

EST.1901

STILL THE ORIGINAL AND BEST

The Woodworker

Summer 2010

www.getwoodworking.com

& Woodturner

A scroll in the park



Peter Bishop
carves some
unusual
garden seats

FOR YOU TO MAKE

- Wall cabinet
- Tea caddy box
- Fruit platter
- Marking knife



PROJECT

SYCAMORE WARDROBE



WORKSHOP ROUTER TABLE



ON TEST

SPINDLE MOULDER



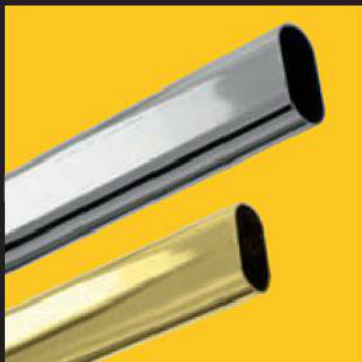
PLUS: TABLE SAW JOINTS ■ CORNICES ■ SHOP NOTES



£3.60

IronmongeryDirect

Door and window hardware delivered tomorrow



11,500+ PRODUCTS
FREE
NEXT DAY
DELIVERY
Order up to 7.30pm



GET YOUR
FREE
CATALOGUE
NOW

**ORDER
TODAY**



FREEPHONE

0808 168 28 28



ONLINE

www.IronmongeryDirect.com

Free delivery on all orders over £45



welcome



A scroll in the park



Routing on location



Two of a kind



Jet GOA planer

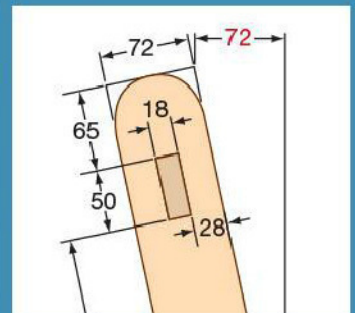


We're all human, and that means we all make mistakes from time to time. I was lucky enough to attend woodwork classes at school, and I've never forgotten the familiar mantra – measure twice, cut once – that was drummed into us by an elderly gent with the tip of his right middle finger missing. He never stopped reminding us of the price of his moment of carelessness! I still have all my fingers, but I've made plenty of mistakes in the workshop over the years. Even *The Woodworker* isn't immune...



King of the castle

In the last issue we featured a garden bench, photographed by its maker Paul Sellers in the grounds of Penrhyn Castle in North Wales.



Unfortunately the dramatic setting made us take our eye off the ball for a moment, and we not only gave a wrong measurement on one of the drawings – fig 2 on page 15. We also omitted a crucial explanation concerning the setting out of the cocked rear legs. Several readers pointed this out to us, so now's the time to set the record straight.

On the angle

The wrong measurement is corrected in red in the detail to the drawing shown above. The explanation we omitted was the advice to set out the leg so the top and bottom of its back edge are placed at one edge of the lamination, again as shown above. As can be seen, the angled profile will now fit within the width of the triple lamination. We're very sorry for the mistake, and hope this will help to put it right.

What this all proves is that there are no keener proof-readers out there than you! We've only just recovered from the shock of the shed door hung with its braces running in the wrong direction back in our March issue! But we're only human...

