of decorative material, and thin branches of species such as yew and laburnum can be worked in the round, but they have to be dried thoroughly before they can be used.

In order to convert the larger trunks into more manageable pieces, you will need to invest in a small chainsaw. I use an electric one around the workshop and a bigger one outside for larger branches, which makes short work of slicing up the wet trunks, **photo 7**. Alternatively, even a small bandsaw will cope with a lot of the conversion work, **photo 8**, just make sure that log sections are securely held on the table and never try to cross cut logs or they will roll dangerously.

Fresh cut wood like this contains a huge amount of water, and although very easy to work in this state, it will subsequently crack and warp. The water has to be removed before the wood is ready for using; this is the difficult and lengthy process of seasoning.

You can store small log sections to dry as they are, a process that will take several years to complete, **photo 9**. They will crack and split on the end, often to quite a depth, particularly on fine-grained ornamental species like laburnum, **photo 10**. You can minimise this splitting by coating the ends with some sort of sealer to slow down the drying process. Hot paraffin wax is the



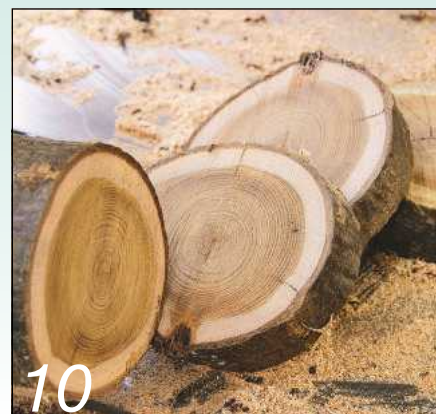
7 A chainsaw is used to convert larger trunks into more manageable chunks...



8 ... alternatively, a small bandsaw will cope with a lot of conversion work



9 Small logs left to dry as they are – this will take several years to complete



10 Fine grain ornamental species like laburnum are prone to cracking on the end to quite a depth



11
Coating the end-grain with cold liquid wax to slow down the drying process



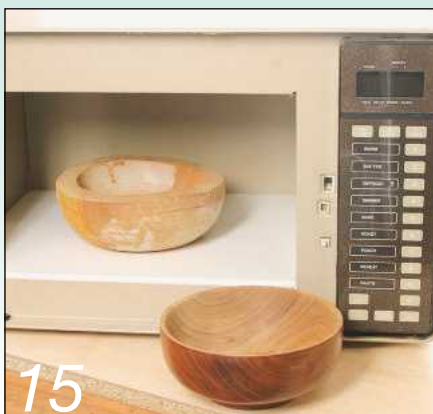
12
Rough turning the blank while it is still wet will speed up the drying time...



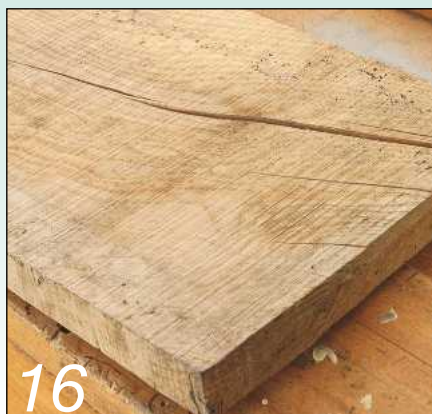
13
... but you still need to seal the ends and even then expect a few failures



14
A moisture meter will let you know what is going on only at the point of testing



15
Microwaving small items is possible but only use the defrost setting in short bursts



16
Large cracks and splits can often be severe enough to almost divide the board in two

remains constant. At this point they are not necessarily dry, but are in equilibrium with their surrounding environment. Remember the sponge analogy: wood will soak up water from the atmosphere if it is wet, as well as releasing it when conditions are dry.

Drying

The ideal drying situation is a cool shaded area where there are no dramatic or sudden fluctuations of temperature. It is very difficult to beat nature by speeding up the drying process too quickly, you just have to be patient. Somewhere sheltered outside will do to get rid of the initial moisture, and then bring it inside to finally condition.

The only possible shortcut for the home seasoner is to try microwaving turned items, **photo 15**. You can do this in a normal kitchen microwave but use it only on the defrost setting. There is no recognised technique for this yet, you will have to determine your own method, but my limited experience indicates that many short blasts of a minute or so over a period of several hours seems to do the trick. There will be more failures than with other methods of drying, but it is a real shortcut if you are prepared to master it.

The process of drying timber often builds up huge stresses within the cell structure and these may show up in a board as major cracks and splits, often severe enough to almost divide it into two, **photo 16**. While annoying, you can work around these defects. The more frustrating ones are those that only show up after the wood has been worked and finished. Bowls may warp or crack and the force is such that it can even crack inserts of marble or tile, **photo 17**. Never underestimate the strength of these drying stresses and remember that they are always the result of inadequate or faulty drying methods.

Dimensional stability

One method of ensuring complete dimensional stability was developed initially by gun stock makers, but has since been much used by woodturners. The process relies on replacing the water within the wood with PEG (polyethylene glycol), a substance which is completely impervious to changes in atmospheric conditions and therefore renders the wood inert. Although quite feasible for the small-scale user, it is a rather messy process and the raw material is expensive. You need to cut and turn your blanks out of very fresh timber, partly dry material is no use. The rough-turned blanks are then soaked in a vat of the warm PEG solution, often for several weeks. After a

traditional method, but you can also buy liquid wax to brush on cold, which is much easier to use, **photo 11**.

Another way of seasoning your own timber is to rough turn it while wet. In this process you turn away a lot of the waste timber to an approximate shape of the final item, **photo 12**. This way you minimise the amount left to dry, which significantly speeds up the seasoning process. Even with this method the ends need to be

sealed thoroughly, and you will still get quite a few failures, **photo 13**.

The amount of water contained in even a small piece of wet timber is quite amazing, in reality it is just like a sponge. A moisture meter will give you an immediate reading, **photo 14**, but bear in mind that this is only accurate at the point of penetration of the probe – it may be much wetter further in. A more accurate but less scientific answer is to keep weighing the blanks until their weight

thorough soaking they can be force dried and then finish turned in the conventional way.

On a commercial scale, timber has to be treated in much the same way, though the logs are somewhat larger, **photo 18**. The logs are broken down on a bandmill, which works on the same principle as your home bandsaw, but with a blade of up to 305mm wide, **photo 19**. The resulting boards are stacked outside to start the drying process, **photo 20**, and may be left as whole trees with waney edges, or resawn with square edges, depending on the final application.

Really thick material will take several years to air-dry outside and this time span is always reflected in the increased premium you have to pay when buying thicker section blanks.

Kiln-dried timber

Obviously there is not time to air-dry the majority of basic timbers, the process has to be speeded up by kilning. Such kiln-dried timber is ready for immediate use and sold with a specified moisture content so you are reasonably sure that it will be stable. The drying kilns are like huge ovens, **photo 21**, but both the temperature and humidity are closely controlled, and the contents can be dried in days or weeks rather than months or years, the exact timescale depending on such factors as species, thickness and initial moisture content.

If you use a lot of timber you can actually build your own kiln for bulk drying. Although on a smaller scale than commercial kilns, these home units can turn out some very acceptable results. They work on the dehumidifying principle, with a small drying unit being placed in an enclosed chamber with the stack of timber. They are well worth the relatively modest investment if you are a serious turner and have both the space and access to plenty of fresh timber.

Exotics

Many of the home-grown timbers are relatively bland and colourless, it is only when you get into the exotics that the highly decorative and colourful species appear, **photo 22**. Notoriously expensive, these imported exotics are often only available in small sizes, primarily due to the quality of the logs. Even 'good' logs will be full of rot and shakes making conversion into dimensions extremely wasteful. Many of the species are effectively scrub trees and large sizes are rare but some exotics do grow into big straight trees. Species like padauk, ovankol and purpleheart are available in large dimensions, but such logs often have huge bands of contrasting lighter sapwood,



17

Bowls can warp with enough force to crack a marble insert



18

Commercial scale is dried in much the same way as the home woodworker – it's just bigger



19

Bandsawing a log is much the same as it would be done at home but the blade is a bit wider



20

Piles of boards are stacked outside to start the drying process



21

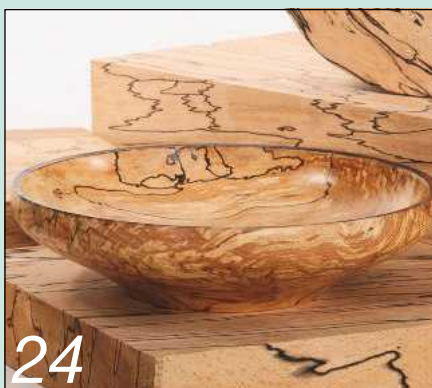
Drying kilns are like huge ovens with both humidity and temperature control



22
Exotic timbers are highly decorative and notoriously expensive



23
Branches joining the main tree provide crotch figure



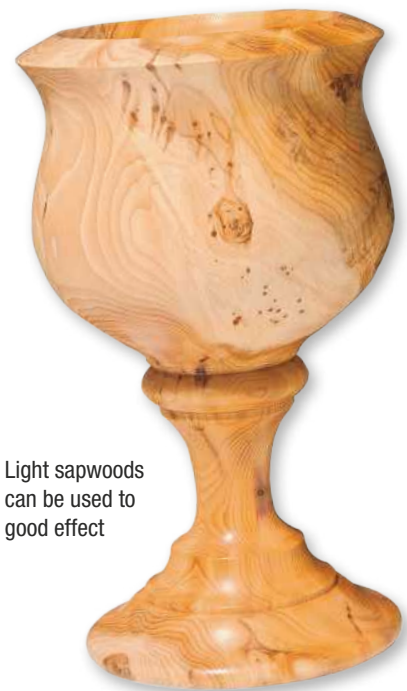
24
Spalted timber can yield some decorative material



25
Mineral deposits or metal in wood can add some dramatic effects



26
You can use any piece of timber to great effect by exploiting its natural shape



Light sapwoods can be used to good effect

which may or may not be considered a decorative feature. In home-grown timbers like yew, you can use the light sapwood to good effect, but it is amazing how this varies in both shape and quantity from tree to tree.

And...

Look out for other features that will provide unusual timber suitable for turning. Branches joining the main trunk of a tree provide crotch figure where the normal growth structure becomes more convoluted, **photo 23**. Turning timber from this area provides wonderfully rich and varied patterns though it is sometimes a little more difficult to work. Timber that has just started to go rotten is called 'spalted' and this can yield some highly decorative material, **photo 24**. Watch out for mineral deposits or metal in wood as this can also add some dramatic effects, particularly with regard to colour, **photo 25**.

There is so much to learn about wood that you will never get to know it all. The material itself is diverse and variable, but as a woodturner you can learn to use virtually any piece of timber using form and shape to exploit and enhance the natural characteristics, **photo 26**. The fun is not only in the turning but also in the hunt for that special piece that you can later bring to life on the lathe. [WWW](#)

NEXT MONTH

Alan turns five months of theory into practice, with a promise of both between centres and faceplate turning

- Cellulose Sanding Sealer
-
- Finishing Oil
-
- Lemon Oil
-
- Acrylic Gloss Lacquer
-
- Acrylic Sanding Sealer
-
- Safety Cloth
-
- Spirit Stain
-
- Acrylic Lacquer
-
- Burnishing Cream
-
- Cellulose Thinners
-
- End Seal
-
- Friction Polish
-
- French Polish
-
- Melamine Lacquer
-
- Wood Wax 22
-
- Steel Wool
-
- Polishing Brushes
-
- Shellac Sanding Sealer



CHESTNUT

PRODUCTS

first for finishes



Used by woodturners of all abilities throughout the UK and the world, the Chestnut Products range of top quality finishes gives outstanding results every time; whatever you are making and whatever your preferred finishing system there is bound to be something in our range to meet your needs.

See your local stockist for more information or for a catalogue/price list contact us at:

PO Box 536
Ipswich IP4 5WN

Tel: 01473 425878 Fax: 0800 066 4442

www.chestnutproducts.co.uk

mailroom@chestnutproducts.co.uk

Stockist enquiries welcome

Peter Sefton
Furniture School .com



Woodworking & Furniture Making Courses

Learn to craft wood and make fine furniture on our long and short courses at purpose-built workshops in Worcestershire

- Short Courses Include**
- French Polishing & Refinishing
 - Wood Machining
 - Dovetailing & Drawer Fitting
 - Veneering & Laminating
 - Routing
 - Sharpening
 - 'Make a Table'
 - 'Make a Box'
 - Beginners Course



Sam Carter
9 month student



Rick Howie
9 month student



Veneering & Laminating
4 day course



Garry Rowberry
9 month student

Call us on **01684 591014**

or find us online for information on all the courses

www.peterseftonfutureschool.com

The Threshing Barn, Welland Road, Upton upon Severn, Worcestershire, WR8 0SN



WOODWORK MACHINERY AND WOODTURNING SHOW

www.raitts.ie

RECORD POWER
ESTABLISHED 1909

trend
routing technology

charnwood

Woodworking machinery at its best!

