Issue 314 • January 2017

Good woodworking

www.getwoodworking.com

The No.1 magazine for aspiring designer makers

WIN! MAKE A PIECE OF FURNITURE & BE IN WITH THE CHANCE OF WINNING 1 OF 3 FANTASTIC PRIZES

WITH 60 YEARS FELDER

CHRIS TRIBE'S STORY

Woodworking & furniture making courses for all, plus a brand-new book

PART 1:

MAKE YOUR OWN MEDIAEVAL FIDDLE

Shaun Newman's expert guide

EXCLUSIVE! We announce all the winners of the 2016 Wood Awards

WA TheWoodAwards

PLUS...

- Beginners' guide to using powered planes
- Simple project: build a toy wooden aeroplane
- Les Thorne's textured & airbrushed cenote bowl

mytimegroup WOODWORKING GROUP

Welcome to our first issue of 2017 – it's a belter!

9 770967 000160 14

ONLY £4.50

IronmongeryDirect

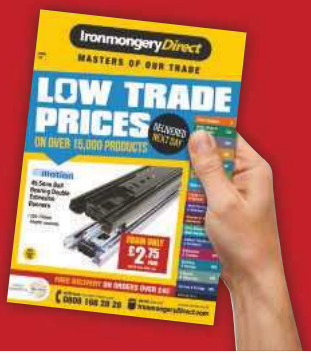
MASTERS OF OUR TRADE

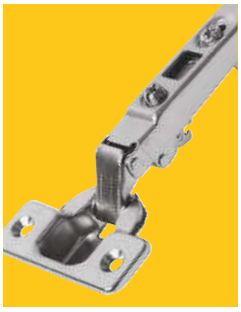
ORDER BY 8PM

GET IT NEXT DAY!

15,500 PRODUCTS IN STOCK FOR NEXT DAY DELIVERY

CALL
0808 168 28 28
OR GO ONLINE
TO GET YOUR FREE
CATALOGUE





> *Good product, great communication and the best speed of service that I have experienced.*
>
> Joe Reilly

FREE DELIVERY OVER £45*

FREE RETURNS WITHIN 30 DAYS

MINIMUM 5 YEAR GUARANTEE

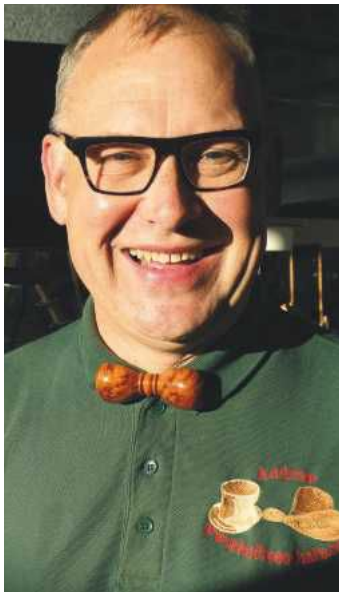
LOW TRADE PRICES

CALL 7am-8pm 7 days a week
0808 168 28 28

ONLINE Shop 24/7!
IronmongeryDirect.com

*Ex VAT

FOLLOW US ON



'Happy New Year from ***Good Woodworking*** *magazine!'*

Welcome

Hello to all and may we take this opportunity to wish you all a very Happy New Year! Yes, that's the festivities done and dusted for another year, and now to take stock of what 2017 may have in store for us. Well, while 2016 certainly had its fair share of ups and downs, there were undoubtedly some high points, one of which occurred at the end of November in the lovely town of Harrogate. For those of you who attended The North of England Woodworking & Power Tool Show, I'm sure you all had as good a time as Andy and I did. It was lovely to meet a fair few of our readers and to hear about each of your stories. I even met a couple who had travelled all the way from Australia just to attend the show – now that's commitment for you! The chap stocked up on the last six or so months' worth of *GW* and commented on how he'd certainly have lots to read on the flight home!

Turned banjos & carved walking sticks

I normally share some of my favourite photos from this issue, to give you an idea of what you can expect to see featured inside, but I thought I'd take the opportunity to show you some of Andy's snap shots from the show. For those who haven't met him, Andrew Hall, or 'the hat man' as he is affectionately known, is such a funny and enigmatic chap. He's soon going to start writing for our sister magazine, *The Woodworker*, so be sure to pick up the May issue, which will see him sharing the secrets behind the making of his 'Blues Bowl'. His turned wooden banjos are amazing, and they actually work! I was charmed by his wooden bow tie and his turned hats are fantastic. Definitely one to watch demonstrate – have a look at his website here: **www.hallwoodhats.com**.

While it's hard to choose just a few examples of the wonderful displays of work we saw, we were also equally impressed and amazed by the work of 'The Wild Stick Maker' Marc Cotterill, whose skills are truly incredible. The photo above doesn't really do justice to the immense detail and realism he is able to impart into his pieces, but they do look incredibly lifelike and are a joy to behold. Oh, and he also recently received a commission from Prince Charles!

Keep in touch

In other news, I've really enjoyed receiving all your emails showing me your latest projects for inclusion in our readers' gallery. It's great to see a real breadth of work being undertaken – not just general woodworking, but also woodturning. Do keep sending in photos and good luck to all those who enter – an Alcolin glue bundle could well be winging its way to you soon!

The end is nigh

The deadline is also looming for the Felder competition. Yes, I know I've been banging on about this for months, but don't forget to send in your entries before the closing date (17 February) to ensure they will be judged in time. This is not only a great opportunity for you to win some wonderful prizes, but also the chance for you to have your pieces potentially judged by some expert furniture makers. Three people have got to win, and there's no reason why it couldn't be any one of you reading this. All you have to do is send in some photos of a piece you've made recently, or a piece made especially for the competition, along with a short amount of text explaining the making process – simple! Full terms and conditions can be found on page 59 or on our website, so don't miss out, and good luck! Who knows, you may be the lucky recipient of an A3-26 planer/thicknesser worth over £3,000 – what a great start to 2017 that would be!

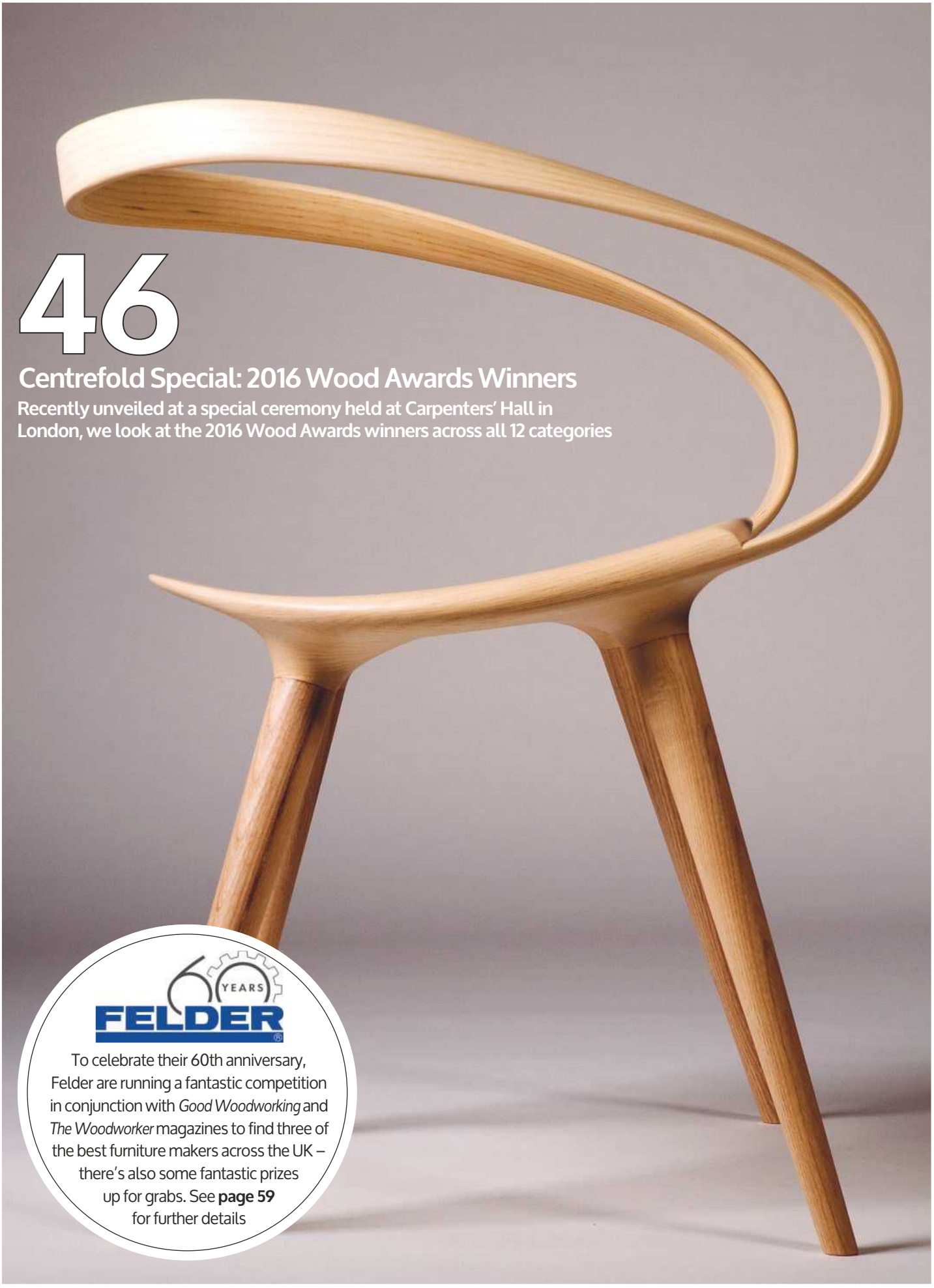
Tegan

Email tegan.foley@mytimemedia.com

Andy King
Technical Editor

Dave Roberts
Consultant Editor

Phil Davy
Consultant Editor



46

Centrefold Special: 2016 Wood Awards Winners

Recently unveiled at a special ceremony held at Carpenters' Hall in London, we look at the 2016 Wood Awards winners across all 12 categories

Good woodworking

January 314

• TOOLS • PROJECTS • TECHNIQUES • ADVICE

PROJECTS

TECHNICAL

PEOPLE & PLACES

TESTS

Andy King tests...

Phil Davy tests...

YOUR FAVOURITES

http://twitter.com/getwoodworking

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

SUBSCRIPTIONS
UK – New, Renewals & Enquiries
Tel: 0344 243 9023
Email: mytimemedia@subscription.co.uk
USA & CANADA - New, Renewals & Enquiries
Tel: (001) 866 647 9191
REST OF WORLD – New, Renewals & Enquiries
Tel: +44 (0) 1604 828 748
Email: help@twwsecureorder.co.uk

BACK ISSUES & BINDERS
Contact: 01733 688 964
Website: www.mags-uk.com

EDITORIAL
Group Editor: Tegan Foley
Technical Editor: Andy King
Consultant Editors: Phil Davy, Dave Roberts

CONTRIBUTORS
Andy King, Peter Sefton, Shaun Newman, John Bullar, Aleksei Sebastiani, Thomas de Bos, Peter Bishop, Chris Tribe, Phil Davy, Les Thorne, Michael Huntley

PRODUCTION
Designer: Nik Harber
Retouching Manager: Brian Vickers
Ad Production: Robin Gray

ADVERTISING
Business Development Manager: David Holden
Email: david.holden@mytimemedia.com
Tel: 01689 869 867

SUBSCRIPTIONS
Subscriptions Manager: Kate Hall

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

mytimemedia
print & digital media publishers

Machine Mart

NOW 65 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS

Clarke TABLE SAWS

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

LEG STAND KITS FOR CTS10D AND CTS11 ONLY £27.59 INC VAT*

INCLUDES LEFT & RIGHT TABLE EXTENSION

CTS10D

MODEL	MOTOR	BLADE	EXC.VAT	INC.VAT
CTS800B	600W	200mm	£69.98	£83.98
CTS11	1500W	254mm	£149.98	£179.98
CTS10D	1500W	254mm	£169.98	£203.98

Clarke 4" BELT/ 6" DISC SANDER

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

CS4-6D

£92.99 EX.VAT £111.59 INC.VAT

Clarke 6" BELT/ 9" DISC SANDER

- Includes stand
- 1 HP/ 230V/ 1ph motor

CS6-9C

£229.00 EX.VAT £274.80 INC.VAT

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°

£129.98 EX.VAT £155.98 INC.VAT

SHOWN WITH OPTIONAL LEG KIT CLK5 £19.98 EXC.VAT £23.98 INC.VAT

Evolution FURY5-S TABLE SAW NEW

- 1500W motor
- 0-60° mitre gauge
- Cutting depth: Steel 3mm, Wood 85mm at 90° or 58mm at 45°

£149.98 EX.VAT £179.98 INC.VAT

3 YEAR

Clarke WOODWORKING VICES

STANLEY Record

FROM ONLY £13.99 EX.VAT £16.79 INC.VAT

WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke CHT152	Bolted	150/152/61	£13.99	£16.79
Stanley Multi Angle	Clamped	72/60/40	£16.99	£20.39
Record TV75B	Clamped	75/50/32	£19.98	£23.98
Clarke WV7	Bolted	180/205/78	£26.99	£32.39

Clarke QUALITY CAST IRON STOVES

OVER 23 QUALITY STYLES ON DISPLAY

NEW

POT BELLY £99.98 EX.VAT £119.98 INC.VAT

8kW

6.9kW

LARGE & XL MODELS IN STOCK

BARREL II £219.00 EX.VAT £262.80 INC.VAT

6kW

FLUES, COWLS & ACCESSORIES IN STOCK

£199.00 EX.VAT £238.80 INC.VAT

BUCKINGHAM

Clarke 1" BELT/ 5" DISC SANDER

- Includes 2 tables that tilt & lock
- Quality Induction 300W motor

£69.98 EX.VAT £83.98 INC.VAT

CBS1-5

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

FROM ONLY £139.98 EX.VAT £167.98 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
CDE35B	750W	450 M3/h	56Ltrs	£139.98	£167.98
CDE7B	750W	850 M3/h	114Ltrs	£149.98	£179.98

Clarke CROS3 450W RANDOM ORBITAL SANDER NEW

£29.98 EX.VAT £35.98 INC.VAT

- Adjustable front handle improves control
- 7000-14000rpm

INC DUST BAG AND SELECTION OF 125MM DIAMETER SANDING DISCS

Clarke CORDLESS DRILL/ DRIVERS

BOSCH Power Tools

Clarke CONTRACTOR

CON18Li

powered by Li-Ion

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

PSR18

MODEL	VOLTS	BATTS	EXC. VAT	INC.VAT
CCD180	18V	1	£39.98	£47.98
CCD240	24V	1	£47.99	£57.59
Bosch PSR18	18V	1	£54.99	£65.99
CON18Ni	18V	2 x Ni-Cd	£69.98	£83.98
CON18Li	18V	2 x Li-Ion	£89.98	£107.98

Clarke DRILL BIT SHARPENER

CBS16

- Great for 3mm to 10mm HSS drill bits
- 70W motor
- Drill bit guide ensures sharpening at the correct angle
- Saves cost of new drills

£21.99 EX.VAT £26.39 INC.VAT

VIDEO ON-LINE

Clarke TURBO AIR COMPRESSORS

airmaster

FROM ONLY £84.99 EX.VAT £101.99 INC.VAT

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

8/250

MODEL	MOTOR	CFM	TANK	EXC.VAT	INC.VAT
8/250	2HP	7.5	24ltr	£84.99	£101.99
7/250	2 HP	7	24ltr	£94.99	£113.99
11/250	2.5HP	9.5	24ltr	£109.98	£131.98
8/510	2HP	7.5	50ltr	£119.98	£143.98
11/510	2.5HP	9.5	50ltr	£139.98	£167.98
16/510*	3 HP	14.5	50ltr	£209.00	£250.80
16/1010*	3 HP	14.5	100ltr	£259.98	£311.98

Clarke 4" BELT/ 8" DISC SANDER

- Includes two tables
- 550W 230V motor

£154.99 EX.VAT £185.99 INC.VAT

CS4-8

Clarke POWER PLANERS

CEP1

BLACK & DECKER

- 82mm cutting width

FROM ONLY £26.99 EX.VAT £32.39 INC.VAT

was £69.59 inc.VAT

MODEL	MOTOR	DEPTH OF CUT	EXC.VAT	INC.VAT
Clarke CEP1	650W	2mm	£26.99	£32.39
Einhell TE-PL850	850W	3mm	£49.98	£59.98
B&D KW750K - GB	750W#	2mm	£54.99	£65.99

VAC KING WET & DRY VACUUM CLEANERS

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

* SS = Stainless Steel

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

MODEL	MOTOR	CAPACITY DRY/WET	EXC. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£49.98	£59.98
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC20PR2	1400W	16/12ltr	£62.99	£75.59
CVAC25SS*	1400W	19/17ltr	£67.99	£81.59
CVAC30SSR*	1400W	24/21ltr	£97.99	£117.59

Clarke STAPLE/ NAIL GUNS

FROM ONLY £21.99 EX.VAT £26.39 INC.VAT

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

LITHIUM-ION

CONSN18LiB

NEW

SPARE NAILS / STAPLES IN STOCK

ELECTRIC AND CORDLESS MODELS IN STOCK

MODEL	TYPE	STAPLE/NAIL GAUGE	EXC. VAT	INC. VAT
CESNG1	Electric	22/18	£21.99	£26.39
CCT48	Cordless 4.8V Ni-MH	22/18	£28.99	£34.79
CESNG2	Electric	18/18	£39.98	£47.98
CONSN18LiB	Cordless 18v Lithium-Ion	18/18	£114.99	£137.99

NEW

Clarke ROTARY TOOL KIT

CRT40

£29.98 EX.VAT £35.98 INC.VAT

Kit includes:

- Height adjustable stand with clamp
- Rotary tool
- 1m flexible drive
- 40x accessories/consumables

Clarke DISC SANDER (305MM)

£129.98 EX.VAT £155.99 INC.VAT

- Powerful, bench mounted disc sander
- 900W
- No load disc speed: 1490rpm
- 305mm Disc Dia. (1 x 60 grit sanding disc included)
- Dust extraction port

CDS300B

Clarke SHEET SANDERS

CON300

- Ergonomic design for optimum comfort

FROM ONLY £16.99 EX.VAT £20.39 INC.VAT

MODEL	SHEET SIZE	MOTOR	EXC.VAT	INC.VAT
COS200	190X90mm	150W	£16.99	£20.39
CON300	230X115mm	330W	£34.99	£41.99

Clarke CLAMPS

FROM ONLY £3.99 EX.VAT £4.79 INC.VAT

HUGE CHOICE OF SASH, SPRING, SCREW, SPREADER AND G-CLAMPS

UP TO 1800mm CAPACITY

Clarke CIRCULAR SAWS

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

- Great range of DIY and professional saws
- Ideal for bevel cutting (0-45°)

CON185

*Includes laser guide

MODEL	MOTOR	MAX CUT 90/45 (mm)	EXC.VAT	INC.VAT
CCS185B	1200W	65/44	£39.98	£47.98
CON185*	1600W	60/40	£59.98	£71.98
CCS2	1300W	60/45	£59.98	£71.98

Clarke PORTABLE THICKNESSER

- Max thickness cap. 125mm and 250mm wide
- Planing depths adjustable from 0-2.5mm
- Powerful 1250W motor
- 8000rpm no-load speed

£209.98 EX.VAT £251.98 INC.VAT

CPT250

Clarke STATIC PHASE CONVERTERS

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

ROTARY PHASE CONVERTERS ALSO IN STOCK

PC60

FROM ONLY £229.00 EX.VAT £274.80 INC.VAT

CONVERT 230V 1PH TO 400V 3PH

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

Clarke HARDWOOD WORKBENCH

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

CHB1500

£139.98 EX.VAT £167.98 INC.VAT

Clarke CONTRACTOR BELT SANDERS

- Ideal for surface removal, sanding and finishing

Makita

ABRASIVE SANDING BELTS IN STOCK

BS1

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

* was £113.99 inc.VAT

MODEL	MOTOR	M/MIN	EXC.VAT	INC.VAT
Clarke BS1	900W	380	£34.99	£41.99
Clarke CBS2	1200W	480	£76.99	£92.39
Makita 9911*	650W	75-270	£89.98	£107.98

Clarke OSCILLATING BELT & BOBBIN SANDER

- 450W motor
- 2000rpm spindle speed
- 1750rpm belt speed
- Dust collection port
- Inc. sleeves, drum and belt

NEW

ONLY £179.98 EX.VAT £215.98 INC.VAT

COEBS1

*only Bobbin Sander

OTHER MODEL	MOTOR	SPINDLE RPM	EXC. VAT	INC. VAT
COBS1*	450W	2000rpm	£134.99	£161.99

Clarke BOLTLESS SHELVING BENCHES

- Simple fast assembly in minutes using only a hammer

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

SAVE 10%

WHEN YOU BUY ANY MIX OF 4 FROM THIS RANGE SAVE AT LEAST £23.99 INC.VAT

CHOICE OF 5 COLOURS

RED, BLUE, GREY, SILVER & GALVANISED STEEL

150 KG PER SHELF (evenly distributed) Strong 9mm fibreboard shelves

350 KG PER SHELF (evenly distributed) Strong 12 mm fibreboard shelves

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 PLANERS & THICKNESSERS

CPT800

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

FROM ONLY £184.99 EX.VAT £221.99 INC.VAT

MODEL	PLANING WIDTH	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CPT600	6"	120mm	£184.99	£221.99
CPT800	8"	120mm	£209.98	£251.98
CPT1000	10"	120mm	£289.00	£346.80

25839LH

Clarke 10" (254MM) SLIDING COMPOUND MITRE SAW

- For fast, accurate cross, bevel & mitre cutting in most hard & soft woods
- 1800W motor
- Laser guide
- 78mm max. depth of cut

BEST SELLER

£139.98 EXC.VAT
£167.98 INC.VAT

CMS10S2

EASY TO USE WEBSITE

NOW OVER 18,000 PRODUCTS ONLINE!

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

NEW 516 PAGE CATALOGUE

Over 1600 PRICE CUTS & NEW PRODUCTS

GET YOUR FREE COPY NOW!

- IN-STORE
- ONLINE
- PHONE

0844 880 1265

MITRE SAWS

TC-SM2131

EVOLUTION

FROM ONLY £56.99 EXC.VAT £68.39 INC.VAT

- Quality Range of Mitre saws and blades in stock

MODEL	BLADE DIA/ BORE (mm)	MAX CUT DEPTH/CROSS	EXC. VAT	INC. VAT
Einhell TC-MS 2112 NEW	210/30	55/120mm	£56.99	£68.39
Evolution Fury 3-B	210/25.4	50/120mm	£57.99	£69.59
Einhell TC-SM2131#	210/30	62/310mm	£119.98	£143.98
Einhell SM2534‡	250/30	75/340mm	£159.98	£191.98

Laser Guide ‡ Sliding Compound

ELECTRIC HEATERS

DEVIL 6003

FROM ONLY £49.98 EXC.VAT £59.98 INC.VAT

BEST SELLERS

DEVIL 7003

MODEL	VOLTAGE	HEAT OUTPUT KW	EXC.VAT	INC.VAT
DEVIL 6003	230V	1.5-3	£49.98	£59.98
DEVIL 7003	230V	3	£59.98	£71.98
DEVIL 6005	400V	2.5-5	£74.99	£89.99
DEVIL 7005	400V	5	£84.99	£101.99
DEVIL 6009	400V	4.5-9	£119.00	£142.80
DEVIL 7009	400V	9	£139.98	£167.98
DEVIL 6015	400V	5-10-15	£179.00	£214.80
DEVIL 7015	400V	15	£199.98	£239.98
DEVIL 6025	400V	22	£289.00	£346.80
DEVIL 7025	400V	22	£319.00	£382.80
DEVIL 7030	400V	30	£359.00	£430.80

TURBO FAN GAS HEATERS

Offering low cost, efficient heating

FROM ONLY £64.99 EXC.VAT £77.99 INC.VAT

PROPANE GAS FIRED

#Dual Volt 110V/230V *stainless steel

MODEL	MAX OUTPUT KW	EXC. VAT	NOW INC.VAT
Little Devil II	10	£64.99	£77.99
Little Devil SSII*	10.3	£84.99	£101.99
Devil 700 NEW	15	£94.99	£113.99
Devil 900 NEW	24.9	£139.98	£167.98
Devil 860SS*#	31	£149.98	£179.98
Devil 1600 NEW	36.6	£169.98	£203.98
Devil 2100 NEW	49.8	£259.00	£310.80

PROFESSIONAL BANDSAWS

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

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

MAGNIFIED MITRE GUIDE

QUICK RELEASE FENCE

DRIVE-BELT TENSIONING

SOLID GROUND CAST IRON TABLE

CBS300

FROM ONLY £389.00 EXC.VAT £466.80 INC.VAT

MODELS ALSO FEATURE:

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

MODEL	THROAT DEPTH	MAX CUT 90°	MAX CUT 45°	EXC. VAT	INC. VAT
CBS300	305mm/12"	165mm	115mm	£389.00	£466.80
CBS350	340mm/14"	225mm	160mm	£479.00	£574.80

DRILL PRESSES

CDP152B

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

NEW RANGE

FROM ONLY £66.99 EXC.VAT £80.39 INC.VAT

B = Bench mounted F = Floor standing

MODEL	MOTOR (W) SPEEDS	EXC. VAT	INC. VAT
CDP5EB	350 / 5	£66.99	£80.39
CDP102B	350 / 5	£79.98	£95.98
CDP152B	450 / 12	£134.99	£161.99
CDP202B	450 / 16	£179.98	£215.98
CDP10B	370 / 12	£194.99	£233.99
CDP352F	550 / 16	£219.00	£262.80
CDP502F1100 / 12		£499.00	£598.80

MORTISING MACHINE

£169.98 EXC.VAT £203.98 INC.VAT

CBM1B

- Accurately creates deep square recesses
- Table size 150 x 340mm
- Max. chisel stroke 76mm
- Robust cast iron base & column ensures stability & accuracy
- 95mm depth of cut

CHISELS AVAILABLE FROM £8.39 INC VAT

"...fast and accurate with a good solid feel...Excellent value for money." See www.machinemart.co.uk

QUARTZ HALOGEN INFRA-RED HEATER

- 3kW instant, clean odour free heat.