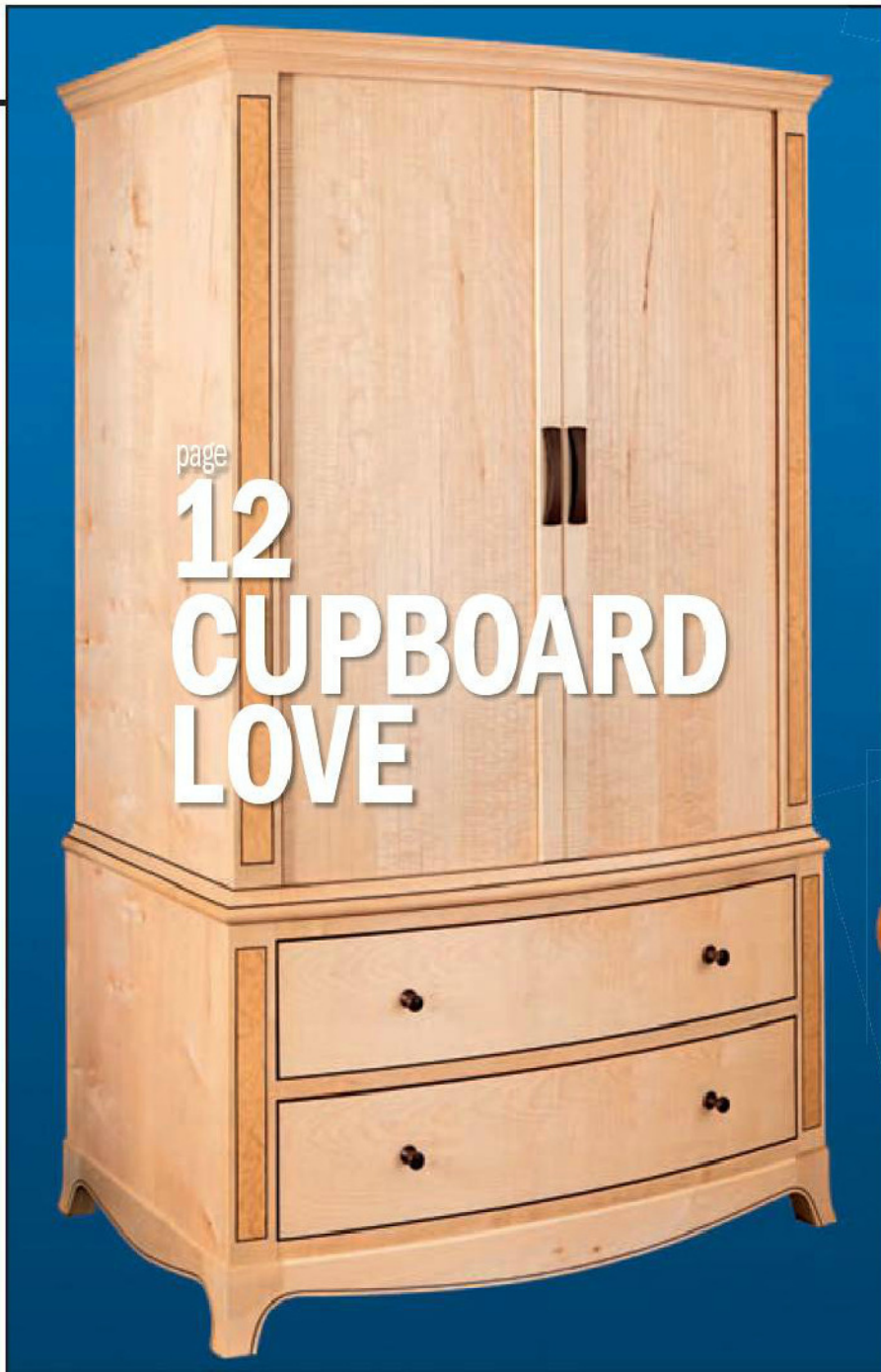
Mike

CONTENTS

*What's in store for
you this month*



page
35



page

12

**CUPBOARD
LOVE**

page
41



page
46



page
58

page
62



page
20



REGULARS

- 3 Welcome
- 9 News & Diary
- 66 & 71 Subscriptions
- 88 Back issues
- 89 Marketplace
- 90 Archive

PROJECTS

- 10 No more lumpy scrumpy**
Peter Bishop reconstructs a cider mill that's been disused for over 50 years
- 12 Cupboard love**
Peter Nicholson makes a stunning wardrobe out of marbled sycamore
- 20 A scroll in the park**
Peter Bishop designs some garden seats in the shape of a scroll
- 28 First aid post**
Peter Dunsmore makes a wall cabinet for storing medical essentials
- 35 T is for trinket**
Gordon Warr designs a tea caddy trinket box as a gift
- 39 Would you believe it?**
Kieran Felton creates a wooden motorbike that works (almost!)

WORKSHOP

NEW SERIES

- 41 Table saw joints**
Andy Standing presents the second part of his series on using workshop machines
- 46 Routing on location**
Alan Holtham creates a portable router bench to combat backache
- 51 Low-angle planes**
Gordon Warr examines the differences between standard and low-angle bench planes
- 52 Shop notes**
Keith Smith visits Woodfest Wales and finishes off some replacement windows

- 54 Cutting corners**
Andy Standing makes cornice mouldings using a table saw
- 56 A fine marker**
Vere Shannon designs a marking knife for fine work

TURNING

- 58 She loves yew!**
Roger Berwick turns a fruit platter from a butt of yew
- 62 Two of a kind**
Bob Chapman turns a pair of oversized pears for an advertising campaign
- 67 Woodturning scrapers**
Chris Child takes a look at single-bladed scrapers in this month's guide