STARTAITE

GUEST DEMONSTRATOR

FESTOOL

Tools for the toughest demands.
In conjunction with Power Nail Guns.
Letterkenny 074 91 67247

JET

BriMarc
TOOLS & MACHINERY

Robert Sorby
Wood Turning Tools

Mr Willie Creighton

PRESIDENT OF IRISH WOOD TURNERS GUILD

FRIDAY 2ND OCTOBER 2015 11:00AM - 7:00 PM
SATURDAY 3RD OCTOBER 2015 9:00 AM - 1:00 PM

W.H.RAITT & SON Ltd. • STRANORLAR Co. • Donegal, IRELAND 00353 74 9131028



Makersmith offers woodworkers quick and easy access to hi-tech manufacturing!

Makersmith are making it easy for hobby and business woodworkers to access CNC routing & laser cutting technology by providing manufacturing services backed up by full 3D design support using SolidWorks 3D CAD.

Sketches and ideas can be turned into real parts without the need for design or technical knowledge; makersmith will help develop and produce the finished design and then manufacture it. Makersmith provide in-house CNC router machining of timber, boards and plastics as well as laser cutting and engraving of wood, boards and plastics.

To complement this and to provide a 'one-stop-shop' service they also work with steel profiles & fabrications so that clients can easily create finished assemblies involving a range of decorative and structural materials. The services are available for one-off parts as well as batch production and can be used to produce anything from furniture to shopfitting and building components.

Makersmith staff have 35 years design, manufacturing & installation experience and the business has recently invested significantly in advanced manufacturing technology to enable people and business to make exactly what they need.

Gareth Davies, owner of makersmith says: "We understand that individual woodworkers as well as small & medium size businesses don't always have a clear route to access the latest design and manufacturing technology. We have the experience and capacity to support them and to be effectively an extension of their own workshop facility.

We are a creative business and our design capacity means that we can help clients with new solutions and new ideas as well as straightforward CNC processes. We are excited to be able to support woodworkers and the woodworking industry and are looking forward to providing this whole community with our services."

You can find out more about what makersmith can do for you at:
www.makersmith.works/wow
 or by calling: **01723 336322**   

The Innovation Continues...



Rip-Cut™ KMA2675

- Simplifies process of ripping down large plywood & MDF panels
- Attaches to almost any circular saw
- Cuts accurately from 1/8" to 24" wide

Kreg Jig® HD KJHD

- For use with minimum 1-1/2" materials
- Optimised for larger, outdoor projects

Shelf Pin Jig KMA3200

- Hardened steel drill guides
- Removable, dual-position fence
- Standard 32mm hole spacing



Find your nearest stockist
kregtool.eu



WIN TICKETS TO THE RUGBY WORLD CUP

To celebrate our 60th Anniversary, anyone who purchases a Trend product can enter into this special prize draw.

Visit www.trend-uk.com for details.

trend® **60 YEARS**
routing technology



Follow us on:

AD1508A

Phone 01923 249911 or visit www.trend-uk.com for your free 2015 Routing Catalogue & details of your nearest stockist.



BY COLIN SIMPSON

Transverse bowl

Carrying on with the transverse theme, this month Colin Simpson makes a bowl in the same style and also shows you how to make a handy 'cradle chuck' to facilitate turning

Following on from the transverse vase I made last month, I thought I would make a transverse bowl this time – or in fact two. As always the project is scalable, but I started with two 125 × 45mm squares of purpleheart. You will also need a sacrificial blank of the same size but it need only be between 18-35mm thick.

Glue-up

Find and mark a centreline around all four sides of the sacrificial block, **photo 1**, and then mark the centre of this line, again on all four sides. Glue the two blanks together, sandwiching the sacrificial block between them, **photo 2**. I used polyurethane glue as

it has gap filling qualities. However, it is also likely to push the pieces apart as the glue expands, so it is important to clamp the glue-up together, or at least weight it down. This type of glue cures with exposure to moisture, so I spread the glue on one piece and wetted the adjoining piece with water before bringing them together. Wear gloves as this glue is very difficult to remove from fingers!

Once the glue has cured, remove any excess glue with a sharp chisel and then cut the blank into an octagon on the bandsaw, **photo 3**. This will make the initial turning easier. Keep the triangular offcuts – you'll see why later...



1

Mark a centreline around the sides of the sacrificial block



2

Glue the two bowl blanks to the sacrificial block



3

Removing the corners of the blank makes the initial turning easier



4

A bowl gouge gives a cleaner cut than a spindle roughing gouge in this instance



5

Stop when the curve reaches the waste wood



6

Light finishing cuts remove any torn grain and leave you with fine shavings

Shaping cuts

Next, mount the blank between one of the pairs of centres marked on the sacrificial wood and start to knock the corners off. Usually, I would tell you to use a spindle roughing gouge to do this, but you will get less splitting out if you use a fingernail-profiled bowl gouge. Keep the tool over on its side and take light cuts, using the tip of the cutting edge, **photo 4**. Stop the lathe regularly to check progress. Do not turn the

blank to a cylinder, but stop when the cut reaches the sacrificial block, **photo 5**. Here I have just a few more finishing cuts to do. I use the same gouge, but lower the handle and make the cut on the wing of the tool, **photo 6**. Aim to keep the cutting edge at around 45° to the wood; this way you are shearing the wood off and should get fine, spiral shavings. Use outside callipers to ensure that you have not tapered the turning, **photo 7**. If you have, correct it, otherwise the

top of the bowl will never be square. Once you are happy with the surface finish from the tool, power sand the cylinder, **photo 8**. Now mount the blank transversely on the second pair of centres, **photo 9**, and repeat steps 4, 5, 6, 8 and 9. You should now have something that resembles **photo 10**.

Secure turning

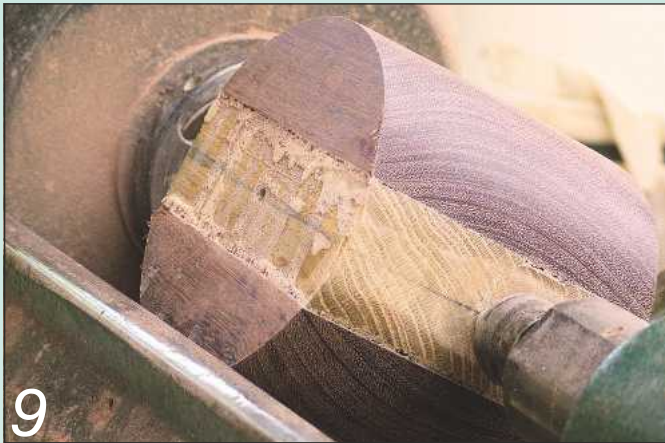
Cut the blank in half through the waste wood using a bandsaw. However, the blank



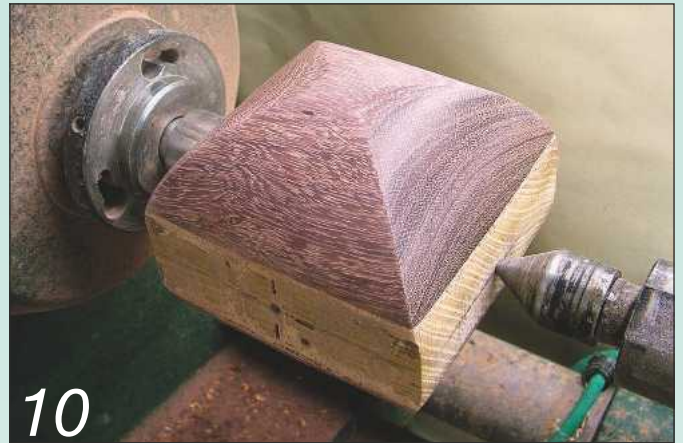
7 Make sure the blank is not tapered



8 Power sand to a finish



9 Mount the blank transversely on the second pair of centres



10 After repeating steps 4 to 9, your blank should look something like this



11 Keep your fingers away from the blade by mounting the work on a piece of scrap



12 Turn a chucking recess on the plywood disc

is not going to be very stable on the bandsaw table and if you just run it through the blade, your fingers will be very close to the danger area. I didn't like the idea of this so I mounted the blank on a scrap piece of 6x1 and used masking tape to hold it temporarily. I used hot melt glue to stick it more securely and also glued two of the triangular offcuts to the side of the blank and the base for greater stability. Now I could run it through the bandsaw and keep

my fingers well away from the blade, **photo 11**. I urge you to do similar.

Making a cradle chuck

You will need an 18mm disc of ply or similar that is slightly larger than your bowl blanks and a couple of offcuts of 3x2 or similar that is the same length as the diameter of the ply disc. Having just fitted a kitchen, I had an offcut of work surface which I used. Start by screwing a faceplate to the disc

and mount this on the lathe, true up the edges and turn a recess in the centre to fit your chuck, **photo 12**. If you are only going to use this cradle once, you don't need to turn this recess – you can simply keep the disc on the faceplate. However, making the recess means that it can be reused time and again with reasonable accuracy. Reverse the disc onto this recess and mark the centre of the disc. Use the lathe or chuck's indexing system to mark two



13

Mark lines parallel to the diameters that are half the width of the 3x2s



14

Mark out the 3x2s as shown



15

Cut away the arcs on the bandsaw...



16

...and sand smooth using a drum sander



17

Glue the 3x2s in place with hot melt glue...



18

... and then screw them more securely through the back of the ply

diameters on the disc at 90° to each other. Measure the width of the '3x2', halve it and use this measurement to draw two parallel lines next to the two diameter lines on the ply disc, **photo 13**.

Find and mark a centreline on the lengths of the of the 3x2 and then mark a line half the width of the 3x2 each side of the centreline on one of the pieces, **photo 14**. Now scribe an arc, the radius of which is half the diameter of the cylinder you cut in

step 8. When this arc is cut away, the bottom of the bowl should fit comfortably in it. Look at **photo 14** again. The centre of the arc is 20mm off the piece of wood that has the arc on it. This will allow the bowl to sit proud of the 3x2s. Cut the two arcs out on a bandsaw, **photo 15**, and then cut one piece into three along the two lines each side of the centreline you marked on one of the pieces. If necessary, sand the arcs smooth using a drum sander, **photo 16**.

Now tack the three parts of the cradle to the ply disc using hot melt glue. Use the marking out lines as a guide, **photo 17**, then turn the cradle chuck over and screw through the ply into the 3x2s, **photo 18**.

Hollowing & decoration

Now mount the cradle chuck on the lathe and load one of the two bowls in it. Make sure the bowl is as square as possible in the cradle and bring the tailstock up to



19

Hot melt glue one of your bowl blanks into the cradle



20

Use a pull cut to flatten the top of the bowl



21

Hollow the bowl in the normal way



22

I used a skew chisel to cut a bead at the rim



23

Reverse the bowl and cut a small flat for it to sit on



support it. Use hot melt glue to secure the bowl onto the cradle, **photo 19**. Note I have covered the back of the bowl with masking tape. This gives the back of the bowl a little protection from the cradle and it's easier to remove masking tape from the bowl than it is to remove hot melt glue. When the glue has cooled, remove the tailstock and turn the front of the bowl as normal. Start by removing the waste wood and flatten the top of the bowl using a pull cut, **photo 20**.

Now hollow the bowl in the usual way, starting near the middle and working out towards the rim, **photo 21**. I turned a decorative bead at the rim, using a small skew chisel on its side, **photo 22**.