£129.98 EXC.VAT £155.98 INC.VAT

DEVIL 370SP

CONTRACTOR JIGSAWS

BOSCH

BEST SELLERS

CON750

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

*DIY #Professional

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EXC. VAT	INC VAT
Clarke CJS380*	420W	55/6mm	£14.99	£17.99
Clarke CON750#	750W	80/10mm	£27.99	£33.59
Bosch PST700E*	500W	70/4mm	£44.99	£53.99

ROUTER TABLE

CRT-1

Router not included

BEST SELLERS

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

£69.98 EXC.VAT £83.98 INC.VAT

ELECTRIC POWER FILE

CPF13

- Variable belt speed
- Tilting head

*Black & Decker

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

was £71.98 inc.VAT

BELT SIZE	MOTOR	(mm)	EXC.VAT	INC.VAT
CPF13	400W/230V	13x457	£49.98	£59.98
KA900E*#	350W/230V	13x455	£54.99	£65.99

MULTI FUNCTION TOOL WITH ACCESSORY KIT

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

£39.98 EXC.VAT £47.98 INC.VAT

CMFT250

13" MINI WOOD LATHE

£149.98 EXC.VAT £179.98 INC.VAT

CWL325V

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

MITRESAW STAND

CFMSS1

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

ONLY £66.99 EXC.VAT £80.39 INC.VAT

FOLDING MITRE SAW STAND IN STOCK – CONMW1 ONLY £131.98 INC VAT

ROUTERS

CONTRACTOR

BOSCH

- Powerful heavy duty machines ideal for trade and DIY use

CR2 INCLUDES 15 PIECE KIT WORTH OVER £20

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

CR1C

*DIY

MODEL	MOTOR (W)	PLUNGE (mm)	EXC.VAT	INC.VAT
CR1C*	1200	0-50	£44.99	£53.99
Bosch POF1400ACE	1400	0-55	£79.98	£95.98
CR2	2100	0-60	£119.98	£143.98

GRINDERS & STANDS

- Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

FROM ONLY £32.99 EXC.VAT £39.59 INC.VAT

STANDS FROM ONLY £47.98 INC.VAT

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

With sanding belt *8" whetstone & 6" drystone

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

DETAIL SANDERS

- Perfect for smooth and fine finishing along with hard to reach areas or surfaces

CDS-1V

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

ALL MODELS INC. SANDING SHEETS

MODEL	WATTS	EXC.VAT	INC.VAT
PS105	105W	£19.98	£23.98
RT-0S13	130W	£22.99	£27.59
CDS-1V	280W	£28.98	£34.79

SCROLL SAWS

NEW

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

CSS16VB

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

MODEL	MOTOR	SPEED RPM	EXC. VAT	INC. VAT
CSS400B	85W	1450	£79.98	£95.98
CSS16VB	90W	550-1600	£89.98	£107.98
CSS400C	90W	550-1600	£109.98	£131.98

12" DOVETAIL JIG

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

CDTJ12

£54.99 EXC.VAT £65.99 INC.VAT

VISIT YOUR LOCAL SUPERSTORE

OPEN MON-FRI 8.30-6.00, SAT 8.30-5.30, SUN 10.00-4.00

BARNSLEY Pontefract Rd, Barnsley, S71 1EZ	01226 732297	**EXETER** 16 Trusham Rd. EX2 8QG	01392 256 744
B'HAM GREAT BARR 4 Birmingham Rd.	0121 358 7977	**GATESHEAD** 50 Lobley Hill Rd. NE8 4YJ	0191 493 2520
B'HAM HAY MILLS 1152 Coventry Rd, Hay Mills	0121 7713433	**GLASGOW** 280 Gt Western Rd. G4 9EJ	0141 332 9231
BOLTON 1 Thynne St. BL3 6BD	01204 365799	**GLOUCESTER** 221A Barton St. GL1 4HY	01452 417 948
BRADFORD 105-107 Manningham Lane. BD1 3BN	01274 390962	**GRIMSBY ELLIS WAY,** DN32 9BD	01472 354435
BRIGHTON 123 Lewes Rd, BN2 3QB	01273 915999	**HULL** 8-10 Holderness Rd. HU9 1EG	01482 223161
BRISTOL 1-3 Church Rd, Lawrence Hill. BS5 9JJ	0117 935 1060	**ILFORD** 746-748 Eastern Ave. IG2 7HU	0208 518 4286
BURTON UPON TRENT 12a Lichfield St. DE14 3QZ	01283 564 708	**IPSWICH** Unit 1 Ipswich Trade Centre, Commercial Road	01473 221253
CAMBRIDGE 181-183 Histon Road, Cambridge. CB4 3HL	01223 322675	**LEEDS** 227-229 Kirkstall Rd. LS4 2AS	0113 231 0400
CARDIFF 44-46 City Rd. CF24 3DN	029 2046 5424	**LEICESTER** 69 Melton Rd. LE4 6PN	0116 261 0688
CARLISLE 85 London Rd. CA1 2LG	01228 591666	**LINCOLN** Unit 5. The Pelham Centre. LN5 8HG	01522 543 036
CHELTENHAM 84 Fairview Road. GL52 2EH	01242 514 402	**LIVERPOOL** 80-88 London Rd. L3 5NF	0151 709 4484
CHESTER 43-45 St. James Street. CH1 3EY	01244 311258	**LONDON CATFORD** 289/291 Southend Lane SE6 3RS	0208 695 5684
COLCHESTER 4 North Station Rd. CO1 1RE	01206 762831	**LONDON** 6 Kendal Parade, Edmonton N18	020 8803 0861
COVENTRY Bishop St. CV1 1HT	024 7622 4227	**LONDON** 503-507 Lea Bridge Rd. Leyton, E10	020 8558 8284
CROYDON 423-427 Brighton Rd, Sth Croydon	020 8763 0640	**LONDON** 100 The Highway, Docklands	020 7488 2129
DARLINGTON 214 Northgate. DL1 1RB	01325 380 841	**LUTON** Unit 1, 326 Dunstable Rd, Luton LU4 8JS	01582 728 063
DEAL (KENT) 182-186 High St. CT14 6BQ	01304 373 434	**MAIDSTONE** 57 Upper Stone St. ME15 6HE	01622 769 572
DERBY Derwent St. DE1 2ED	01332 290 931	**MANCHESTER ALTRINCHAM** 71 Manchester Rd. Altrincham	0161 9412 666
DONCASTER Wheatley Hall Road	01302 245 999	**MANCHESTER CENTRAL** 209 Bury New Road M8 8DU	0161 241 1851
DUNDEE 24-26 Trades Lane. DD1 3ET	01382 225 140	**MANCHESTER OPENSHAW** Unit 5, Tower Mill, Ashton Old Rd	0161 223 8376
EDINBURGH 163-171 Piersfield Terrace	0131 659 5919	**MANSFIELD** 169 Chesterfield Rd. South	01623 622160
		MIDDLESBROUGH Mandale Triangle, Thornaby	01642 677881
		NORWICH 282a Heigham St. NR2 4LZ	01603 766402
		NOTTINGHAM 211 Lower Parliament St.	0115 956 1811
		PETERBOROUGH 417 Lincoln Rd. Millfield	01733 311770
		PLYMOUTH 58-64 Embankment Rd. PL4 9HY	01752 254050
		POOLE 137-139 Bournemouth Rd. Parkstone	01202 717913
		PORTSMOUTH 277-283 Copnor Rd. Copnor	023 9265 4777
		PRESTON 53 Blackpool Rd. PR2 6BU	01772 703263
		SHEFFIELD 453 London Rd. Heeley. S2 4HJ	0114 258 0831
		SIDCUP 13 Blackfen Parade, Blackfen Rd	0208 3042069
		SOUTHAMPTON 516-518 Portswood Rd.	023 8055 7788
		SOUTHEND 1139-1141 London Rd. Leigh on Sea	01702 483 742
		STOKE-ON-TRENT 382-396 Waterloo Rd. Hanley	01782 287321
		SUNDERLAND 13-15 Ryhope Rd. Grangetown	0191 510 8773
		SWANSEA 7 Samlet Rd. Llansamlet. SA7 9AG	01792 792969
		SWINDON 21 Victoria Rd. SN1 3AW	01793 491717
		TWICKENHAM 83-85 Heath Rd.TW1 4AW	020 8892 9117
		WARRINGTON Unit 3, Hawley's Trade Pk.	01925 630 937
		WIGAN 2 Harrison Street, WN5 9AU	01942 323 785
		WOLVERHAMPTON Parkfield Rd. Bilston	01902 494186
		WORCESTER 48a Upper Tything. WR1 1JZ	01905 723451

OPEN 7 DAYS

4 EASY WAYS TO BUY...

IN-STORE 65 SUPERSTORES

ONLINE www.machinemart.co.uk

MAIL ORDER 0115 956 5555

CLICK & COLLECT

Bosch EneRacer battery technology

Bosch has answered the need for stronger and more lasting battery performance in high-load applications, where cordless tools have previously been unable to provide enough power and runtime. Compared to current 18V XL battery packs, the GBA 18V 6.3Ah Professional EneRacer offers 80% higher power output and increases runtime by up to 90%. In addition, it is the most compact and lightweight high power battery on the market.

In Bosch power output tests, involving heavy-duty applications, the new battery outperformed current 18V XL packs by 80%. Key EneRacer developments include advanced cell technology, optimised for powerful performance, as well as laser welding connection between cells, which allows more power to pass from cell to tool. Meanwhile, the battery's power rails have been designed for greater efficiency in carrying high currents in high-load situations.

Using its GBH 18V-EC rotary hammer in a concrete drilling task, Bosch demonstrated that the new battery pack maintained power for 90% longer than existing 18V XL units. The improvement is largely due to optimised component design, better cooling and intelligent battery management. Intelligent technology is used to control energy consumption according to the application's demand. The latest advance in cooling – Bosch CoolPack 2.0 – is up to 35% more effective than its predecessor, and lower inner cell resistance – up to 50% – further protects against overheating. These factors not only increase runtime but extend the lifetime of the battery.

At just 114 × 76 × 64mm, and weighing 0.8kg, this is the market's smallest and lightest high power battery – combining powerful performance with easy handling. As part of the Bosch Flexible Power System, it is 100% compatible with all 18V Bosch Blue Li-ion tools. To gain full advantage from EneRacer technology, Bosch is developing a new generation of 18V tools optimised for use with the new battery, starting with the GWS 18 V-125 ICE/ICE angle grinder. Batteries and tools are available from specialist retailers. Recommended retail price for the GBA 18V 6.3Ah Professional EneRacer is £158.40, including VAT. See **www.bosch-pt.com** to find out more.

The British-made Superiorlevel: built to last a lifetime

Superiortool Co offer a range of quality British-made hardwood spirit levels, and the new Superiorlevel is wholly designed and manufactured at their facility in Somerset, England.

Using selected sustainable kiln-dried hardwoods, aircraft grade aluminium and stainless steel the Superiorlevel is built to last. Each can also be personalised by the addition of an engraved name into the blade of the level.

Quality is controlled in-house by an expert engineering team using a mix of technology and traditional skills. Accuracy of the levels is set during calibration using a granite surface table and a machine level to achieve better than .4mm per metre.

Superiorlevels are available in the following lengths: 300mm, 600mm and 1,200mm, allowing horizontal and vertical planes to be compared. The high grade aluminium blades protect the hardwood, prevent distortion and give a straight edge to work from. Coloured vials and sight lines allow the bubble to be viewed easily and the hardwood body is treated and sealed to provide a superior durable finish.

These spirit levels are lifetime tools, can be re-calibrated by the company and vials can also be replaced. Find out more by visiting the website: **www.superiorlevel.co.uk**.

DRAPER® Tools

drapertools.com

Mitre Box
Stock No. 10266

£7.66 *TSP Inc. VAT
£6.38 *TSP Ex. VAT

Draper Redline Smoothing Plane
Stock No. 68088

£19.39 *TSP Inc. VAT
£16.16 *TSP Ex. VAT

210mm 1500W 230V Sliding Compound Mitre Saw with Laser Cutting Guide
Stock No. 83677

£165.00 *TSP Inc. VAT
£137.50 *TSP Ex. VAT

Hand Drill
Stock No. 13838

£16.25 *TSP Inc. VAT
£13.54 *TSP Ex. VAT

NEW

400W 230V Variable Heat Glue Gun Kit
Stock No. 83661

£17.70 *TSP Inc. VAT
£14.75 *TSP Ex. VAT

450g (16oz) Draper Redline Claw Hammer
Stock No. 67657

£8.69 *TSP Inc. VAT
£7.24 *TSP Ex. VAT

DRAPER Expert

450g (16oz) Solid Forged Anti-Shock Claw Hammer
Stock No. 63404

£17.50 *TSP Inc. VAT
£14.58 *TSP Ex. VAT

250mm 1800W 230V Extending Table Saw
Stock No. 82570

£194.95 *TSP Inc. VAT
£162.46 *TSP Ex. VAT

350W 230V Belt and Disc Sander
Stock No. 50021

£181.99 *TSP Inc. VAT
£151.66 *TSP Ex. VAT

130W 230V Tri-Palm Sander
Stock No. 23039

£27.55 *TSP Inc. VAT
£22.96 *TSP Ex. VAT

DRAPER® STORM FORCE

NEW

visit drapertools.com/bluestormforce

Just a small selection from our new range of power tools.
Prices start at £12 typical price inc.VAT.

*Prices are typical and may vary in-store. Correct at time of going to press. E. & O. E.

DRAPER CLUB MEMBER

BECOME A DRAPER TOOLS CLUB MEMBER

Become a Draper Tools Club Member to view all our new products, offers, and order copies of our publications.
Join at: drapertools.com/club-member

drapertools.com | facebook.com/drapertools | twitter.com/drapertools | drapertools.com/drapertv

VIEW ALL OUR PUBLICATIONS IN OUR FREE APPS

Available on the App Store | Available on Google play | Available on the kindle fire

TO SEE OUR FULL RANGE OF PRODUCTS VISIT DRAPERTOOLS.COM

Mark Sanger and Richard Findley will turn again at Axminster Nuneaton

Turning enthusiasts should not miss this opportunity to see two top professionals – Mark Sanger and Richard Findley – in action at Axminster's Nuneaton store on Saturday 4 March 2017.

Both are winners of the Ready Steady Turn competition at 10 Turners Turning – Richard in 2014 and Mark in 2016 – but both have very different styles. Mark's work features wood, mixed media, texture, form and colour, all of which are influenced by Far Eastern philosophies and cultures as well as the natural forms and textures found in nature. Whereas Richard comes from a long line of professional woodworkers and is a production turner, undertaking commissions for one-off prototypes through to large production runs, turning for furniture makers, restorers, architects, designers and joiners. You never know, they may go toe-to-toe in a rare and exciting woodturning showdown, so make sure you put the date in your diary for this unmissable encounter.

Date: Saturday 4 March 2017
Time: 10am-4pm
Venue: Axminster Tools & Machinery, Bermuda Trade Park, Nuneaton CV10 7RA

Keep up-to-date with all the latest news about these and other events by visiting **www.axminster.co.uk**.

New Axminster Evolution Series Woodturner's Smock

The design of this woodturner's smock has evolved from years of workshop experience and listening to the tutors at the Axminster Skill Centre. The main aim was to produce a comfortable and practical overall for wearing all day long in the workshop.

Grey in colour and made from hard wearing cotton twill, this smock has a full length front zip with a closure kept in place with hook-and-loop-style tabs. The high collar has a hook-and-loop-style fastening to keep the shavings out and a second tab to keep it open if some ventilation is needed. The short sleeves mean there are no loose bits of material near the moving workpiece, and hook-and-loop-style tabs on the sleeves allow you to adjust the fit on the upper arm. There is a small breast pocket to keep your pencil handy and two pockets at the rear, where they won't fill with shavings and sawdust. Both practical and comfortable, this smock comes in three sizes: medium, large and extra large and is priced at £44.95; see **www.axminster.co.uk**.

Trend launch 160mm plunge saw blades for the Festool T555

Trend's new range of 160mm plunge saw blades for the Festool T555 power tool are available in the following dimensions:

- 160mm × 24 teeth × 20mm bore × 2.2mm kerf
- 160mm × 36 teeth × 20mm bore × 2.2mm kerf
- 160mm × 12 teeth × 20mm bore × 2.2mm kerf

This range of alternate top bevel tungsten carbide tipped circular saw blades are designed for a professional finish in softwood, hardwood, exotic rip, plasterboard, stone, fibre board and particle board. They feature a reamed bore to ensure a precise fit to the spindle and a Silverbraze finish ensures the tip is bonded securely to the body. Body hardened and tempered to maintain trueness, these blades are laser etched on the reverse to European standard EN847-1/2. The high grade alloy steel plate body is precision ground to maintain flatness and the microgranular tungsten carbide tips allow easy cutting of abrasive materials. Prices start from £29.94; see **www.trend-uk.com** to find out more.

The Blum Adjustable Drilling Template

This versatile drilling template is the ideal tool for ensuring doors are fitted to cabinets accurately. The template works by transferring the measurements from doors to cabinets, and vice versa, so that mounting plates and hinge positions match up perfectly. Suitable for use on either assembled or unassembled cabinets, the jig includes two adjustable templates that can be used for different styles of mounting plates, such as inline and cruciform. Made from nylon and steel and priced at £62.50 for each device, see **www.ironmongerydirect.co.uk** for more info.

Get into shape with the Hitachi CJ160V jigsaw

If your work demands you cut curved or intricate shapes, then look no further than the versatile CJ160V jigsaw from Hitachi Power Tools. With its powerful 800W five-stage variable-speed motor and constant speed control, the new jigsaw makes light work of cutting through both wood and mild steel, while the reduced vibration of auto speed mode, low friction fluorine-coated base and soft grip handle make the tool comfortable and secure to use.

The CJ160V jigsaw has a one-touch sub base, which ensures smoother curve cutting, as well as a four-stage orbital action, making it simple to operate and easier to achieve accurate complex shapes. The LED spotlight and dust blower guarantees the cut line is always visible, whatever the situation, and the splinter guard ensures top cut quality.

The jigsaw comes with three blades, chip cover, dust extraction adaptor, wrench and carrying case as standard and with Hitachi's three-year warranty also available when registered online within four weeks of purchase, users can be sure this jigsaw makes the cut. To find out more, see **www.hitachi-powertools.co.uk**.

'Revealing Beauty' display

Charlie Whinney Studio recently unveiled their latest window display titled 'Revealing Beauty' for Harvey Nichols at their flagship store in Knightsbridge. Based on the theme of cosmetics, the display explores the importance of surface appearance and perspective on our perception of beauty. The use of highly polished stainless steel created a reflective backdrop where small products could be highlighted.

The surfaces of UK luxury woods such as spalted beech, walnut, cherry and quartersawn oak were coloured with ingredients actually used in cosmetics, including crushed mother-of-pearl, natural pigments and silver powder mixed with an acrylic binder. These colourings showed how surface appearance can radically change the perception of an object.

Another important aspect of the design was its spatial element. Just as the cosmetics industry depends on perception and expectation, those interpreting the scheme can see different things depending on their viewing position. As the viewer moves in relation to the display window, lines of wood and steel can link together or separate to make new interpretations of the whole.

The display will soon travel to other Harvey Nichols stores across the UK, starting in Manchester this month – see **www.charliewhinney.com**.

COURSE DIARY

New year, new skills! Get inspired by one of the many great courses on offer

January
10* & **19** Pen making
12–13* & **16–17** Beginners' woodturning (2 days)
17* & **17** Bandsaws
21 Introduction to Leigh Jigs*
26 Fine-tuning hand planes*
26–27 Beginners' routing*
26–27 Bowls & platters
26–27 Introduction to the small lathe
27 Sharpening
31 Turning a pestle & mortar for the kitchen*

* Course held in Sittingbourne, Kent
Axminster Tools & Machinery
Unit 10 Weycroft Avenue
Axminster, Devon EX13 5PH
Tel: 08009 751 905
Web: www.axminster.co.uk

13–15 Basic woodworking skills: step-up stool project
19–22 Wildlife woodcarving in relief

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

9–14 Make your own workbench
27–30 Beginners' four-day course

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

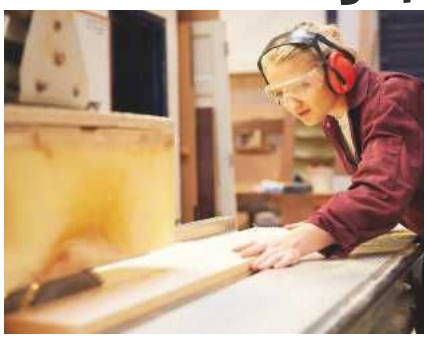
7 DIY in a day – drills
9 Full-time 12-week furniture making course
9 Full-time 24- or 48 -week furniture making course
12 Carpentry for beginners: vintage shelf
14 Introduction to furniture restoration
14 Willow basket making
22 Introduction to woodcarving

The Goodlife Centre
122 Webber Street, London SE1 0QL
Tel: 0207 760 7613
Web: www.thegoodlifecentre.co.uk

10–31 Introduction to green woodwork
12 Jan–23 Mar Make a chair
21–28 Make a Windsor-style stool

Ben Willis Woodcraft
Stoney Lane Studios, Stoney Lane
Crystal Palace, London SE19 3BD
Tel: 07976 287 797
Web: www.benwillis-woodcraft.co.uk

Revolutionising apprenticeship training



The NAS (National Association of Shopfitters) and BWF (British Woodworking Federation) have launched a new Centre of Excellence (CoE) network of colleges and training providers to ensure the survival of quality apprenticeship training for the joinery and wood machining industry.

The launch of the CoE network was marked with the signing of a Memorandum of Understanding (MOU) by four Centres across the UK: Building Crafts College; Didac Limited; Leeds College of Building; and Neath Port Talbot College.

The ultimate aim is to ensure there is a Centre in each region, with Didac able to offer national in-house apprenticeship training provision, so that the network has nationwide coverage from the off.

Each apprentice will be on a nationally recognised apprenticeship framework/standard and will have the option of adding extra modules needed for their training to meet employer needs. This will be packaged together as a NAS/BWF Apprenticeship, raising the bar on government requirements.

CITB has supported the pilot, including the financial support of a research exercise to map demand for joinery apprenticeship training and the supply currently available. The results will inform the second phase of expansion for more Centres across the UK. To find out more, call **01883 624 961.**

Makita introduce 6.0Ah battery for 18V Li-ion range

Makita now offer a 6.0Ah version of the 18V Lithium-ion batteries that have powered the Makita cordless tool range to market leadership since their introduction in 2005. The new 6.0Ah version has a 55-minute charge time and a host of advanced protection and operating features. This new battery can be fitted to any Makita 18V tool that carries a star mark on the battery mount, or a yellow battery terminal plate, and offers 20% more capacity than the existing 5.0Ah version.

Advances in internal design and workings have been integrated into this latest 6.0Ah battery, including new circuitry that protects the battery from over discharge, high temperature or overload current. Controlling these elements within the battery, and a cooling system which forces cooling air over each individual cell, ensures the longest possible battery life and power generation. All current Makita 18V batteries have a push-button fuel-gauge, which uses four LEDs to indicate the power that remains in the battery. The output of this new 6.0Ah version means that it must be delivered and sold in regulation packaging, or sold connected to a Makita power tool. To find out more, see **www.makitauk.com**.

AHEC and T.ZED Architects unveil 'The Cocoon' at Downtown Design

'The Cocoon', a collaborative installation between T.ZED Architects and the American Hardwood Export Council (AHEC), was recently unveiled at Downtown Design. Using thermally-modified American ash that was previously used to clad AHEC's pavilions at exhibitions in Turkey, in concert with American white oak for the structural elements, T.ZED Architects have produced an installation, which will not only serve the purpose of being shown at the fair but also aspires to have a prolonged presence in the public realm around Dubai and the UAE, long after the event has ended.

The basic concept was to create a cocoon that is gently placed in a dynamic and frenzied environment. The overall structure allows individuals to physically and metaphorically disconnect themselves from the surrounding urban setting and invites them into a quiet space where moments of reflection simply emerge. The installation will also provide an opportunity to test the durability and performance of thermally-modified ash and white oak in a climate and context that are very different from where they are more often used, and naturally sourced. To find out more, see **www.downtowndesign.com** and **www.americanhardwood.org**.

NEWS IN BRIEF

Nicola Butcher from Stevenage, Hertfordshire, has been named IRWIN's Ultimate Tradesperson following a nationwide search. Nicola, a 21-year-old carpenter, will receive an apprentice to help grow her business in 2017. Nicola demonstrated that, at such a young age, she is already thinking about the next generation of UK tradespeople. Flying the flag for women to take up carpentry, she volunteers and mentors students in her local area, as well as running her own business, which she started in 2015. The announcement was recently made in front of a huge audience at The Build Show in Birmingham, including 'Restoration Man' George Clarke, alongside some of the biggest names in the building and construction industry. Congratulations to Nicola and to find out more, see **www.irwin.co.uk**

Last year's North of England Woodworking & Power Tool Show, or the 'Harrogate' show as it is otherwise known, enjoyed a record attendance in November 2016. 9,337 visitors attended over the three days, much to the delight of the exhibitors and organisers. This year's event will take place from 17–19 November, so be sure to put a note in your diary. Further information regarding this and other Nelton Exhibition shows can be found here: **www.nelton.co.uk**

The Record Power road show and sale will be taking place at Yandles from 10–11 February. Exclusive show deals will be available over the two days as well as free expert advice on all Record Power and Startrite machines. Knowledgeable and friendly staff will be offering expert advice on the use of all products and Yandles will be offering 15% off their range of timber planking and turning planks in their self selection area. Click & Collect is also now available across Yandles' full range of timber, tools, machines and their new online Hobbies & Craft Shop – see **www.yandles.co.uk** to find out more about this exciting new service

Clarke semi industrial diesel/ paraffin & turbo fan gas heaters

This winter, any workshop will require fast, efficient heating. The XR80 is part of Clarke's paraffin or diesel heater range, providing up to an impressive 61.5kW – enough to warm a space of up to 1,174m3 . You can guarantee these will keep you warm for a long time with fuel tanks as big as 53 litres for up to 13.5 hours of run time. Wheels and handles are included on all models (except the XR60) for easy movement, and prices start from £226.80. Also available is Clarke's range of efficient turbo fan propane gas fired heaters, including the Little Devil II shown here, which provides a heat output of 10.3kW, with other models in the range delivering up to 131kW. Some models feature variable heat output control and all are supplied with a regulator and gas hose. With fuel safety cut out and a sturdy top handle, they are perfect for heating all manner of cold spaces. Prices start from £77.99; see **www.machinemart.co.uk**.

The Midlands Woodworking & Power Tool Show 2017

This year's event takes place at the Newark Showground, Nottingham from 24–25 March. Now in its fourth year, the show gets bigger and better as time goes by and this is certainly an event not to be missed. Demonstrators will include Tony Wilson, Mick Hanbury, Wayne Mack, Peter Sefton and Michael Painter, among many others. Advance tickets are now on sale – see **www.nelton.co.uk** for further info.

FREE READER ADS

Send your adverts to: tegan.foley@mytimemedia.com

MACHINERY & MISCELLANEOUS

Nova 3000 lathe with Speed Genie; £500. Chucks: Nova (extra jaws), Axminster and eccentric chuck; £120. Airshield Pro; £100
07730 253 545 (Cumbria)

Timber clearance – thoroughly seasoned teak: four planks 30 × 350mm; 1 @ 60 × 150mm – all 2.25m; £35
01935 872 222 (Sussex)

Poolewood PW40 Superlathe – 40in centres; 28in bowl turning capacity; 1HP motor with variable-speed change. Comes with purpose-built base for easy, increased stability if required. Full instruction and maintenance manual, plus lathe steady – buyer collects; £250 ONO
01242 517 576 (Cheltenham)

Record Power DML24X wood lathe – tubular bench with box of assorted bits. Customer to collect; £325 ONO
01617 901 395 (Manchester)

Clarke Woodworker 900mm reversible head wood lathe – in good condition; £135, or willing to part-exchange for a bench-top model
07979 903 802 (Surrey)

Leigh D1600 dovetail jig with metric scales – also includes user manual and DVD. Ready mounted on base and has purpose-made storage box. Also includes Leigh seven-piece 8mm shank cutter set, chip extractor and guide bush for Elu. Very little used; offers over £250
07796 573 528 (Southampton)

2 × Axminster air filtration units, 2 × remote controls and 2 × additional filters (as new); £275 – buyer collects
07888 657 527 (Barnet)

Selection of unusual Chinese hand tools in rosewood. £ sized planes, two ploughs, shoulder and moulding planes, plus scraper. Beautiful finish; £185
01825 239 365 (Gloucestershire)

Proton DSH two-speed scrollsaw – hardly used; £120. Record DX1500 dust extractor on castors; £60
01208 733 334 (Cornwall)

Yew branches – 6ft long, 3in diameter. Would suit chairmaker or similar
07797 769 207 (Jersey)

Le-Matic AR500 edge-bander kit, plus table, glue pellets and rolls of unglued edging; £495 ONO
01409 261 726 (Devon)

Windsor chair seat and splat templates. Bruce boiler and steam box, bending straps and crinoline. Back, arm and bow formers – offers. Also, rounders, ravishers and trapping plane available separately
01603 715 231 (Norwich)

Stanley 05½ jack plane; £40. Stanley No.04 foreplane; £45. Record 071 router plane; £35. All good condition
0208 641 4238 (Surrey)

Shopsmith, vgc, also bandsaw and dust extractor; offers invited
01923 256 466 (Hertfordshire)

Titan 230V 1,500W 10in table saw with stand and extension – buyer collects; £60
01480 463 264 (Cambridge)

Hardwood turning blanks; £450
01579 350 097 (Cornwall)

Authentic joiner's toolbox with 60 tool items including three sharp Disston saws (full list by request); £275
02393 781 045 (Gosport)

Kity 535 planer/thicknesser – in good order. Photo available, buyer collects; £75 ONO
01497 831 759 (Herefordshire)

Pro turning precision

Ideal for serious pen turning and small project making, this Trade Series lathe features a cast-iron construction and high quality components, although the lack of a chuck could put some turners off

Owning or looking to buy a lathe can be like opening a can of worms as they are pretty diverse in terms of what can be achieved using them, especially if you go for one of the more adaptable types that feature rotating headstocks, bed extensions and so forth.

From my own point of view I much prefer to tinker around on small kits and trinkets rather than trying to turn a set of stair spindles and newels or big platters, and I certainly wouldn't even think of attempting anything even close to the scale of the humongous 3m long columns that Les Thorne has recently turned and posted online.

The lathe uses high quality collets to hold the various drive centres

Lack of chuck

The Nova lathe I reviewed a while back still remains a firm favourite; in fact, I was so impressed with the test machine that I actually ended up buying it, but Axminster have now come up with their own small woodturning lathe, and it's a little bit different to any I've seen before for this purpose.

At the headstock end, instead of the usual Morse taper and threaded spindle to take drives, faceplates, chucks and other accessories, the lathe relies on a collet system to retain any accessories; the exception being a small threaded faceplate and a screw chuck.

The collets work in exactly the same way as a router and indeed, these collets are much the same as the higher-end router ones with a multi-slit design, which ensures superior retention and concentricity.

To some degree, this does limit the number of things you can do at the headstock end and a quick check online shows that the M24 × 1mm thread has no compatible chuck for other work, so it has to be either the faceplate or screw chuck designed for the lathe, or the collet retention for drive centres and pen mandrel that you use to achieve your goals.

Ideal for small projects

Despite the lack of chuck, the available accessories are of a very high quality and with the lathe of equal stature, it will especially appeal to the turners who like to work kits

You screw the chuck directly to the headstock; there is no Morse taper at this end

The tailstock has a standard Morse taper fit for live centres and such like

The lathe is driven by a single belt, which is accessed via a hinged flap

A range of drive centres are also available but require different collets to use them

The tailstock features a graduated scale; useful for blind drilling jobs

The tailstock locks off with a good quality large lever at the rear side

and other small projects. And that's where this lathe will find its real purpose in life: dealing with the smaller and more intricate pieces, and to get the most from it, there's a variable-speed dial on top of the NVR that allows speeds from 400-3,600rpm to be set. There's no indication as to what speed you are actually at but you soon get the feel for it as you work. It runs smoothly through its range, and of most benefit, unlike some smaller machines with variable-speeds, it doesn't require the belt to be moved in order to access the full range; it runs all of these in just one belt position.