**NEXT
ISSUE
SEPTEMBER ISSUE
IS OUT ON
AUGUST 27TH**

ON TEST

- 72 Jet 60A planer**
- 74 Metabo KS66 Plus**
circular saw and guide rail
- 76 Record SM100**
spindle moulder
- 78 Kity MB16 bench mortiser**
- 80 Co-Matic M3 Baby power**
feed
- 82 DeWalt DCD925L2**
combi drill
- 83 Robert Sorby modular**
tool rest system



The Woodworker & Woodturner

Summer 2010

Published by MyHobbyStore Ltd.
PO Box 718, Orpington, Kent BR6 1AP
Email: customer.services@myhobbystore.com
Tel: 0844 412 2262
From outside UK: +44 (0) 1689 869896
www.myhobbystore.co.uk
www.getwoodworking.com

SUBSCRIPTIONS

UK - New, Renewals & Enquiries
Tel: 08456 777 807
Email: subscriptions@myhobbystore.com
USA & CANADA - New, Renewals & Enquiries
Tel: (001) 877 363 1310
Email: expsmag@expressmag.com
REST OF WORLD - New, Renewals & Enquiries
Tel: +44 (0) 1689 869896

BACK ISSUES & BINDERS

Tel: 0844 848 8822
From outside UK: +44 (0) 1689 869896
Email: customer.services@myhobbystore.com

EDITORIAL

Editor: Mike Lawrence
Email: mike.lawrence@myhobbystore.com
Web Editor/Editorial Assistant: Ben Ince
Email: ben.ince@myhobbystore.com

PRODUCTION

Designer: Malcolm Parker
Illustrator: Michael Lindley
Retouching Manager: Brian Vickers
Ad Production: Robin Gray

ADVERTISING

Display & Classified Sales: Katie Lord
Email: katie.lord@myhobbystore.com
Tel: 0844 848 5244
Online Sales: Ben Rayment
Email: ben.rayment@myhobbystore.com
Tel: 0844 848 5240

MARKETING & SUBSCRIPTIONS

Head of Subscriptions:
Heather Morrison
Online Marketing Manager: Kate Barrett

EVENTS

Event Sales Executive: Clare Hiscock

MANAGEMENT

Special Projects Publisher: Nikki Parker
Head of Design & Production: Nikki Coffey
Deputy Head of Design & Production:
Julie Hewett
Group Sales Manager: Michael Gray
Head of Events & Retail: Daniel Webb
Chief Executive: Owen Davies
Chairman: Peter Harkness



myHobbyStore
media

© MyHobbyStore Ltd. 2010
All rights reserved ISSN 1752-3524

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

The Woodworker & Woodturner, ISSN 1752-3524, is published monthly 13 times per year (July twice) by MyHobbyStore Ltd. c/o USACAN Media Dist. Srv. Corp. at 26 Power Dam Way Suite S1-S3, Plattsburgh, NY 12901. Periodicals Postage paid at Plattsburgh, NY. POSTMASTER: Send address changes to The Woodworker & Woodturner c/o Express Mag. P.O. Box 2769, Plattsburgh, NY 12901-0269.



When you have finished with this magazine please recycle it.

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

Clarke MORTISING MACHINE

- Accurately creates deep square recesses
- Table size 150 x 340mm
- Maximum chisel capacity 76mm

Chisels available from £6.99 Ex VAT £8.21 Inc VAT

ONLY ~~£109.99~~ ~~£129.99~~ **£129.99** Ex VAT

CBM1B

ORDER ONLINE OVER 10,000 PRODUCTS

www.machinemart.co.uk

NEW CATALOGUE Over 850 PRICE CUTS & NEW PRODUCTS

Machine Mart

ORDER ONLINE

Over 850 PRICE CUTS & NEW PRODUCTS

GET YOUR FREE COPY NOW!