Sand and polish the bowl and break the glue joints – I found this easier to do by removing the screws that held the 3x2s in place – and remove any masking tape. Reverse the bowl onto a flat disc with a piece of router mat sandwiched between

the disc and the top of the bowl. Bring the tailstock up to the centre of the base of the bowl and apply enough pressure on the tailstock to hold the bowl against the disc. Use a small spindle gouge to turn a small flat on the bottom of the bowl so it can sit on a table without rocking, **photo 23**. The small nib where the tailstock is will need to be cleaned up by hand, off the lathe. Finally, polish the underside of the bowl by hand. I used sanding sealer under a wax finish. www.getwoodworking.com

The Woodworker SUBSCRIPTION ORDER FORM

DIRECT DEBIT SUBSCRIPTIONS (UK ONLY)

Yes, I would like to subscribe to *The Woodworker*

- Print + Digital: £10.50 every 3 months
(SAVE 38% on shop price + SAVE 75% on Digital Download + FREE GIFT)
- Print Subscription: £8.50 every 3 months (SAVE 38% on shop price + FREE GIFT)

YOUR DETAILS MUST BE COMPLETED

Mr/Mrs/Miss/Ms Initial Surname

Address

Postcode Country

Tel Mobile.....

Email D.O.B


I WOULD LIKE TO SEND A GIFT TO:

Mr/Mrs/Miss/Ms Initial Surname

Address

Postcode Country

INSTRUCTIONS TO YOUR BANK/BUILDING SOCIETY

Originator's reference 422562 

Name of bank.....

Address of bank

..... Postcode

Account holder

Signature..... Date

Sort code Account number

Instructions to your bank or building society: Please pay MyTimeMedia Ltd. Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with MyTimeMedia Ltd and if so, details will be passed electronically to my bank/building society.

Reference Number (official use only)

Please note that banks and building societies may not accept Direct Debit instructions from some types of account.

CARD PAYMENTS & OVERSEAS

Yes, I would like to subscribe to *The Woodworker*, for 1 year (13 issues) with a one-off payment

UK ONLY:

- Print + Digital: £47.50 (SAVE 29% on shop price + SAVE 75% on Digital Download + FREE GIFT)
- Print: £39.50 (SAVE 29% on shop price + FREE GIFT)

EUROPE & ROW:

- EU Print + Digital: £67.00
- EU Print: £59.00
- ROW Print + Digital: £67.00
- ROW Print: £59.00

PAYMENT DETAILS

Postal Order/Cheque Visa/MasterCard Maestro

Please make cheques payable to MyTimeMedia Ltd and write code X325 on the back

Cardholder's name.....

Card no: (Maestro)

Valid from..... Expiry date..... Maestro issue no.....

Signature..... Date.....

TERMS & CONDITIONS: Offer ends 30th Oct 2015. MyTimeMedia Ltd & The Woodworker may contact you with information about our other products and services. If you DO NOT wish to be contacted by MyTimeMedia Ltd & The Woodworker please tick here: Email Post Phone. If you DO NOT wish to be contacted by carefully chosen 3rd parties, please tick here: Post Phone. If you wish to be contacted by email by carefully chosen 3rd parties, please tick here: Email

**POST THIS FORM TO: MY TIME MEDIA LTD,
3 QUEENSBRIDGE, THE LAKES,
NORTHAMPTON, NN4 7BF.**

**HURRY
OFFER
CLOSES**
30TH OCTOBER
2015



PRINT + DIGITAL SUBSCRIPTION

Free Bosch Screwdriver Bits & 7 Piece Holesaw Set*

13 Issues **delivered to your door**

Save up to **38% off the shop price**

Download each new issue to your device

A **75% discount** on your Digital subscription

Access your subscription on **multiple devices**

Access to the **Online Archive** dating back to January 2007

Exclusive discount on all orders at myhobbystore.co.uk



PRINT SUBSCRIPTION

Free Bosch Screwdriver Bits & 7 Piece Holesaw Set*

13 Issues **delivered to your door**

Save up to **38% off the shop price**

Exclusive discount on all orders at myhobbystore.co.uk

SUBSCRIBE TODAY

CHRISTMAS OFFER

**DIGITAL
SUBSCRIPTIONS
AVAILABLE ONLINE!**

Receive a **FREE**
**Bosch Screwdriver Bits
& 7 Piece Holesaw Set***
when you subscribe today **WORTH £20.00**

**"A great addition
to your tool box!"**



**Bosch Screwdriver Bits
in Tic-Tac Box:**

Bosch Max Grip screwdriver bits featuring a titanium nitride coating which gives a particularly long service life, lasting longer than conventional and even diamond tipped bits. These bits give an extremely firm hold in the screw head due to their unique micro-rough surface reducing cam out and the result is a firm grip for faster and more reliable work.

Bosch 7 Piece Holesaw Set:

Set of 7 Bosch hole cutters for use in cutting diameters from 26 mm to 64 mm in wood, plasterboard and building boards.


- 7 hole cutters
- Diameter 26/32/39/45/51/58/64 mm
- For use in wood, plasterboard, building boards

TERMS & CONDITIONS: Offer ends 30th October 2015. *Gift for UK subscribers only, while stocks last. **When you subscribe by Direct Debit. Please see www.mytimemedia.co.uk/terms for full terms & conditions.

SUBSCRIBE SECURELY ONLINE

 www.getwoodworking.com/subscribe

CALL OUR ORDER LINE

 **0844 243 9023**

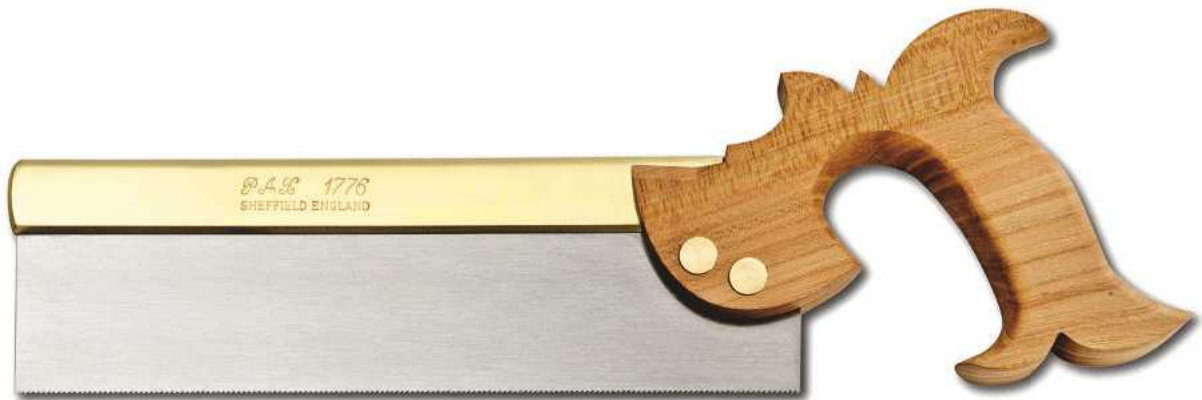
Lines open weekdays 8am – 8.00pm GMT & Saturday 9.30am – 3.30pm GMT

Quote ref: X325

UK calls cost 7p per minute plus your phone company's access charge. Overseas calls will cost more.

Thomas Flinn & Co.

Saw & Hand Tool Manufacturer
Sheffield, England



The UK's last remaining traditional
saw manufacturers



Now also manufacturing Clifton Planes!

Garlick
MADE IN SHEFFIELD
ESTABLISHED 1858

E.T. ROBERTS
& LEE

PAX
ESTABLISHED 1776

CLIFTON

Tel: **0114 2725387**

orderonline@flinn-garlick-saws.co.uk

www.flinn-garlick-saws.co.uk



BY IAN WILKIE



A simple jewellery box

Ian Wilkie has always encouraged his grandsons to come into his workshop and see what he was making, even when they were quite small. Here are the guidelines Ian's grandson Douglas, then 14, followed as he went about making a jewellery box for his mother

Preparing the wood

To begin the project, select the wood carefully, avoiding any cracks and large knots, **photo 1**. Thickness each piece to the dimensions given in the cutting list, and sand the wood well on both sides using an orbital sander, **photo 2**.

Before cutting the carcass pieces to size, plane each board along one long edge to produce a true edge, **photo 3**. Check it by eye using a straightedge, **photo 4**. Decide which surface is going to be on the outside and mark it with a temporary piece of masking tape. Cut the four pieces which form the box sides on the circular saw, **photo 5**, and true up the cut edges on a disc sander, **photo 6**. Check that all the cut ends are perfectly square, **photo 7**.

Routing the rebates

Set up the router in the upright position and fit an 8mm twin parallel flute cutter. Rout a rebate 8mm wide × 4mm deep on the inside of the two box ends, **photo 8**, and one 4mm wide × 4mm deep along the bottom inside edge of each of the box sides and ends. Note that the router should be used with a guard, but this has been removed to make the photographs clearer.

Starting the assembly

Sand all the surfaces smooth using fine abrasive in the orbital sander, **photo 9**, and double-check that you have machined each component correctly, **photo 10**. Check that the corner joints fit accurately, **photo 11**,

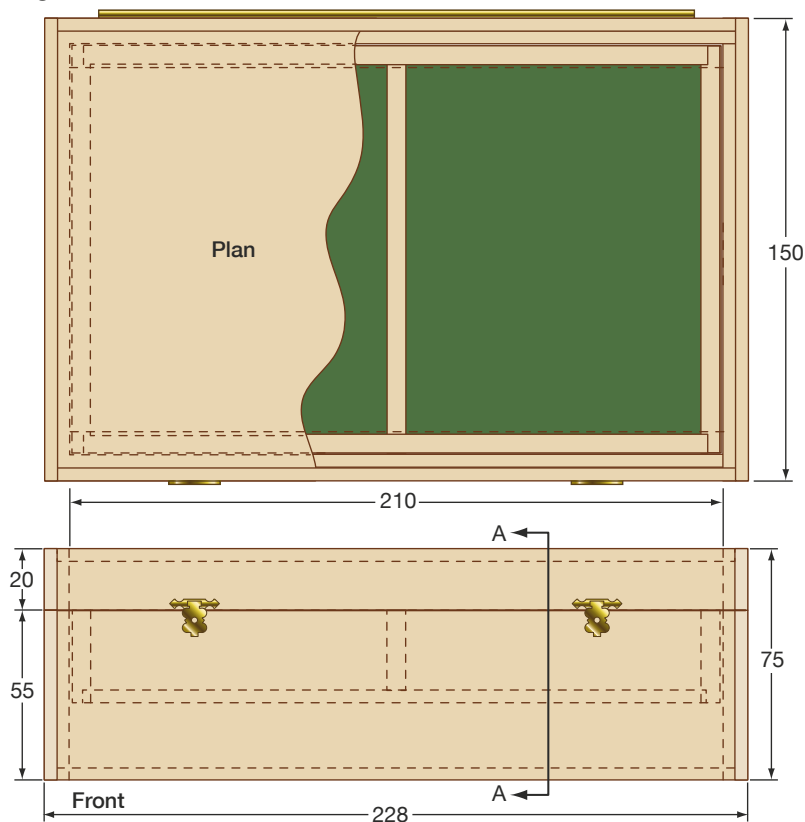
before gluing up the box sides. Carefully measure and mark out the plywood base and cut it to size on the outside of the line. Sand it to fit, glue it in position and cramp up the box assembly, **photo 12**.

Measure and cut out the lid slightly oversize and plane the edges, **photo 13**, until the piece fits perfectly, **photo 14**. Glue it in position and cramp it up. The box should now be completely enclosed. Sand all the surfaces thoroughly.

Cutting the box in two

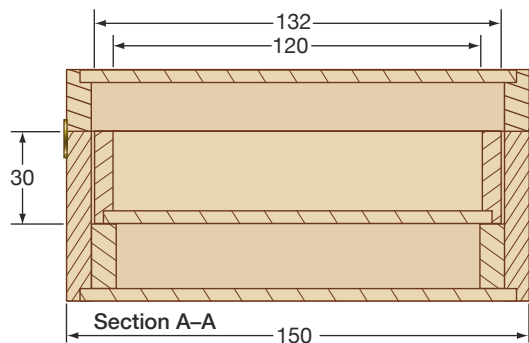
Use a marking gauge or a ruler and soft pencil to mark a line for the lid on all four sides, 20mm down from the top, **photo 15**. Decide which face is going to be the front of

Fig 1



1
I gave Douglas a choice of ash or oak for his box; he decided on the ash

All measurements in millimetres



JEWELLERY BOX CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
Box sides	2	220	75	8
Box ends	2	150	75	8
Box top/base	2	220	140	4 ply
Tray sides	2	202	30	6
Tray ends	2	132	30	6
Tray divider	1	126	26	6
Tray base	1	204	129	4 ply
Tray supports	2	220	25	8
Top/base veneer	2	230	155	0.7

You will also need a 200mm brass piano hinge plus screws, two small brass clasps and pins, and some self-adhesive baize for lining the box and tray and covering the box base

the box and put a temporary sticker above and below the line so that the box and lid can be realigned accurately once they've been cut in two. Hold the box in the vice and cut through it carefully side by side with a fine hard-point saw, **photo 16**. Clean up the cut edges with abrasives, check the alignment, **photo 17**, then put aside.