In use

Moving to the lathe itself, the basics are much the same as any other similar machine on the market: the toolrest sits into the banjo and is held by a locking lever, which travels smoothly across the cast bed when slack and tightens securely; it's a nice inclusion to have both a long and short toolrest supplied in the kit and although these are small in size when compared to a standard lathe, I found the short one especially useful for turning a variety of pen kits, particularly those where short tubes are used.

The quill has a similar lever lock to move it along the bed with a Bristol lever to secure its position. If the lathe has a failing in its construction, at least on my demo model, it's in the travel of the quill. Where most I've tried are fluid and smooth in their travel, this one is quite sticky so that as you rotate the handwheel to advance it, it runs smoothly then binds slightly, almost as if the shaft is fractionally bent or perhaps a small piece of swarf is trapped in the casting, although this doesn't affect the actual concentricity of the lathe as it runs.

The variable-speed runs from 400-3,600rpm and works very smoothly throughout

A tommy bar and pin spanner are used to tighten the collets to the drives

There are two toolrests supplied, both of which lock firmly into the banjo

Conclusion

Having had a chance to experiment with a few different types of turning on the lathe, the one thing I really miss is the ability to use a chuck; it's surprising just how quickly you come to rely on this once you're used to having one. That for me is the only real downside to this lathe; a 'real' woodturner will quickly work to a different methodology in order to achieve the desired effect, but I'm all about quick and easy solutions and without a chuck option, life gets a tad more difficult. However, it's still a cracking little lathe, especially if you stick to turning projects that don't require a chuck. **GW**

There is a small faceplate and a screw chuck that fit to the threaded spindle

Specification:

- **Distance between centres:** 250mm
- **Max diameter over bed:** 150mm
- **Weight:** 22kg
- **Motor:** 375W
- **Rating:** Trade
- **Speeds:** 400-3,600rpm
- **Spindle taper:** ER20 collet
- **Spindle thread:** M24 × 1.0mm
- **Toolrest stem diameter:** 12.5mm
- **Tailstock taper:** 1MT

- **Typical price:** £355.46
- **Web:** www.axminster.co.uk

THE GW VERDICT

- **PROS:**
  Full range of speeds without belt swaps; high quality accessories; very smooth running; especially great for turning kits
- **CONS:**
  No jawed chuck option; sticky tailstock advance; requires additional collets to match the accessory drive centres
- **RATING:** 4 **out of 5**

Small bowl-type jobs can be carried out using the screw chuck and faceplate

Again, the lathe runs very sweetly, making it easy to achieve fine controlled cuts

Automated dust control

This intelligent controller switches your workshop vacuum on and off automatically – you'll be amazed at how much cleaner power tool work can be

While some extractors come with a dedicated on board socket to act as a slave to any power tool that is plugged into it, some older models don't have this facility and if you want to make use of an old domestic vacuum cleaner, these definitely won't. The iVAC fills this void perfectly, acting as the slave unit to control the vacuum and the power tool you're using. I particularly like the fact that the unit can be sited in an easily accessible position; at the back of the bench or somewhere close to hand, allowing the extractor or vacuum to be put out of the way in a corner with the iVAC controlling everything.

Three-position switch

The box has a three-position switch, which allows you to either have the vacuum permanently off for tools that don't feature any vacuum support, thus allowing the box to be used as a standard power socket; permanently on, which is ideal for general cleaning up; or in the auto position, which powers the vacuum once the tool is switched on. This Auto mode is where it does its job and there is a fractional delay of around a second in this mode before the vacuum starts, which allows for any tools that have a start-up surge that initially draws more power than the unit can manage if the vacuum powers up at the same time. You still have a maximum combined capacity of 2,900W, which should be enough for most tools; only the bigger routers are likely to exceed this rating. The maximum wattage vacuum or extractor that can be used with the iVAC is 1,500W, so anything under this should allow a higher wattage power tool to be used up to its maximum combined wattage rating.

Smaller hand-held power tools...

Conclusion

With the iVAC set up to work in the Auto mode there's also a built-in run on function that keeps the vacuum on for an additional seven seconds to pull any residual waste away from the vacuum hose. Trying the iVAC with a router and sander it worked like a charm, powering up and switching off as it should and being able to position it close to hand, even the smallest of jobs will now stand more chance of getting hooked up to extraction, and most importantly, your lungs will benefit as a result of the dust-free atmosphere. **GW**

... such as routers, benefit from the iVAC

It can be used as a portable unit for work at the bench or on site...

... or sited permanently to keep it close to hand as needed

Specification:

- **Max combined wattage:** 2,900W
- **Max vac wattage:** 1,500W
- **Typical price:** £54.98
- **Web:** www.toolovation.co.uk

THE GW VERDICT

- **PROS:** Turns an ordinary vacuum into a slave unit; auto power up
- **CONS:** Not suitable for very high wattage tools
- **RATING:** 4.5 **out of 5**

Power, Performance, Perfection.

TREND T11 2000W ROUTER

The ultimate workshop router with built in Quick Raiser fine height adjuster.

AD/16/12

trend®
routing technology

You Tube

www.trend-uk.com

Professional planing made easy

This planer features a 710W motor, impressive chip ejection and a handy V-groove for chamfering, although it's a pity a depth stop for the rebating function is not supplied

Bosch do put out some very good, solidly built power tools and this is certainly one of them. There's little to get excited about with any planer, as they are relatively basic tools, but picking this one up it immediately feels like it will work forever and a day.

Decent stock removal

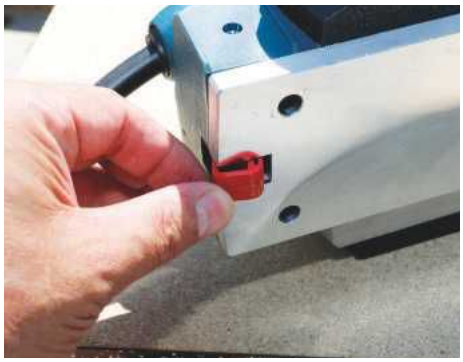
If you rely on a planer to do the basics of decent stock removal and some smaller rebating work, then this model comes up with the goods, but it doesn't boast overly impressive statistics, with only a 9mm rebate depth. This would prove limiting if you rely on a planer to make a deep enough rebate to sit over a water bar on an external door, for instance, but for general work, it's more than up to the task and if you are in need of the deeper rebating capacity, there are bigger models out there.

Excellent bed alignment

Depth of cut is up to 2.6mm per pass, which is more than adequate for me, and again, there are models that hog more away per pass but I prefer to sneak up on a fit rather than a bull at a gate approach, and this maximum capacity is more than good enough to do so while still removing at a decent rate if required. The depth is altered with the front-mounted twist knob, which click into 0.1mm increments for fine adjustment if a precise fit is needed. I found this particularly useful in my tests when easing a sticking door and fitting a kitchen worktop to an out of square wall; both areas where a finer touch is needed on the final passes. The plane is also manoeuvrable enough to hold one-handed in both instances as well as being able to run off an edge of the workpiece without leaving a snipe mark, which indicates excellent bed alignment.

Dust control

Dust control is a standard setup on Bosch planers, and very good it is too! With ejector ports on either side of the planer, a rotating



The parking shoe is spring-loaded so always sticks below the sole until used

It protects a surface by lifting the cutter away when placed down while still running

This lever directs the dust and shavings to either side of the tool as required

A neat ball socket on the cable helps protect it as well as easing movement in use

sleeve inside the port deflects the shavings to the left or right to suit your own preference, or if you are in a tight area and require the shavings to be ejected in one direction.

As with planers in general, the wider, deeper cuts on softer pines and suchlike, along with new blades, can result in the dust bag being quickly overwhelmed and backing up, and that's the case here, but it's a useful addition to have a bag included as standard, and if emptied regularly the backing up can be minimised.

Ideally an extractor is the better solution and the dual outlet option allows the best positioning once again, and there's an adaptor included to fit standard extraction hoses.

Flat soles

A quick look at the base shows excellent flat soles with the front sole having a single central groove for basic chamfer work and the rear sole featuring a spring-loaded parking shoe to lift the blade away from any surface when placed down. I find this design better than the gravity types, which can stick with dust and not drop down when they should. I found that the spring is soft enough not to restrict the action of the plane as it is passed over the work, so it's a definite asset.

Plenty of power

Bosch operate a different approach with blades on their planers, opting for a single 'Woodrazor' version. This is still a replaceable 82mm carbide blade, but with just one in the block the idea is that it is more economical should it become damaged and need replacing. However, it does mean the tool is working harder as it runs at similar speeds to similar two-bladed rival models. Putting it to use I found I could still work at a decent feed rate without any discernible difference to the finish, and there's plenty of power available to match the capacity.

The rebating depth capacity is 9mm – a little shy for some applications

The laminated block uses a single blade; note the chamfer option on the front sole

Conclusion

Despite the simplicity of planers in general, Bosch still manage to stick a tweak or two on board to make it a more user-friendly option: the trigger has a safety button that can be slid from either side of the handle to engage the trigger, making it suitable for left- and right-handed use, and a further enhancement is the ball socket cable. Simple as this is, it has a double advantage: firstly, making the tool more manoeuvrable if you encounter any twists or turns, and secondly, minimising wear and tear on the cable where it enters the tool.

As part of the Bosch range, this is a planer that works hard and performs well, and coming in its fitted case with a dust bag and side fence as standard, represents great value for money. It's a pity it doesn't have a depth stop for the rebating function included, but then you can't have everything! **GW**

Specification:

- **Motor:** 710W
- **Speed:** 18,000rpm
- **Max cutting depth:** 2.6mm
- **Max rebate depth:** 9mm

- **Typical price:** £119.99
- **Web:** www.bosch-professional.com

Easing and fitting doors are bread and butter work for this planer

Laminated worktops are easily planed and without snipe when running off the edge

THE GW VERDICT

- **PROS:** Dust bag and rebate fence supplied; neat ball and socket cable
- **CONS:** Limited rebate depth; single blade needs a steadier feed rate; dust bag can get clogged
- **RATING:** 4.5 **out of 5**

A versatile clamping solution

Designed to hold parts, jigs and fences without being in the way, these versatile dovetail clamps can be easily adapted to suit a wide range of tasks

Specification:

- **Clamp capacity:** 133mm (5 1/4in)
- **Throat capacity:** 60mm (2 3/8in)
- **Typical price:** £45.95 per pair
- **Web:** www.woodworkersworkshop.co.uk

THE GW VERDICT

- **PROS:** Versatile clamping solution; simple to use
- **CONS:** Requires a 14° dovetail router cutter; quite expensive for what they are
- **RATING:** 3.5 **out of 5**

By a simple adaptation of the humble 'F' clamp, these Matchfit clamps offer a very adaptable and versatile solution. Making a dovetail slot into any timber, MDF or ply with a standard 14° dovetail cutter allows the clamps to slide into the resulting slot to make all manner of clamping options for jigs, fences and the like.

Free sliding

The cutter used is the standard 12mm wide 14° profile found on the basic comb-style half-blind dovetail jigs and needs to be routed at 10mm deep to allow them to slide freely, but sit slightly below the surface so they still tighten securely when clamped to another surface.

The fixed head of the clamp is twisted and forged into a dovetail profile of 14°, and making a groove into any piece of timber, ply or MDF allows the clamps to slide in. The slot can be made by running the router against a straightedge or with a fence, but either way, it needs to be straight so that the clamps slide freely.

In use

Putting the clamps to use is all about your own needs and that can change at any given time, which makes these clamps so versatile. As a simple hold down, a slot into a baseboard allows the workpiece to be secured to it, or you could run a grid pattern on a bigger board for holding multiple sized pieces with ease. A full length groove on the underside of a long, straight piece of stock will transform it into a track guide for sawing and routing work, and of course, you can now use this guide to rout further slots for other jigs and so forth – there are many options. The clamps are equally handy for holding a sub-fence to a table saw or router if you need better support, or a simple adjustable back fence for a pillar drill.

Conclusion

It's a matter of adapting these to suit your needs; I particularly like the option of a quick and easy guide to pare shoulders for dovetails and other work, but this really is the tip of the iceberg! Although quite expensive for what is essentially a simple adaptation to a basic 'F' clamp, with a decent capacity of just over 125mm you can hold some quite big pieces or fit over box section fences, and if you can find uses to justify the price, they will soon earn their keep. **GW**

Slots can be routed against a straightedge and can be short...

... or with a fence can be as long as needed

The clamp slides in just below the surface. As a single clamp it's useful as a basic hold down

Slid in as a pair they can be used as a straightedge clamp guide for routing or sawing

Slid up close the clamps are great for holding small components like this dovetail

The clamps pull the work to the guide for accurate paring of the dovetail sockets

MAKITA TABLE SAWS

Table Saw
2704
2704X

TCT blade diameter		260mm
Bore diameter		30mm
Size	W	L
Main table	625mm	567mm
With sub table	1050mm	1060mm
No load speed		4,800rpm
Input		1650w
Net weight		34.9kg

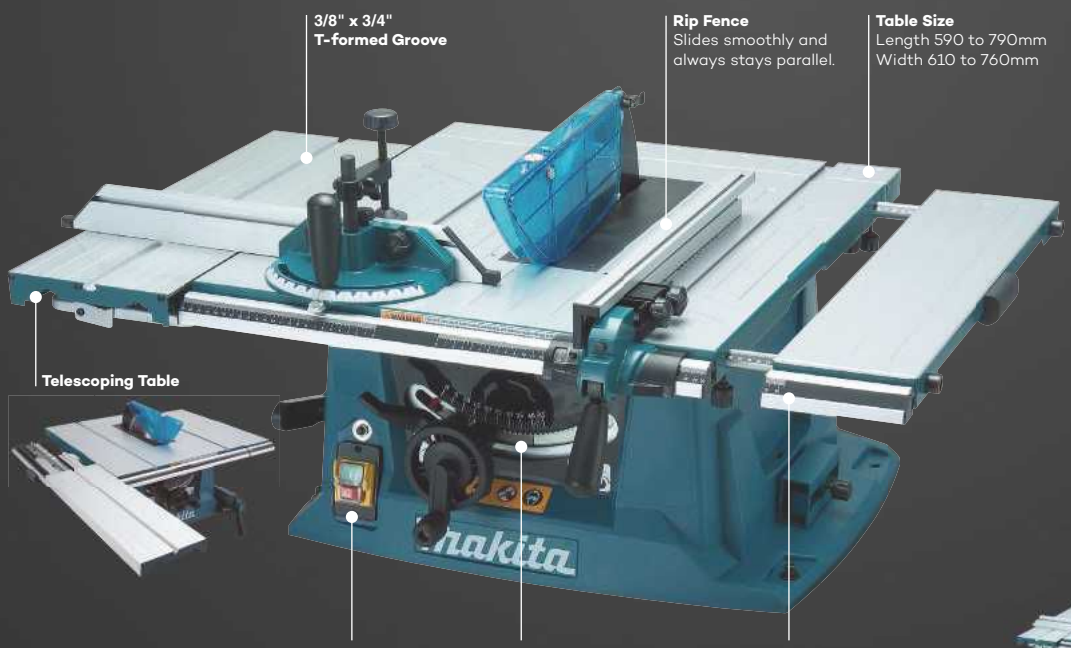
Cutting angle	Depth
90°	93mm
45°	64mm
Angle settings	-0.5° to 45.5°

2704X
Comes with a folding stand: 194093-8

Power Switch
Electronic soft start and anti restart function

Easy to Read Scale

Telescoping Guide Rail



Power Switch
Electronic soft start and anti restart function

Easy to Read Scale

Telescoping Table

Table Saw
MTL100
MTL100X

Blade diameter		260mm
Bore diameter		30mm
Size	W	L
Main table	610mm	590mm
With sub table	760mm	790mm
No load speed		4500rpm
Input wattage		1500w
Net weight		34.1kg

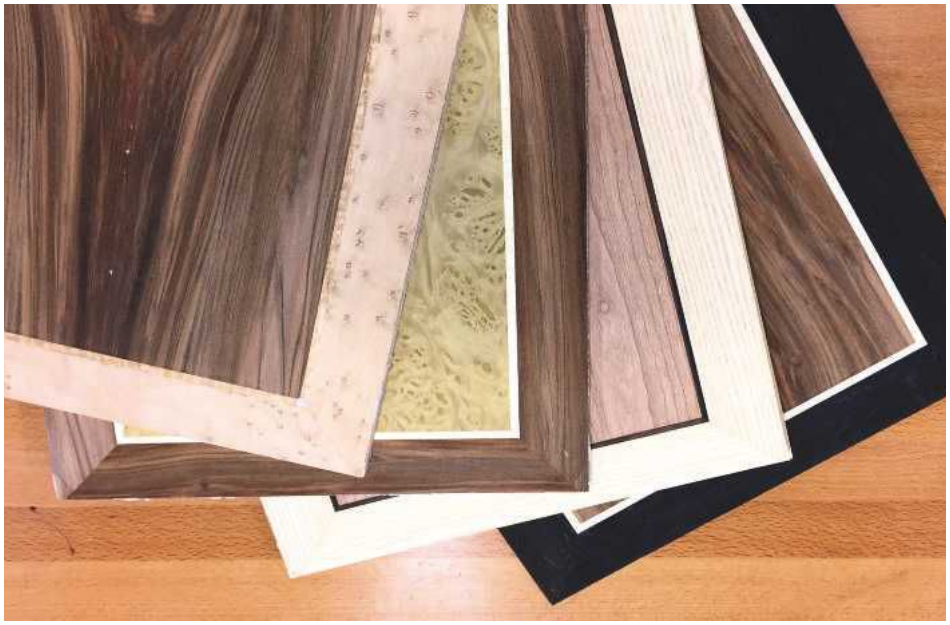
Cutting angle	Depth
90°	93mm
45°	64mm
Angle settings	0-45°

MLT100X
Comes with a folding stand: JM27000300

Makita®

Visit our website for more information www.makitauk.com

45 YEARS OF MAKITA UK
1972-2017



Amazing results achieved by students using different veneer combinations

Veneer packs laid out ready for selection

Students swapping ideas on a cherry, walnut and sycamore combination

Forays into veneering

Peter Sefton's Long Course students move on to working with veneers, which they use to make a veneered tray

My students' first foray into veneering comes in the form of a laminated and veneered tray and this project incorporates a whole host of veneering techniques: selecting, cutting, planing, sanding and taping up. And those are all before the veneer even meets the substrate and glue!

Care & attention

We have a good range of 0.6mm veneers in stock, so the contrasts and rich tone combinations the students choose can give quite different effects and throw up a good range of veneering issues. After studying the drawing and preparing cutting lists, I lay out the packs of veneers in the workshop. Having all the veneer bundles spread out in full view makes it very easy to try out different combinations of colour and grain pattern.

Care is needed to not get the packs mixed up or divided – keeping the veneers in the original sequential order in which they were produced is vital for grain matching and consistent pattern forming.

Veneer selection

The grain comes in many different forms: quartersawn gives straight and consistent grain patterns; crown cut utilises the beautiful cathedral effect of the annual rings; and bird's-eye or burr veneer has its swirling figure and small knot deformations. We also have some ripple and quilted veneers that can give a three-dimensional effect to a perfectly flat board.

Cutting the veneers

After veneer selection, the students use the veneer saw for cutting packs to rough overall length, before more accurate veneer cutting with freshly sharpened knifes. Some veneers cut very cleanly from the knife, and for those that don't, we use planing or sanding shooting boards to get the perfect joint before using either taping or PVA glue to hold the freshly-cut veneers together prior to pressing.

The rich tones of walnuts, mahogany and rosewood

The dramatic effect of red gum book-matching veneer

Blue Tesa taped panel in the cold platen press ready for the next stage

The veneers are laid up in a one-piece configuration incorporating a centre panel, a 5mm inlay line and a cross-banded edge with either long- or short-grain, depending on the desired effect. Next we move on to the 2.3mm constructional veneers used to form the curved handles for the tray. **GW**

My Clifton No.7 on the veneer shooting board

Cellulose craft paper veneer tape holding crown cut ash

Dark smoked oak veneer frames the sycamore and gum centre panel

The gravity feed roller applying an even layer of UF adhesive

Making mediaeval music PART 1

The mediaeval fiddle emerged in Europe in the 10th century and musicologists believe it derived from the Byzantine 'lira'. Here, in the first of a two-part series, **Shaun Newman** shows you how to make your very own version

Many people think of the modern 'fiddle' as some sort of inferior violin, which is very sad, as it has a long and proud tradition. Although some see it simply as an addition to a folk or bluegrass band its origins are deeply rooted in sacred and revered church music. It seems to me a shame that the term 'violinist' appears to hold greater esteem than 'fiddle player'.

The mediaeval fiddle emerged in Europe in the 10th century and musicologists believe it derived from the Byzantine 'lira'. The lira was a relatively small bowed instrument with just three strings and a teardrop-shaped body. It was probably played upright rather than under the chin, which can be seen in a famous carving onto an ivory casket held in the Museo Nazionale in Florence, which dates from between 900 and 1100 AD.

The 'lira' from ancient Greece

The carvings at the Portico de Gloria Compostela

The fiddle that is the subject of this article can be dated from before 1211 as it is depicted in stone carvings over the 'Portico de Gloria' in the cathedral of Santiago de Compostela in northern Spain, which was finally completed in that year. It too has three strings as did the lira, was bowed and was probably played upright.

The Portico was commissioned by King Ferdinand II of León and as it is behind the main entrance to the cathedral the carvings have been protected from the weather and are well preserved.

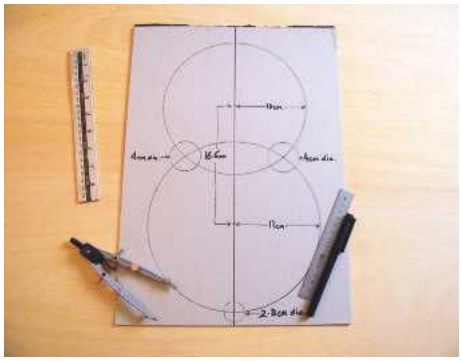
I owe a great debt of gratitude in putting this series together to the famous English early musical instrument maker Ronald Zachary Taylor who personally visited the cathedral, took measurements of several of the carvings and wrote them up in his book *Making Early Stringed Instruments*, which was published in 1991. My version of the fiddle depicted in the Portico is not identical to his, as I have brought some of my classical guitar making experience into the equation, including the 'slipper/heel' construction method (also known as the Spanish method). More on that later, but now 'to work!'

Timber & tools

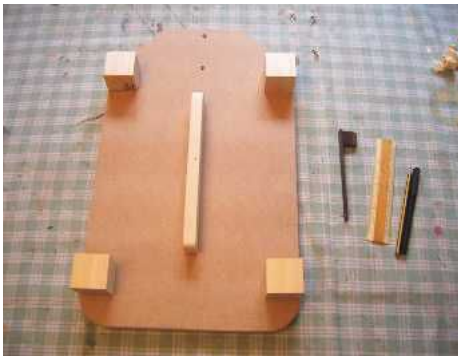
It is impossible to say what the original fiddle depicted in the Portico was made from; however, it is most likely that common European woods, such as maple or walnut, perhaps cypress or sycamore, would have been used for the back and ribs (also termed 'sides'). The soundboard (also termed the 'front') would probably have been made from spruce, and the neck a common hardwood. For this instrument I chose to use padauk for the back and ribs, simply because

it has a striking grain and is very strong – and I had some in the workshop! I used Alpine spruce for the soundboard and cedar for the neck with rosewood for the head facing, the tuning pegs, the bridge, and the tailpiece.

The only specialist tools needed are some sort of bending iron and a violin peg reamer, or similar, with around a 1:40 taper. Bending irons are quite expensive, but homemade versions using a cast-iron pipe around 300mm long and 60mm wide heated with a blowtorch or similar (e.g. a hot air paint stripper) will perform adequately. There are several guides to making your own bending iron on, for example, YouTube, and in several publications on musical instrument making (see suggested reading at the end of the article). Great care must be exercised in their usage as it is very easy to scorch the timber. Luckily, any bending only takes place on the surfaces facing inwards to the instrument so any burn marks are out of sight. Other than the bending iron and reamer all other tools should be found in the workshop or are easily available.



STEP 1. The card template



STEP 2. The underside of the workboard

The template & workboard

A template should first be drawn onto a piece of card (**Pic.1**). The card I used was from an old A3 sketchpad, and was stiff enough to use to transfer the outline onto a flat workboard. Once the lines are in place, the workboard also acts as a plan.

The shape of the instrument is determined by two circles that overlap each other. The circle for the lower bout has a radius of 110mm and the one for the upper bout 100mm. In the original stone carving the two circles share the same radius, but as a guitar maker it seemed 'top heavy' to me if constructed in that way, so I made the upper bout a little smaller than the lower. The centres of the two circles are 165mm apart, sitting on the centreline of the template. The two circles at the waist of the instrument have a radius of 20mm, and represent the position of the rib blocks. The smaller circle at the lower end of the template has a radius of 12mm and is where the tailblock will sit.

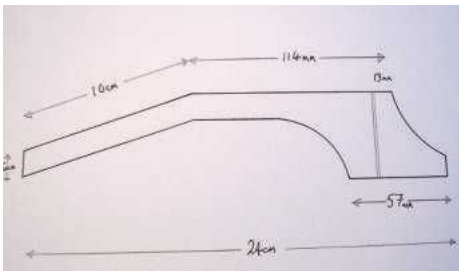
The workboard is made from 18mm MDF and has four blocks glued onto the underside so that cramps can reach underneath when the instrument is being built on the bench, and in particular when the back is fitted. The centre brace to the underside of the workboard is so that it can be held in a vice during the construction of the fiddle (**Pic.2**). Please note that later on I have drawn two circles each for the upper and lower bouts onto the workboard. This is to show the exact position of the ribs. The dimensions given earlier are for the outer of the circles.

Pieces of clear adhesive tape should cover those areas where the ribs will later fit the neck and blocks to avoid getting attached to their workboard through glue squeeze out.

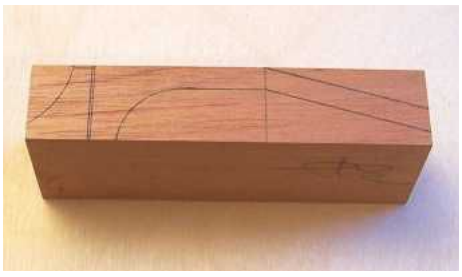
Making the head & neck

The exact method of construction of the original is a matter for speculation. As mentioned earlier, I decided to use the time-honoured Spanish guitar maker's 'slipper heel' approach, which makes a very strong join where the body meets the neck. The method will become clearer as we move forward.

A cedar billet is first prepared. It is planed all around and finished to a length of 235mm, 80mm wide and 50mm deep, then the layout of the head and neck should be drawn onto a card template (**Pic.3**). The head face is 100mm long and 80mm wide. The slipper/heel face is 570mm long. The distance between where the >



STEP 3. The head and neck template



STEP 4. The head and neck outline transferred onto the cedar billet

STEP 5. The outline of the fingerboard transferred onto the cedar

STEP 6. Using the bandsaw to cut the rough shape of the head and neck

STEP 7. Planing the head face true

STEP 8. The layout of the rib slots and soundboard ledge

STEP 9. Cutting the 2mm rib slots

top nut will sit and where the neck will join the fiddle soundboard is 100mm. Seen edgeways on, the shape of the head, neck and heel are drawn onto the side surface of the cedar (**Pic.4**). The position of the fingerboard is also drawn onto the wider face of the cedar (**Pic.5**). It is possible to make the head and neck from a board of approximately 25mm thickness and to create the heel part by building layers of cedar together and using a scarf joint for the headstock. However, to be able to make the whole assembly from one piece adds strength and is also a lot easier to achieve.

The rough shape of the neck and head are cut on the bandsaw (**Pic.6**) and the face of the headstock is trued using a No.5½ bench plane or similar (**Pic.7**). While planing the face it is important to ensure it does not go out of winding. The curves for the inside of the slipper and heel can be cleaned up with a sanding stick made from a piece of plastic downpipe covered with abrasive that is held in place by double-sided tape. Once cleaned up, the slots which will accept the upper bout ribs are marked onto the sides of the slipper heel as well as a small ledge, which will accommodate the top edge of the soundboard. The slots are 2mm wide and the ledge is 3mm deep (**Pic.8**). The rib slots can be sawn out now. They are wider than a standard saw kerf so to enable the ribs to fit, I used a hand saw with no set for the first cut and placed a cabinet scraper into the slot and widened it by sawing alongside the scraper to create the 2mm gap needed (**Pic.9**). After the slots are cut the inner part of the 'slipper' is made a little narrower to help reduce weight. It is cut from either side of the slipper and is at a slight angle (**Pic.10**).

STEP 10. Reducing the width of the 'slipper'

STEP 11. Sawing out the rough profile of the heel

The heel

As we cannot see the heel of the instrument in the stone carving I have made up a simple design which, once marked out, is trimmed with a 'Freeway' coping saw (**Pic.11**). Later a Japanese marking knife (**Pic.12**), which has an extraordinarily keen edge, is used to get near to the final shape (**Pic.13**). Getting inside the curves to remove stock is easily done using a curved razor file (**Pic.14**).