- INSTORE
- ONLINE
- PHONE

0844 880 1265

Clarke BENCH GRINDERS & STANDS

Stand available from only **£34.99 inc. VAT** £41.11 ex. VAT

- Stands come complete with bolt mountings and feet anchor holes

6" & 8" available with light

FROM ONLY ~~£19.99~~ ~~£23.49~~ **£23.49** Ex VAT

CBG6S

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

PRICE CUT! Was £52.25 Inc VAT

MODEL	DUTY	WHEEL DIA.	EX VAT	INC VAT
CBG6R	DIY	150mm	£19.98	£23.48
CBG6RZ	PRO	150mm	£29.98	£35.23
CBG6S	PRO	150mm	£39.98	£46.98
CBG6RW	HD	150mm	£42.99	£50.51
CBG8RSC	HD	200mm	£47.99	£56.39
CBG8W (wet)	HD	150/200mm	£42.99	£50.51

Clarke 6" BENCH GRINDER WITH SANDING BELT

- For sanding/shaping wood, plastic & metal
- Supplied with coarse grinding wheel & sanding belt
- Complete with tool rest, eye shield & wheel guard

ONLY ~~£39.99~~ ~~£46.99~~ **£46.99** Ex VAT

CBG6S

Clarke BISCUIT JOINTERS

• BJ600 was Best on Test - Good Woodworking Magazine

FROM ONLY ~~£34.99~~ ~~£41.11~~ **£41.11** Ex VAT

MODEL POWER CUT DEPTH EX VAT INC VAT

Clarke BJ300	860w	12mm	£34.99	£41.11
Clarke BJ600	600w	16mm	£49.98	£58.73

PRICE CUT! Was £64.61 Inc VAT

Clarke CORDLESS DRILL / DRIVERS

FROM ONLY ~~£34.99~~ ~~£41.11~~ **£41.11** Ex VAT

BOSCH DEWALT

Comes with 90 piece worksite set worth £52.86 inc. VAT (While stocks last)

PRICE CUT! Was £162.73 Inc VAT

MODEL	VOLTS	BATTS	EX VAT	INC VAT
CD180	18v	1	£34.99	£41.11
CD240	24v	1	£39.98	£46.98
Bosch PSR18	18v	1	£64.99	£76.36
Dewalt DC27	12v	2	£119.98	£140.98

Clarke DRILL PRESSES

- Tables tilt 0-45° left & right
- Depth gauge
- Chuck guards

FROM ONLY ~~£49.99~~ ~~£58.73~~ **£58.73** Ex VAT

B-Bench mounted F-Floor standing

MODEL WATTS/ SPEEDS EX VAT INC VAT

CDP500	250/5	£49.98	£58.73
CDP1018	245/5	£67.99	£79.98
CDP1518	300/5	£89.98	£106.73
CDP108	370/12	£99.98	£117.48
CDP3018	310/12	£169.98	£187.98
CDP451F	310/16	£199.98	£224.98
CDP501F	980/12	£379.98	£446.48

PRICE CUT! Was £52.23 Inc VAT

Clarke SHEET SANDERS

FROM ONLY ~~£12.99~~ ~~£15.26~~ **£15.26** Ex VAT

CON300

MODEL	SHEET SIZE	MOTOR	EX VAT	INC VAT
CON200	190x90mm	150w	£12.99	£15.26
CON300	230x115mm	330w	£29.98	£35.23
Makita B0455	112x102mm	200w	£49.98	£58.73

Clarke RANDOM ORBITAL SANDERS

ONLY ~~£22.99~~ ~~£27.49~~ **£27.49** Ex VAT

CRO52

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

Inc 6 discs

Clarke STAPLER

PRICE CUT! Was £19.99 Ex VAT

DIY # PRO

MODEL	INPUT POWER	STAPLE SIZE	EX VAT	INC VAT
Clarke CS64	750w	10-14	£19.98	£23.48
Clarke 181EL	1560w	-	£34.99	£41.11
Clarke CSN120	600w	13-30	£54.99	£64.61
Clarke 400EL	1500w	-	£69.98	£70.48
Clarke 500EL	1200w	-	£69.98	£82.23

PRICE CUT! Was £26.84 Inc VAT Was £76.98 Inc VAT

Clarke CARVING CHISEL SET

PRICE CUT! Was £39.99 Ex VAT

WAS £52.86 Inc VAT

CHT400

- Polished spring alloy steel chisel blades
- Supplied in wooden storage case with handle

12 Piece Set Quality Beech Handles

Clarke ROTARY TOOL KIT

ONLY ~~£24.99~~ ~~£29.98~~ **£29.98** Ex VAT

CRT40

Kit includes:

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

Clarke BELT SANDERS

- All models complete with dust bag

FROM ONLY ~~£27.99~~ ~~£32.25~~ **£32.25** Ex VAT

BS1

MODEL	WATT	MM/MIN	EX VAT	INC VAT
Clarke BS1	900w	380	£27.99	£32.25
Bosch PBS7A	600w	250	£59.98	£70.48
Clarke CS2	1200w	480	£64.99	£76.36
Makita 9911	650w	75-270	£84.99	£99.86