Making the tray

Cut the four pieces for the tray sides and sand them square as before. Cut rebates 6mm wide × 3mm deep on the ends of the two short sides, then cut rebates 3mm wide × 4mm deep along the bottom edges on all four pieces.

Plane the plywood base to fit the bottom of the tray, then glue and cramp up the assembly. Cut a divider to size and glue it to the tray base and sides, **photo 18**. Wipe away any excess adhesive, which will prevent the varnish from taking properly. Try the tray in the box to make sure it fits.

Applying the veneer

The advantage of using veneer is that you have the chance to try rare, exotic woods at very little cost. Douglas' box uses a dramatic piece of Sassafras blackheart veneer.

Select the veneer and cut a piece 5mm oversize all round for the top using a



2
Sand the thickened wood with an orbital sander before cutting it to length



3
Plane one edge true before sawing the thickened boards to width



4 Check it by eye using a straightedge; this can take quite a while to get right!



5 Cut the boards to width on the circular saw. Note the use of a push stick



6 True up all the cut ends using a disc sander



7 Use a try square to check that all the cut ends are a perfect right angle



8 Rout the rebates on the box ends with the router mounted overhead. Guard removed for clarity



9 Another sanding session will remove any whiskers left by the router



10 The four box side components with all the rebates prepared and checked



11 Assemble the box dry and check that all the corners fit squarely



12 Cut the base to size, then glue and cramp up the box assembly

TIPS FOR YOUNG WOODWORKERS

■ When selecting a project for a young woodworker, be realistic. The aim is to build up confidence and to show how satisfying it is to make something well. Do not overcomplicate the issue and insist on difficult joints, which will probably go wrong. Do resist the temptation to take over. The only way youngsters will learn is through practice and constant encouragement.

■ The emphasis throughout this project is on accuracy and finish. Box making is a challenge; things can go badly wrong if they're rushed, and you can end up with a box with an ill fitting lid. I think Douglas was surprised at how long the project took, and on one occasion when he cut a piece for the lid and found it was too small, he learnt why it is important to measure and double-check everything.



13 Plane the plywood for the top using a low-angle block plane



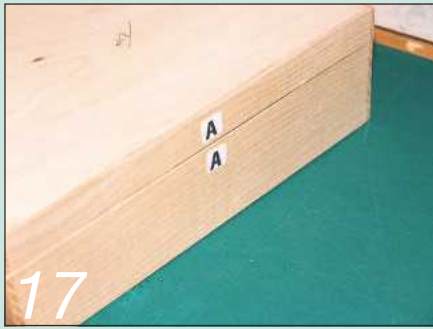
14 Glue the plywood top into place in the cramped-up box assembly



15 Use a marking gauge to indicate where the box is to be cut in two



16 Use a fine-toothed saw to part the top from the bottom



17 Temporary stick-on markers will aid relocation after the cutting



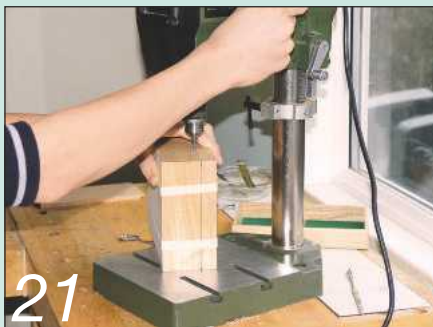
18 Fit the divider and varnish the tray inside and out



19 Glue in the veneer on the underside of the lid with a contact adhesive



20 Use a template and a sharp scalpel to cut the baize to size



21 Drilling the pilot holes for the piano hinge in the box and lid



22 Screw the hinge in place, taking care to drive the screws in square

straightedge and a sharp knife. Apply contact adhesive to the box lid and the underside of the veneer, and bond the two surfaces together. The excess which overlaps the lid all round will be trimmed later. Press down firmly on the veneer to bond it well, then place a sheet of scrap ply over it with a heavy weight on top and leave it to cure.

Reverse the lid onto a cutting mat and trim the veneer with a sharp knife. Cut a second piece of veneer for the underside of the lid; this time it will have to fit exactly, **photo 19**. Glue it in and weight it down.

Finishing the interior

Apply two coats of acrylic varnish to the inside of the box and the underside of the lid, avoiding the areas where the tray supports will be glued. Then varnish the tray. Cut the baize to size and fit it into the bottom of the box. It is helpful to use a template as a guide, **photo 20**.

Cut two strips of hardwood and glue them inside the box to act as supports for the tray and check that it will still fit snugly under the lid. Line the tray with baize.

Finishing the exterior

Apply at least two coats of satin acrylic varnish and leave to dry. Hold the box and lid together with masking tape, making sure they're correctly aligned. Use small pieces of double-sided tape to hold the hinge in position against the back of the box and mark the positions for the screws. Mark the position of one end of the hinge so you know which way it is to be screwed on, and remove it from the box.

Set the depth stop on the bench drill and fit the correct sized drill bit for the pilot holes. Try the size and depth out first on a piece of similar scrap wood; when you're satisfied, drill all the pilot holes, **photo 21**.

Insert the hinge screws carefully, making sure they're at right angles and that you don't damage the heads as you drive them in, **photo 22**. Next, position the clasps, mark the positions for the pilot holes and drill as before. The clasps are usually attached with small pins, which need to be inserted with a little Araldite. Finally, cover the underside of the box with self-adhesive baize, trim away the excess, then it's presentation time! **WWW**



23

The completed box – a great achievement for a young woodworker

FURTHER INFORMATION

For veneer, brass piano hinges and clasps

- Original Marquetry
- 01179 442 640
- www.originalmarquetry.co.uk

THE UK'S PREMIER BRANDED HAND, POWER TOOLS & MACHINERY EVENT



'THE' TOOL SHOW '15

WWW.THETOOLSHOW.COM

FREE ENTRY • FREE PARKING • FREE SHOW GUIDE • FREE MASTERCLASSES
LATEST PRODUCTS • EXCLUSIVE SHOW OFFERS • DEMONSTRATIONS • BIG SAVINGS



VISIT STANDS STAFFED BY THE MAJOR BRANDS INCLUDING:



THIS YEAR'S BIGGEST & BEST ANNUAL TOOL SHOW

9th-11th OCTOBER 2015

FRI-SAT 10am – 5pm • SUN 10am – 4pm

KEMPTON PARK RACECOURSE • SUNBURY-ON-THAMES • TW16 5AQ

D&M TOOLS, TWICKENHAM • 020 8892 3813 • WWW.DM-TOOLS.CO.UK



Edward 'Woody' Harringman brought a Gold medal back to the UK, which singles him out as the best young maker in the world

Skills around the world

A few issues ago we reported from the national finals of the WorldSkills selection competition but now, after the winners have been announced, we bring you all the details and consider what goes into making an award-winning tradesperson

Regular readers may recall *The Woodworker* visiting the national finals of the WorldSkills selection competition that was recently held at the Swadlincote construction campus of Burton and South Derbyshire College. These were organised as the final test to determine which young tradespeople would go forward to São Paulo to represent the UK in their various working disciplines.

We were watching the joinery and the cabinetmaking competitions (carpentry was being held elsewhere) and correctly tipped the eventual winners, Dale Hodgins and Edward Harringman, who both booked a ticket to Brazil that day. But if the heats were hard work, I suspect it was only a fraction of what was experienced last month at the actual world competition itself; no manner

of effort could recreate the sort of atmosphere that most of us can only imagine would exist at a world Olympic-type final.

As with pro athletes who compete every four years for the chance to stand on the



Golden boys: Edward 'Woody' Harringman, left, with George Callow who won Gold two years ago



Tutor Christian Notley with Edward, who says he is extremely proud of the young maker's achievement

WORLDSKILLS BACKGROUND

Taking place every two years since its inception in 1950, WorldSkills is the world's largest skills competition, which is held around the globe to celebrate skills and share best practice between industries and countries. Staged from 11–16 August 2015, WorldSkills São Paulo 2015 gave the world's most talented young people the chance to battle it out to be named the best of the best in skills ranging from web design and aircraft maintenance to hairdressing and visual merchandising.

After four days of intense competition, Team UK, whose members are all aged 18-25, won three Gold, three Silver and two Bronze medals. The team was also awarded 25 Medallions for Excellence, which are given to competitors who demonstrate the attainment of world-class standards in their chosen skill.

winner's podium, years of training and preparation goes into each attempt to win Gold at WorldSkills and be declared the ultimate tradesperson. So, just what does it take to be crowned the Best in the World? Here's what we think:

- ✓ A high level of natural skill; check
- ✓ Real life experience in your chosen trade; check
- ✓ Years of training and preparation; check
- ✓ Full support of employer and family; check
- ✓ A commitment to doing the very best you can; check
- ✓ Careful planning and a cool head; check
- ✓ The energy and stamina to get through a very tough four days; check

No mean feat

As we all know, the UK continues to produce top quality tradespeople across the board, and this is both a tribute to the training and further education available here. It's not just colleges who've played their part, though, thanks are also due to the companies which set and maintain the

MEDALLIONS OF EXCELLENCE

Medallions of Excellence were also awarded to Owain Jones in the Carpentry category, Alex Elton in the CNC Turning category and Dale Hodgins in the Joinery category, among many others who helped to make up Team UK.

sort of high standards necessary to enable such highly skilled workers to flourish, and who support their trainees to achieve the very best they can.

When you consider just how many tradespeople from other countries participate in this competition, it's no mean feat to just get anywhere near the top 10, let alone win a medal. I think we must all agree that it's been a real pleasure to see our young tradespeople – and particularly those from the woodworking world – do so well across the board. So, we send hearty congratulations from everyone at *The Woodworker* – you've all been great. [WWW](#)

EDWARD 'WOODY' HARRINGMAN

Edward's interest in cabinetmaking started while he was studying resistant materials for his GCSEs – working with wood struck an immediate chord with him. When he enrolled at Chichester College in 2009, he discovered he could compete against the best in the world.

After winning Gold at the end of an intense four days, this now means that the 21-year-old has repeated the achievements of another former student of Chichester College – George Callow – who won Gold in the same category two years ago at Leipzig, Germany. In fact, Edward is the fifth Chichester College student to represent the College on the WorldSkills stage, and the fourth to enter in the cabinetmaking category, behind George, Chris Wallace, who entered in 2011, and Luke Griffiths, who received a Medal of Excellence in 2009.

Edward faced stiff competition to secure the top position and despite having to use local timber he wasn't familiar with to build the required side table with doors and two drawers, he succeeded.

Edward was guided by Christian Notley, who runs the College's Furniture Making Department and who also serves as the WorldSkills UK training manager.



Edward working on his cabinet in the nail-biting final challenge

Edward has competed in countless competitions over the years to reach this point, gaining his place in the UK team by winning the WorldSkills selection contest earlier this year.

Christian was delighted with Edward's achievement, saying: "Woody kept his cool throughout, despite being under huge pressure. Each day he did brilliantly but was dropping behind the plan, so on the final day he had a lot to do in just four hours. We've been on a long journey together over six years and he's done himself proud. I'm extremely proud of him and his achievement."



BY MARK CASS



Here's a classic situation requiring short runs of matching mouldings

Clever handwork

Sometimes you need to match up a missing moulding, and there's no chance of buying a short length off the shelf. It would be something of an extravagance to have some new spindle cutters made specifically for such a small job. This is one of those times when a clever bit of handwork is required

Over the years I've run out a number of custom mouldings, and have always found it to be a very rewarding job. Unlike the majority of carving work, where a bit of latitude can be accommodated without any real problem, strict attention to form and dimension needs to be rigidly followed to avoid an obvious mismatch between new and existing mouldings.

The right materials

Choice of timber is probably the first consideration. I often find that this decision is strongly influenced by what wood I have to hand, but you really want something with a regular straight grain and no knots or other defects.

Obviously, if the moulding is to match an existing timber, then the species must be the same (or at least very close), but if paint is to be involved then pretty much anything can be considered. Knotty softwood is probably the least suitable, even less so than MDF, which at least doesn't have much in the way of grain to worry about. Whatever you choose, run a plane across a test piece first to see how it performs.