Facing the head & positioning the peg holes

In the original the head was almost certainly not faced with veneer, and the only reason I have chosen to do this is to improve the appearance. I used two small pieces of bookmatched rosewood to make the facing with a centre strip made from some scraps of guitar purflings I had made some 20 years ago. The centre strip is not really needed, but adds to the interest. The facing is held in a simple wedged jig (**Pic.15**) while the glue dries (**Pic.16**) and cleaned up afterwards with a paring chisel (**Pic.17**) and then sanded to a thickness of around 2mm. Before clamping the facing into place it is worth drilling four 1.5mm holes in each corner (**Pic.18**) so that hardboard pins (which happily have a diameter of 1.5mm) can be used to prevent the face from sliding out of line when the pressure is applied as the glue dries (**Pic.19**).

STEP 12. Using a Japanese marking knife to shape the heel

STEP 13. The knife needs extreme care as the edge is so keen

STEP 14. Final shaping of the heel is completed using a razor file

STEP 15. The headstock facing jig

STEP 16. The headstock facing held firmly in the jig while the glue sets

STEP 17. Trimming the head facing centre strip using a paring chisel

STEP 18. Pin holes are placed on the facing to prevent movement

STEP 19. The facing in place

STEP 20. Shaping the headstock with a round sanding stick

STEP 21. Drilling out the peg holes

STEP 22. Reaming the peg holes

STEP 23. Chiselling the soundboard ledge

The next task is to shape the head and here some personal preference can be used. In the original carving the head has simple straight edges, but I felt it was worth improving the look by adding some curves, which are cleaned up using the downpipe sanding stick made earlier (**Pic.20**).

The three peg holes are then drilled out at a diameter of around 5mm (**Pic.21**). These holes are then reamed from the back of the headstock to allow the pegs to fit tightly (**Pic.22**). Finally, before the neck is ready for fitting, the 3mm ledge previously mentioned should be cut above the slipper to allow the front to lie flush with the face of the neck. A very sharp paring chisel will do the job well (**Pic.23**).

Turning the pegs on the lathe

The pegs must be made from a hardwood, such as rosewood or ebony, as they could otherwise wear very quickly. Here further personal preference can come into play, though I chose to use the standard violin peg shape by first turning the 1:40 taper on the shank and then a ball at the end with a small bead separating the two (**Pic.24**). When the peg is taken from the lathe, opposite sides of the ball are cut flat to make the peg easier to turn; this can be done with a fine saw or chisel (**Pic.25**). Note that the peg may be held in a hardwood block with a reamed hole while it is being shaped. A curve can be applied to each cheek to give the peg an authentic appearance, though this is not strictly necessary (**Pic.26**). The overall length of the peg is around 58mm.

While reaming the holes it is important to take just a little out at a time as it is easy to go too far and the peg will go right through to the bead and will not fit tightly. Softly-softly is the name of the game here. To fit well the peg should protrude by around 13mm from the facing. A small hole must be drilled in the end of the peg, about 6mm in, to allow the gut string to pass through while being wound on.

Preparing the rib- & end-blocks & fitting them to the board

I made these blocks from pine by first preparing a billet 320mm long and measuring 55 × 50mm (**Pic.27**). The sharp edges are taken off with the plane as the billet is prepared for the lathe. All three blocks can be turned at once, two having a diameter of 40mm and one a diameter of 24mm (**Pic.28**). All three blocks share the same height of 50mm and once finished, they must be sanded to a right angle on a board to ensure a flat fit (**Pic.29**). It is possible to fit the ribs into the blocks left as pine, but I felt it would improve the look if I veneered them. I chose walnut and used elastic >

STEP 24. Turning the rosewood pegs on the lathe

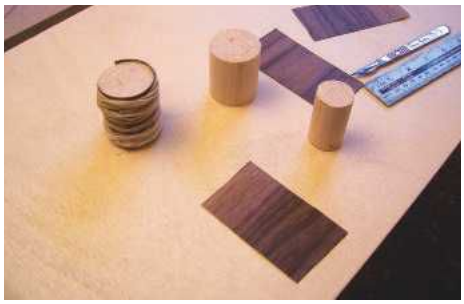
STEP 25. Chiselling the flats on the peg buttons

STEP 26. Applying a curve to the flats on the peg button

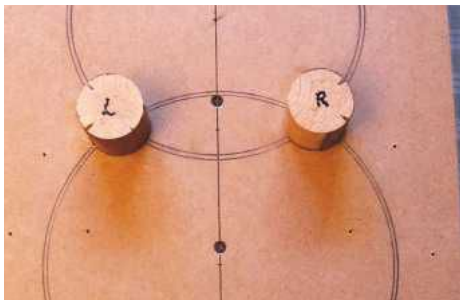
STEP 27. Preparing the pine billet for the rib- and end-blocks ready for turning

STEP 28. Turning the rib- and end-blocks on the lathe

STEP 29. Squaring the ends of the blocks on a flat sanding board



STEP 30. Veneers are held in place on the blocks using elastic bands



STEP 31. The rib blocks are held in place from underneath on the workboard

STEP 32. Cutting the first rib slots on the bandsaw

bands to hold the veneer in place as the glue dried (**Pic.30**).

The next step is to cut slots into the sides of the blocks to receive the ribs. The best way to judge exactly the angle of the slots is to screw the blocks to the workboard dry from underneath and then to mark both the position and angle of each slot (**Pic.31**). I made the first cut for each slot on the bandsaw (**Pic.32**), and used the same method as before to make the slots exactly 2mm wide to receive the ribs. Each finished slot should be around 4 or 5mm deep.

Cutting & bending the sides

The ribs are cut to an oversized length of around 300mm and the edges planed true to give a height of just over 50mm (**Pic.33**). The edges of each rib that will be placed against the underside of the soundboard should be planed very accurately as when the top is fitted any gaps will show up. The sides must then be reduced in thickness to 2mm and this is best done with the No.080 scraper plane. All four sides can be reduced at the same time (**Pic.34**). Once at the correct thickness, they can be bent into a semicircle on the hot iron (**Pic.35**).

Fitting the ribs into the neck & blocks

The lower bout ribs can be fitted into the blocks straight away (**Pic.36**), but before the upper bout ones go into place, shims must be placed underneath all four to emulate the position of the soundboard. The neck is screwed to the workboard from underneath (don't worry – the screw holes will later be covered by the fingerboard) and the upper bout ribs fitted. It is worth having a handful of cams that can be screwed to the workboard from above to hold the shape of the instrument as the glue dries (**Pic.37**). We are now beginning to see the three-dimensional instrument take shape (**Pic.38**).

Preparing the soundboard including sound holes & harmonic bar

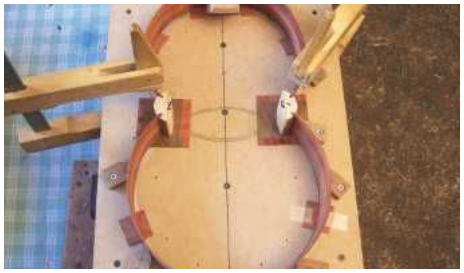
The soundboard is generally regarded by luthiers and players alike as the most important part of any stringed instrument and should be carefully prepared from good quality, close-grained spruce. It is constructed from two pieces of bookmatched timber joined along the centre. The edges to be joined are first planed true (**Pic.39**) and then squared with a sanding stick made from an old 600mm spirit level with the abrasive held along its edge with double-sided tape (**Pic.40**). This simple method ensures there will be no gaps in the join. It is then placed into a wedge and lace jig (**Pic.41**).

STEP 33. Four ribs are required

STEP 34. The ribs are reduced to 2mm thickness using a scraper plane

STEP 35. Bending the ribs on the hot iron

STEP 36. The lower bout ribs in place



STEP 37. Cams help to keep the shape

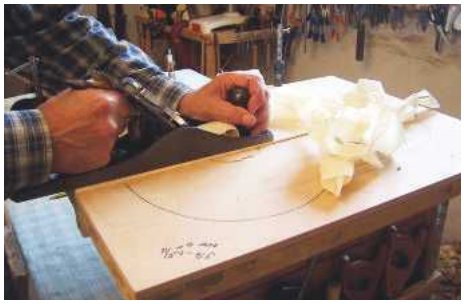
STEP 38. The fiddle has gone 3D

STEP 39. The soundboard edges that will meet are planed true

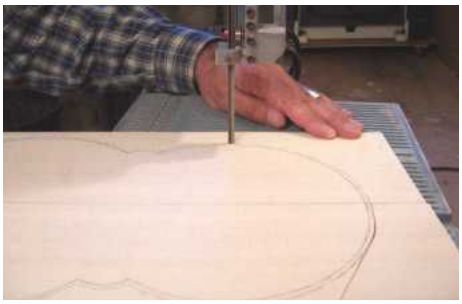
STEP 40. They are then sanded to 90˚

STEP 41. The two halves of the soundboard in the wedge and lace jig

STEP 42. The wedge and lace jig is made from building timber and hardwood



STEP 43. Planing the soundboard to 3mm thickness



STEP 44. The soundboard is cut slightly oversize on the bandsaw

This jig is of an ancient design and is very easy to make. The centre billet is a piece of roofing truss and the bars are 'two by one' scantling. The bars are housed into the centre billet and sit flat. The wedges were made from an old coffee table top and are a hardwood. The laces are each 3m long and made from thick nylon cord. As the laces are pulled crisscross over the spruce and held tightly in a slot at one end of the bar, the wedge is pushed in holding the soundboard flat while pulling the joined edges firmly together – ingenious and effective (**Pic.42**).

The soundboard must next be brought to a thickness of around 3mm and this is best achieved using a very sharp bladed plane, usually a No.2 or a No.5½ (**Pic.43**). Once at the correct thickness the shape is cut out on the bandsaw around 5mm oversize all around (**Pic.44**). The sound holes can give a bit of room for personal preference and were of very varied designs on many mediaeval instruments. Once a decision has been made as to the shape of the holes they are carefully cut out with a fretsaw (**Pic.45**) and finished on all inside edges with 320 grit aluminium oxide paper attached to thin strips of wood with double-sided tape.

A very slight arch should be applied to the soundboard and to do this a 'harmonic bar' should be fitted on its underside. It is made from spruce, is 5mm wide and 14mm high (**Pic.46**). The grain should run vertically through the bar and the arch should give no more than a 2mm lift at the centre and is applied first with a shoulder plane (**Pic.47**) and finished with a sanding stick. When fitted in a position below where the bridge will sit (**Pic.48**) the ends are scalloped with a sharp chisel (**Pic.49**). The bar is then gabled to reduce weight and yet maintain strength (**Pic.50**). The soundboard is now ready to fit. **GW**

STEP 45. 47 sound holes are cut out with a fretsaw

STEP 46. The harmonic bar under preparation

STEP 47. The bar is slightly curved

STEP 48. The bar is clamped into position using Titebond glue

STEP 49. Scalloping the ends of the harmonic bar

STEP 50. Gabling the ends of the harmonic bar

SUPPLIERS OF TONEWOODS, TOOLS & ACCESSORIES

- **Stewart MacDonald** – for tools, timber, pegs, finishing supplies etc. USA based **www.stewmac.com**
- **ToneTech Luthier Supplies** – as with Stewart MacDonald but based in the UK **www.tonetechluthiersupplies.co.uk**
- **Touchstone Tonewoods** – same as Tonetech **www.touchstonetonewoods.co.uk**
- **Capital Crispin Veneers** – possibly the largest collection of veneers in Europe. Sells by mail-order **www.capitalcrispin.com**
- **David Dyke Luthiers Supplies** – excellent for high quality timber. UK based **www.daviddyke.co.uk**
- **www.hairworks.com** – for Mongolian horsehair in small hanks
- **www.earlymusicshop.com** – for gut strings, pegs and early instrument supplies
- **www.smallwonder-music.co.uk** – for decorative back strips and inlay materials

USEFUL READING

- *Making Early Stringed Instruments*, Ronald Zachary Taylor, Stobart Davies Ltd. ISBN: 0 -85442-051-7 – has a chapter specifically devoted to the mediaeval fiddle
- *The Guitar Maker's Workshop*, Rik Middleton, The Crowood Press. ISBN: 186126-0407 – has useful tips on making a bending iron
- *The Galpin Society Journal* – April 2016, The Dorset Press – has an article by Daniel Rose-Jones on the construction of an early fiddle. Also April 2000, an article by Mary Anne Alburger 'The Fidill in Fist' on the subject of bowed instruments from the *Mary Rose*

NEXT TIME

In part 2, in *GW*316, Shaun completes the build of his fiddle and also shows you how to make a customised case

'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!

Arrow, Bahco, Bessey, Bosch, Bostitch, Britool, CamVac, DeWalt, Dickies, Draper Tools, Dremel, Empire, Estwing, Evo-Stik, Faithfull, Fem, Festool, Fisco, Freud, Irwin Tools, Karcher, Knipex, Kreg, Kuny's, Laserliner, Leatherman, Led Lenser, Leica Geosystems, Lyte Ladders & Towers, Mafell, Makita, Irwin Marples, Marshalltown, Metabo, Miller, Milwaukee, Monument Tools Ltd, Nilfisk, Nobex, NWS Made in Germany, Panasonic, Premier Diamond Products, Powerbor, Proxxon, Record Power Established 1909, Reisser, Revo Magnetic Drills, RST Hand Tools, Sankyo Diamond Tools, Scan, Scheppach, Scribe-Master, Sjöbergs of Sweden, Snickers Workwear, Stabila Levels, Stanley, Startrite, Telesteps No.1 in telescopic work tools, Titebond, Tormek sharpening innovation Made in Sweden, trend routing technology, triton, veritas, Irwin Vise-Grip, Vitrex, Wera, Wiss, AND MORE!

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

'THE' TOOL SHOW '17

WWW.THETOOLSHOW.COM

KEMPTON PARK RACECOURSE

6th-8th OCTOBER 2017

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

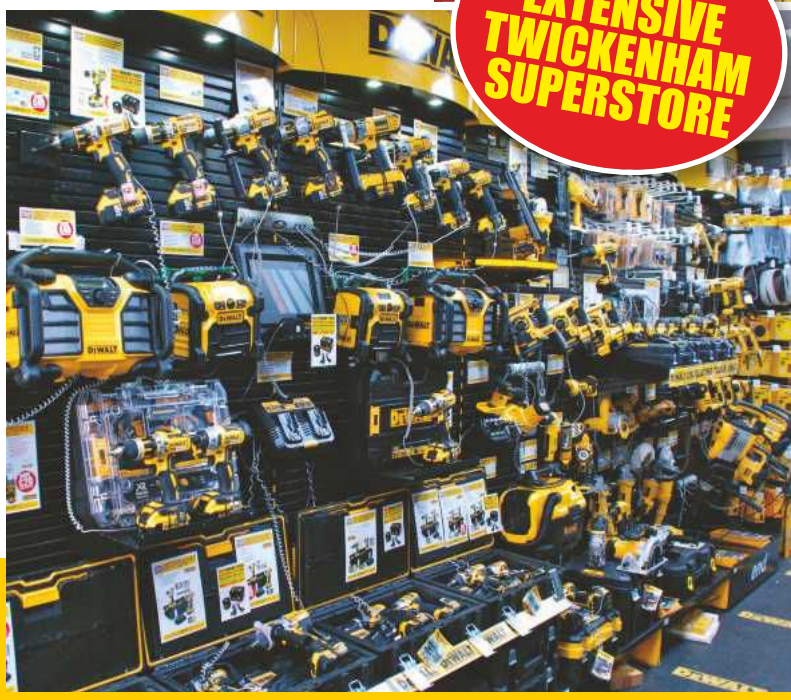
020 8892 3813

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

D&M TOOLS

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:

★★★★★

"**D&M tools are very well priced, turn up on time and have superb telephone support just in case anything goes wrong.** This is a business I will use in the years to come. Thanks for a job well done."

★★★★★

"**Quick Quality Quantity and Value -** D&M offer a fast efficient service which they couple with an excellent range of manufacturers tools which are always available in the numbers you need at a competitive price."

★★★★★

"**Best customer service... Ever! -** I believe the real test of a companies customer service is when they have to deal with problems. My delivery came quickly and well packaged. I had an issue with the tool after about a month of use. The guys in the phone quickly arranged for collection, repair of the tool and return with great communication throughout. Very pleased with the way they resolved my issue."

★★★★★

"**Brilliant prices and brilliant service** - I have now traded with D&M Tools twice now and both times have received impeccable service and also nothing is to much trouble for their staff to sort out."

★★★★★

"**Excellent service makes a refreshing change** - first time I have used this company, was quite amazed by the quality and speed of service and delivery, a fine example of what can be done with first class staff."

★★★★★

"**Best place for tools online** - I've bought a lot of gear from D&M Tools over the last few years and they always provide a first class service, plus they always seem to have everything I need at the time."

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

@DM_Tools DandMTools YouTube DMTools1

Mortise & tenon joints

John Bullar moves on to discussing mortise & tenon joints and how they are traditionally used in furniture making, beginning with hand tool methods, before looking at a few powered techniques

PIC 2. If you want your joints to be straight without gaps around them, then the wood must first be planed to have accurately square edges

PIC 3. I'm using the chisel as a size template to adjust a marking gauge for marking out the tenon; this will ensure the tenon is the same width as the chisel and hence the same width as the mortise socket chopped by the chisel

PIC 4. To mark the shoulder lines around the base of the tenon, I use a try-square and a fine-bladed knife

This month we're going to look at mortise & tenon joints of the type traditionally used in furniture making. The strength of the joints holding furniture together is one of the main factors influencing the quality of a finished piece. Solid wood furniture (the type most people prefer when going to the expense and trouble of having it hand-made) benefits from being fitted together with traditional woodworking joints.

Mortise & tenon joinery (like dovetailing, which we will look at in *GW*316) is an evolved technique – it has been tested and refined over centuries to take account of solid wood's strengths, weaknesses and seasonal movements. We will start using exclusively hand tools and then look at a few powered techniques.

Hand-made joints

The essential tools you will need are a try-square, a marking gauge and a fine-bladed knife for marking. To chop out the mortise you will need a sturdy chisel with a razor-sharp edge and preferably straight un-bevelled sides (**Pic.1**). You will also need a small tenon saw and a wooden-jawed vice or workmate to hold the wood while cutting.

Trying to make joints on distorted wood is more trouble than it's worth, so if you buy ready-planed wood check how straight and square its edges are. It is not uncommon for wood-yards to sell distorted timber due to poor machine work or seasonal movement. If this is the case, either find a better source or else plane it square yourself (**Pic.2**). I would always recommend making trial joints on scrap wood, especially if you are not fully familiar with the technique or if the joint is different from ones you have made before.

Marking out the size

Ideally we want to make the rectangular peg (the tenon) and the rectangular socket (the mortise), both exactly the same size so they fit perfectly. For maximum strength the tenon needs to be as thick as it can, but at the same time the wood left on either side of the mortise also needs to be as thick as it can. There is no point in making one side of the joint stronger than the other, so the best trade off is when the tenon is a little over one-third but less than a half of the total wood thickness.

If you can choose a chisel (or choose the wood thickness) such that the chisel width is between one-third and half of the wood thickness, it will be much easier to make a clean job of chopping out the joint to that width. The chisel can be used as a template when adjusting the gauge to mark the width of both the mortise and the tenon (**Pic.3**).

The depth of the joint is normally about three-quarters of the depth of the wood, making the mortise and tenon a 'blind joint'. That is one that does not pass right through. In practise, the mortise may be very slightly deeper to hold any excess glue. The length of the tenon should be sufficient to leave a small shoulder at each end of the joint; all the lines are at right angles (**Pic.4**). >

PIC 5. With the wood clamped firmly upright in a vice the sides or 'cheeks' of the tenon can be sawn by carefully following the waste side of the gauge line

PIC 1. Choosing the right chisel is an important start. I find joint cutting is made simpler by arranging the mortise & tenon to be the same width as a suitable firmer or mortise chisel

PIC 6. The wood must be held horizontally while sawing the shoulders of the tenon. Here I am using a bench-hook and securing the wood against it with my left hand while carefully following the waste side of the knife line

PIC 7. After the tenon has been sawn out I use it as a template to mark the length of the mortise socket

PIC 8. Chopping out a mortise socket the traditional way with the chisel held vertical and tapped with a mallet

Sawing the tenon

The aim in sawing joints is to get the dimensions right straight off the saw cut, which will happen if the saw cut is tight against the knife marked line. This demands accuracy with every stroke of the saw so it must never be allowed to drift away from the marking line, or over the line. The alternative is to make the joint slightly oversize and then to pare it down with a chisel, but I don't recommend this because it is much slower and less efficient.

To make accurate saw cuts the wood must be firmly clamped in a vice or workmate with the saw held vertical. If you can keep your head in line with the vertical saw blade, you will be able to watch like a hawk as it cuts down the waste side of the marking line (**Pic.5**). For cutting the tenon shoulders you can either clamp the wood in a vice or hold it against a traditional furniture maker's bench hook (**Pic.6**).

PIC 9. A series of shallow chops along the length of the mortise avoids denting the wood

PIC 10. The series of chippings can be scooped out with the chisel held bevel down. The process is repeated until the socket is deep enough to receive the tenon

Chopping the mortise

The traditional furniture maker's way to chop a mortise is to make a series of narrow chippings along its length to a few millimetres deep. These are made with a mallet to drive the chisel (**Pic.8**). The wood must be held down on a firm bench top so it doesn't bounce. When reaching the far end of the series, the chisel is turned around to keep the mortise ends vertical. The series of chippings then needs to be scooped out (**Pic.10**) and the whole sequence repeated until the socket reaches the required depth, which is very slightly more than the depth of the tenon.

Fitting the joint

When the joint has been cut and checked for dimensions it can be fitted together by hand. Normally the joint will be glued together but it can be trial fitted part way to check it slides together firmly. Do not fully fit a joint before gluing as pulling it apart again might damage it. Once the joint has been glued and fully fitted, running a finger across the shoulder line of the joint shows it is smooth with no bump between one piece of wood and the other (**Pic.11**).

PIC 11. When a mortise & tenon are well fitted they slide together with firm hand pressure but no forcing

Through joints

As mentioned above, the mortise & tenon we have looked at so far is the most common type known as a 'blind joint', because it stops in the wood and cannot be seen from the far side. The alternative to this is a 'through' mortise & tenon (**Pic.12**). That is one that passes out the other side of the wood. As well as making the tenon longer this gives opportunities to fit wedges in the far side so as to mechanically lock the joint together (**Pic.13**).

Simple router methods

The router, being by far the most versatile of woodworking power tools, provides a good alternative to pure chisel work for chopping out mortises. With the wood clamped beneath it, the router must be firmly guided while plunging it into the wood (**Pic.14**). This can be achieved by running the edge of its underside, which

PIC 12. You can see daylight out the other side of this mortise, so it is known as a through-mortise. I chop these out from both sides of the wood, so they meet in the middle like a tunnel

PIC 13. This through-tenon has been made very slightly longer than the depth of the mortise so it can be planed off flush on the far side. Before planing, little wedges of contrasting wood were hammered into slots in the tenon to lock it in place

PIC 14. The router, fitted with a sturdy straight-sided bit matching the width of the joint, can be used for chopping mortises

PIC 15. The router must be positioned accurately so we need to measure the distance between the edge of the cutter and the edge of the router sole plate

is called the sole plate, against a straight edge known as the guide rail (**Pic.15**). The guide rail can simply be a planed piece of wood clamped in place alongside the line of the joint. The router must be moved in a direction so that the force from the cutter pushes it towards the guide rail otherwise it will run away, thus causing damage. The router is a greedy tool and will happily bite off more than it can chew, leading it to damage the sides of a joint. The solution is to limit the depth of cut to a few millimetres and make a series of cuts until the full depth is reached.

The router can also be used to cut the shoulders of a tenon, again by using a guide rail, this time clamped against the wood of the tenon. This requires a relatively shallow cut, but great care is needed to stop the router from wobbling when balanced on a small surface.

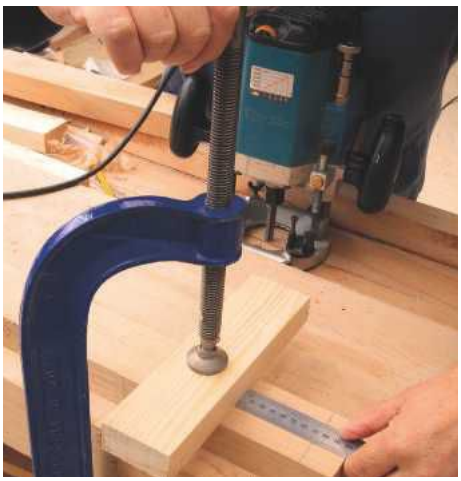
Straightening machined joints

Before fitting a router-cut mortise & tenon we need to address the problem that, while the tenon has square ends, the shape of the cutter rounds the mortise ends into a sausage shape (**Pic.20**). Probably the quickest and simplest solution is to round off the ends of the tenon using a chisel to pare away the corners (**Pic.21**). With joints cut on the router it is even more important to test out the technique on scrap wood before risking damage to expensive wood carefully prepared for furniture making.

Router jigs

There are some good ready-made jigs on the market specially designed for cutting mortise & tenon joints (**Pic.23**). These will produce different shapes and sizes of mortises & tenons accurately matched to each other. Some of these jigs will even enable you to produce angled joints. Apart from the high cost of a good jig, the other snag is that they can take a long time to set up and adjust. However, if you plan to produce a lot of matching joints, then the router jig offers a great solution. >

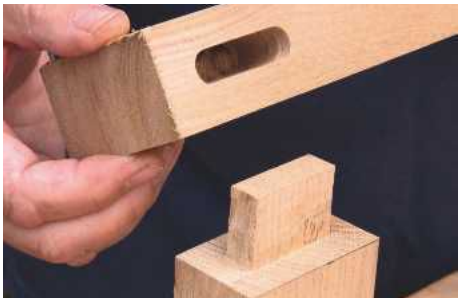
PIC 16. I am using the router to chop a mortise in a piece of wood clamped in the bench vice. To steer the router accurately down the centre of the wood I have clamped a guide rail alongside the vice (right-hand side)



PIC 17. Ready to cut a tenon with a router, I clamped a guide rail across so the cutter would just reach the shoulder line

PIC 18. The guide rail must be accurately clamped at right-angles otherwise the shoulders of the tenon will be squint

PIC 19. A simple tenon can have two shoulders, or it can be turned on edge as here to allow the router to cut four shoulders



PIC 20. The problem with this router-cut joint is that the tenon has square ends while the mortise has rounded ends

Drilled sockets

Drilling out the waste from a mortise is an alternative to chopping it all with a chisel. To chain drill a set of overlapping holes I would always use a 'Forstner' type bit as this will stay on course and produce good, clean edges (**Pic.25**). Although hand drilling is possible, especially for cutting joints in situ, results will be better if you use a pillar drill or drill stand.

The rounded edges of a drilled out mortise will need to be pared straight with a chisel, and at the same time the ends can be straightened up so it accepts a square-ended tenon (**Pic.26**).

Dedicated mortisers

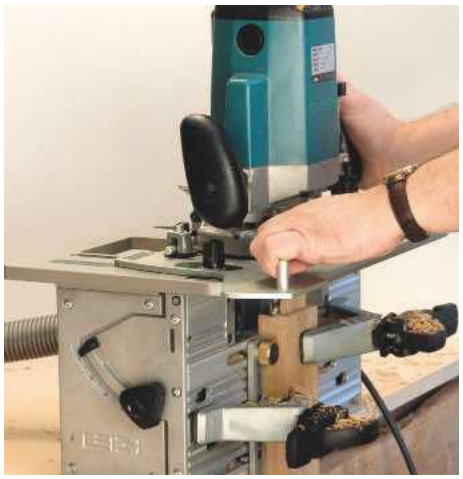
Looking rather like a heavy-duty pillar drill, the dedicated mortising machine is an excellent tool for workshops that produce a lot of mortises (**Pic.27**). The cutter is essentially an auger drill bit surrounded by a square-section hollow chisel. As pressure on the corners and sides of the chisel cuts a square hole, the spiral of the auger extracts the waste from inside it. A rectangular mortise can be made by cutting a series of square holes using a sliding mechanism built into the base of the mortiser to reposition the wood. There are also dedicated machines for cutting tenons but these are large and expensive, aimed at mass producers of furniture.

Conclusions

Hand tools are the most versatile and controllable way to make mortise & tenon joints. Powered tools take a lot longer to set up, but they can be quicker when you have to tackle large or repeated tasks. I recommend learning hand tool techniques first – they offer the best precision and would always be my preferred method for small jobs. If you want to see a video of the technique explained above, search online for 'John Bullar mortise & tenon'. **GW**

PIC 21. One simple solution is to round off the ends of the tenon with a chisel

PIC 22. The mortise & tenon joint should be firmly fitted by hand without forcing. Adjustments can be made if it is too tight but this takes time



PIC 23. Using a jig to cut mortise & tenon joints with a router simplifies matters, but still demands a lot of careful setting up

PIC 24. This jig is designed to produce round-ended tenons to match the round-ended mortises

PIC 25. A pillar drill is an alternative to the router for sinking mortise sockets. Forstner bits are ideal for this because they can produce a series of overlapping round holes with clean edges

PIC 26. Round-ended sockets cut with a router or drill can be chopped square by hand with a chisel

NEXT TIME

In *GW*316, John looks at the best-known furniture making joint – the dovetail. Essentially it is like a tenon with sloping sides fitted into an open-sided socket. The dovetail is rightly renowned as by far the best way to join the corners of furniture

PIC 27. The mortiser looks similar to a pillar drill but is specially designed to chop a series of square holes. It has a sharp-edged square cutter around a specially designed auger bit

Triumph over disaster: a rescue mission

STEP 1. The piece of walnut used to make the table

STEP 2. The original table was too top heavy

STEP 3. Using the Kreg Rip-Cut tool allowed me to guide, measure and keep my cuts consistent

Aleksei Sebastiani turns disaster into triumph as he experiments with kerf cutting techniques to produce a stunning end table

Why dead edge, I can hear you asking. Well, what started out as a live edge end table went horribly wrong and I killed it, so hence the change of name! This table was a lesson in bending 50mm solid walnut by kerf cutting. What is pictured is not what I originally aimed for, but I like it anyway. Here's how I made it.