PRICE CUT! Was £76.36 Inc VAT

Clarke RANDOM ORBITAL SANDERS

ONLY ~~£22.99~~ ~~£27.49~~ **£27.49** Ex VAT

CRO51

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

Inc 5 discs

Clarke RECIPROCATING SAWS

CON100

MODEL	MOTOR	STROKE LENGTH	EX VAT	INC VAT
Clarke CON100	600w	26mm	£39.98	£46.98
Ryobi ERS80V	800w	28mm	£64.99	£76.36
Sparky	1300w	30mm	£169.98	£199.73

Clarke JIGSAWS

FROM ONLY ~~£29.99~~ ~~£35.23~~ **£35.23** Ex VAT

BOSCH

MODEL	POWER (W)	DEPTH OF CUT (wood/steel)	EX VAT	INC VAT
Clarke CON800	800	80/10mm	£29.98	£35.23
Makita 4329	450	65/6mm	£56.99	£66.96
Bosch GSH1350C	720	135/10mm	£149.98	£176.23

PRICE CUT! Was £79.48 Inc VAT

Clarke SCROLL SAWS

FROM ONLY ~~£49.99~~ ~~£58.73~~ **£58.73** Ex VAT

CS510V

- 120w, 230v motor • 50mm max cut thickness • 400-1,700rpm variable speed • Air-blower removes dust from cutting area

MODEL	MOTOR	SPEED RPM	EX VAT	INC VAT
CS400B	85w	1450	£49.98	£58.73
CS16V	120w	400-1700	£69.98	£82.23

Clarke DISC SANDER

ONLY ~~£99.99~~ ~~£117.48~~ **£117.48** Ex VAT

CDS-300

- Fine finishing, accurate sanding & shaping • 750w input power • Disc Dia. 305mm • 45° tilting table • Dust extraction facility

Clarke SASH CRAMP

ONLY ~~£19.99~~ ~~£23.48~~ **£23.48** Ex VAT

CHT136

- Two piece 915mm set
- Robust 'T'-bar style construction

1830mm also available **£36.99** Ex VAT **£43.46** Inc VAT

Clarke DUST EXTRACTOR / CHIP COLLECTORS

FROM ONLY ~~£119.99~~ ~~£140.98~~ **£140.98** Ex VAT

Metabo also available

Powerful 750w motor • 57 litre bag capacity • Flow rate of 850M³/h

MODEL	MOTOR	FLOW RATE	BAG CAP.	EX VAT	INC VAT
CEB3	750w	850 M ³ /h	56Ltrs	£119.98	£140.98
CEB7	750w	850 M ³ /h	114Ltrs	£129.98	£152.73
CEB5	2200w	2300 M ³ /h	307Ltrs	£299.00	£316.08

Clarke CAST IRON STOVES

13 STYLES TO CHOOSE FROM

FROM ONLY ~~£69.99~~ ~~£82.23~~ **£82.23** Ex VAT

REGAL

MODEL	MAX BTU	EX VAT	INC VAT
Pot Belly	10,000	£69.98	£82.23
Pot Belly L	15,000	£99.98	£117.48
Pot Belly XL	24,000	£149.98	£176.23
Thames	20,000	£159.98	£187.98
Barrel	20,000	£169.98	£199.73
Boxwood	25,000	£169.98	£199.73
Boxwood Deluxe	50,000	£249.98	£293.73
Parlour	37,500	£259.98	£305.48
Regal	34,000	£299.98	£352.48
Cottage II	30,000	£329.98	£387.73
Junior Victoria II	33,000	£329.98	£387.73
Victoria	45,000	£439.98	£516.98
Richmond	61,000	£559.00	£656.83

Clarke DRUM FANS

HUGE 30" Fan

FROM ONLY ~~£114.99~~ ~~£135.11~~ **£135.11** Ex VAT

CAM6000

- Powerful, robust steel fans ideal for commercial use • 30° tilt range

MODEL	MOTOR	FAN DIA.	EX VAT	INC VAT
CAM5002	250w	610mm/24"	£114.99	£135.11
CAM6000	350w	762mm/30"	£139.98	£164.48

Clarke WORKSHOP AIR FILTER / SCRUBBER

ONLY ~~£199.99~~ ~~£234.86~~ **£234.86** Ex VAT

AF1000

- Ideal for removing airborne dust particles
- Includes micron filters & eyelets for ceiling mounting
- 1044cfm air flow for large area coverage