Template time

If you can't acquire a sample of the original moulding, then you need to make an

accurate copy. If there isn't a square end to hold a piece of card up against, then saw through the moulding in an unobtrusive spot and insert a piece of stiff paper or thin card into the kerf; you'll then be able to mark out the profile with ease. Take the time to convert this recording into something more solid, which will become the definitive template for the job. Thin MDF is entirely suitable for this task.

Matching dimensions

The next step is to machine out your timber to the exact dimensions of the moulding. Be sure to give yourself a bit of extra length, as often the start and finish of the run will come out less than perfectly.

With the profile marked onto each end of your lengths (make sure they're both the



Make a template from the original and mark up the timber accurately

right way round), it's time to set about removing the bulk of the waste. I like to do this job on my table saw with the Suva guard fitted, but, like most carpentry jobs, there are plenty of other ways to achieve the same result.

Basic shaping

With the moulding roughly blocked out, the job becomes less daunting and all of a sudden looks much more achievable. With a sharp gouge and a chisel or two, the work of removing most of the rest of the waste is a fairly straightforward job, particularly if the grain of the timber is kind, but watch out that you don't go beyond the depth required. Finally we reach the stage where a plane or two can be deployed.

Moulding the future

Over the years I've picked up the occasional moulding plane; generally beech, these planes formed a staple part of a woodworker's toolkit up until a generation or two ago, with many skilled craftsmen making their own when required.


Moulding planes are still widely available for fairly sensible money, and it's definitely worth having a few just for this kind of job. By matching the tool profiles with those of the moulding, it's easy to get close to the required shape without too much effort.

I've found that the internal or concave areas are the trickiest; once you've got these sorted out then the outside curves can be formed with a rebate or bull-nose plane. Just make sure that each pass of the plane travels the entire length of the moulding, and keep the MDF template to hand at all times so you can constantly monitor the progress of the work. Your goal is to achieve a constant profile along the entire length of the run.

Cleaning up

Finally, once the desired moulding has been formed, the whole job can be cleaned up with a shaped scraper and/or abrasive papers. Starting with a coarse abrasive such as 60 grit, any slight flats in a curve or similar problem areas can be blended in, and then it's just a case of working down through the grades until the required finish has been achieved.

Summing up

With a bit of practice, running mouldings can be a fairly quick job. It's certainly much easier, quicker and cheaper than getting your local timber merchant or joinery shop to run it out for you, and definitely more satisfying on many levels. Give it a try! 



3 Initial table saw cuts mark the extent of the main curves



4 The bulk of the waste can then be removed on the saw bench



5 Rough out the shape using a sharp gouge and a chisel or two



6 I've built up a modest collection of moulding planes over the years



7 The replacement moulding soon begins to take its final shape



8 With the planing completed, it's time to clean up the details



9 A curved cabinet scraper is ideal for this part of the task



10 The new skirting is built up using MDF and the new top moulding



11 The finished job, needing just some filling and decorating



EARLY BIRD CHRISTMAS SUBSCRIPTION OFFERS

GREAT SAVINGS!
UK only offer

Kick off the festive season by taking advantage of these fabulous discount offers when you buy your loved one a 12-month gift subscription to their favourite magazine. You could even treat yourself! (UK Only Offer)

CHOOSE FROM A RANGE OF MAGAZINES GREAT SAVINGS
DOWNLOADABLE GREETINGS CARD WITH GIFT SUBSCRIPTIONS



SAVE 37%

13 ISSUES FOR £34.99
FULL PRICE £55.25



SAVE 31%

13 ISSUES FOR £34.99
FULL PRICE £50.70



SAVE 44%

13 ISSUES FOR £34.99
FULL PRICE £61.95



SAVE 35%

13 ISSUES FOR £33.50
FULL PRICE £51.35



SAVE 47%

26 ISSUES FOR £49.99
FULL PRICE £93.60



SAVE 37%

13 ISSUES FOR £36.99
FULL PRICE £58.50



SAVE 40%

13 ISSUES FOR £36.99
FULL PRICE £61.99



SAVE 35%

13 ISSUES FOR £38.50
FULL PRICE £58.99



SAVE 37%

13 ISSUES FOR £39.99
FULL PRICE £62.99



SAVE 26%

13 ISSUES FOR £34.99
FULL PRICE £47.40



SAVE 37%

13 ISSUES FOR £34.99
FULL PRICE £55.25

HURRY!
LIMITED TIME ONLY

SUBSCRIBE SECURELY ONLINE: www.mymagazineoffers.co.uk/X309

CALL: 0844 243 9023 AND QUOTE X309

BY POST: PLEASE COMPLETE THE FORM AND POST IT TO THE ADDRESS PROVIDED. QUOTE REF: X309

YOUR DETAILS: (This section must be completed)

Mr/Mrs/Miss/Ms..... Name.....
Surname.....
Address.....
Postcode.....Country.....
Tel/Mob.....
Email.....
D.O.B.....
(Complete if the subscription is for yourself)

GIFT RECIPIENT (Complete 'Your details' first)

Mr/Mrs/Miss/Ms..... Name.....
Surname.....
Address.....
Postcode.....Country.....
Tel/Mob.....
Email.....
D.O.B.....
(Complete if gift recipient is under 18)

PAYMENT DETAILS

Please make cheques payable to MyTimeMedia Ltd and write code **X309** and magazine title on the back.

Postal Order/Cheque Visa/Mastercard Maestro
Card no:
Cardholder's name:
Valid from Expiry date..... Maestro issue no.....
Signature Date

**SEND TO: My Time Media Ltd, 3 Queensbridge
The Lakes, Northampton NN4 7BF**

TERMS & CONDITIONS: Offer ends 15th November 2015. UK Offer Only. Gift subscriptions will begin with the first available issue of 2016 and personal subscriptions with the next available issue when order is placed. For full terms & conditions visit www.mytimemedia.co.uk/terms. From time to time, your chosen magazine & MyTimeMedia Ltd may contact you regarding your subscription, or with details of its products and services. Your details will be processed in full accordance with all relevant UK and EU data protection legislation. If you DO NOT wish to be contacted by MyTimeMedia Ltd & your magazine please tick here: Email Post Phone
If you DO NOT wish to be contacted by carefully chosen 3rd parties, please tick here: Post Phone
If you DO wish to be contacted by carefully chosen 3rd parties, please tick here: Email

NEW HANDS ON SHARPENING

A range of double-sided stones for trade professionals, utilising Diamond Cross Technology, providing the perfect balance between diamond & recess, maximising abrasion rates & clearance of debris.



5" file with handle for sharpening sawblade teeth.



8" bench stone for sharpening chisels and plane irons.



Specialist stone designed for router cutter sharpening.



Credit card stone with handle for chisels & woodturning tools.



4" double handled files for larger bladed garden tools.

Available at Trend Routing Centres, visit www.trend-uk.com

trend[®]
routing technology

60
YEARS



Phone 01923 249911 or visit www.trend-uk.com for your free 2015 Routing Catalogue & details of your nearest stockist.

Having been recently relaunched and updated, the Triton SuperJaws XXL SJA300 is now larger, easier to set up, easier to operate and easier to transport. What's not to like?

Triton SuperJaws XXL SJA300

These SuperJaws have been around for some years now and they've proved to be an invaluable device. It is basically a vice on steroids, capable of supporting and gripping heavy objects and exerting considerable force. It is also easily portable. This latest version builds on its strengths with some new design features.

Multi-functional

I have owned a Triton SuperJaws for some years and it has proved to be extraordinarily useful for so many jobs, not just in woodworking. Its wide capacity jaws mean that it can grip large

objects, such as doors, that no other vice can hold. Its powerful jaws can also be used as a press for inserting bearings, for instance. It can be used outside to hold large logs for chainsawing into firewood. It can be used to hold all kinds of other things too, such as bicycles and mowers for repair. As you can tell, my SuperJaws have seen a bit of action. So when the latest model arrived on my doorstep, I was keen to see what changes had been made, and if it was better.

Design

The new model is superficially similar to the original, but there are a fair amount of changes. The original had three legs that were joined with folding rails to hold the assembly rigid. These have gone and the legs now fold separately and lock solidly in position. Though the front legs always had large baseplates, the rear one never did. This has now been remedied

giving improved stability on soft ground. The whole folding system is much improved as the rear leg is now folded last and locates in the underside of the unit making a convenient carrying handle. On the rear end of the unit there is also another folding carry handle.

In use

Once the SuperJaws are standing up, more changes are apparent. The whole unit is larger with wider jaws and an increased capacity. The jaws are still reversible as before. The excellent foot-operated clamping system remains, but has been improved. In the past you

£135



The new small sliding switch, which saves bruised shins!



Full and clear instructions are given on how to clamp and release the SuperJaws



The SuperJaws also have a number of other uses, including repairing old machinery



This tool is also ideal for sawing wood, thanks to its unbelievable hold

placed your workpiece in the jaws, applied pressure with the foot-pedal to clamp it and then locked the vice by means of pulling a hinged lever on the front. All very easy. To release the vice all you did was push the lever back in. This, however, had the additional effect of releasing the foot pedal, which would spring forward and give you a nasty bruise on your shin if you weren't careful. The new model uses a slightly different system. Instead of a lever to lock the vice, there is now a small sliding switch. To release the pressure, first the switch is disengaged, then, before anything will happen, you have to press on the foot pedal until it clicks and then the vice releases. No more bruised shins!

Summing up

Having thought that there really wasn't much that could improve the SuperJaws, I'm happy to be proved wrong. This model is definitely better than mine. It is easier to set up, larger, easier to operate and easier to transport. It is altogether a more sophisticated tool. **AS**

SPECIFICATION

CLAMPING CAPACITY:	0-1000mm
CLAMPING FORCE:	1 tonne
MAX LOAD:	250kg
WEIGHT:	19kg
ACCESSORIES:	Triangular section side extension rails and additional work supports are also available to provide additional support for large loads

VERDICT

Still a brilliant tool and now more refined, more stable and with a larger capacity

- PROS**
- Unique
 - Versatile
 - Super tough
 - Simple, quick and easy to use
 - Useful new accessories also available

- CONS**
- Absolutely none

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Triton
- 08445 760 266
- www.tritontools.com

Need to repair an old chair? No problem with the SuperJaws, which can hold awkward items firmly in place



Holding wood is easy, efficient and devilishly effective. This piece certainly isn't going anywhere!



These handy extension rails allow you to hold larger items and provide additional support



The whole assembly folds down to a manageable size, so it is easily transportable

Draper's MT300 Oscillating Multi-Tool Kit offers efficient, robust performance, great value for money, but a fiddly accessory fitting does unfortunately let it down somewhat

Draper MT300 Oscillating Multi-Tool Kit

A few years ago the multi-tool or multi-cutter was a rare machine with only one or two manufacturers making them. Now hardly a week goes by without another model being released onto the market. This is Draper's offering, which is supplied with a storage case and several useful attachments.

The concept of oscillating tools has been around for some time. It was in 1968 that Fein, the German tool company, first made an oscillating saw specifically designed to remove plaster casts safely without any risk to the patient. They then developed the idea and it became the Multimaster multi-tool, capable of a wide range of cutting, sanding, grinding and polishing jobs. For years the Multimaster was the only tool of this type, but now, however, many other manufacturers are producing their own versions.



Design

The Draper is a pretty standard design. It has a long body with rubber inserts on the handgrip, a sliding power switch and a variable speed control wheel at the rear. The accessories are held in place with an Allen bolt and a key for this is stored in a holder mounted on the power cable.

Accessories

Supplied with the tool are two blades, one scraper blade, a triangular sanding plate and a dust extraction tube and vacuum

adaptor. The accessories all conform to the OIS (Oscillating Interface System) so accessories from other manufacturers will fit it.

Changing accessories

The blades and sanding pads are fitted to the oscillating shaft with an Allen bolt and a washer. The washer has four slots cut in it, which must locate over the mounting pegs on the shaft to provide a firm grip. The problem is that the pegs are a little short and it can be a fiddly process to line up the slots once a blade or sanding pad is fitted.



Accessories: a sanding pad, abrasive, dust extraction attachment, two blades and a scraper



A mounting shaft makes it easy to attach accessories, using an Allen bolt and washer



Fitting a sanding pad can be a bit of a fiddly process



Pad fitted showing slotted washer



Ready for sanding with extraction fitted



The Draper Multi-Tool with sanding pad fitted easily removes material



It also excels at cutting, thanks to an angle grinder attachment

In use

The Draper is a satisfying tool to use. The dust extraction system is easy to fit and works well. Its sanding performance is excellent. Personally I prefer the oscillating motion to the orbital motion of a detail sander. Its cutting performance is also good. The variable speed is efficient and the machine is comfortable to hold and use.