Initial wood prep

My current living room end tables were purchased cheaply more than 10 years ago. They have held up surprisingly well but the time has come to get rid of them. New furniture is needed (wanted) and something to match the style and size of my sofas. I have tried looking for replacements but couldn't find something I liked, so making my own was the answer.

I found a place that milled logs and was able to purchase a nice big piece of walnut for around £115 (**Pic.1**). I started by sanding the wood to death to get all of the rough cut marks out – it wasn't planed by the mill.

After sanding I cut the top one-third off to make a table; I then made a tubular steel frame for it. It looked nice but was much too top heavy (**Pic.2**). I added more steel and attempted a concrete insert to add weight to the base, but the concrete failed as the mix was too dry.

Having failed to finish that table, I turned my eyes to the bottom two-thirds of the wood plank.

Ideas & learning

I don't know what inspired me to bend a slab of wood this large as when I started researching how to do it, I wasn't able to find any examples. I did watch some YouTube videos of other kerf bending and that was helpful. The wood was expensive enough that I didn't want to ruin it, so I started by practising with a piece of cheap construction 2×8 to hone my skills. Mostly I learned how many cuts it would take to bend 90° without breaking. I decided to use the Kreg Rip-Cut tool to guide, measure and keep my cuts consistent and it worked well for the test piece (**Pic.3**).

Kerf cutting & dead edging

Once I had time to actually cut the piece, I found that the place I wanted to start the bend was out of range of the Kreg tool, so I opted to carefully measure out 10mm lines and cut those freehand using a circular saw. The kerf of the blade is 3mm, so some wiggle room was left. When I was doing my research, I found that people normally use table saws for this, but mine is cheap and making a sled to do it would take longer than I had, so I resorted to this way instead.

After I finished cutting and flipped the board over, my biggest fear became a reality: I'd dug in too deep on one cut! But one cut all the way through, even just a small amount, was enough to ruin what I was going for. I was in my backyard and shouted a common expletive; my heart sank. I had ruined a £75 piece of wood after my first >

STEP 5. Squaring the end of the board and laying out the kerfs

STEP 4. An example of my kerf bending attempts

STEP 6. Starting the kerf cuts in the middle

end table attempt had stalled out and fizzled. It was a maker crisis.

Thankfully my wife heard my frustrations and came to check on me. Her suggestion was to just cut it off. I tried to explain that would no longer be a 'live edge' but she reasoned that "it would still be really cool and a pretty piece of wood."

I didn't think, I just took her advice and ripped the live edges off where the saw had penetrated the extremes of either side of the board. Looking back, it was the angle of the tool that caused the saw to eat through in that area. The table saw method would have saved me, but probably couldn't produce as straight of a result as the circular saw due to the curved nature of the tree. I was now left with a clean surface on a 50mm board that could bend 90°.

Glue-up

The following weekend, it was time to glue and press toward the finish. To glue this, I needed the other leg (metal bracket) to be finished so that I could clamp against it. The metal bracket is 10mm steel that was welded and ground smooth. You can find much better resources on metal than I, so I won't delve into that, but I made a simple form to size.

I was prescient enough to save lots of sawdust from my kerf cutting a week earlier. Gorilla Glue was then mixed with the sawdust to form a flowable paste that I eased into the kerfs (**Pic.7**). Another option was epoxy, but a more natural material choice was desired. The bend had to be strong as it needed to support the weight of the table and whatever is placed on it.

When I trial bent it, the ends of the remaining material from the kerf cuts would touch. My thinking was that they would transfer the load on the inside of the wood and not crack the outside finish, so I glued and clamped it all together. The most important part, and the hardest, was to wait for it to dry. I waited two days before I touched it again.

More sanding

Unlike many woodworkers out there, I love sanding; I don't know what it is, but I find it a very satisfying part of a woodworking project. With power tools, I go down to 320 grit (**Pic.8**), and by hand, I sanded this board down to 600 grit (**Pic.9**). After I felt it was smooth enough and I had double checked for tool marks, I removed all the dust using brushes and tack cloth.

Finishing

The last step was adding protection. My choice lately has been tung oil as it gives moderate protection while still allowing you to feel the wood and not have a hard barrier between your hand and the wood surface. This finish doesn't add too much shine and also allows the grain to show through (**Pic.10**).

Enjoying a good failure

I will enjoy this end table as long as we own these sofas. The beautiful thing about making this myself is that I feel confident to make changes to the table when a new sofa arrives, and the wood used will last for decades. **GW**

STEP 7. Gorilla Glue was mixed with the sawdust to form a flowable paste that I eased into the kerfs

STEP 8. Using a random orbital sander, I sanded the piece down to 320 grit...

STEP 9. ... before moving on to hand sanding until all the tool marks had been removed

STEP 10. The table is finished using tung oil, which doesn't add too much shine but also allows the grain to show through

STEP 11. The completed table in situ

mafell

Quality • Innovation • Performance

Beyond all expectation

"There are a number of portable jointing systems on the market, but this has to be the best there is!"

Andy Bailey, Furniture & Cabinet Making.

DD40

Duo-Doweller

3 YEAR WARRANTY

Thanks to the use of conventional wooden dowels combined with the precise Duo-Dowel Joiner DD40, Mafell has triggered a revolution in portable joining. The work is fastened exactly by the dowels, so that clamping is much simpler and quicker, or it can be omitted altogether. Mafell's DD40 System is an inclusive product package, comprising the MaxiMAX or MidiMAX machine in a MAFELL-MAX case, wooden dowels, a glue bottle, 2x anti-slip mats and drill bits as standard.

Quick & economical: Making carcasses with the DD40 and dowel template.

Fast and accurate. Edge-to-edge and mitre corner joints.

Twin dowell drills set; at 32mm centres.

Auxiliary stops: quick and accurate decreasing and increasing edge spacing.

NMA AGENCIES LTD

NMATOOLS.CO.UK

Email: info@nmauk.com Tel: 01484 400488

Unit 1
Brookfoot Business Park
Brighouse
HD6 2SD

Chocks away!

In this simple beginners' project, **Thomas de Bos** shows you how to make a fun wooden aeroplane with a working propeller, which would be ideal for a child with a love of flying

TOOLS & MATERIALS REQUIRED

NOTE: I'm not giving any specific measurements here, as everybody has their own taste in design, and most people will probably make their version a little bigger or smaller anyway.

For my aeroplane I used the following materials, but you can improvise according to what you have available.

Materials

- 1 piece of wood for the body (can be a solid piece or built up with layers of MDF)
- Some smaller, thinner pieces of wood, MDF or triplex for the wings and tail
- 2 lolly sticks for the propeller
- 1 round wooden stick for the nose
- A small piece of iron wire or paperclip for the axle of the propeller

Tools

- Saw (either a machine or hand saw)
- Range of abrasives (or machine if you have access to one)
- Drill (using a nail and pulling it out also works)
- Wire cutter
- Wood glue

FURTHER INFO

To find out more about Thomas and his other woodworking projects, see his website: **www.debosdesign.nl**

This project can be made using leftover pieces of wood or MDF. Here I will show how you can build a simple toy aeroplane, complete with spinning propellor.

Designing your aeroplane

The first step is to decide on the type and size of aeroplane you want to build. Make a sketch and write down the measurements (**Pic.1**). I usually eyeball the measurements and then round them off so they are easy to remember. If you adjust this design in any way, then make sure you have everything you need to hand.

Making the body

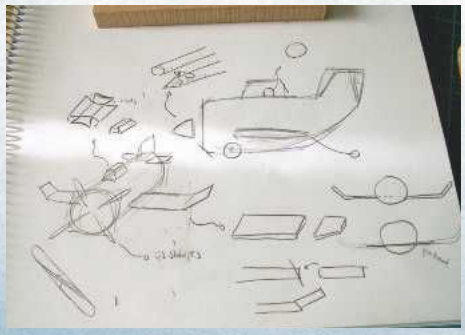
Next, take the larger piece of wood for the body and draw your design on one side (**Pic.2**). You're then ready to saw out the basic shape (**Pic.3**). On the sawn piece, mark the shape of the body and either saw or sand it off (**Pic.4**). Once you have your basic shape, sand all the edges to make them smooth (**Pic.5**) – this is especially important if the toy is to be given to a young child.

Making the wings & tail

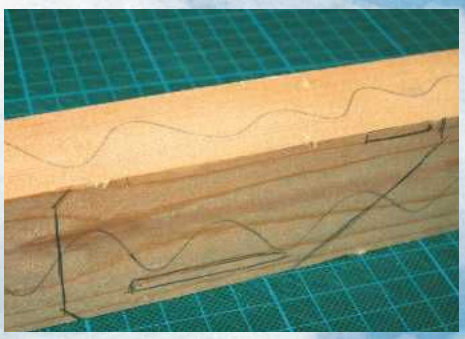
For the wings and tail you need some small pieces of wood, triplex or MDF. Draw your wing and tail measurements on the wood and saw these off (**Pic.7**). Next, take some masking tape and build your model without glue to see if it is what you had in mind, then make adjustments where needed (**Pic.8**). Glue the wing and tail pieces together (**Pic.9**), but DO NOT glue the wings or tail onto the body just yet! Sand the wings and tail to get rid of any sharp edges and hide the seams where the parts have been glued together (**Pic.10**).

Making the propeller & assembly

To make the propellor, you will need to use two lolly sticks. If the ones you have are too big for >



STEP 1. These are the drawings I made for my design – note the nose cone design and the sketch of the wings drawn at an angle – all important points!



STEP 2. The larger piece of wood, all marked up for the body

STEP 3. Once sawn, you should be left with the basic body shape

STEP 4. Next, mark off the parts of the wood that need to be sanded off

STEP 5. Take your block to the disc sander or sand by hand until all the sawn edges are smooth

STEP 6. Your sanded block should look something like this

your aeroplane, just saw off a piece and sand the edge until it is rounded.

I decided to cut a section out of the point where the two sticks overlap in the middle, which helps them to sit flat; this isn't necessary but it makes for a cleaner appearance. Glue the two sticks onto each other in the middle.

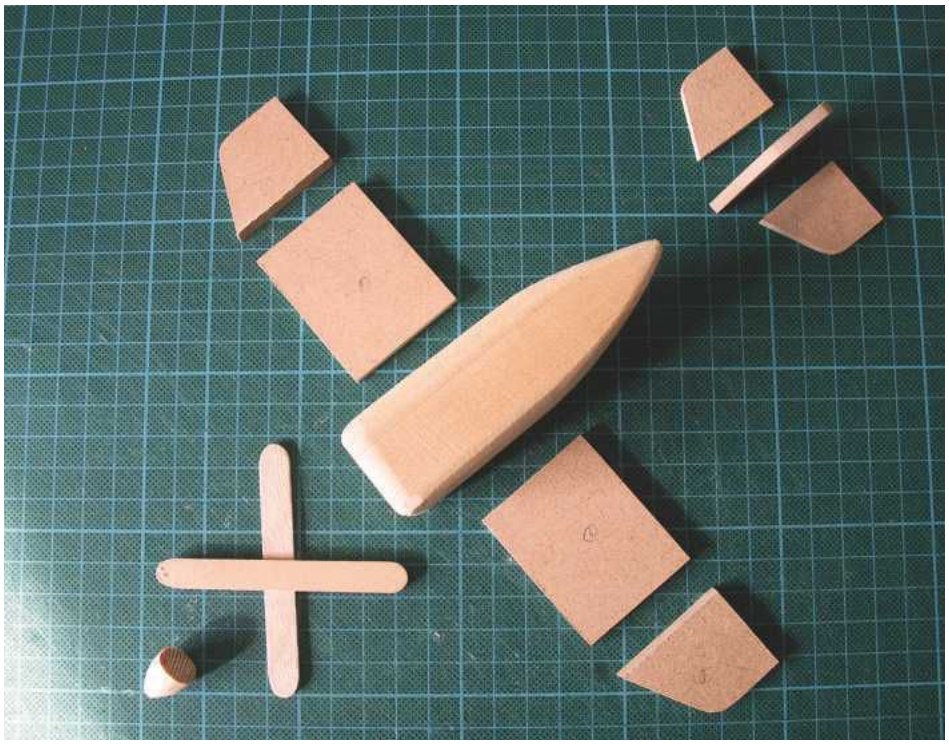
To make the nose cone, use a piece of dowel or a piece of round wood with a similar circumference. Sand this until you achieve the desired cone shape, then, saw this off the piece of wood you're using.

Next, drill a hole into the body and the nose cone, which needs to be the same size as your axle. Drill a slightly larger hole in the middle of the propeller, so that it spins smoothly around the axle.

Cut your axle to size, so that it fits into the body and the nose cone, and leave enough space so that the propeller can spin freely.

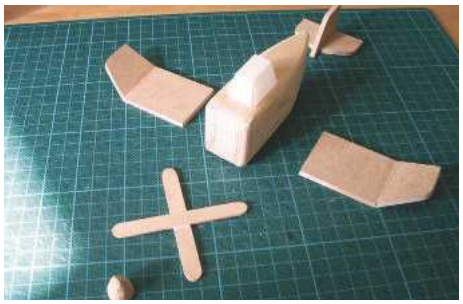
Glue the axle into the body of your aeroplane, then wait for the glue to dry. You're then ready to attach the propeller and glue onto the nose cone (**Pic.11**).

If you wish, you can paint the aeroplane (ensure paints are child-safe if this is to be a gift for a child), or add a pilot and landing gear, then it's definitely time to try out your new toy! **GW**

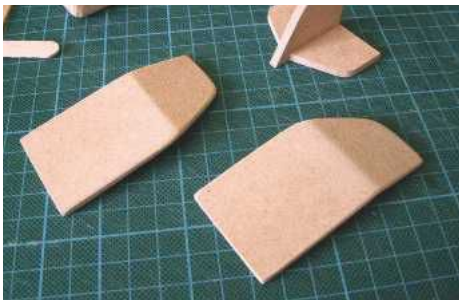


STEP 7. Here you can see all the components laid out. Note the sections at the ends of the wings, which have to be cut and sanded at an angle. To give you an idea of proportions, the squares on this cutting mat measure 1cm each

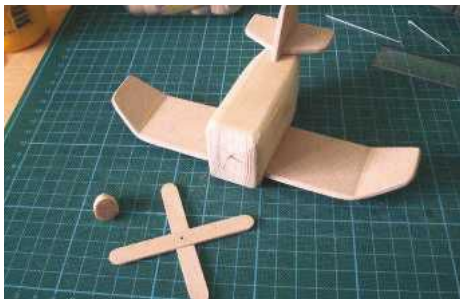
STEP 8. A trial run to check that everything fits – no glue at this stage, just tape!



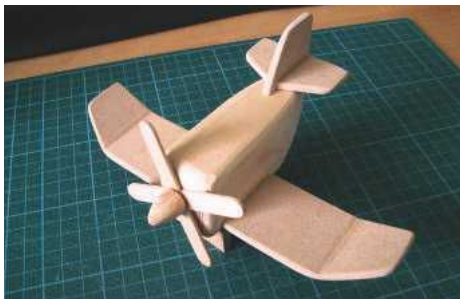
STEP 9. Only glue the wing and tail pieces together at this stage



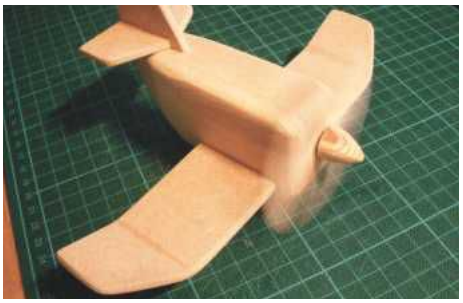
STEP 10. The sanded wings help to hide any evidence of gluing



STEP 11. The body once constructed, with propeller, nose cone and axle – all ready to be attached



STEP 12. Once all the component parts are added, the project is complete



STEP 13. The propeller in action!

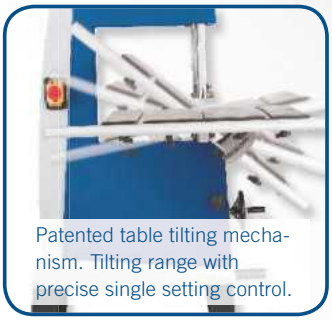
scheppach

VARIO DRIVE

WORKSHOP

306 mm

205 mm



Patented table tilting mechanism. Tilting range with precise single setting control.

Impressive cutting height of 205 mm.

2 year Guarantee

£499.95 INC VAT

Offer price excludes carriage - POA

BASA 3 | 12" BANDSAW

MORE TECHNOLOGICAL INNOVATION WITH THE NEW SCHEPPACH BASA 3 BANDSAW THAN ANY OTHER IN ITS CLASS. SIMPLY "CHECK THE SPEC" BELOW AND SEE HOW MUCH MORE YOU GET FOR YOUR MONEY WHEN YOU CHOOSE THE NEW BASA 3. TRUST SCHEPPACH!

- Unique vario drive - adjustable cut speed 370-750 m/min
- Sturdy cast-iron table tiltable from -8° to +45°
- 3-roller precision guiding above and below the table
- Accepts blades 3 - 19 mm
- Quick-clamping lever for saw blade
- Maximum cutting height: 205 mm
- Throat 306 mm
- Precision rip fence with magnified scale.
- Precision cutting left and right of saw blade
- Leg stand, wheel kit and mitre guide included

BASA 1

£179.95
INC VAT

BTS800

£159.95
INC VAT

Tiger 2000S

£129.95
INC VAT

DMT450

£269.95
INC VAT

NMA AGENCIES LTD

NMATOOLS.CO.UK

info@nmauk.com Tel: 01484 400488

Unit 1 Brookfoot Business Park, Brighouse, West Yorkshire, HD6 2SD

Photographs by Nigel Young

The roof is naturally illuminated by triangular roof lights and is supported by lightweight timber lattice beams

The centre combines a variety of spaces, from intimate private niches to a library

The lattice beam structure is made using Nordic spruce

Throughout the centre, there is a focus on natural light, greenery and garden views

2016 WOOD AWARDS WINNERS

Recently unveiled at a special ceremony held at Carpenters' Hall in London, here we look at the **2016 Wood Awards** winners across all 12 categories

Maggie's at the Robert Parfett Building

The winners of the 45th annual Wood Awards were recently announced at a ceremony held on 22 November at Carpenters' Hall in London, hosted by editor of *Crafts* magazine, Grant Gibson. The Wood Awards is the UK's premier competition for excellence in architecture and product design in the world's only naturally sustainable material. The Awards aims to recognise, encourage and promote outstanding design, craftsmanship and installation using wood. **GW**

Arnold Laver Gold Award & Structural Award

The Arnold Laver Gold Award is the winner of winners. Maggie's at the Robert Parfett Building by Foster + Partners has been awarded this prestigious title (as well as winning the Structural Award). The voting for Maggie's was unanimous with the judges commenting that the remarkable structure "has brought together the best in engineering, fabrication and architecture."

The Structural Award was chosen from all of the buildings shortlisted in each category. Maggie's at the Robert Parfett Building was awarded the Structural Award as it demonstrates that a simple, coherent structural diagram, when beautifully and carefully developed and detailed, can result in a solution of considerable merit.

FACT FILE

Location: Manchester
Architect: Foster + Partners
Wood species: Nordic spruce

FURTHER INFO

To find out more about the Wood Awards 2016 winners, visit the dedicated website: **www.woodawards.com**

Commercial & Leisure – Stihl Treetop Walkway

Photographs by **Rob Parrish**

The Stihl Treetop Walkway snakes through the ancient woodlands of Silk Wood and across The Downs

The judges chose Stihl Treetop Walkway (featured in *GW*307) as the Commercial & Leisure winner as it has the ability to inspire all generations to learn more about wood.

The Grade I listed Westonbirt Arboretum is home to one of the finest tree collections in the world. The Stihl Treetop Walkway provides views over this landscape, in particular the ancient woodlands of Silk Wood and across The Downs. At almost 300m it is the longest structure of its kind in the UK. The walkway bridges across a valley, allowing for ease of access at ground level without any stairs or lifts. While walking along the structure the valley falls away beneath and the walkway rises to over 13.5m above the forest floor. The route snakes above and through the tree canopy supported by scissoring timber legs spaced at 10.5m intervals. At four points along the route it widens from 1.9m to 3.7m, providing spaces for pause and reflection. The walkway is a hybrid timber and steel structure. Larch was selected as the principal material given its durability and attractive colour. Scottish larch was selected for the decking and handrail while the columns are Siberian larch as it offers a tighter grain and higher strength-to-weight ratio.

FACT FILE

Location: Westonbirt, The National Arboretum, Glos.
Architect: Glenn Howells Architects
Client/owner: Forestry Commission
Wood species: Scottish and Siberian larch

Education & Public Sector – Stanbrook Abbey

Stanbrook Abbey was built using renewable, recycled and low energy materials

The judges selected Stanbrook Abbey as the Education & Public Sector category winner as it is spiritually uplifting and sculptural within the landscape. The detailing on the furniture pieces in the church is superb.

Stanbrook Abbey is a new home for the Conventus of Our Lady of Consolation, a Benedictine community of nuns who devote their lives to study, work and prayer. The nuns' contemplative way of life required spaces that were simple, tranquil and beautiful. The nuns chose the remote location, in peaceful woodland at the edge of the North York Moors, for its "special quality of silence and light." The new church derives its plan from two intersecting axes significant in the liturgy of the church; its organic form rose out of the modest orthogonal domestic architecture of the abbey. The new spaces include private cells, a refectory and kitchen, work rooms, a meeting place, guest spaces and a community church and chapel. Preference was given to renewable, recycled or low energy materials.

FACT FILE

Location: Wass, Yorkshire
Architect: Feilden Clegg Bradley Studios
Wood species: German oak, Scottish spruce, Douglas fir, British sycamore

Interiors – The Portledge Rear Staircase

The spindles of the staircase are cut with arcs of varying sizes to create an organic flow

The Portledge Rear Staircase was announced as the Interiors winner. The judges said: "This is an almost faultless piece of work, a surprising intervention in the historic context that works extremely well."

The new rear staircase was designed as a distinct contemporary insertion into the old Medieval service wing of Portledge House, a Grade II listed Manor House in Bideford, north Devon. The stair replaces a damaged multi-phase service stair and forms part of a re-ordering of the house. The staircase blends with the wall panelling to create a homogeneous design using storm-felled English oak chevrons between darker walnut fins. On the staircase, the German walnut fins form spindles topped with a leather handrail. The spindles are cut with arcs of varying sizes to create an organic flow.

CNC machining was used prior to the staircase being assembled by hand using a variety of traditional joinery techniques. Its design as a bespoke sculptural piece was instrumental in its approval by Historic England and the local conservation officer. There is also considerable and considered conservation of existing historic timber demonstrated in other parts of the house.

FACT FILE

Location: Bideford, Devon
Architect: Witcher Crawford Architects and Designers
Wood species: German walnut, English oak

Small Project – The TWIST

The TWIST demonstrates the possibilities of using wood in a very beautiful and efficient way. The system is primarily composed of two plywood strip elements: the ribs and the wings

The TWIST was selected as the Small Project winner as it shows an interesting new direction for timber, demonstrating the possibilities of using wood in a very beautiful and efficient way.

The project was developed by the Emergent Technologies and Design Programme at the Architectural Association School of Architecture for Timber Expo 2015. The project sought to exploit the anisotropic properties to gain full control of the bending and twisting behaviour of plywood. The system was primarily composed of two plywood strip elements: the ribs and the wings. The ribs were CNC-milled planar arcs that served a structural function while the wings were straight strips with the grain perpendicular to the length. These wings connected to the ribs at specific angles and distances in order to bend and twist. A sub-system of combs and the perpendiculars ran along the free edges of the articulated surface, locking the geometry in place. Computational techniques, based on the results of full-scale physical experiments, were used to generate the forms.

FACT FILE

Location: Timber Expo 2015
Architect, engineer & builder: Emergent Technologies and Design, Architectural Association
Wood species: Birch ply

Private – Contour House

A combination of American white oak, European oak and some stainless steel has been used for the superstructure of Contour House

Contour House was chosen as the Private winner; the judges said: "The workmanship displayed is quite exceptional. The project is extremely ambitious and has been realised very successfully. It has been delivered with conviction."

Sanei Hopkins was commissioned to design an open, light replacement house using high-quality traditional materials. Removing the existing house and associated landscaping allowed the 'contours' of the original meadow site to be reinstated. The use of timber externally was precluded by the Peak National Park Authority because the site is in the heart of a protected landscape where stone is the prevalent material. Stone only acts as a rain screen and cladding. A combination of American white oak, European oak and some stainless steel has been used for the superstructure. Flitched feature trusses support the roof over the swimming pool and master bedroom with stainless steel ties and rod fixings. The house has been designed with sustainability at its core, maximising carbon storage while minimising carbon emissions and energy consumption. It utilises both local and renewable materials as much as possible.

FACT FILE

Location: Peak District
Architect: Sanei Hopkins Architects
Wood species: American white oak, European oak

Existing Building Award – Ansty Plum

Ansty Plum has undergone a retrofit and studio extension, which makes it a worthy winner of the Existing Building Award

After discontinuing the Existing Buildings category in 2015, the judges felt that the repair and adaptive reuse projects were so strong this year that they decided to reinstate it as an Award, which was given to Ansty Plum for the sensitivity shown to the existing architecture.

Ansty Plum, a mid-century house designed by David Levitt and wood-lined stone studio designed by Alison and Peter Smithson, has undergone a retrofit and studio extension. The buildings are situated on a steep wooded hillside overlooking a collection of 12th-century buildings. The house has a simple open plan with a singular plane rectangular roof following the gradient of the land. The studio, hedged into the slope, peeps onto an ancient wooded track. Coppin Dockray transformed the house by removing many sequential changes made over the past 50 years to open up the house and express the architectonic qualities of the original Douglas fir construction. A new bedroom and study were created with bespoke Douglas Fir joinery. The derelict studio has been brought back to life, acting as an ancillary bedroom that glows pink with Douglas fir. A secluded shower room was created by extending into the hill. Access to the original drawings allowed Coppin Dockray to interpret many of the timber details.

FACT FILE

Location: Wiltshire
Architect: Coppin Dockray
Wood species: Douglas Fir, birch

Photograph by **Brotherton Lock**

Furniture & Product competition winners (Bespoke & Production Made)

Bespoke – Pantori

Pantori uses a combination of Japanese and English joinery to create a freestanding pantry larder

Photographs by **Adrian Lambert**

Pantori was chosen as the Bespoke winner in the Furniture & Product competition. The judges praised how this project makes bespoke furniture accessible. It is so rare to see this kind of work in a public space.

Inspired by the Japanese Wabi-Sabi aesthetic that embraces simplicity and naturalness, Pantori is a freestanding pantry larder, created for Japanese crepe eatery, Nojō. A combination of Japanese and English joinery has been used. The top has been jointed using three-way mitres and wedged tenons, the rails are housed dovetails, while the drawers have been housed and nailed with ring shank nails typically used in boat building. Oak was selected for the frame and flexible straight-grained ash for the woven inner drawers. Shou Sugi Ban, the traditional Japanese technique of burning timber to preserve it and make it resistant to fire, rot and insects, inspired the scorching on the oak. Within the drawers, waste sawdust creates a substrate for mushrooms to grow in. Two extra rails allow the positioning of the drawers to be changed while the oak board provides an extra workspace.

FACT FILE

Designer: Steph Leake, Intern at Jack Badger Ltd
Maker/manufacturer: Jack Badger Ltd
Wood species: European oak, English ash

Hand-cut Japanese joinery ensures the design stays true to its roots

The drawers are filled with waste sawdust for growing mushrooms

Production Made – Planks Collection & Stretch Extending Dining Table

Planks Collection expresses the integrity of the material, using it in the most effective way and bringing rationality to its design. Shown here are the table and bench as well as the shelving unit

Planks Collection expresses the integrity of the material, using it in the most effective way and bringing rationality to its design. The judges felt this would work in a number of interiors and for different users.

Designed by Max Lamb, Planks' roots lie in the humble carpenter's workbench and 17th/18th century English country furniture. The collection (a dining table, bench, shelving, console table and lounge table) promotes utility, strength, durability and economy of material. Easily accessible storage prevents clutter from gathering on work surfaces. Varying plank sizes have been used for each piece of furniture to minimise waste. Full-width planks are used as the defining feature. Narrower planks are joined to form structural rails to support the top. Four simple L-shaped legs, structurally strong yet physically light, connect to the side of the box and support the cantilevered top.