Clarke DISC SANDER

ONLY ~~£99.99~~ ~~£117.48~~ **£117.48** Ex VAT

CDS-300

- Fine finishing, accurate sanding & shaping • 750w input power • Disc Dia. 305mm • 45° tilting table • Dust extraction facility

Clarke FLUES, COWLS & ACCESSORIES AVAILABLE

MODEL	MAX BTU	EX VAT	INC VAT
Pot Belly	10,000	£69.98	£82.23
Pot Belly L	15,000	£99.98	£117.48
Pot Belly XL	24,000	£149.98	£176.23
Thames	20,000	£159.98	£187.98
Barrel	20,000	£169.98	£199.73
Boxwood	25,000	£169.98	£199.73
Boxwood Deluxe	50,000	£249.98	£293.73
Parlour	37,500	£259.98	£305.48
Regal	34,000	£299.98	£352.48
Cottage II	30,000	£329.98	£387.73
Junior Victoria II	33,000	£329.98	£387.73
Victoria	45,000	£439.98	£516.98
Richmond	61,000	£559.00	£656.83

Clarke HIGH OUTPUT FAN

20" Propeller

ONLY ~~£34.99~~ ~~£41.11~~ **£41.11** Ex VAT

CDF20HVB

- Lightweight, portable fan ideal for the effective movement of large volumes of air
- Three speed control for controlled air flow
- Tilting steel stand for directing air flow

NOW 56 SUPERSTORES NATIONWIDE

VISIT YOUR LOCAL SUPERSTORE

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

STORE	ADDRESS	PHONE
BARNESLEY	Pontefract Rd, Barnsley, S71 1EZ	01226 732 297
BIRMINGHAM	GREAT BARR 4 Birmingham Rd.	0121 358 7977
BIRMINGHAM	HAY MILLS 1152 Coventry Rd, Hay Mills	0121 771 3433
BOLTON	Thyrne St. BL3 6BD	01204 365799
BRADFORD	105-107 Manningham Lane, BD1 3BN	01274 390962
BRIGHTON	122 Lewes Road, BN2 3AB	01273 815989
BRIGHTON	1-3 Church Rd, Lawrence Hill, BS5 9JQ	0117 935 1060
BURTON	UPON TRENT 12a Lichfield St, DE14 3QJ	01283 564 708
CARDIFF	44-45 City Rd, CF24 3DN	029 2046 5424
CARLISLE	85 London Rd, CA1 2LG	01228 591666
CHESTER	43-45 St. James Street, CH1 3EY	01244 311258
COLCHESTER	4 North Station Rd, CO1 1RE	01206 762831
COVENTRY	Bishop St. CV1 1HT	024 7622 4227
CROYDON	423-427 Brighton Rd, South Croydon	020 8763 0640
DARLINGTON	214 Northgate, DL1 1TB	01325 380841
DEAL	(KENT) 192-198 High St. CT14 6BD	01304 373 434
DERBY	Derwent St. DE1 2ED	01332 290 931
DONCASTER	Whitfield Hill Road	01509 245 989
DUNDEE	24-26 Trades Lane, DD1 3ET	01382 226 140
EDINBURGH	163-171 Piersfield Terrace	0131 669 5919
GASHEAD	50 Lobby Hill Rd, NE8 4XA	0191 493 2520
GLASGOW	280 St Western Rd, G4 9EL	0141 332 9231
GLoucester	221A Barton St, GL1 4HY	01462 417 948
GRIMSBY	Ellis Way, DN22 9BD	01472 354435
HULL	8-10 Holderness Rd, HU9 1EG	01482 223161
ILFORD	746-748 Eastern Ave, IG2 7HU	0208 518 4286
LEEDS	27-229 Kirkstall Rd, LA2 2AS	0113 231 4000
LEICESTER	69 Melton Rd, LE4 6PN	0116 261 0698
LINCOLN	Unit 5, The Pelham Centre, LN5 8HS	01522 543 036
LIVERPOOL	80-88 London Rd, L3 5NF	0151 709 4484
LONDON	6 Kendal Parade, Edmonton N18	020 8803 0861
LONDON	503-507 Lea Bridge Rd, Leyton, E10	020 8568 8284
LONDON	100 The Highway, Docklands	020 7488 2129
MAIDSTONE	57 Upper Stone St, ME15 6HE	01622 769 572
MANCHESTER	771 Manchester Rd, Altrincham	0161 941 2666
MANSFIELD	160 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, MK16 7JL	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 Blackwell Parade, Blackcliff Rd	0208 3042069
SOUTHAMPTON	518-518 Portswood Rd.	023 8055 7788
SOUTHERN	1139-1141 London Rd, Leigh on Sea	01702 483 742
STOKE-ON-TRENT	382-396 Waterloo Rd, Hanley	01782 287321
SUNDERLAND	13-15 Pyhore Rd, Gateshead	0191 510 8773
SWANSEA	7 Samlet Rd, Llanisamet, 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 Park	01925 630 937
WOLVERHAMPTON	Parkfield Rd, Bliton	01902 494186
WORCESTER	48a Upper Tything, WR1 1JZ	01905 723451