Conclusion

Overall, this is a very good machine. Fixing the accessories may be a little fiddly but given the price and the performance of the Draper, it's a minor complaint. **AS**

SPECIFICATION

Power:	300W
Speed:	10,000-18,000 orbits per minute
Weight:	1.45kg

Accessories: Storage case, sanding pad, abrasive, dust extraction attachment, two blades and a scraper blade

VERDICT

A competent tool at an attractive price, only marred by fiddly attachment fitting

PROS ■ Robust, efficient performance
■ Good value

CONS ■ Annoying fitting system

VALUE FOR MONEY ■■■■■■
PERFORMANCE ■■■■■■

FURTHER INFORMATION

- Draper Tools
- 02380 494 333
- www.draper.co.uk

Welcome to
THE TURNERS WORKSHOP
The Company with Traditional Values
Our aim is to provide quality items at a fair price.

THE TURNERS WORKSHOP

The Company with Traditional Values

Vincent Coates - proprietor

In the hussle-bussle and impersonal world we live in today, I want to turn back the clock and provide a good old fashioned, personal, professional and friendly service to all my customers.

- Pen Kits
- Woodturning Tools
- Abrasives • Adhesives
- Bushing Sets
- Finishing Products
- Books & DVDs
- Pen Making Accessories
- Workshop Furniture
- Knife Making Sets
- Turning Projects



The Turners Workshop will appeal to all Woodturners, Pen Makers, Pen Collectors, Craftsmen and Craft-ladies! Visit our comprehensive shop at:

www.theturnersworkshop.co.uk • Tel: 07870 587615 • email: mail@theturnersworkshop.co.uk

WAREHOUSE/VISITING - UNIT 13, MORGAN BUSINESS PARK, MYLORD CRES, CAMPERDOWN IND. EST, NEWCASTLE UPON TYNE, NE12 5UJ



Visitors by prior appointment to our warehouse

Despite requiring additional kit in order to use it, the Proxxon GE 20 Engraving Device is ideal for engraving nameplates, jewellery and other objects, thanks to its well-made construction and comprehensive instruction booklet

Proxxon GE 20 Engraving Device

£189.96

SPECIFICATION

Weight: 2.6kg
Dimensions: 300 x 305 x 90mm
Accessories: Supplied with two sets of letters from A to Z, hyphen, full stop and dash (a total of 52 pieces), three Allen keys: 1.5, 3.0 and 5.0mm as well as a 2.5mm HEX (ball head) screwdriver. A detailed instruction manual is also included for ease of use

VERDICT

- PROS**
- Well made
 - Interesting to use
- CONS**
- Insufficient stencil letters included
 - Stencil letters too dark to see clearly
 - No engraving cutter included
 - No clamping method for the work included

VALUE FOR MONEY ■■■■■■
PERFORMANCE ■■■■■■

FURTHER INFORMATION

- Axminster Tools & Machinery
- 03332 406 406
- www.axminster.co.uk



This latest product from Proxxon is an interesting device but it is not for the faint-hearted; it will need some perseverance to master and it's expensive. The machine is designed to engrave thin, flat nameplates in wood, metal or plastic. For the purpose of this test I have concentrated on wood, but the first thing to point out is that you will also require a power unit, such as the Proxxon Micromot 230/E mill/drill, which costs an additional £72.96.

What's included
 When you purchase the device you also get three Allen keys, a 2.5mm hex screwdriver, a letter guide rail with two 'T' bolts and two sets of letters and numbers.

The engraver consists of a dovetail base 280mm long x 70mm wide made in machined aluminium with two adjustable and lockable tables, which can slide from

the front to the back and be moved to the left or right. The front table is 260mm long x 70mm wide and the rear 200mm x 70mm. The top surface of both tables have three 'T' slots to take standard Proxxon 'T' bolts. Gib strips are incorporated to take up any slack and there are locking screws to secure the tables in position. At the back of the device you have a spring-loaded hinge plate, which takes the back pivot for the pantograph arm; this enables the whole arm to be lifted backwards to raise the cutter and the stylus clear of the work being machined. The four arms of the pantograph can be set to give ratios of 2:1, 3:1, 4:1 and 5:1.



The device is supplied with two sets of letters and numbers, as well as a host of handy tools



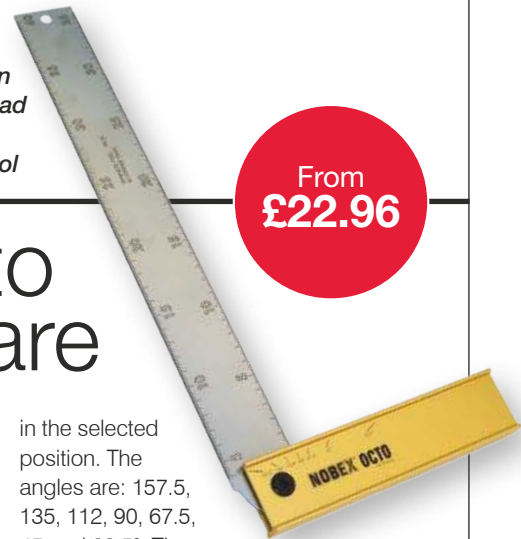
A steady hand and concentration are needed to get satisfactory results



A nameplate in MDF engraved on a painted surface

Based on the classic Nobex quattro folding squares, the Octo square has been redesigned for marking eight angles instead of four. Offering great value for money, this is a strong and extremely accurate tool

From **£22.96**



Nobex Octo folding square

This is a quality tool made in Sweden in three different blade lengths and the longest version was sent for test. The square can be set at eight different angles and the stainless steel blade folds into the golden anodised aluminium stock and takes up little room in the toolbox. The shortest version slips in the apron pocket comfortably. The square can also be hung on a hook using the hole at the end of the blade.

In use

The Octo can be clicked into eight positions by means of its patented ball-bearing device, which locks the square firmly and positively



Two earlier versions, which have only 90° and 45° settings. I have had these Nobex squares for at least 25 years and they look as good as new and are just as accurate as when I bought them!



The square can be used for drawing out angles



Checking the 'squareness' of a turning blank before it goes on the lathe

in the selected position. The angles are: 157.5, 135, 112, 90, 67.5, 45 and 22.5°. These positions are marked on the gold coloured handle and the blade itself is graduated in millimetres and centimetres.

The square can be used for drawing out angles and the longer blade is particularly useful when marking out plywood and MDF. I often use a Nobex square for checking the 'squareness' of a turning blank before it goes on the lathe and it also comes in handy for marking the angle of a sloping room, for example.

Summing up

This is a strong, extremely accurate tool, which will not rust or wear and should last indefinitely. The manufacturers claim that the folding mechanism has been tested 50,000 times and the accuracy has never failed, so I think it does offer good value for money. *JW*

SPECIFICATION

WEIGHT:	250g
AVAILABLE IN	200, 300 or 400mm versions
STOPS AT	157.5°, 135°, 112°, 90°, 67.5°, 45° and 22.5°

VERDICT

- PROS**
- Good value for money
 - Accurate design and positive locking stops
 - Easily folds for storage
 - Makes marking eight angles very accurate

CONS ■ None

VALUE FOR MONEY ■■■■■■
PERFORMANCE ■■■■■■

FURTHER INFORMATION

- Axminster Tools & Machinery
- 03332 406 406
- www.axminster.co.uk

The stencil letters and numbers are cast in 4mm-thick black plastic tablets each measuring 20mm high x 13mm wide. The selected letters or numbers slide into an aluminium guide rail, which holds a total of 14 characters. The loaded rail is secured to the front table by means of two 'T' bolts. The instruction book states that the item to be engraved can be secured to the rear table by means of the Proxxon clamp set (£21.96) or held in small machine vice (£15.96). I tried both of these methods; the clamps tended to get in the way when swinging the pantograph arm clear and with the Proxxon vice it was very difficult to ensure that the work was held in a firm, level, horizontal position so it was hard to guarantee a consistent depth of engraved letters.

You will also need a solid carbide engraving stylus at £14.46, or the finer Ritz scribing stylus. Regular users of Proxxon equipment may well already have a suitable drill and the clamps and vice but newcomers may be put off by the extra cost involved.

In use

When I lifted the stylus out of the work I found that the pantograph arm swung to the back and the machine tipped, which I found disconcerting. To overcome this problem I mounted the device on to a piece of MDF with four rubber feet underneath and drilled holes for two pillars behind the machine, as shown in the photo.

Holding the work to be engraved on the back table can be tricky, so I cut a piece of 8mm Formica-faced plywood 200 x 70mm and drilled two holes for home-made 'T' bolts to secure the wood to the table. I used double-sided carpet tape to hold the piece to be engraved to my false table and this proved to work well; the grip was good and it was easy to remove the tape and renew it for the next job.

Summing up

This engraving device is strong and well-made and the instruction booklet for setting up the machine and for changing the ratios is clear with good illustrations. It can produce very small letters and numbers up to 20mm high. This is quite limiting and, from a woodworking point of view, the engraver will probably only be of interest to model makers and for those who wish to create tags and labels for keys or suchlike. Although expensive, I have really enjoyed having the opportunity to try it out. *JW*

In your own write...

Here are just a few of the latest letters we've received since the last issue. Drop us a line on paper or via screen and keyboard to add your voice to the woodworking crowd; you might be one of the lucky few who will manage to get their hands on a coveted *Woodworker* badge!

SNAIL MAIL OR EMAIL?

You can write to us at *The Woodworker*, MyTime Media Ltd, Enterprise House, Enterprise Way, Edenbridge, Kent TN8 6HF or send an email to mark.cass@mytimemedia.com



The Editor's scrapers and sharpening kit

CUSTOM-MADE SCRAPER

Dear Mark,

I was very interested in your reply to Graham regarding the use of glass as a cabinet scraper (see readers' letters in the September 2015 issue of *WW*). I'm now 90 and have spent many years in all aspects of the trade. I've been privileged to work with some of the best craftsmen in the country, all of whom used home-made metal scrapers. One of the big advantages of a custom-made metal scraper is that it can be ground to whatever shape you want. The key to it all is the sharpening of your scraper; the edge must be turned over with the back of a gouge or better still, a 'ticketer', what we used to call a rod of hard steel. With this, a scraper can be quickly sharpened. A piece of sharp glass will work, but will only remove dust whereas you can get fine shavings with a metal scraper; sometimes it's better than a plane.

By the way, if you have a copy of *WW* issue 673 from November 1949 to hand, you can read all about it on page 176.

R A Guppy, Cwmbran, Gwent

Well, thanks for that one Richard, and I most certainly will check through the archives to find that particular article. My own favourite scraper sharpening device is a smoothly blunt knife steel, but I love the idea of a ticketer – that's exactly the sound it makes when you're stropping prior to filing the edge.

mark

IN SEARCH OF A BUREAU

Hello Mark,

I have subscribed to *The Woodworker* and *Woodturner* for a number of years and am looking to manufacture a mahogany writing bureau – have there been any plans in your previous issues? Please advise the month and year as I have quite a collection.

Thomas Adam, Dundee

Hello Thomas,

Thanks for your enquiry, and I'm pretty sure I've seen a bureau plan or two in some of my archive searches. I shall keep your request to hand and do a bit of sleuthing.

Mark



Hello Mark,

Many thanks for your reply, I have had another search of my magazines and found a bureau in *Good woodworking*, issues 185 and 186, but I do not seem to have issue 184, which I assume is part 1 and the design of the main body of the bureau?

Hello again Thomas,

Well I've finally managed to track down issue 184, but only as a few digital files. It's not the complete article, but hopefully these PDFs will be of some help, especially as the full drawings are amongst them. Good luck with it, and please let me know how you get on.

Mark

MACKINTOSH-INSPIRED DINING CHAIR

Dear Mark,

Here is my latest project. It's a big brother to the one I made earlier this year (inspired by Douglas Brewer's project in the July 2014 issue of *WW*), made from white oak. Once again, many thanks to Peterborough Upholstery for the seat.

Rob Winter

Nice work Rob – only three more diners and one more carver and you've got yourself a nice set.

Hope you've still got the rod and all the templates.

Mark



Here at *The Woodworker* we're always pleased to see photos of your work, and we know everyone else is as well! So send them in now and see if you can make the cut.

TIMBER SUPPLIES, COURSES & SPECIALIST EQUIPMENT

Woodturning & Woodworking Courses

One or two day courses available

Just Wood Norfolk

By Tutor with over 30 years experience in wood turning, cabinet making, antique restoration, wood machinery, joinery and the timber industry.