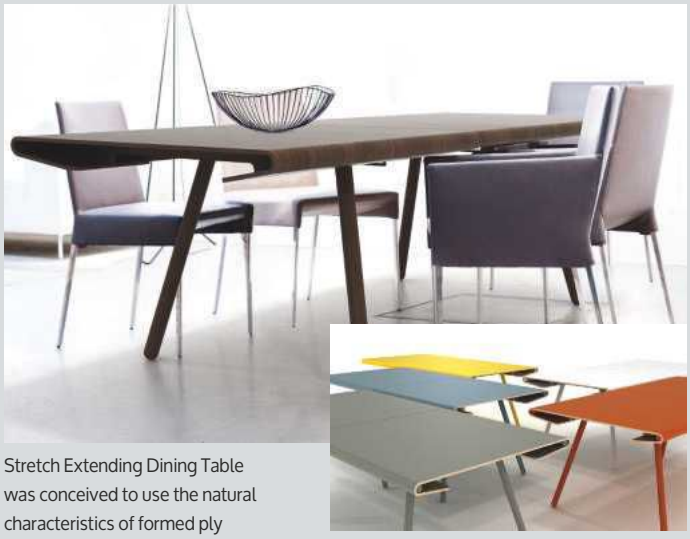
FACT FILE

Designer: Max Lamb
Maker/manufacturer: Benchmark
Wood species: British Douglas fir or European oak

The dining table features a storage well for tableware

The Planks Collection has been designed with generous surfaces with uninterrupted wood grain

Stretch Extending Dining Table



Stretch Extending Dining Table was conceived to use the natural characteristics of formed ply

The other, equally placed, winner is Stretch Extending Dining Table. The judges were impressed by the way the design pushes the material, and how this elegant solution works to solve a common problem.

Designed by Brixton-based Simon Pengelly, the table was conceived to use the natural characteristics of formed ply and is available to buy in a range of vivid colours, ensuring it will fit within any home or office environment. The form of the laminations enables the top to slide along a very simple metal frame, cleverly exposing the extension leaves stored within the table. First designed in 2003, the original was much smaller and less successful. The re-design in 2015 was based on overcoming issues with the movement of each lamination. The updated version is significantly larger due to these issues being resolved.

FACT FILE

Designer: Pengelly Design
Maker/manufacturer: Stonebridge
Wood species: European beech, birch or oak

Student Designer

Within this category were two cash prizes: £1,000 for the winner and £500 for the People's Choice Award

Student Designer winner – Geometry

This modern circular dining table was praised for having its own definite aesthetic

Geometry was chosen as the winner of the Student Designer category. The judges said: "This table has its own definite aesthetic. It is solid and it works, using a system that does not involve any screws. It is a robust piece of furniture."

Geometry is a modern circular dining table. The frame is inspired by molecular geometry, made with contemporary stainless steel rods and contrasting classic oak junctures. The table top consists of constructional oak veneer and solid oak lipping.

The frame is inspired by molecular geometry, made with contemporary stainless steel rods and contrasting classic oak junctures

FACT FILE

Designer: Michael Stevenson
College/University: Building Crafts College
Wood species: European oak

Student Designer People's Choice winner – Velo Chair

Inspired by the bicycle, the Velo Chair connects body and object by seamlessly wrapping itself around the user

The flexibility allows a more comfortable backrest, which flexes and moulds around the sitter

Velo Chair, made and designed by Rycotewood Furniture Centre student Jan Waterston, won the Student Designer People's Choice Award. Throughout the summer and the London Design Festival the public was asked to choose its favourite student design on Twitter, and Velo Chair was by far the most popular.

Inspired by the bicycle, the Velo Chair connects body and object by seamlessly wrapping itself around the user. Each surface is hand sculpted. Ash was selected for its flexibility, allowing the complex curves to be free-form laminated without breaking. The flexibility allows a more comfortable backrest, which flexes and moulds around the sitter.

FACT FILE

Designer: Jan Waterston
College/University: Rycotewood Furniture Centre
Wood species: English ash

Learning about powered planes

For the next instalment in his beginners' guide to using power tools series, **Peter Bishop** looks at the various powered plane options available – both hand-held and static

As a young boy I recall occasionally visiting our landlord's estate workshop. Walking in you were hit by the now familiar odour of freshly planed wood. If I was lucky, one of the carpenters would be working on a long length of pine or something similar. He'd be sweeping down the length, peeling a continuous shaving off with his wooden trying or jack plane. I don't know if these visits left a subliminal message that I might work with wood some day, but I can still remember it now nearly 60 years later.

However, things move on. I did become involved in the timber industry; I trained as a fully qualified City & Guilds advanced craft wood machinist, which probably tells you why I'm a staunch believer in using power tools. This leads me nicely on to the subject of the great time savers – powered planes.

Hand-held planers

I have a couple of these and when I want to 'ball off' a lot of shavings on something, I reach for one. These planes will not replace the larger, static machines if you have them nor be as versatile as a range of traditional planes and jointers. However, they can be very useful at times. Most power planes can be put in the same class as a jack plane: use them to remove the sawn surfaces of timber and finish off with something else. Some do have handy attachments for rebating; others can be inverted in a stand to use as a surface planer. Another optional accessory on some of the heavier-duty models turns the whole thing into a thicknesser. If considering these options, review your available space and think through how the tools will be used.

There are a number of features to look for when buying. The width of cut can vary but they are generally in two main sizes at 65mm through to 82mm wide. There are industrial versions available that are wider than this but remember that these will take more effort to control as they remove a greater amount of waste.

Motor size is not desperately important unless you are aiming to use the plane a lot. Something in the region of 500-600W should be sufficient to tackle occasional jobs, but for regular use aim at around 75W or more. A 'soft start' motor control system will extend the life of the machine. Cutterblock rpm will also vary, probably between 10,000-20,000rpm. There are lots of factors that might influence the choice of rpm but you'll find that a middle-rated machine will cover most eventualities.

The lighter planes usually have a maximum depth of cut, around 2mm and therefore it's not very taxing. Industrial versions, with up to 5-6mm should have motors proportionally larger. Ideally you will have some depth of cut adjustment facility. This is usually controlled by raising or lowering the front end of the soleplate. As a general rule, set at fine cuts for harder woods and heavier cuts for lighter woods. However, test the results before you get going to ensure you're achieving your desired finish.

You also need to look carefully at the soleplate construction. If you want to cut rebates at all then check that the model you are interested in is capable of doing this. There should be some form of side-fence that can be adjusted to the width of cut and set at

Examples of hand-held planers from various manufacturers

Examples of cordless planers from various manufacturers

an angle for bevels. These fences are not always supplied as standard – check if they are an optional extra. One of the key features on the soleplate will be a retractable cutter cover. As the tool is presented to and proceeds to cut the workpiece, the cover should smoothly retract out of the way. As the plane exits the cut it should automatically spring back into place. Ensure to have a good look at the cover to check that it works easily and does not impede the cutting action.

Blades should be double-edged to extend their life: they can be in HSS or have TCT. The latter will last longer but does not give as fine a finish as the former. Personally I >

Makita side-fence for 82mm planers

Bosch parallel and angle guide

Cordless planer bevel guide fence

Rebating depth guides for Bosch planers

Using a hand-held planer

TIPS FOR USING HAND-HELD PLANERS

- When buying, think about the use you will put the plane to. Regular, long use away from the workshop will probably require a larger, heavy-duty machine. However, this could be a disadvantage if the tool is too heavy and a strain to use
- With the improvements in battery life over recent years, the hand-held portable planer has become even more mobile. If you are likely to be working on site where there is no supply, then consider one of these machines. Just make sure you have at least two fully charged batteries before you start!
- The freehand use and control of a powered planer is similar to standard practice. Hold the front end firmly on the workpiece to start, engage the motor and move forward. As the end of the cut approaches, switch emphasis to the trailing hand to ensure you don't experience a 'dig in'
- Do not fix the cutterblock guard up out of the way permanently. Apart from the potential exposure to soft body parts, you might forget and put the planer down while it's still running!
- Most power planers will have a central groove in the soleplate. It's there for a reason: to help when running a chamfer off an edge. Firstly locate the corner of the workpiece into the groove, start the motor and run through, cutting the chamfer as you go
- Look at the waste exit port or ports. You can produce a great deal of waste very quickly with one of these tools. Some planers will have a collection bag; this is ideal for small runs but may not be suitable if a lot of work is to be carried out. In this case, check that the exit ports are compatible with a hose fitting for an extractor. However, even with an extractor fitted, one of mine blocks up if I get carried away!
- Take care not to let your fingers wander underneath. Most of the cutterblocks, although small, are whizzing around at a fare rate, producing anything from 20-30,000 or more rpm
- With care and considered use a powered hand plane is a very useful addition to any workshop
- Always check over the wood you are about to plane. If there is any old 'shrapnel', you will quickly ruin your cutter set

PLANING TERMS

Rpm = revolutions per minute

Cpm = cuts per minute

HSS = High Speed Steel

TCT = Tungsten Carbide Tipped

Soleplate = the flat, lower face surface of the tool

Fences = attachments to the tool that enable depth, width and bevelled cuts

Thicknesser = a large or small fixed, static planer that planes one face of the material being fed into it and reduces it to the desired thickness

Surfacer = as above but the workpiece passes over the cutterblock surface and one face is planed

Over & under machine = a combination of the two above

Dig in = when the tool inadvertently cuts deeper into the working surface than desired

Ball off = cut away the waste from the workpiece

Shrapnel = metal fragments embedded in the wood, which may be old nails, screws, etc.

Nominal and finished sizes = the primary, nominal size from which the finished, planed size can be produced

Hit & miss = when part of a planed surface still shows the original sawn surface

Square edging = Firstly planing a face flat and then squaring the edge from that surface

don't recall buying any replacements for a number of years. Changing the blades should be easy; if not then look at another machine! Most manufacturers have designed the blocks into which the cutters are fixed as a straight version. There are machines with spiral cutters and blocks on the market that claim to provide a better finish.

Static planers

Surface planer

This is what we generally refer to as a 'surfacer', for obvious reasons! Not such a common machine today because it is limited to only one or two functions. However, some do have an interesting additional use for creating rebates in the edge of finished planks. Probably not a machine that you'd find in the workshop of most general woodworkers unless space was unlimited. The better option is the 'over and under' machine – see below.

Face side hit & miss

Thicknessing planer

These are less common machines, which are referred to as a 'thicknesser'. After a board has been square edged and faced it can then be passed through the thicknesser to reduce it to a finished thickness and width. The ability to plane boards square on their edges will depend upon the depth of the thicknesser's capacity. My machine can cope with boards up to about 150mm wide, but not much more. Bigger, more commercial machines will still, most probably, be restricted to around 200-250mm maximum. The most useful static planer for the general workshop is a combination of surfacer and thicknesser in one machine; the 'over and under'.

Over & under

These machines are probably the best to have in any sized workshop. They come in a variety of shapes and sizes to suit all needs. For the general woodworker a planing width of about 250-300mm and a depth of 150-200mm is ideal. If occasionally you need wider widths or thicknesses planed, then

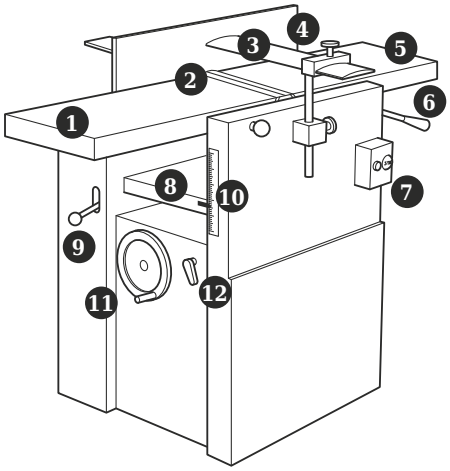


FIG 1. An over and under planer:
1. Outfeed table
2. Cutterblock
3. Surfacing guard
4. Adjustable fence
5. Infeed table
6. Table height adjuster
7. Starter
8. Thicknessing bed
9. Feed control
10. Thickness scale
11. Thicknessing bed adjuster
12. Bed lock

Examples of static planers from various manufacturers

Most of these planers will have two or three cutters set in their blocks

Changing cutters

there will be someone with a commercial-sized machine not too far away who can plane it for you.

There are a few things to consider when buying an over and under. The first, apart from its capacity, is how it is made. Lightweight machines will have bodies of pressed steel, which are fine but may need to be bolted down. Preferably try and find a machine that has a heavier, cast body. This latter type will give a much more stable base from which to work and, because there will be less vibration, provide the potential for a better finished surface. Also look at the fence assembly arrangements. Like the body of the machine, if it is long and solid then it will provide a better working surface. How easy is it to adjust the fence, can it be canted for angle planing, etc. are all things that need to be considered.

These dual-purpose machines will mostly have a surface planing facility that is easily accessible. This surface bed arrangement swings out of the way to expose the thicknessing option underneath. Take a look at this to make sure it is easily changed over without too much trouble. There will be a hood and chip extraction unit that covers the cutterblock. This will need to be easily hooked up to your extraction unit – yes, you'll need one of those if you want to avoid a complete mess!

You need to check out how many cutters there are in the block, their availability and how easy it is to get them sharpened. It's more expense but I'd always advise that you have at least one spare set. You'll then be able to replace the knives with sharp ones at any time. If you hit an odd bit of 'shrapnel', then you'll knick the cutter, which will leave unsightly, raised marks on the finished faces. The other important point is how easy it is to extract and replace the cutters.

Most of these planers will have two or three cutters set in their blocks. Depending on the rotation speed of the block and how fast the object piece passes over this will affect the surface finish. More 'cuts per inch', or 25mm if you wish, will give >

Surfacing the timber

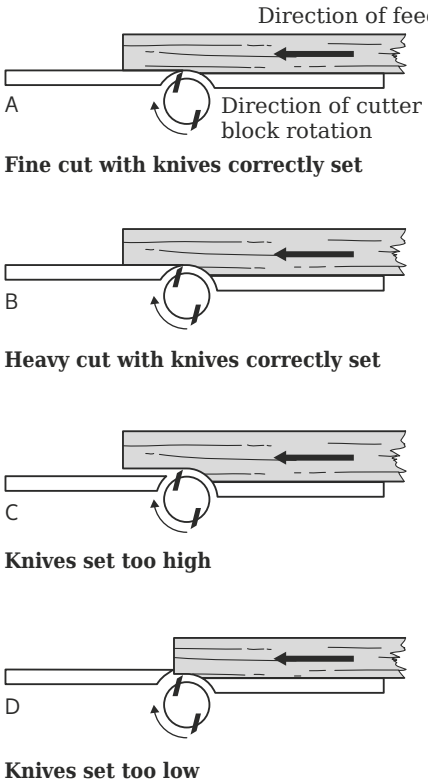


FIG 2. Setting cutters in the block

Thicknessing

Squaring an edge

a smoother finish. You can work this out for yourself by varying the speed in which you pass a workpiece over the surface planer's beds. The faster you go, the less cuts per inch you'll have; slower and there will be more, but don't go too slow or you will burn the surface!

The cutters in the block and the infeed and outfeed tables need to be set up correctly to ensure they create flat, level surfaces. The manufacturer should have set the outfeed table to be level with the tip of the cutters once set in the block. Varying the height of the infeed table will adjust the amount of waste you remove at each pass – see A & B overleaf. If the tips of the cutters are higher than the outfeed table, then you'll never get a flat surface. This is because the wood will dip into the cutters as you pass over the block, basically rocking and creating furrows in the wood – see C. If the cutters are set too low, then the object piece should stop as it hits the outfeed table – see D. So a bit of practice will be required when first setting your cutters. Make sure they are both level with the beds across the width and also set at the correct height. A bit of care at this stage and you'll reap the benefits later.

I mentioned the mess you might create if there's no chip extraction. Apart from chucking large amounts of shavings out into the workshop, if you don't extract then there is a detrimental impact on the quality of surface finish as well. If wood chips drop down onto the finished, planed surface as the workpiece passes through the machine, they will bruise that surface. The bruising occurs when the chip and the finished piece pass through the feed works of the machine. At this point the chip is crushed into the surface of the wood. It can be removed after, or simply drops off, but the slight indentation will show up later on if it is not cleaned off. The best way to avoid this, and a heap of shavings and dust in your workshop, is to hook the planer up to an extraction unit. Take the chips away and you take the problem away.

So, to recap, the best advice when deciding what to buy is to check out the features and make sure it is sound, solid and easy to use.

Planing techniques

Using a mechanical planer correctly to produce squared up stock is exactly the same as using a hand plane. The process follows the usual set of rules.

Firstly, the workpiece is flattened and surfaced on one wide face. Once you have passed the piece across the surface beds and planed off all the old saw marks, that should be the first job done. Just remember to set the surfacing guard to cover the exposed cutterblock and use a push-stick to pass the workpiece over them. Don't try to remove too much at one time; better little and often especially if it's a hardwood. You'll know when you do this if your cutters are sharp or blunt. If the latter, then it will be harder to push the wood over and it will probably 'chatter' – jump up and down slightly.

Surfacing

With the machine stopped, now's the time to check that the fence is set at right angles to the infeed table. Once locked in place, adjust the guards to cover any exposed portion of the cutterblock you'll not be using. To start squaring the first edge, press the planed face against the fence and gently let the edge drop down onto the infeed table. Keeping the face against the fence, pass the piece through until the edge is planed clean and square.

Squaring an edge

Really wide and thin pieces may now have to be ripped to width, allowing a bit extra, and returned to the planer to finish the other edge. The reason for this is two-fold: 1) the piece may be too wide to pass under and be planed on its edge; 2) it's so thin that it won't stay upright and will fall over as it goes through. Practice will guide you here.

Thicknessing

To finish off the process the pieces need to be planed to thickness and, maybe, width. Don't try to plane off too much in one go. If there's a lot of waste to remove, then consider ripping just full of the finished size and then passing through the machine. You'll probably need a slightly longer push-stick for this just in case the feed works don't pull the workpiece through. There should also be an anti kick-back device on your machine; this will prevent the workpiece being chucked back out at you if it gets snagged or, say, a big knot breaks up as you are planing. All being well, you'll end up with material square planed to exactly the sizes you want.

I'd never be without a powered plane of some sort; the idea of reverting to hand planing stuff is beyond me. I simply don't have the time or patience for that! **GW**

Hammer®

The obvious choice!

IF IN DOUBT ...
... USE A HAMMER

HAMMER - A range of over 20 machines for the keen and professional woodworker.

FELDER-GROUP UK

Unit 2, Sovereign Business Park, Joplin Court
Crownhill, MK8 0JP MILTON KEYNES
Tel. 01908 635 000 info@ukfelder.co.uk

www.ukhammer.co.uk

✆ Request your free catalogue now!

JOINERY & FURNITURE MANUFACTURING SHOW
2-5 OCTOBER
2016 • NEC
STAND

Panel Saws

K4 perform

K3 winner comfort

Planer-thicknessers/Planers/Thicknessers

A3 41

A3 31

A3 41 A

A3 41 D

Spindle Moulder

F3

Saw Spindle Moulder

B3 perform

B3 winner

Combination machines

C3 31 perform

C3 31

Bandsaw

N 3800
N 4400

Horizontal Mortiser

D3

Mobile Dust Extractor

S01

HAMMER,
Quality and precision from **Austria**

Win BIG with Felder

WIN 1 OF 3 PRIZES WORTH OVER £4,000 in total

To celebrate their 60th anniversary, Felder are running a fantastic competition in conjunction with *Good Woodworking* and *The Woodworker* magazines to find three of the best furniture makers across the UK – there's also some great prizes up for grabs

Over the next month, we will be running this fantastic competition in conjunction with Felder Group UK to discover who can make the best piece of furniture. The competition is open to anyone over the age of 18, regardless of skill level. The piece you enter can be any size, from a small bedside cabinet up to a large wardrobe – the choice is yours! Simply decide on the piece you'd like to make, document the process, then submit it by following the entry details below.

FIRST PRIZE

A3-26 WITH SILENT-POWER® SPIRAL CUTTERBLOCK – WORTH OVER £3,000

SECOND PRIZE

FAT 300 AND FELDER WORKTOP SURFACE MULTIPLEX – WORTH OVER £1,200

THIRD PRIZE

£100 TOOLING CREDIT

ENTRY DETAILS

To enter the competition, you must email a selection of step-by-step and process photos of your hand-made piece of furniture, which documents its build from start to finish (no more than eight photos, please), along with a short description of the piece and the processes used to make it (no more than 500 words, please).

Expert judges

Felder Group UK will select five finalists from all those who enter, each of whom will be invited to bring their piece to the Milton Keynes showroom to be judged by an expert panel, consisting of master craftsman and furniture maker, Peter Sefton; award-winning furniture and cabinetmaking expert, John Lloyd; Felder Group UK director, Matthew Applegarth; and *Good Woodworking* editor, Tegan Foley

Important information

- Due to email server size limitations, please ensure to send low resolution photos. For ease of judging, attach all photos and text to one email rather than sending multiple emails, which could potentially get lost
- Please outline your name, address, age and the piece of furniture you've entered at the start of the email (preferably in the subject heading)
- Please note that finalists must cover the costs of transport to the judging ceremony as well as any costs involved in transporting their piece of furniture
- Entry is open to UK residents with a permanent UK address
- The closing date for entries is 17 February 2017. Pieces will be judged on Friday 17 March 2017, so please ensure you are free on that date in case your entry is chosen as one of the final five
- All entries should be emailed to **tegan.foley@mytimemedia.com** and should be sent no later than 17 February 2017 – postal entries will not be accepted
- Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Felder Group UK are not eligible to enter this competition
- To view our competition terms and conditions in full, please visit **www.getwoodworking.com/competitions**

Letters & Makers

Letter of the month

Ferguson TEA20 tractor project

David about 11 years old, circa 1984/85, back on his family farm in Mt. Rivers, Montana

Ian Wilkie's tractor and trailer project

Hello Tegan,
I have another content suggestion: I am very keen to make a wooden model/toy of a Ferguson TEA20 tractor (it's what I learned to drive on!) Anyhow, I notice that a lot more people today are making wooden toys, but there are probably many more like myself who would like a step-by-step tutorial on how to make one. Perhaps in one of your future issues you could do just that: run a project on a fire truck, or something else that would be of wide interest. What do you think?

By the way, the magic wallet project (see *GW*310) looks very interesting, but I'm considering reinterpreting it to make a new cover for my Kindle, and my iPad. If I do I'll let you know how I get on, but I've got to finish my Roy Underhill-inspired spring pole-lathe first! **David**

Hi David, great to hear from you! Thanks again for getting in touch and for sharing your thoughts. I know it's not the exact model you're looking to make, but we're due to feature Ian Wilkie's tractor and trailer build in the January issue of our sister publication, The Woodworker. *Perhaps this will give you some ideas about the construction? If not, there may be some free downloadable plans online? Good luck with it and we eagerly await the finished photos! Thank you for your kind comments, as always.* **Tegan**

And if anyone would like to try their hand at writing an article on the making of any wooden toy builds, or indeed a scale model of the Ferguson TEA20 tractor, then do get in touch and we'll get it featured!

Tale of an old table

Dear Tegan,
Thank you for recently committing my scribble to print (see *GW*312). When I finally retired from full-time work some years ago, I took up two hobbies: woodworking, because I had never been taught it at school and I had always been bad at it, and creative writing, because in my working life my writing was generally the reporting of facts with a bit of forecasting laid on top. I eventually tried to bring the two together and this piece is the best I can do – so far.

An Old Table

Look! There at the back of the shed!
Do you see, behind the mower and the tools
a small table, under bags of fertiliser.
Let's move this stuff away.
Then, if I clear the paint tins from its legs
put my hands at either end and lift it out.

There, you see it looks quite sound.
The top is small but has flaps front and back
this is a Pembroke Table
with flaps raised it's three feet square
great for four of us at breakfast.
Yes, I know it's filthy; it just needs a clean.
Let us turn it upside down.
Ah, as I thought, a drawer at one end
made of thin, cheap wood
the dovetails are breaking up
warm hide glue will bring it round.

We'll clean the top with soap and water
then remove the tar which dripped from
the roof.
We are left with a top of bare mahogany
a light stain and varnish will leave the table
old and well used but not restored;
just renovated and fit for use.

Best wishes, **Gordon Watson**

Gordon, what two great hobbies to have and what luck that one can influence the other! Have you ever thought of compiling a collection of creative woodworking writing? I'm not sure it's ever been done, but there's always time! Good luck and do keep in touch. **Tegan**

One to watch: Harry Samuel

Green woodworker and natural builder Harry Samuel has only been working with wood for the last four years; however, it is now his passion and his life. Harry discovered both of these avenues through studying International Development at University, but quickly realised he wanted to be more hands-on. All of his essays focused on bottom up development and, in Harry's words, "I thought to myself: if I really want to develop from the grass roots, I need to have the skills to do that." Since then he has helped set up several projects, has worked with recycled wood, completed an apprenticeship with Barn the Spoon and now works for The Green Wood Guild. 2016 saw him complete the last phase of training at Cherry Wood Project, where he had been undertaking a woodland-based apprenticeship. In terms of what comes next, Harry plans to travel to Sierra Leone and help in any way he can in terms of passing on the skills he has learnt, as well as picking up some new ones. For a taste of his work, see Harry's Instagram page: **www.instagram.com/harry_samuel_crafts**. We wish Harry all the best with his travels and congratulate him on completing his apprenticeship. The fundamentals of green woodworking should be very much celebrated and it's great to see this young maker's passion for delivering these to different cultures and ultimately keeping the craft alive in the process.

A selection of Harry's hand-carved spoons

'Bird Bowl'

Spindle turning using a pole-lathe

Getting ready to turn up a storm

READERS' GALLERY
sponsored by Johnson Tools

Send in photos of your recently made woodworking projects and you could be in with a chance of winning an **Alcolin wood adhesives bundle**, consisting of one each of **Alcolin Cold Glue**, **Alcolin Fast Set Glue**, **Alcolin Professional Glue** and **Alcolin Ultra Glue**. Good luck!

Russell Groves

Russell's latest build is a planter, which he made for his bay tree that's now outgrown its existing pot. It is made using offcuts of mahogany and oak with plywood side panels. He's also cut narrow channels in them to give that 'ship-lap' look. "I've been making things for around 15 years now," Russell tells us, "such as various garden planters, a headboard, shelving units, etc. but I'm still very much an amateur hobbyist."

Russell's hand-made planter is specially designed to house a bay tree

The narrow cut channels help to give the piece a 'ship-lap' look

A plastic pot easily sits inside the planter, ready for the bay tree to be installed in its new home

Ken Pyne

Ken's lovely vase stand was made specifically to raise a vase off the floor, where it was usually placed. Ken tells us: "Having a eureka moment, I sketched out the basic shape and dimensions required, and took my ideas to the workshop. Firstly I made a template on MDF to cut out the legs and later used the router. Using reclaimed mahogany, I made a start." The result can be seen here. The piece is held together simply by two half joints at the centre, where the leg sections meet. The top is rebated on the underside to house the tops of the legs. No screws or glue is used, which means the whole thing can be dismantled in minutes. To make the piece, Ken used the following tools: bandsaw, planer, router table, and a lathe for the top. The finished project was given two coats of sealant and wax polished.

Ken's plant stand is made using reclaimed mahogany

With the vase placed on the stand, the true skill involved in the making of the piece is clear to see

Tony Wood – this month's winner!

Tony designed his lovely lamp base using Fusion 360 software by Autodesk, which allowed him to ensure that it not only looked right but was practical to make. He printed the drawings, which allowed him to make the templates required to rout the component parts. "The support rings are made using a segmented technique similar to that used for turned bowls," he says, "while the nine curved side rails are 600mm long and made from brown oak."

The piece features nine curved side rails

The clever techniques Tony used to make this piece are similar to those employed by segmented turners

Tony's lamp base is made using brown oak

WRITE & WIN!

We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about *GW*'s features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently a Trend Easyscribe scribing tool. Simply email **tegan.foley@mytimemedia.com** for a chance to enhance your marking capability with this versatile workshop aid

From furniture maker to teacher

Stifled by his desk job, **Chris Tribe** shares the story of how he made the transition from office worker to professional furniture maker, and most recently, a teacher of the craft

Photographs by John Garon, unless otherwise stated

There was a time when every town had a woodworking evening class, often taught by a school's woodworking teacher for a bit of pin money. Unfortunately that is now a thing of the past – woodworking no longer has a place in the curriculum of most adult education institutions. The economics, it seems, are weighted in favour of yoga and cake decorating!

The demise of woodworking and other craft classes means that many people with a creative desire find it difficult to get started; we have a 'creative gap', which, in woodworking, is increasingly being filled by professional makers. One such is the Yorkshire-based maker, Chris Tribe, who runs courses catering for all levels from his workshop in Ilkley. We spoke to Chris

to find out more about his career in furniture making and how he has developed from maker to teacher.

Stifled by the desk job

Chris grew up in Hampshire where, as a child, he was always making things, from go karts to rabbit hutches, but when it came to choosing options at school, he went down an academic path, like so many. After university, and starting a career in social work, he began to feel the creative urge again so he attended a woodworking evening class: "This was back in the '70s when you could," he comments.

Fast forward to 1990 and Chris, now a systems analyst living in Yorkshire, felt his skills had developed to a professional level, so he took the plunge and launched Chris Tribe Furniture, with the intention of making high quality Shaker furniture. "I just felt stifled by the desk job. One of the problems with office work is that there's no way of knowing whether you've done something well. In woodworking, you know when a thing is right; you don't need someone else's opinion." Chris also started teaching evening classes, initially at Loxley College in Sheffield and then at Huddersfield Technical College, and also returned to college, part-time, himself – in 1998 he gained a distinction in City & Guilds Furniture Crafts at Leeds College of Art and in 2000 he completed a PGCE in Adult Education: "I felt these two qualifications filled some gaps in my craft and teaching experience," he says. "The two years at Leeds College of Art were particularly formative as they opened my eyes to the wider community of furniture makers. I was also lucky in that I went on to teach part-time at the college."