3 EASY WAYS TO BUY...

IN-STORE

56 SUPERSTORES

ONLINE

machinemart.co.uk

MAIL ORDER

0844 880 1250

For security reasons, calls may be monitored. All prices correct at time of going to press. We reserve the right to change products & prices at any time. All offers subject to availability. E&OE.

SAVE OVER £15

when you subscribe to
Good Woodworking

GREAT REASONS TO SUBSCRIBE:

- SAVE OVER £15*
- DELIVERED STRAIGHT TO YOUR DOOR
- ACCESS TO SUBSCRIBER ONLY CONTENT ON WWW.GETWOODWORKING.COM
- 13 ISSUES A YEAR ONLY £7.50 EVERY 3 MONTHS OR £36.45

HURRY
OFFER CLOSES
27th August 2010



*SAVINGS ARE BASED ON 13 ISSUES OF THE RETAIL PRICE

BY PHONE: 08456 777 807 - Quote ref. SD55 ONLINE: www.subscription.co.uk/gww/sd55

DON'T MISS...

The Scottish WOODCRAFT Show

FRI 24TH & SAT 25TH SEPTEMBER 2010

• LOWLAND HALL • ROYAL HIGHLAND CENTRE • INGLISTON •
EDINBURGH • EH28 8NB • (JUNC 2 M8 / JUNC 1 M9)



Stuart Mortimer

Great Demonstrations, including Stuart Mortimer
PLUS David Gray, Tony Wilson, Gavin Philips (Pole Turning),
PLUS Carving, Furniture Making, Pyrography, Routing and more
PLUS Trade Stands, Bargains, Advice & Fun

'A Great Day Out for ALL Woodworkers'

ENTRY:

ONE DAY £7
IN ADVANCE £5
TWO DAYS £10
IN ADVANCE £7

FREE: PARKING • SHOWGUIDE • RAFFLE • OPEN HOURS: 9.30AM - 4PM BOTH DAYS

TICKET HOTLINE: 01474 536535 OR ONLINE: WWW.NELTON.CO.UK

On the desk...

MULTIMASTER SELECT PLUS

MANUFACTURER: Fein UK

AVAILABLE: Nationwide

PRICE: £210

Fein has recently added more accessories to its popular Multimaster Top and Select sets. The Select Plus set shown below now comes in a sturdy plastic carry case, and includes the 65mm wide E-cut saw blade that's perfect for jobs such as trimming door frames when laying wooden flooring. The more expensive Top Plus set contains over 50 accessories, with a particular focus on sanding applications. These kits have a multitude of uses in the workshop, and you can always add more accessories as and when the need arises.



GORILLA SUPER GLUE

MANUFACTURER: Gorilla Glue UK

AVAILABLE: Nationwide and via the internet

PRICE: £6.49 (bottle),

£4.49 (pack of 2 tubes)

Gorilla's new Super Glue can be used on nearly any surface, including wood, metal, ceramics, some plastics and rubber. Thicker than conventional super glues, it won't run when applied and flows out better, making it easier to use and control than most other super glues – especially on vertical surfaces.

Available in a 15g bottle or as a pack of two small 3g tubes, Gorilla Super Glue sets incredibly fast in just 20-40 seconds, with no clamping required. Projects then dry fast and last.