Courses arranged to suit & situated in Norfolk
Please call for more details.

Telephone Peter on 01493 782408 • e: luckymayhew@gmail.com
or see our website: www.justwoodnorfolk.co.uk for more details

THE CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE



Thirty years teaching furniture design, making and restoration

www.chippendaleschool.com

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

SURREY TIMBERS Ltd

Your One-Stop Wood Shop

Hardwood Timber Merchant
stocking local & Imported Timber



Buy one piece or one pack!

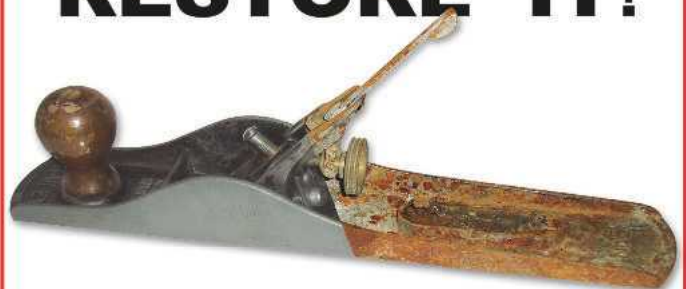
Please come & select from our range:

OAK, YEW, WALNUT, SAPELE, APPLE, MAPLE, SYCAMORE & More!

All welcome • Woodturners • Joiners, • Cabinetmakers
Call in and see our huge range at: Loseley Park, Guildford GU3 1HS

01483 457826 or 07795 663792
www.surreytimbers.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

WOOD FINISHES, SPECIALIST TOOLS & EQUIPMENT

FOR SALE

Felder BF4 31/41 • Combination machine



All cast iron construction, three motors – 3 Phase with converter to single phase.

12" saw, spindle moulder with tilting spindle, sliding table for both, 12" planer thicknesser with spare blades, boring head bi-directional (slot mortiser) with mortising bits, Whitehill cutter block with cutters, original hand book and grease gun.

Buyer must collect • **Only £800** • Tel: **01305 766700** (Weymouth) or email: **mike.newcombe@btinternet.com**

TOOLS WANTED

Top Prices Paid For Quality Hand Tools
carving tools, chisels, turning tools
norris planes (and similar), metal planes
green tools, any nice old hand tools...

email photos to: info@oldtools.co.uk
or bring tools to: Bexhill - 01424 217893



Dowelmax

The ultimate doweling jig for furniture makers

Brings production technology to the small shop
"Fast, accurate and a joy to use, a superb tool"

Visit: **www.dowelmax.co.uk**

or telephone: **01352781168 • 07773718758**

Dowelmax Classic Metric and Junior Metric in stock



The Wood Veneer Hub

www.thewoodvenerhub.co.uk

We provide the highest quality:

- Decorative, Exotic & Burr Veneers
- Coloured & Smoked Veneers
- Constructional Veneers
- Peel & Stick Veneers
- Tools & Accessories

Visit Us: Unit 4 Eden Court, Eden Way
Leighton Buzzard, Bedfordshire, LU7 4FY

+44 (0) 1525 851166

sales@thewoodvenerhub.co.uk

CAST IRON STOVES

20
Great
Looking
Styles

BUCKINGHAM
£298.80

Selling
Top Quality
Stoves in the
UK for over
20 years



**Burn Wood
or Coal**
Big Stocks of
Flue Pipes &
Accessories
in-store



FIT NOW FOR WINTER

All Stoves conform to EN13240



WENTWORTH £395.98

REGAL II £422.80

BARREL £250.80

SEE THE FULL RANGE IN-STORE OR ONLINE

65 SUPERSTORES
NATIONWIDE

Mon-Fri 8:30-6:00
Sat 8:30-5:30
Sun 10-4

machinemart.co.uk
MAIL ORDER: 0115 956 5555

Machine Mart



WOOD FINISHES, SPECIALIST EQUIPMENT & BOOKS

House of Brass
CLASSIC TO CONTEMPORARY
ARCHITECTURAL FITTINGS SPECIALISTS

SHOWROOM: NOTTINGHAM NG1 3NA
Tel: 0115 947 5430 (24 HRS)
Web: www.houseofbrass.co.uk
FREE CATALOGUE OR VIEW ONLINE

Visit our website at www.hobbyuk.com

HOBBY'S The Modelmaker's Yearbook **£3.25**
P&P FREE

Annual 2016 • No.46 • 320 Pages

- NEW EASY CUTTERS & POWER TOOLS
- MECHANICAL ALARM CLOCK KIT
- NEW ICONIC TV/FILM KITS
- HERITAGE STEAM ENGINE
- MARQUETRY KITS WITH DVD

DOLLS HOUSE SPECIALISTS

MATCHITECTURE
ONE THOUSAND AND ONE NIGHTS

NEW ARTICLES
METAL EARTH HANDSOME CAB
MATCHSTICK CLOCK

FREE PLAN COUPON
WORKING MATCHSTICK ROCKING HORSE

Hobby's (Dept WW)
Knight's Hill Square
London SE27 0HH
020 8761 4244
mail@hobbyuk.com
www.hobbyuk.com

Available from WH Smith & leading newsagents or direct

HOW TO MAKE THIS WINDSOR SIDE CHAIR

by Peter E Judge

ONLY £15.00
Plus £7.00 p&p for UK Delivery

The book is packed full of useful diagrams and colour photos on how to make this Windsor chair from start to finish. Every part of the process is explained in easy language, and in a step by step format, supported by dedicated photos and drawings, throughout its 420 pages.

Critique of the book from Mr R A of Florida. 21 Jan 2014
"Without doubt, it is the most detailed and comprehensive Windsor chair construction book on the market today. Finding detailed instructions on this subject has been difficult. I have collected every book and article I could find. Your book beats them all; no contest."

www.makingwindsorchairs.co.uk

Order through PayPal on the website, or please contact Peter by calling **0121 705 2196** or Email: peterejudge@gmail.com or write to: Peter E Judge, 21 Somerby Drive, Solihull, West Midlands B91 3YY.

Delivery to Europe £15.00 plus £14.00 p&p • America £15.00 plus £22.50 p&p
• Australia £15.00 plus £24.50 p&p • Canada £15.00 plus £22.50 p&p

The original milk paint, for authentic colour in all your woodworking and restoration projects.

Chemically safe Historic Paints since 1974

Quote 'WWoffer' for 10% off your first order

The Blueberry Store
New England Interiors
Folk Art-Americana

www.blueberrystore.co.uk

TEWKESBURY SAW COMPANY LTD

Spindle Moulder Cutters & Limiters

Made to Order!

- Quick turnaround
- Able to supply to fit most types of blocks
- Many low priced standards from stock

Tewkesbury Saw Co. Ltd.
Newton Trading Est. Tewkesbury, Gos. GL20 8JG
Tel: 01684 293092 • Fax: 01684 850628
www.tewkesburysaw.co.uk

STEEPCRAFT.

Realise unique projects - with computer-aided desktop 3D systems. Exclusively in the UK with STONEYCNC!

Customised projects with the desktop 3D system

- CNC router	- CNC plotter	All you need to CNC from £1000
- 3D printer	- Vinyl cutter	
- Foam cutter		

Visit our website www.stoneycnc.co.uk and watch the machine in action!

Distributed exclusively in the UK by **STONEYCNC**

Happy to help at all times:
+44 (0) 1432 607 908

info@stoneycnc.co.uk
www.stoneycnc.co.uk

SHOP GUIDES

**MAIL ORDER
NARROW BANDSAW
BLADES
MANUFACTURED TO
ANY LENGTH
PHONE NOW FOR QUOTATION
OR PRICE LIST**

TRUCUT
Spurside Saw Works, The Downs,
Ross-On-Wye, Herefordshire HR9 7TJ
www.trucutbandsaws.co.uk
Tel: 01989 769371
Fax: 01989 567360

TOP QUALITY - LOW PRICES
VSM - VITEX ABRASIVES

KK532F Starter Pack (4 Metres) £12.95
inc. VAT and UK post. 1/2 metre each of grits
80, 120, 150, 180, 240 320, 400, 600

Also the NEW *GRIP - A - DISC*
Power Sanding/Finishing System
Plus lots of Belts, Discs, Stars, Low cost KK114

We also stock WOODTURNERS SUPPLIES
Timber/Bowl Blanks/Tools/Waxes/Finishes
Glues/Chucks/Glassware/Cutlery/Sundries.

SAE FOR CATALOGUE
Jill Piers Woodturning Supplies
2 Kimberley Villas, Southmill Road,
BISHOPS STORTFORD, HERTS CM2 3DW
Tel/Fax: 01279 653760

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 Pleace, Stanningley,
Leeds, LS28 6LZ
Tel: (0113) 257 4736
Fax: (0113) 257 4293
www.dbkeighley.co.uk
P. A. CS. BC. MO.

JET **SI** **SEDGWICK**

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. Five day courses run from April to August.

NEW Weekend Courses from September 2014
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 DVD

Contact David on:
01237 441288 or email: davidcharl@aol.com
www.davidcharlesworth.co.uk

WEB GUIDE

WEALDEN TOOL COMPANY

Router cutters
Spindle tooling
Bandsaw, jigsaw & circular sawblades

Online catalogue & ordering
www.wealdentool.com

www.getwoodworking.com

DIAMOND SHARPENING & CHAINSAW DISCS

www.StarkieSharp.com
The Diamond Sharpening Specialists

- Better Prices
- More Information
- Visit us at 40+ Shows

DMT Diamond Sharpening Perfection!

Much safer, smoother carving with up to 44 Teeth cutting fast at 10,000+ RPM.

KING ARTHUR'S TOOLS
KATS Chainsaw Discs

The Ultimate Power Carving Experience!

Cut, Carve, Shape, Notch, Trench & Groove in Seconds! Massively increases productivity!

Quote Code SSTWW6 at checkout for FREE Universal Nut worth £6.95

Shown Lancelot & Squire in Tandem
Richard Starkie Associates,
Timber Cottage, Wistow, Leicester, LE8 0QF Email: sales@starkies.com
www.StarkieSharp.com

MUSICAL INSTRUMENT MAKERS

Musical Instrument Makers' & Repairers' Supplies

TOUCHSTONE - TONEWOODS

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

CLOCKS

Woodworking Materials
Large selection of products!

- ✓ Clocks & Accessories (Quartz and Mechanical)
- ✓ Barometers
- ✓ Thermometers
- ✓ Cabinet furniture
- ✓ Screws
- ✓ Plans
- ✓ Kits
- ✓ Polishes
- ✓ Adhesives
- ✓ Abrasives etc.

For **FREE** catalogue please contact:

Chris Milner Woodworking Supplies
(Dept. TW) Beresford Lane, Woolley Moor, Nr. Alfreton Derbyshire DE55 6FH
Tel/fax: (01246) 590 062
Email: milnerwoodwork@aol.com

S.I.P. 10" cast iron table saw

Very little usage and in excellent condition
Phone: 01277 651579

£500 Essex
For Sale

To advertise here...