A course with a holiday

However, by now, adult education was being affected by ever-increasing class sizes and by an emphasis on vocational qualifications, both things that leisure woodworkers wish to avoid, so in 2007 Chris decided to start teaching from his own workshop near Huddersfield: "I wanted to teach in an environment where each student could get the attention they need, so I limited the number of students to six for evening classes and four for day courses," he says, "and I still keep to these numbers today." This means each person is supported but the group is big enough for a sense of esprit de corps to develop. His first course was tool sharpening and maintenance – one he still offers.

In 2012 Chris moved his workshop to Ilkley, on the edge of the Yorkshire Dales: "Ilkley is an excellent location for my courses. The transport links are good, there are some excellent places to stay and/or to eat out, and the countryside is beautiful: many students combine a course with a holiday – walking in the Dales or fishing the picturesque River Wharfe, perhaps."

New workshop

Chris' new workshop has been set up specifically for teaching woodwork to small groups: "The workshop is equipped with top-of-the-range machines including Felder, Hammer and Startrite," he tells us. "There are six big robust benches with chunky front and tail vices, and each is equipped with a full set of tools." Chris has >

BELOW: Demonstrating cutting a tenon

ABOVE: Explaining the finer points of ripping a tenon

MIDDLE: Discussing mortising with a student

RIGHT: Checking the difference between cross-cut and rip saws with a magnifying glass

made a point of not making the tool sets identical, as he explains: "One of the aims of the courses is to give students the opportunity to try out different types and brands of hand tool so they can make reasoned decisions when buying their own tools. For example, they can try an upmarket Clifton plane, a mid-range Quangsheng plane or excellent reconditioned old Record planes." When students have decided which tools they like, they can take advantage of a 10% student discount at the online tool store, Workshop Heaven.

Chris' students are a diverse bunch, ranging in age from 14 to 90: "The 90-year-old travelled all the way from Kent!" About 80% of the students are men, although Chris thinks that women are "more open to learning. Men feel they ought to be able to do woodwork and can become disheartened when things don't go right. Women don't have that expectation so are more persistent," he comments. Students seem happy to travel for the courses, and recently came from as far as Northern Ireland, the Czech Republic and Bahrain.

Many of Chris' students have taken up woodworking in their retirement but there are also a significant number of frustrated office workers feeling the same emotions that Chris experienced, as he says: "Woodworking is good therapy for desk pilots. The sheer physicality of planing and chiselling is a complete contrast to sitting at a desk looking at a computer, and woodworking requires a different sort of concentration to desk work, so it's also mentally demanding. It takes you out of yourself in a mindful way."

Chris' courses

Chris tries to offer courses to suit every skill level. For the complete novice there's a half-day taster, which is an opportunity to try out woodworking in a relaxed atmosphere by making a simple set of trivets. If that sparks your interest, then you could progress to a beginners' course, which introduces some basic hand and power tool techniques and also the rigour of accuracy, method and sharp tools. The beginners' courses are some of the most popular.

"I thoroughly enjoyed it – I liked the small class size and pace of learning. It has given me lots of confidence to go ahead and try my own projects – from a starting point of nil," said one student, while another commented that: "I couldn't believe what we achieved in a weekend: for me to have come on the course with no skills at all and to have left with that beautiful table still astounds me."

For students with some previous experience, Chris offers courses in dovetailing, router skills, veneering and laminating and, having used the benches in his workshop, many sign up for the bench-making course. Chris said of this course: "It's quite hard work as you're working with big pieces, but you learn a lot – using jigs for accuracy, cutting BIG dovetails and through wedged mortise & tenons – and you have a beautiful, sturdy bench to take home at the end of it." This course is also highly regarded by past students, with one commenting: "The bench is brilliant; I haven't stopped smiling every time I look at it."

The most advanced course Chris offers is chairmaking, which is organised as a series of five practical seminars. He explains: "Chairmaking is often considered the zenith of the furniture maker's craft, so this course was always going to be challenging. I decided to run it over a period of a couple of months with students attending the workshop at intervals to exchange skills

BELOW: Checking a hand-planed surface for flatness

RIGHT: Explaining details of planing to a gauge line

and experiences, and to get input for the next stage of the project. This meant that each person could work at their own pace at home. Students have said that the mix between tutored sessions and homework is very good, and that they learnt a lot, which was their objective.

Developing new courses

Chris uses, and teaches, both hand tools and power tools, so we asked him for his views regarding the hand vs power debate: "I like to think of myself as a pragmatic woodworker," he says. "I like using hand tools, especially the plane, and I love true hand-cut dovetails, but I've got to an age where I think life's too short to excavate a set of housings by hand when you can do it in a fraction of the time with a router, so I am happy to use power when appropriate."

Development of a new course can take a while, starting with the identification of demand, establishing the skills to be taught, developing a prototype of the course project and writing the handout, as Chris explains: "I have mixed feelings about basing courses around projects. The problem is that completion of the project can become the aim when this should really be the development of skills and techniques. However, there is an expectation that you will go home with a completed piece, so most courses come with a project." Some of the projects are fine pieces in their own right: the inlaid circular table for router skills course, for example, and also the chair. The illustrated course handouts are quite detailed and comprehensive, with the router skills one being 29 pages long! "Such detailed handouts would be costly to produce for a whole group, so I usually give them out on CD and now they can be downloaded from the cloud before the course starts."

Not just another woodworking book

Chris' courses have rather taken over his business, so I asked him whether he misses making furniture: "I suppose I do miss that creative buzz, but that has been replaced by the buzz from seeing a student go from timidity to confidence when handling tools and materials, and also seeing them experience the same creative buzz that I did."

Clearly not one to let the grass grow under his feet, Chris has just written a woodworking book and is also considering venturing into online teaching.

On the subject of the book, Chris comments that it's "not just another woodworking book. Most woodworking books for beginners give a rather rosy picture of the craft, with beautiful illustrations of perfect joints, and beautifully finished surfaces. They give instructions on how to achieve this perfection but not on what to do when things don't turn out right. It can be disheartening when your joint doesn't look like the one in the photo, and it's even more dismaying when you can't work out what the problem is." Chris says that he's tried to write the book as if he is standing next to the reader in their workshop, helping them with these dilemmas; giving advice on how to diagnose and correct errors. "It's a book to be kept on the workbench, not the coffee table." The book is also unusual because Chris has set up a resources page on his website to provide supporting material, such as SketchUp drawings of the projects – see **www.christribefurniturecourses.com/complete-woodworking**.

Future plans

With the book already in the shops, Chris isn't resting on his laurels. He's now considering online teaching, as he >

LEFT: Mastering the marking gauge

MIDDLE: Paring a lap joint – this joint is used as an exercise in chisel paring

ABOVE: Student happy with their completed bench *Photograph by Chris Tribe*

LEFT: Dry-fit of the big dovetails on the bench tail vice

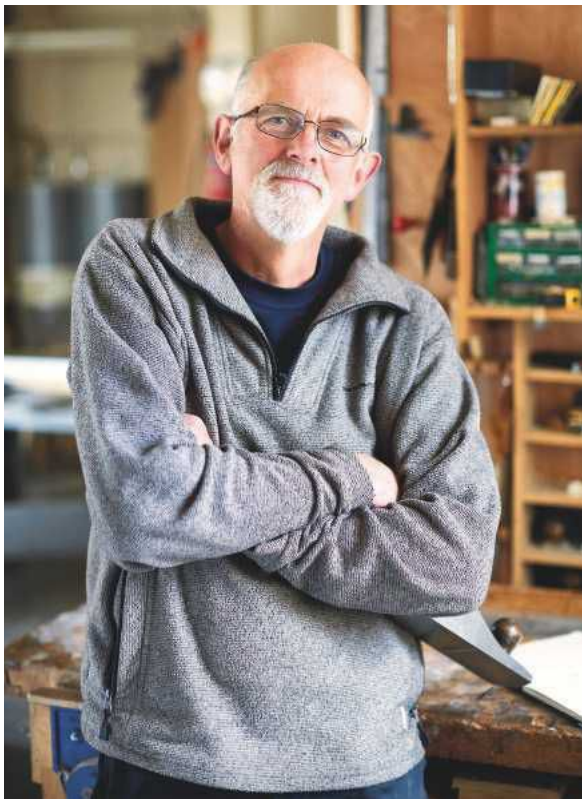
MIDDLE: Jewellery box made by Chris around eight years ago

BELOW: Chair made on the chairmaking course

tells us: "I have posted instructional videos on YouTube for years and have over 10,000 subscribers to my channel, but I do all of the filming and production myself so there's room for improvement. I'd like to bring in professionals for the filming and production and, in order to fund this, to also offer paid-for project video downloads on a range of furniture pieces. This is still at the planning stage, so watch this space."

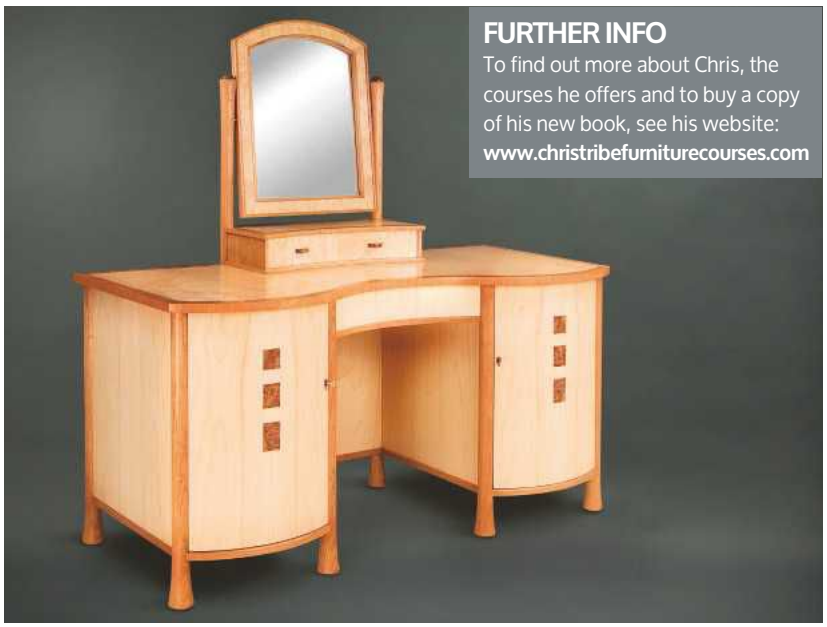
Despite having been a designer-maker and teacher for over 25 years, Chris is still passionate about both, and still loves working with wood: "Woodworking must be enjoyable, otherwise there's no point in doing it," he rightly says. He tries to communicate this enthusiasm to his students, and has a favourite quote from Yeats that sums up his approach: 'Education is not filling a bucket but lighting a fire.' "But," he says, "enthusiasm must be tempered by a rigorous approach to accuracy and method, and you've got to keep your tools sharp! That's what it's all about: enjoyment, accuracy, method and sharp tools." **GW**

Chris' last major piece – a three-drawer desk and chair in Yorkshire walnut and burr oak, with the seat upholstered in red calf skin



Students working on the bandsaw

Planing flat stock



FURTHER INFO

To find out more about Chris, the courses he offers and to buy a copy of his new book, see his website: **www.christribefurniturecourses.com**

Dressing table in maple and cherry with burr elm details. Behind the lockable curved doors are further drawers. Made about 10 years ago

SILVERLINE®

OVER 5000 TOOLS

Workbench Clamps 2pce
TB02

£7.94 Inc VAT

Expert Mitre Box
155319

£5.60 Inc VAT

Wood Chisels Set 5pce
CB19

£14.88 Inc VAT

Tri-Cut Tenon Saw
456935

£6.30 Inc VAT

Silverstorm 18V Drill Drive
241469

£61.30 Inc VAT

DIY 350W Jigsaw
270462

£15.96 Inc VAT

Carpenters pencils & Sharpener Set
250227

£4.93 Inc VAT

Expert Quality Level
244948

£9.91 Inc VAT

silverlinetools.com **NEW CATALOGUE OUT NOW!**

Prices correct at time of print. Images not to scale. Colours may vary.

Good woodworking SUBSCRIPTION ORDER FORM

DIRECT DEBIT SUBSCRIPTIONS UK ONLY

Yes, I would like to subscribe to *Good Woodworking*

☐ Print + Digital: £11.99 every 3 months
☐ Print: £9.99 every 3 months

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 *Good Woodworking*, for 1 year (13 issues) with a one-off payment

UK ONLY:
☐ Print + Digital: £51.00
☐ Print: £43.00

EUROPE & ROW:
☐ EU Print + Digital: £70.00
☐ EU Print: £62.00
☐ ROW Print + Digital: £70.00
☐ ROW Print: £62.00

PAYMENT DETAILS

☐ Postal Order/Cheque ☐ Visa/MasterCard ☐ Maestro
Please make cheques payable to MyTimeMedia Ltd and write code V1039 on the back

Cardholder's name.....

Card no: (Maestro)
☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ ☐☐☐

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

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

TERMS & CONDITIONS: Offer ends 3rd February 2017. MyTimeMedia Ltd & Good Woodworking may contact you with information about our other products and services. If you DO NOT wish to be contacted by MyTimeMedia Ltd & Good Woodworking 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: GOOD WOODWORKING SUBSCRIPTIONS, MY TIME MEDIA LTD, 3 QUEENSBRIDGE, THE LAKES, NORTHAMPTON, NN4 7BF

Please visit **www.mytimemedia.co.uk/terms** for full terms & conditions

CODE V1039

HURRY OFFER CLOSES 3RD FEBRUARY 2017

PRINT + DIGITAL SUBSCRIPTION

- 13 Issues ***delivered to your door***
- ***Great savings*** on the shop price
- ***Download*** each new issue to your device
- A ***73% discount*** on your Digital subscription
- Access your subscription on ***multiple devices***
- Access to the ***Online Archive*** dating back to March 2007

PRINT SUBSCRIPTION

- 13 Issues ***delivered to your door***
- ***Great savings*** on the shop price
- Never miss an issue

SUBSCRIBE TODAY

GET YOUR FAVOURITE MAGAZINE FOR LESS

DIGITAL SUBSCRIPTIONS AVAILABLE ONLINE!

Delivered to your door when you SUBSCRIBE TODAY!

SAVE 73%* ON DIGITAL ISSUES

GOOD WOODWORKING is the No.1 magazine for aspiring designer-makers. We give you projects to make, techniques to try and expert advice along the way. We tell you what tools to buy in our unrivalled 'Kit and Tools' section and provide step-by-step instructions for you too. This informative and inspirational magazine covers all aspects of the woodworking world and offers outstanding projects for all abilities, the latest techniques, the most authoritative independent tests & reviews based on years of experience.

TERMS & CONDITIONS: Offer ends 3rd February 2017.
*This digital discount is only available when you subscribe to the 'Print + Digital' package. You can still get a great discount on the digital package, please visit the URL stated below for more information. Please see **www.mytimemedia.co.uk/terms** for full terms & conditions.

SUBSCRIBE SECURELY ONLINE
www.secureorder.co.uk/GWW/V1039

CALL OUR ORDER LINE Quote ref: V1039
0344 243 9023
Lines open Mon - Fri - 8am – 8.00pm GMT & Sat - 9.30am – 3.30pm GMT

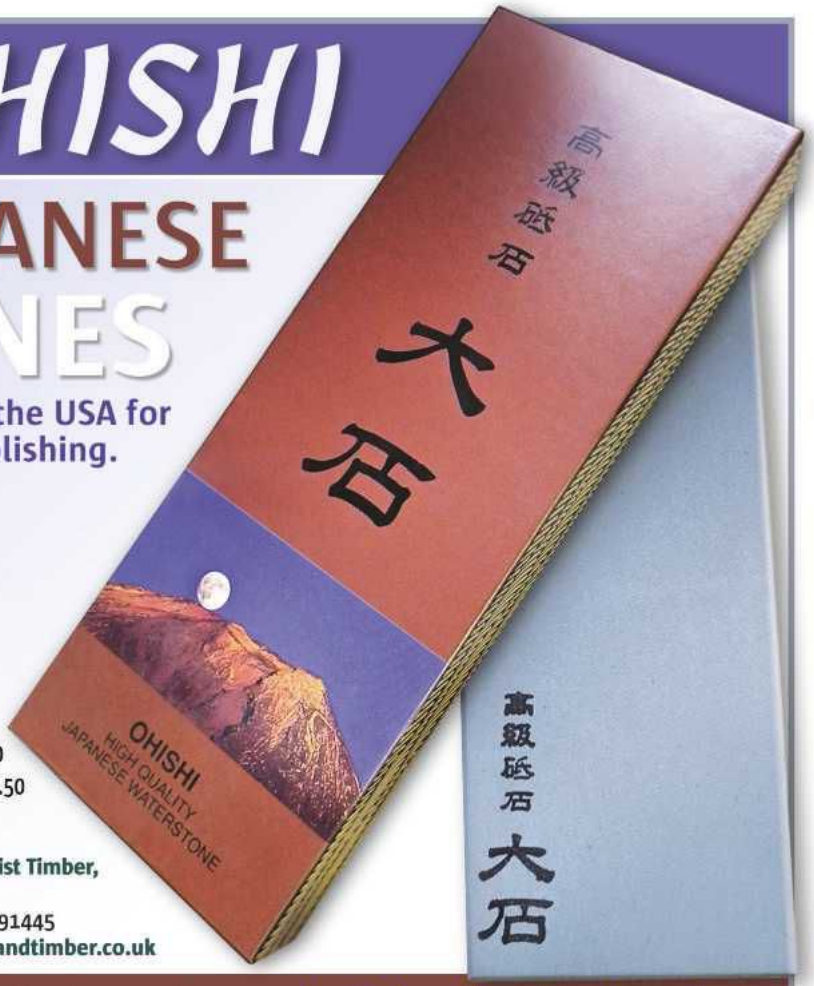
Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minutes allowances. There are no additional charges with this number. Overseas calls will cost more.

TOISHI OHISHI

SUPERIOR JAPANESE WATERSTONES

Favoured by Lie-Nielsen Toolworks in the USA for edge preparation, honing and final polishing.

Available from Classic Hand Tools Ltd and G&S Specialist Timber.



Single Grit Stones:

- 220 - £34.22 • 600 - £34.69 • 1000 - £43.09 • 3000 - £46.69
- 6000 - £59.89 • 8000 - £73.20 • 10000 - £93.60

Combination Stones:

- 1000/3000 - £39.49 • 1000/6000 - £57.49 • 1000/8000 - £64.50
- 3000/8000 - £64.69 • 3000/10000 - £81.00 • 6000/10000 - £82.50
- Nagura Stone - £13.09

Classic Hand Tools©

G&S Specialist Timber,
Penrith,
Tel: 01768 891445
www.toolsandtimber.co.uk

Tel: **01473 784983** • **www.classichandtools.co.uk** • **sales@classichandtools.co.uk**

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.

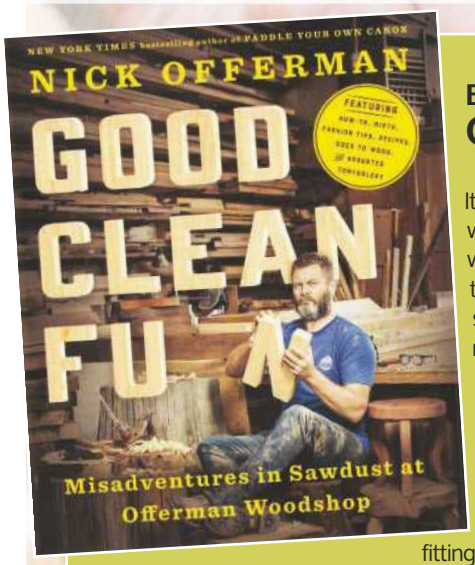
Flexible enough to move with the timber and able to withstand abrasion and impact, Le Tonkinois varnish is resistant to boiling water, UV, petrol, diesel and sea water. It won't crack, chip or peel off, making it perfect for all outside purposes as well as indoor.

www.letonkinoisvarnish.co.uk
Tel: **01628 548840**

AROUND THE HOUSE with Phil Davy

On a recent trip to Burford, a fine old Cotswold town, I came across a fascinating shop selling brushes of all shapes and sizes and virtually nothing else. It was the sort of establishment you'd imagine was commonplace in Victorian times, although this quaint store was pretty up to date. Brushes for sweeping the table, cleaning coffee machines, countless shoe, grooming and scrubbing brushes, even specific ones for cleaning mushrooms and mussels! Fans of wet shaving would be in seventh heaven with the array on display.

It reminded me of school days and having to sweep the workbench clean after each woodwork lesson. I was tempted to buy an appropriate brush for this task prompted by nostalgia, but most were a bit pricey. Next time I visit I'll save up beforehand.



BOOK REVIEW: Good Clean Fun

It's hard to know where to begin with a book like this; it contains such an eclectic mix. Not just stuff remotely related to woodwork, but the quirkier the better. Where more fitting than the introduction, though? Many of us probably skip these pages, but this lengthy intro is worth reading. Although he rambles, Offerman covers a lot of ground, from learning how to use tools with his dad to setting up the Offerman Woodshop, a woodworkers' collective in Los Angeles. Starting out as a scenic carpenter and house framer, his transition to furniture maker is amusingly measured by the tolerances acceptable (or not) when cutting timber to length. A 1/4in discrepancy on stud work was just about acceptable as a timber framer, while a 1/64in deviation as a joiner would be totally unacceptable. Offerman is quick to point out that he's no master woodworker but rather an entertainer...

Chapters

Anyway, what can you expect to find in this compendium? Projects, techniques, artwork, interviews, sketches, photos of gorgeous furniture, plus loads of entertaining text. Projects come mostly from Woodshed colleagues and include a simple kazoo, whisky coasters and scrap wood birdhouse to a beaver tail canoe paddle, elegant walnut slab table and a wonderful oak bed. Each contributor is introduced before getting into the relevant build process, accompanied by great drawings and handy tips.

The various chapters (a loose description) are interspersed with an examination of the lives and workshops of a handful of Offerman's woodworking heroes, including Shaker furniture maestro Christian Becksvoort (featured in *GW* many years ago). Referred to as a 'sliversmith' here, his words of wisdom will strike a chord with any woodworker.

A hugely entertaining book

Did I mention humour? There's an amusing explanation of how to fold a bandsaw blade, a handwritten quiz on wood, features on shop fashion (!) and beard length. And comic lovers are not left out, either. 'The Best Way to Fell a Tree' comic strip is typical fare. There's even a Cookout section at the back, with a few favourite recipes from the Woodshed crew.

So, a hugely entertaining book that's easy to dip in and out of, offering an unhealthy mix of musings alongside much mirth. This would have made a great Christmas present, though you could always add it to your birthday list. It won't appeal to every *GW* reader, but if you appreciate off the wall humour with some practical stuff thrown in, you're unlikely to find anything similar. And if you'd like to see more of Nick Offerman, then the Editor recommends you watch *Parks and Recreation*, a fantastic American political sitcom where he plays the ever-popular Ron Swanson – a character who is renowned for delivering hilarious one-liners.

THE GW VERDICT

- **RATING:** 4.5 **out of 5**
- Nick Offerman, published by **Dutton**
- **PRICE: £25**
- **WEB: www.thegmcgroup.com**

WINTER PROJECT – TABLE LAMP

TAKES: One weekend
TOOLS NEEDED: Circular or table saw, bench and block planes, biscuit jointer, router

Let there be light

Phil Davy shows you how to make an attractive symmetrically patterned table lamp using offcuts

Sometimes a project can evolve after rummaging around in the offcuts pile. In the case of this table lamp, I had a rather nice piece of oak-veneered MDF left over from building a vanity unit. Not really big enough for anything on a grand scale, the gorgeous quartersawn figure on one face was striking and it seemed a shame not to display this in some way. Consisting of several bookmatched leaves of narrow veneer, the pattern repeated itself across the panel. This got me thinking about how I could use the 19mm MDF for a small project if it was cut into four pieces...

Preferring subdued lighting for the living room, I'd never actually made a table lamp before. This is probably because I'd tended to view them as woodturning territory and had never thought of a base as anything but cylindrical. Noticing some simple but elegant square lampshades in a local store, however, the cogs started turning...

Of course, you can make a lamp base from virtually anything. If using solid timber you won't need to hide the board edges. Either use lap joints, barefaced housings or mitre them if you're feeling like a challenge. Build the box from MDF or plywood and you could veneer it with something highly figured or exotic, though it would be wise to add a balancing veneer to the inner surfaces before gluing the sides together. By choice I would make the panels somewhere between 12 and 16mm thick, as 19mm material makes the base pretty heavy. At least mine won't tip over.

Ensuring symmetry

In this case, cutting the MDF into four equal pieces meant finding the centre of each pattern to ensure symmetry. To hide the exposed edges I found a couple of lengths of brown oak; these provided slight contrast in colour and grain without being too garish. I used biscuits simply for locating these corner pieces when gluing up. Here they don't really add strength, so you could dispense with them if you don't have a jointer. The base measures 290mm high × 170mm wide overall. Each veneered panel is 100mm wide before adding the corner pieces.

The corners are 25mm square and glued flush with the back of each MDF panel. I used veneered MDF again for the top and bottom, though this meant lipping the edges. It's easier to drill holes for the flex before gluing the base together as you can use scrap wood to prevent the bit breaking out underneath.

The top and bottom can be fixed to the box itself with biscuits, screws or brackets. Don't rely solely on glue if using MDF, though, as the finished base is quite heavy and could separate when the lamp is moved.

This project would be a good opportunity to experiment with inlay if you've never tried the technique before. A relatively plain veneered panel can be made to look dramatic with careful use of the router table and the appropriate cutter. Experiment on offcuts first, and make sure that any mitred corners are sharp and clean.

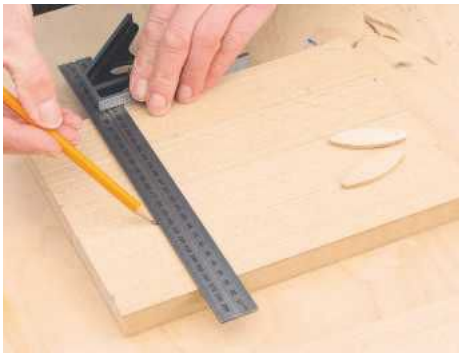
SAFETY WARNING
It's essential to use three-core flex if fitting a metal bulb holder, and the earth wire must be attached correctly. Always get a qualified electrician to check your work if a project involves wiring of any sort. Do this before plugging in the lamp for the first time because even a straightforward project like this could be dangerous if you get it wrong

STEP 1. With veneered boards, find the centre of each bookmatched pattern in order to maintain symmetry

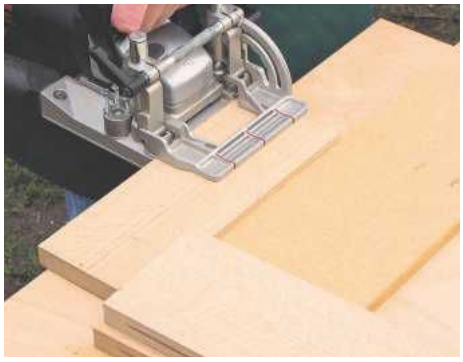
STEP 2. Saw the panels slightly oversize. Use masking tape along the line of cut to prevent the veneer splintering on the face

STEP 3. Trim the veneered panels square and to exact size on a shooting board

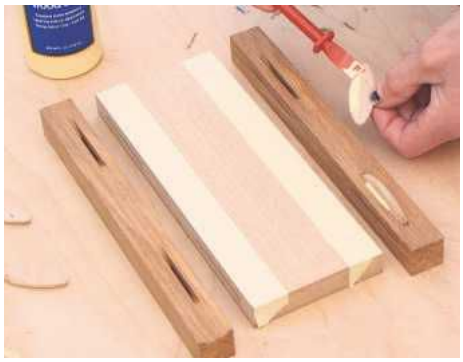
STEP 4. Plane contrasting timber square for the corners. Make these about 12mm longer than panel height



STEP 5. Mark out biscuit positions if using MDF or ply for the panels. Use No.10 biscuits to avoid these touching at the corners



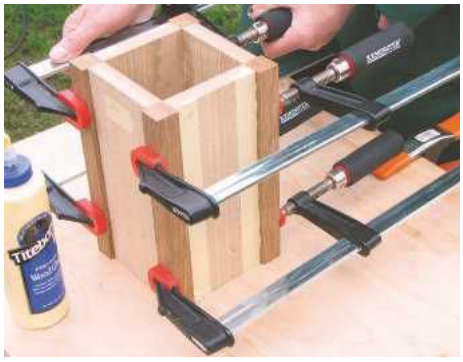
STEP 6. Cut slots for biscuits, making sure that the panels are flush with the corner pieces on the rear faces



STEP 7. Stick masking tape along the edges of the veneered panels to make glue clean-up easier during assembly

STEP 8. Glue the corner pieces and panels together and cramp for at least 30 minutes when using PVA

STEP 9. Saw off the excess at the top and bottom of the corners. Trim the end-grain flush with a plane and shooting board



STEP 10. Assemble the remaining panels to make up the base. Ensure to check for square as you tighten the cramps

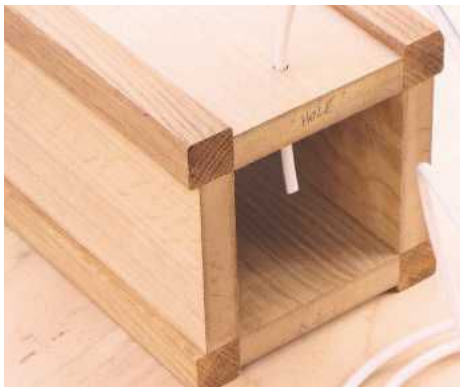
STEP 11. Create a small chamfer along the edges of the corners with a router and 'V' cutter or block plane

STEP 12. Cut the top and bottom panels to size. Prepare 10mm-thick lipping and mitre the ends of each strip

WINTER PROJECT – TABLE LAMP (continued)

STEP 13. Trim the lipping to length with a block plane and glue to the top and bottom. Place flush when dry

STEP 14. Mark the centre of the top panel and drill for the flex. Screw the threaded bulb holder base over the hole



STEP 15. Drill a 6mm hole at the lower end of one side to enable three-core flex to be pushed through easily

STEP 16. After sanding the box with fine abrasive, brush on two coats of finishing oil before attaching the top and base

STEP 17. Strip the ends of the flex and screw to the bulb holder, making sure that the earth wire is attached

STEP 18. The finished lamp base is quite hefty, so the bigger the lampshade the better

USEFUL KIT/PRODUCT

PINIE SCRUB PLANE

Old wooden planes can often be found at any car boot sale or antique shop, but considering the poor condition of many it's hardly surprising most of us avoid using them in the workshop. With no blade adjusters they can be awkward to use, assuming they're not split or riddled with woodworm, of course. But trying a brand-new wooden plane will probably make you think again.

Both body and wedge are from beech, while the sole is hornbeam, kiln-dried to 10% moisture content

Planing up some sawn softwood and ash I found the tool delightful to use, making a pleasing hiss as it sliced across the surface

Pinie hand tools are made in the Czech Republic, their woodworking products crafted from European hardwoods. Having been in production since 1918 these tools are undoubtedly traditional, but I'd guess will still have a place in many workshops. Wooden planes (such as Emmerich and Ulmia) tend to be more popular in continental Europe than here in Britain, where most of us woodworkers acquire our hand tool skills on metal bench planes. Although the German brands are perhaps more familiar, Pinie tools are a fair bit cheaper and worth a closer look.

Rough timber

With several sizes and types of plane in the range, I decided to give their scrub plane a spin. A hand tool not often seen these days, its rounded blade is designed to get rough boards down to size quickly, before finishing with a smoother or jack plane. Overall length of this compact tool is 200mm, while width is 55mm. Weighing 610gm, this is almost one-third the weight of a No.4 metal plane. Both body and wedge are from beech, while the sole is hornbeam, kiln-dried to 10% moisture content. Mating surfaces are carefully machined to create a fine, toothed joint along their length before laminating the body and sole together. The rear handle is shaped so your hand wraps around it comfortably, while the front horn appears to have been hand-carved to give a textured, faceted finish that feels great and improves grip. Unlike a metal bench plane, the blade is held in place with a beech wedge, which acts as a chipbreaker.

Blade width is 36mm and is a substantial 3mm thick. Its steeply curved cutting edge is ground at 25° and this can be used either way up in the tool. Bevel down, the pitch is 45°, while reversed this

Before using the plane I removed lacquer from the blade, then honed it ready for action

The throat in the body...

Mating surfaces are carefully machined to create a fine, toothed joint along their length before laminating the body and sole together

The front handle is nicely textured to improve grip

The blade is held in place with a beech wedge, which acts as a chipbreaker

increases steeply to 75°, though I doubt many woodworkers would actually use the tool bevel up. Before using the plane I removed lacquer from the blade, then honed it ready for action.

The throat in the body and sole is cut very neatly and the tool is generally nicely machined. Finished mostly with a satin lacquer, the sole is left bare, which allows for truing up on abrasive paper, if necessary. Checking with a steel rule, the sole was dead flat, though this could move very slightly depending on workshop humidity.

... and sole is cut very neatly and the tool is generally nicely machined

Adjusting depth

Cutting depth is simple enough to set by gently tapping the end of the blade with a small hammer, making sure the wedge is fairly tight first. To reduce the cut you tap the plane at the heel to loosen the wedge (preferably with a mallet), then retighten when you're happy with the new blade setting. Although this may sound a faff compared to adjusting a standard metal bench plane, it takes little time and you probably won't need to reset once you've found a decent cut.

Cutting depth is simple enough to set by gently tapping the end of the blade with a small hammer

Planing up some sawn softwood and ash I found the tool delightful to use, making a pleasing hiss as it sliced across the surface.

Depth of cut is straightforward enough to control and the curved blade produces a narrow, coarse shaving, giving a gently ridged surface to the timber. This is then relatively easy to finish off with a conventional bench plane.

Conclusion

This is a lovely tool and would be ideal if you tend to use reclaimed timber, where an old finish (such as varnish) could spoil an expensive metal bench plane. If you don't have access to a planer/thicknesser, or simply enjoy using hand tools, then this scrub plane is worth adding to your toolkit. It's fantastic value, too.

THE GW VERDICT

- **RATING:** 4.5 **out of 5**
- **PRICE: £25**
- **WEB: www.johnsontools.co.uk**

USEFUL KIT/PRODUCT

Stubai mitre square

Austrian company Stubai may be more famous for their mountaineering equipment, though they've been producing construction tools for many decades. Their range includes carving tools, chisels and forestry products as well as layout and marking tools. Depending on the sort of woodwork you do a mitre square may not be an everyday item, but keeping one in the toolbox is no bad thing. You can mark out a 45° angle using the plastic handle on almost any hardpoint saw, though this isn't the most reliable method when accuracy is important.

Most traditional mitre squares have a hardwood stock, though the Stubai uses anodised aluminium here. Measuring 40 × 12mm, this is neatly machined with both faces slightly concave. Pinned to the stainless steel blade, this results in a sturdy tool, weighing 250gm. Unlike some mitre squares the blade is offset, enabling you to mark a line across material up to 95mm wide. Blade length is 300mm overall and a hole in one end means you can hang the tool for storage.

Conclusion

I found the blade ends benefited from a light pass with a fine file to prevent scratching, though this seems to be fairly common with layout tools. Apart from that it's a well-finished tool, with spot-on accuracy.

THE GW VERDICT

- **RATING:** 4.5 **out of 5**
- **PRICE: £14.78**
- **WEB: www.johnsontools.co.uk**

Pinned to the stainless steel blade, this results in a sturdy tool, weighing 250gm

Unlike some mitre squares the blade is offset, enabling you to mark a line across material up to 95mm wide

TRY ANY TITLE FOR £1

• Range of great hobby titles to choose from • No obligation to continue
• Great future savings • Delivered conveniently to your door

Have you made a New Year's Resolution yet? This year, why not make it to spend time on a hobby you'll really enjoy? To help you out with this you can try any of our magazines below for just £1 with no obligation to continue! You could even treat someone else...

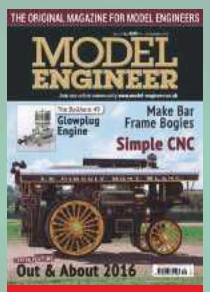
NEW YEAR SPECIAL

3 ISSUES FOR £1
Then £9.99
every 3 months

3 ISSUES FOR £1
Then £9.99
every 3 months

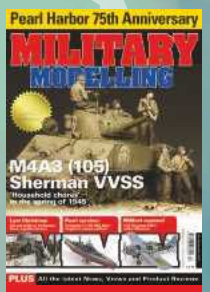
3 ISSUES FOR £1
Then £10.99
every 3 months

3 ISSUES FOR £1
Then £9.99
every 3 months



6 ISSUES FOR £1
Then £14.99
every 3 months

3 ISSUES FOR £1
Then £11.25
every 3 months



3 ISSUES FOR £1
Then £11.25
every 3 months

3 ISSUES FOR £1
Then £9.99
every 3 months

3 ISSUES FOR £1
Then £10.99
every 3 months

3 ISSUES FOR £1
Then £9.99
every 3 months

3 ISSUES FOR £1
Then £9.99
every 3 months

3 ISSUES FOR £1
Then £10.25
every 3 months

3 ISSUES FOR £1
Then £10.70
every 3 months

3 ISSUES FOR £1
Then £11.75
every 3 months

OTHER SUBSCRIPTION PACKAGES AVAILABLE ONLINE!

SUBSCRIBE SECURELY ONLINE: www.mymagazineoffers.co.uk/NY38
CALL: 0844 243 9023 AND QUOTE NY38
BY POST: PLEASE COMPLETE THE FORM AND POST IT TO THE ADDRESS PROVIDED. QUOTE REF: NY38

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)

Magazine..... Price .....

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)

Magazine..... Price.....

PAYMENT DETAILS

Please make cheques payable to MyTimeMedia Ltd and write code NY34 *and magazine title on the back.*

☐ Postal Order/Cheque ☐ Visa/Mastercard ☐ Maestro

Card no: (Maestro)

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 28th February 2017. Subscriptions will begin with the next available issue when order is placed. You can cancel your subscription before the third issue and pay no more money than the £1 already debited. Otherwise your subscription will automatically continue at the low rate selected above. 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

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

D&M TOOLS

'THE' TOOL SHOW '17

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:

ARROW · BAHCO · BESSEY · BOSCH · BOSTITCH · BriMarc · Connell of York · DEWALT · DMT · DRAPER Tools · DREMEL BIG ON DETAIL · Empire · Estwing · FAITHFULL QUALITY TOOLS · Fein · FESTOOL · FISKARS · FOOTPRINT TOOLS · freud · Kreg · Hultafors · IRWIN TOOLS · Laserliner Innovation in Tools · Leica Geosystems · mafell · Makita · MARSHALLTOWN · metabo · Milwaukee · Nilfisk · Panasonic · PROTIMETER · RECORD POWER ESTABLISHED 1909 · ROUGHNECK · SCAN · scheppach · SCRIBE-MASTER · SJÖBERGS OF SWEDEN · Snickers WORKWEAR · STABILA LEVELS · STANLEY · STARTRITE · TOOLBANK · TORMEK sharpening innovation MADE IN SWEDEN · trend routing technology · triton · veritas · Wera Tools. From Ideas. · + MORE!

THIS YEAR'S BIGGEST & BEST ANNUAL TOOL SHOW

6th-8th OCTOBER 2017

FRI-SAT 10am – 5pm • SUN 10am – 4pm

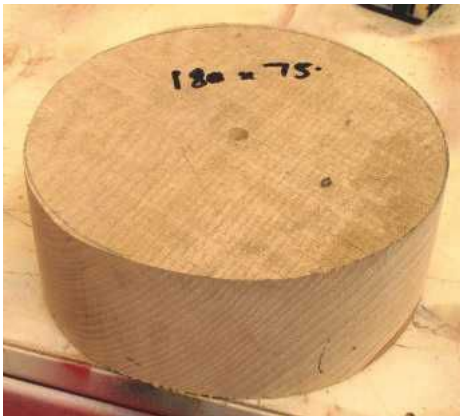
KEMPTON PARK RACECOURSE • SUNBURY-ON-THAMES • TW16 5AQ

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

Cenote bowl

Inspired by the vivid colours of the cenote lakes in Mexico, **Les Thorne** creates a textured and airbrushed bowl that incorporates greens and blues to simulate the effect of deep water

I am always on the lookout for a little inspiration for articles and it's great if I can tie a couple of ideas into a piece of work. While in Mexico last summer, I was blown away by the colours of some of the lakes that we fished and swam in. These bodies of water are called cenote lakes. Wikipedia tells us that a cenote is a natural pit, or sinkhole, resulting from the collapse of limestone bedrock that exposes groundwater underneath. These were often linked to the ocean, giving us a huge range of fish to go for. The blues that were created by the water in contrast to the natural limestone were just unbelievable and I thought that this would make a brilliant project, but at the time I wasn't sure how to work it in. After giving it some thought, a bowl with an overhanging pavement seemed the logical answer, with an airbrushed interior of green and blue to simulate the water. The brick effect I've used was inspired by a combination of a couple of turners: John Ambrose who I saw a long time ago make a bowl from walnut segments, and an Irish turner and good friend of mine, Pat Carroll, who makes textured brick bowls. **GW**



STEP 1. I thought long and hard about the best wood for this project and came up with the idea of using American ash. Rippled or figured sycamore would have given the inside more character but I wouldn't have been able to achieve the textured effect I wanted on the outside

STEP 2. Hole the blank on a screw chuck or faceplate and true up the timber using a bowl gouge. I like to use a push cut for this as I find it leaves a better finish than a pull cut

STEP 3. Just to show you shouldn't be a 'one trick pony', the pull cut is best done across the bottom of the blank. Try to match the feed speed of the tool to the speed of the wood in order to achieve the best cut possible

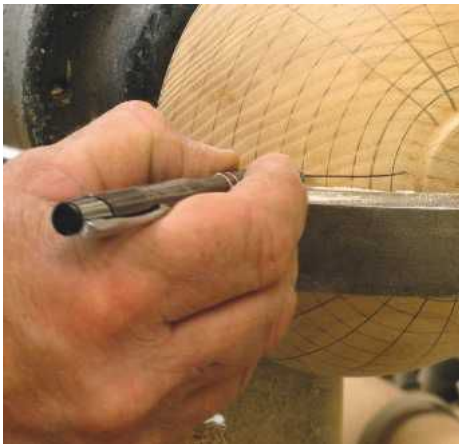
STEP 4. Transfer the diameter of your chuck jaws to the bottom. As with most of my bowls, I like to grip onto a spigot rather than expand into a recess

STEP 5. Here I am using the 10mm round skew chisel to square up the spigot after I have removed the excess wood with the gouge. It's easy enough to angle the tool slightly to create a small dovetail shape to match the chuck jaws

STEP 6. The 13mm bowl gouge is my desired tool to use when turning bowls of this size. An aggressive pull cut will allow me to achieve the shape I want quickly. The round toolrest aids support of the tool throughout the cut

STEP 7. After going around the shape with the small gouge to increase the quality of the finish, it's time for sanding. I am only sanding with 100 grit abrasive at this stage

STEP 8. I did have a little practice on another piece before trying the brick effect on this project. I wanted to find out what effects I could achieve with brushing out the grain

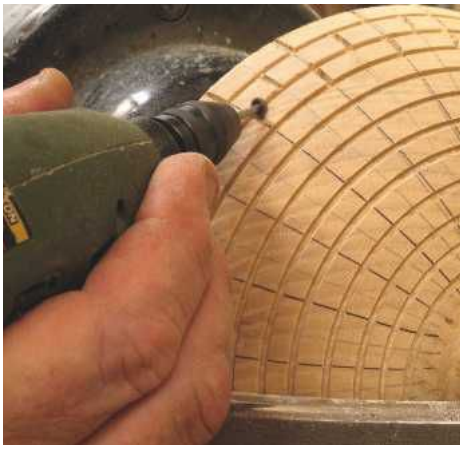


STEP 9. I have marked the bowl out as I would have done for a barley twist. I decided that I would have the bricks evenly spaced rather than just placed randomly

>

STEP 10. The 2mm parting tool is just the right size to cut the circular slots in the bowl. I went about 2mm deep all the way around and, as you can see, they get a little closer towards the base

STEP 11. This is a tiny 2mm-wide slotting saw that I bought from an engineering show many years ago. It's used at about 20,000rpm in a Proxxon mini drill



STEP 12. Here I am making alternate slots using the side of the cutter. I found it much easier if I rested my hand on the bowl while cutting

STEP 13. Initially I tried a steel brush mounted in the drill but found it a little harsh on the small bricks, so I changed to a brass one. I locked the spindle on the lathe so I could apply enough pressure to brush the grain out

STEP 14. I think I have done a pretty good job on this. I did consider going over the surface lightly with the blow torch, which would have softened the edges of the bricks

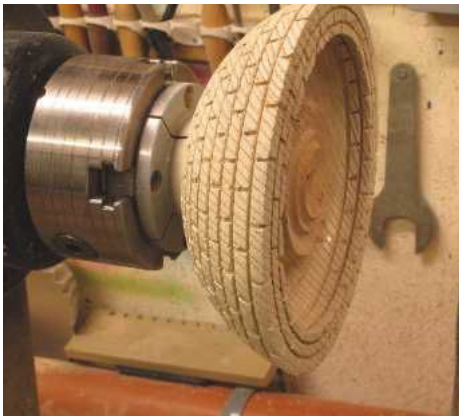
STEP 15. I wanted to take the texture over the rim and into the bowl, so therefore I needed to remove some of the bowl's interior. Leave the bulk of the wood in the middle; this will be removed later

STEP 16. The small parting tool cuts the grooves on the inside. The edge of the bowl is quite sharp at this stage so be careful not to cut yourself

STEP 17. Here you can see the position of the toolrest. I have now sanded the edge and am only taking two rows of bricks into the bowl; if it were larger I may have gone for three

STEP 18. To make the vertical grooves I found it much easier to take the bowl off the lathe and sit down. I find the eclipse dust mask more comfortable than the full-blooded respirator for this type of light work

STEP 19. I spent a while searching online trying to find the best way of imitating limestone. This is one of the only straight-out-of-the-can effects that I could find



STEP 20. I found that three coats were needed to achieve the coverage I wanted. Between each coat I gave the bricks a light rub down with 400 grit abrasive, being careful not to smooth off the texture I'd created

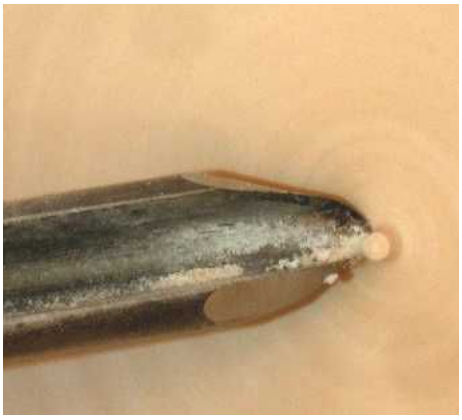
STEP 21. A useful addition to your toolrest is a locking collar, which means that ideal toolrest height for hollowing can be easily replicated. Also, when you want to do a small adjustment on the rest, you don't have to worry about losing your desired position

STEP 22. The 10mm bowl gouge that I use most of the time has a long fingernail grind on it. In this case, I have backed off the heel of the tool to decrease the amount of bevel that I have in contact, which should afford me a better finish

STEP 23. Now I have come up against a problem: the paint contains something that is immediately taking the edge off the tool, but I couldn't find anything on the can that told me what it was...

STEP 24. I had to swap to the small bowl gouge to get underneath the top edge. This is also much quicker to sharpen, which is a bonus when you're having to do it after every cut

STEP 25. The 'finger' callipers are good enough to use on this bowl due to its size. I didn't think that I needed to go too thin on this type of project, but it ended up around 13mm-thick



STEP 26. This photo shows what you want to end up with when tooling the inside of the bowl. The gouge almost comes to a stop at the slow moving wood in the centre, meaning that the final pip can simply be carved off

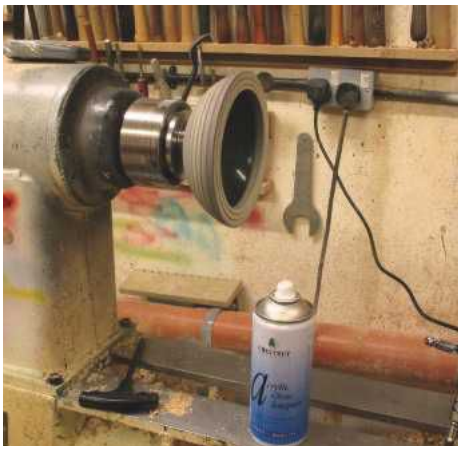
STEP 27. I found that sanding underneath the brick overhang was best done using 120 grit abrasive on a Simon Hope interface pad. Be careful not to sand over your limestone paint

>

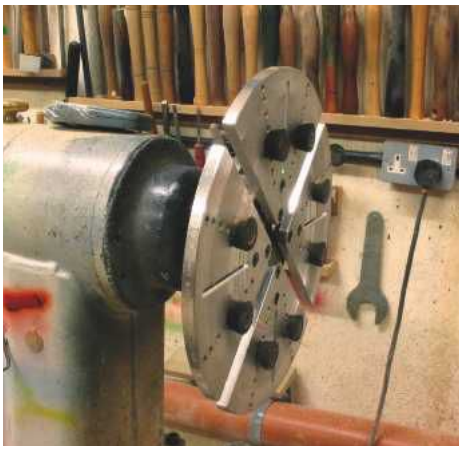
STEP 28. The airbrushes I use are inexpensive dual action ones. I am a bit lax about looking after them but they seem to survive. I do have a higher quality one that I use for stencilling and other effects

STEP 29. The airbrush is just used to apply the spirit stain, but be careful about building up too much colour on the surface at this stage. I decided to use green, royal blue and blue to give the impression of deep water

STEP 30. When I airbrushed the inside I thought that the limestone was too white so I decided to shade the bricks using some black stain. I found that this rubbed off quite easily before I lacquered the surface

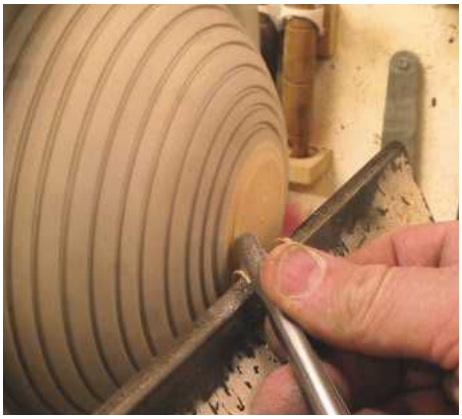


STEP 31. I used gloss lacquer on the bowl because I wanted the blue to really shimmer. Three coats is about right with a very light rub down between each, but do be careful on the inside of the bowl as the coat of stain is very thin

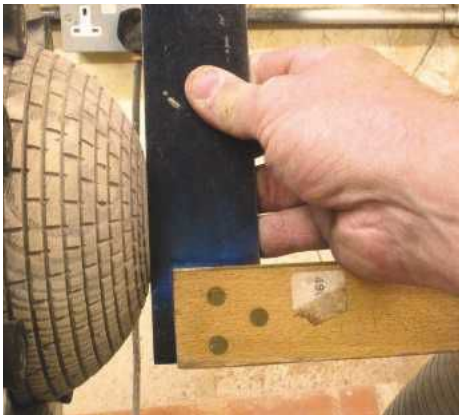


STEP 32. I didn't want to risk damaging the coloured surface using a friction drive in the centre of the bowl to remove the chucking point, so I decided to use the bowl reversing jaws

STEP 33. The rubber buttons match up to the shape of the bowl. You need to apply just enough pressure so that the buttons start to compress



STEP 34. Mind the edge of the jaws and don't run the lathe too fast. I like to use a small bowl gouge at this stage: a small tool means a small catch if something goes wrong



STEP 35. Just check the bottom to make sure that it's either dead flat or slightly concave. Sand up the bottom and then it's just a matter of signing your name, sitting back and imagining warmer climes

STEP 36. The completed cenote bowl should look something like this

TOOL RESTORING, WOOD VENEER & SPECIALIST TOOLS

AUCTIONS, TIMBER SUPPLY, SPECIALIST TOOLS, FINISHES & COURSES

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

Dowelmax

Tables, chairs, stools, kitchens, bedrooms, desks, bookcases, sideboards, beds, benches, doors, windows, steps, cabinets,
make them all and more with the
Dowelmax Doweling Jig

Dowelmax Doweling Jig -
No need for biscuit jointers, tenoners, morticers, screws, loose tenons etc,
make joints faster, more accurately and stronger with
Dowelmax
The ultimate doweling jig for woodworkers!

See us on YouTube *and visit:*

www.dowelmax.co.uk
for more info, video and ordering.

Dowelmax
Tel: **01352 781168** or **07773 718758**

David Charlesworth

Tool tuning and fine furniture making courses

Revolutionise your hand tool skills with David's five day Tool Tuning course; ultimate plane tuning, chisel preparation and planing skills. Subsequent courses cover Dovetailing and Drawer Making/Fitting.

NEW Sharpening weekends!

David is a legend of the UK woodworking scene and has a wonderful teaching workshop in an idyllic location in Hartland, North Devon.

See website for full course details & release date of ***David's New DVDs***

Contact David on:
01237 441288 or email: **davidcharl@aol.com**
www.davidcharlesworth.co.uk

DAVID STANLEY AUCTIONS

1,000 LOTS OF ANTIQUE & MODERN WOODWORKING TOOLS AT:

HERMITAGE LEISURE CENTRE, WHITWICK, LEICESTER LE67 5EU

on Friday 3rd February 2017
at 10.00 a.m. prompt

Viewing: Thursday 2nd February - 12 noon - 6.30 p.m. and Friday 3rd February - 7.30 a.m.

CATALOGUES £5 FROM DAVID STANLEY AUCTIONS, OSGATHORPE, LEICESTER LE12 9SR

Tel: 01530 222320 Fax: 01530 222523
Catalogue@davidstanley.com
www.davidstanley.com

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:

Chestnut Products,
PO Box 260, Stowmarket, IP14 9BX
Tel: 01473 890 118 • Fax: 01473 206 522
www.chestnutproducts.co.uk
mailroom@chestnutproducts.co.uk
Stockist enquiries welcome

SPECIALIST EQUIPMENT, COURSES, TIMBER SUPPLY & FINISHES

Next month

*GW*315 on sale 3 February

BEGINNERS' GUIDE:

Learning about lathes: how to get the best from your tools and invaluable techniques for becoming a better turner

WIN BIG WITH FELDER!

Make a piece of furniture & be in with the chance of winning 1 of 3 fantastic prizes, worth a combined total of over £4,000

HANGING GUITAR STAND

Charlie Gapay presents this simple and effective project for the budding musician

CNC ROUTING PROJECT

Dennis Keeling makes a space-saving corner dressing table unit for his wife

WOODWORKING IN OSAKA

Reporting from Osaka, Japan, Will Bruton seeks out the essence of Japanese woodworking

PLUS: ANDY KING'S KIT & TOOLS · SEGMENTED WOODEN CRYPTEX · WORKSHOP STORAGE BOXES

Old workshops

The sawmill, deep in the woods at St Fagans National History Museum, Cardiff, Wales

Considering workshops through the ages, **Michael Huntley** shares some photos of museum reconstructions from St Fagans National History Museum and Morwellham Working Village

These three photos were taken at open air museums over the last few years. In general, old workshops which are cold, badly lit and with uneven floors are not used nowadays, even in accurate attempts at reconstructions. That is hardly surprising; the job is hard enough without having to battle the conditions as well, but it is worth remembering that fine and lasting woodwork can be produced with simple tools and in the most unpleasant conditions, if you put your mind to it! **GW**

The photos above and to the left show an unusual setup for a plane. I believe this was in a coffin-maker's workshop, although it could have been donated from anywhere. Next time you switch on your planer, just think of the poor apprentice who had to drag timber over this setup!

FURTHER INFO

St Fagans National History Museum, Cardiff, Wales
Web: **https://museum.wales/stfagans/living-museum**

Morwellham Working Village, Mine & Craft Centre, Nr Tavistock, Devon
Web: **www.morwellham-quay.co.uk**

Engineered Precision

Tough Starts and Fine Finishes

TGEOS

Equipped with a powerful 500W motor and all-metal gearing, the Triton Eccentric Orbital Sander tackles the most demanding sanding and polishing tasks with two sanding modes in one tool.

A forced orbit rotation mode is used for rapid material removal on the toughest surfaces, while free-run random orbit mode delivers fine, uniform sanding results for perfect finishing.

For every sanding task, the Triton **TGEOS** gets you through the tough starts to leave a fine finish.

triton
Precision Power Tools

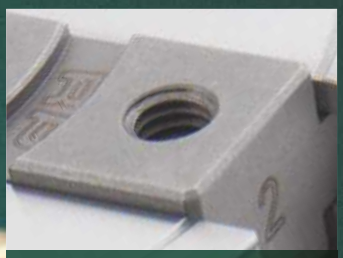
tritontools.com

Introducing the New Range of Woodturning Chucks and Jaws

We are extremely proud to introduce the new range of Record Power woodturning chucks and jaws. This exclusive range has been developed using Record Power's extensive experience and knowledge of woodturning in conjunction with a group of highly experienced professional and hobby woodturners to bring you the ultimate in quality, versatility and value.

Precision Engineered Gears
Super Geared True-Lock™ technology ensures high levels of accuracy to provide smooth and solid operation.

Jaw Fixing System
The SC3 and SC4 feature a jaw fixing which will not only fit the Record Power series of Jaws but is also fully compatible with Nova and Robert Sorby brand jaws.



Heavy Duty Jaw Slides
The improved and enlarged jaw slides give unsurpassed holding power and load bearing ability. They are made from high tensile steel, reinforced with nickel and copper and heat-treated to ensure superior strength.

Sealed Backing Plate with Full Indexing
The SC4 features a strong backing plate to protect the gear mechanism from dust and 72-point indexing around the full circumference.

SC3 Geared Scroll Chuck Package

Now includes 2" Faceplate

Only £99.99

SC4 Professional Geared Scroll Chuck Package

Now includes 2" Faceplate

Only £129.99

15% OFF All jaws when 3+ sets bought

Prices valid until 28.2.2017

See online for full details

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

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.