Call David on
01689 869 867

MARKETPLACE

Send or email a photograph of your item and we'll include it with your ad for **FREE!**

Our **FREE** classified advertisement service

FOR SALE

Bosch GOF 2000CE Professional router. Brand new with accessories, unused; £250
01629 814 572 (Derbyshire)

15-20 pieces of hardwoods, approximately 3ft long, of various types, widths and thicknesses; make me an offer
01619 762 525 (Cheshire)

Coronet lathe with 3ft bed, Henry Taylor Master chuck and woodturning chisels. Any reasonable offers considered
01543 279 310 (Staffs)

Tormek SVH-320 jig for grinding planer blades; £80
01793 771 898 (Swindon)

Kity K5 Combination machine. Saw, planer/thicknesser, spindle moulder. Old machine in really good condition with host of extras; £300
07707 242 948 (Oxon)

Stanley ratchet brace, 8in swing two-jaw model in excellent condition, with a selection of auger and flat bits; £35
01189 712 472 (West Berkshire)

Stanley Bailey No.4 smoothing plane in excellent condition with wooden handles; £20
01189 712 472 (West Berkshire)

Black & Decker sander, 1/3-sheet orbital finishing model, 135W, in good boxed condition with dust extraction kit; £10
01189 712 472 (West Berkshire)

Makita MLT100 sawbench, on moveable trolley, little used; £150
01992 627 927 (Waltham Cross)

Poolewood lathe, Variable speed, 1,219mm between centres, twin bed bars; 1hp reversible motor; £325
01664 812 520 (Melton Mowbray)

Axminster lathe, variable speed, 175mm over bed, 850mm between centres, headstock slides and swivels, with accessories; £160 (cost £400 new). Buyer collects
01747 838770 (North Dorset)

Handicraft Annual 1936; interesting book featuring tool kits, items to make, wood and mouldings for sale etc; £28 inc P&P
07940 704 570 (Kent)



Record Power lathe, CL1 cam variable speed model with CL3B bowl attachment, two faceplates, Dakota chuck, Steb centre and some tools; £300. Buyer collects
01483 893068 (Surrey)

Hardwood boards, Indian laurel, bocote, sheoak and others. Please call for details
0208 675 0132 (South-west London)

Pfeil palm-held carving tools, set of 12 for wood and lino, in excellent condition, wooden box included; £75
01539 533 410 (Cumbria)

Trend Airshield Pro, never used, so complete and still boxed; £110. Buyer collects
01723 871 881 (North Yorkshire)

Record Power PT260 planer/thicknesser, excellent condition; £375. Buyer collects
07900 320 742 (South Yorkshire)

Scheppach ha2600 extractor; £170. Delta fretsaw; £50. More than 400 UK and US woodworking magazines from 1970s to date; £50 the lot. Buyers collect
01942 726 985 (Cheshire)

Record Power machinery – BS300E bandsaw, PT260 planer/thicknesser, CX2600 dust collector – plus Rexon BT2502AE table saw, Draper GD13/5C drill press and Bosch GCM10 mitre saw. £1,000 the lot
01367 242 724 (South Yorkshire)

Axminster dovetail/boxcombing jig, plus three cutters, little used, new price £120, will sell for £45. Buyer collects
01536 722 721 (Northants)

Hydraulic 'Hospital' type bed, ideal for assembly bench. Available with or without mattress and headboard/footboard but with the slot in fittings. Wheels have brakes and raises about 406mm – total bed base height about 813mm. I have an removable extra worktop adding about an extra 125mm (not included). £135 ono, buyer collects or arranges own transport. Supplied flat; no lift up panels for head/backrest
07961 382 567 (West Sussex)

WANTED

Woodworker magazines, pre-1951 plus 1984–1986. Grandfather collecting for cabinetmaker grandson
01493 368 180 (Norfolk)

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)

USE THIS FORM TO BOOK YOUR **FREE** AD

The Woodworker
MARKETPLACE

- 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.

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

My advertisement (max 20 words please) reads as follows:

Name _____
Address _____

Postcode _____ Daytime tel no. _____
Signature _____

Please write your advertisement in **BLOCK CAPITALS** and send it to: **The Woodworker Marketplace, MyTime Media Ltd, Enterprise House, Enterprise Way, Edenbridge, Kent TN8 6HF.** You can also email your free ad to: thewoodworker@mytimemedia.com **Send/email a photograph of your item and we'll include it with your ad for FREE**

Planned, not turned

Here's a great little project from April 1955, aimed at the beginner or junior woodworker. The table lamp is a popular and worthy subject for learning one's skills, and I suspect most of us made something similar in our woodwork lessons years ago

Although a seemingly simple design, this lamp incorporates a couple of nice little touches, which enhance its elegance while still remaining achievable. The first is the base, which, on the face of it, looks pretty tricky, what with that little step at the top of the main chamfers. This step, however, is simply a separate piece – accurately cut – which is just planted on to create the effect and to provide a visual transition or bridge from the base to the column. It's the sort of thing the ancient Greeks did thousands of years ago, and just one more demonstration of the value of studying classical architecture and its derivatives.

Elegant touches

There's also a nice little extra chamfer around the outside edge, just where you would normally expect a squared one; this adds a further dimension of a subtle kind, but I'm viewing it as a 'serving suggestion' myself...

The most elegant part, though, is surely the tapered octagonal section of the lamp's column. This starts as a geometrically pure octagon, but effortlessly changes into a square just before it meets the base, terminating in a shouldered square stub tenon to locate in a matching mortise. If ever a job was designed to improve one's planing skills, then this is it.

Creating the channel

All of you turners will no doubt be familiar with boring a long hole through a shaft or stem on the lathe, but this job can be achieved quite simply without any recourse to special tools or equipment. The column

OAK TABLE LAMP

The design of this delightful standard is based on the octagon, and for the beginner it offers some interesting problems which would serve to improve his ability in handling tools. Similarly, it would be particularly useful as a job for boys in the handicraft centre where the necessity for marking out a true octagon can be put to practical effect.




FIG. 1. THE LAMP ON COMPLETION
Note how its simple lines lend themselves to the contemporary type of shade

FIG. 2. ELEVATION, PLAN, AND EXPLODED VIEW. BELOW, METHOD OF MARKING OUT AN OCTAGON

when joined, will produce a true octagon. Additional lines drawn from the last named points to the centre, as indicated by dotted lines (E), Fig. 2, serve to locate the central octagon. This is necessary to indicate the limit of the chamfer. Again, this point is shown more clearly in the exploded view, Fig. 2.

All marking out being completed, the mortise for the stub-tenon is cut, the groove to take the wire on the underside made, and corners removed. At this stage a line is drawn around the edge $\frac{1}{4}$ in. down from the upper face to indicate the limit of the chamfer in this direction and the chamfers produced. The edge chamfers are made with the aid of a bevel set at 30 degrees.

Centre Piece.—This is formed from a $2\frac{1}{4}$ -in. square set out in the manner previously stated, shaped, and glued in position.

Stem (Shaping).—To facilitate marking out, a

FIG. 3 (A) $\frac{1}{4}$ in. wide and $\frac{1}{8}$ in. deep. The two surfaces to be glued are practically unnoticeable. After preparation, the surfaces concerned are glued, a piece of string placed in the groove, and the two sections cramped up. The idea of inserting a piece of string is to enable any surplus glue which might seep into the cavity to be cleaned out. This can be done by attaching a piece of damp tape or rag to the string and drawing it back and forth through the hole. All surplus glue having been removed, the stem is put to one side to set.

Base.—This is first prepared as a 7-in. square. The diagonals (D), Fig. 2, are drawn and a compass set to span half this distance as shown. With the compass so set, an arc is made from each corner to cut the adjacent sides; the points so found,

76 WOODWORKER

is made up of two halves, both with a groove cut out and simply glued together. By clamping up with a piece of string inside, any surplus glue can be removed with ease, and the channel thus created kept clear for the electrical cable.

A challenging task

One of the most challenging tasks will be accurately securing the brass lamp fitting;

in my experience this is rarely as straightforward as it should be. Once wired up and tested, it's just the finish to take care of to secure an attractive and functional item for the home, which should last for many a year.

Mark

More from The Woodworker archive next month...

Engineered Precision



Plunge or fixed. No compromise.

TRA 001

Designed by woodworkers for woodworkers, the multi-award winning **TRA001** has been the benchmark in professional routers around the world since its release.

One of the most significant features of this machine is its ability to switch from a conventional plunge router to a fixed-base mode router with rack and pinion height adjustment at the push of a button.

Simple ideas are often the best and the 3-stage, pre-set height adjustment system is a perfect example. It only takes seconds to remove the plunge return spring, which then allows for easy lifting and adjustment of the machine using the built-in height winder when mounted in a router table.



PT107 10" x 7" Heavy Duty Planer Thicknesser

The PT107 is perfectly suited to the discerning woodworker who expects professional and **reliable performance** from a **solid, durable** and **compact machine**. Whilst compact enough for smaller workshops and ideal for serious home or trade users, this machine boasts some impressive industrial features and is exceptionally smooth and accurate in operation.

If you are in the market for a good planer thicknesser then check this out at one of our display stockists to fully appreciate the value on offer.

Only

£999.⁹⁹

Save £100

off Spring / Summer Catalogue price



Central Column
The thickening table is supported by a sturdy central column for superior stability and easy rise and fall adjustment.



Cutter Block
The three knife cutterblock ensures an excellent finish.



Sturdy Fence System
The fence can tilt up to 45° and is supported by a strong mounting system.

"The PT107 is extremely well built, with heavy cast iron tables polished to a fine finish.

This machine feels more like a proper industrial model in use. The sheer weight minimises any vibration."



The Woodworker

"**Top Quality** - This is a very well made machine with full adjustment of both infeed and outfeed tables. This is unusual in a home workshop machine and allows very fine adjustment to eliminate any gouging at the end (snipe)...Results are excellent, chip clearance is good and the changeover from planing to thicknessing is quick and easy."



DesmondW, Online Review

What They Say...

Price valid until 28.02.2016. E&OE.

See the value the **PT107** offers for yourself at the following stockists:

ENGLAND

Aldermaston Tool Company Youngs Ind Est, Paices Hill, Aldermaston, Berkshire, RG7 4PW **0118 981 1470**

Grahams Machinery Deva House, Knutsford Way, Chester, Cheshire, CH1 4NX **01244 376 764**

Westcountry Machinery 4 wood Beacon Kilns, High Street Village, St Austell, Cornwall, PL26 7SR **01726 828 388**

Jaymac (Derby) Ltd 852 London Road, Derby, Derbyshire, DE24 8WA **01332 755 799**

Toolite Co Unit 3/2 The Mews Brook Street, Mitcheldean, Gloucestershire, GL17 0SL **01594 544521**

Tewkesbury Saw Co Ltd Newtown Trading Estate, Tewkesbury, Gloucestershire, GL20 8JG **01684 293 092**

John Davis Woodturning The Old Stables, Chilbolton Down Farm, Stockbridge, Hampshire, SO20 6BU **01264 811 070**

D.B. Keighley Machinery Ltd Vickers Place, Stanningley, Yorkshire, LS28 6LZ **01132 574 736**

J Carr & Son Ltd 9-10 Horncastle Road, Boston Lincolnshire, PE21 9BN **01205 351 555**

D&M Tools 73-81 Heath Road, Twickenham, Middlesex, TW1 4AW **0208 892 3813**

Norfolk Saw Services Dog Lane, Horsford, Norwich, Norfolk, NR10 3DH **01603 898 695**

Snainton Woodworking Supplies Barker Lane, Snainton, Scarborough, North Yorkshire, YO13 9BG **01723 859 545**

Oxon Fastenings Systems Academic House, Oakfield Ind Est, Stanton Harcourt Rd, Eynsham Oxfordshire, OX29 4AJ **01865 884 022**

Yandle & Sons Ltd Hurst Works, Martock, Somerset, TA12 6JU **01935 822 207**

Kraftkabin 248-254 London Road, Stoke on Trent, Staffordshire, ST4 5RH **01782 416 102**

DJ Evans (Bury) Ltd St Botolphs Lane, Bury St Edmunds, Suffolk, IP33 2AU **01284 754 132**

Elmers Hardware Ipswich 59-61 Edmonton Road, Kesgrave, Ipswich, Suffolk, IP5 1EQ **01473 623 381**

Scott and Sargeant Woodworking Machinery Ltd 1 Blatchford Rd, Horsham, West Sussex, RH13 5QR **01403 273000**

RS Paskin & Co Ltd Oldington Trading Estate, Stourport Road, Kidderminster, Worcestershire, DY11 7QP **01562 829 722**

WALES

Data Powertools Ltd 427 Cowbridge Rd West, Cardiff, CF5 5TF **0292 0595 710**

SCOTLAND

MacGregor Industrial Supplies 15-17 Henderson Road, Longman Industrial Estate, Inverness, Inverness-shire, IV1 1SN **01463 717 999**
Further branches available throughout the highlands.

Please contact for more details.

Brodies Timber The Old Sawmill, Inver, Dunkeld, Perthshire, PH8 0JR **01350 727 723**

IRELAND

WH Raitt & Son Ltd Main Street, Stranorlar, County Donegal **00353 74 913 1028**

Joe McKenna Ltd 54-56 Parnell Street Limerick, County Limerick **00353 61 413 888**

JJ Ronayne Ltd Dublin Road, Thurles County Tipperary **00353 5042 1033**

RECORD POWER

ESTABLISHED 1909®

www.recordpower.co.uk Tel: 01246 571 020

Over
100
years
Experience • Knowledge
Support • Expertise

RECORD POWER
ESTABLISHED 1909®
STARTRITE **CORONET**
BURGESS **CamVac**

Incorporating some of the most famous brands in woodworking, Record Power have been manufacturing fine tools & machinery for over 100 years. Built to last we provide support for thousands of machines well over 50 years old, which are still in daily use. Testimony to the sound engineering principles and service support that comes with a Record Power product.