Contact details of products and services mentioned in this edition of **ON THE DESK...**

Fein ■ 01327 308730 ■ www.fein-uk.co.uk
Gorilla ■ 01257 241319 ■ www.gorillatough.co.uk
Trend ■ 0800 487363 ■ www.trend-uk.com
Triton ■ www.tritontools.com

DIARY

AUGUST

John Boddy's Courses

14 Woodturning: Andy Rounthwaite
 01423 322370 ext 257
www.john-boddys-fwts.co.uk

John Boddy's Demonstrations

21 Woodturning: Marsden Howitt
 Details as above

John Lloyd Courses

2-6 Furniture making 1
7-8 Weekend sharpening refresher
9-13 Furniture making 2
16-20 Furniture making 3
23-24 Machining
 01444 480388
www.johnlloydfinefurniture.co.uk

Orchard Woodturners

14 Club members' evening
 Village Hall, Milstead, Kent ME9 0SD
 01622 726532 for details

Robert Sorby Woodturning Demos

27-30 Festival of the Tree
 Westonbirt Arboretum, Tetbury,
 Gloucestershire GL8 8QS
 01666 880220

Shropshire Association of Woodturners

25 Ken Allen: Involute turning
 Bicton Village Hall, Bicton SY3 8EL
 01743 240661

SEPTEMBER

John Boddy's Courses

2-3 Woodcarving: Peter Berry
16-17 French polishing:
 Edward Vickerman
23-24 Woodturning: Simon Whitehead
 01423 322370 ext 257
www.john-boddys-fwts.co.uk

John Boddy's Demonstrations

18 Wood finishing: Edward Vickerman
25 Woodturning: Simon Whitehead
 Details as above

John Lloyd Courses

6-10 Furniture making 4: Chairs
 01444 480388
www.johnlloydfinefurniture.co.uk

Orchard Woodturners

11 John Johnson
 Village Hall, Milstead, Kent ME9 0SD
 01622 726532 for details

Robert Sorby Woodturning Demos

3-4 Norfolk Saw, Norwich
 01603 898695
10-11 Yandies, Martock
 01935 822207

24-26 Irish Woodturners Guild
 Symposium, Armagh City
www.irishwoodturnersguild.com

Scottish Woodcraft Show

24-25 Royal Highland Centre,
 Ingleton EH28 8NB
 0131 335 6210



TA1200BS BELT SANDER

MANUFACTURER: Triton Tools

AVAILABLE: Nationwide

PRICE: £196

Triton's new 75mm belt sander is fitted with a small-diameter front roller that permits sanding in tight corners, and the design also allows sanding flush to a wall or other adjacent vertical surface. It features a powerful 1200W motor that drives the belt at speeds up to 400m/min, yet it weighs just 4kg – some 25 per cent less than its main competitors. It's supplied with a dust bag and can be connected to a vacuum system if you prefer.

We'll be testing this for you shortly, so look out for our report – probably in the next issue.

METRIC SCALE ROUTER CUTTERS

MANUFACTURER: Trend Machinery

AVAILABLE: Trend stockists

PRICE: from £14.10

Trend has recently launched a new range of straight two-flute cutters with a revolutionary feature. Each cutter is laser-etched with a metric scale in 1mm increments on the body to aid depth setting. This feature is available on four sizes of straights in their CraftPro range of cutters. They are all suitable for a wide range of applications such as grooving, rebating, and mortising, and all sizes feature bottom cut to aid waste removal.



No more lumpy scrumpy!



Peter Bishop, one of our regular contributors, spends much of his time tackling projects and commissions that would be familiar to any woodworker. But now and again something completely different comes along. We'll let him tell you what he's been up to this month.

The real thing

A farmer pal of mine called Steve runs a sideline business called the Orgasmic Cider Company, and he recently asked if I could help him reconstruct an old cider mill to use as a working centre of attraction outside his retail shop.

Call In the Time Team

The mill had fallen into disuse in the 1950s. The trough had been broken up and buried, while the millwheel had leant against the farmhouse wall for over 50 years. That's all we had left. While Steve dug around trying to find the main bits of the trough, I went off to the Hereford Cider Museum and made some drawings. Armed with these I ordered the timber – green English oak – and the various steel components we'd need.

Building from scratch

Steve commissioned a local builder to rebuild the trough, and he did a good job of filling in the gaps and making the surface look old. Steve eventually found one piece of the original timber construction – the wheel shaft – in a disused barn, but everything else had to be made from scratch. Even with the drawings I'd made, the whole project was still a bit 'finger in the air'. Would the mechanism actually work? There was only one way to find out...

The structure evolves

Traditionally cider mills were built into a building. The centre vertical shaft around which everything pivots was attached to an overhead beam, and a donkey or a small pony was harnessed up to pull the wheel around the trough and crush the apples. The resulting pulp would then be squeezed in a press to get the juice out.

Our plan was to put the mill outside and rig up an overhead structure around the rebuilt trough. I made a thick solid oak disc to go in the middle, and worked out all the dimensions from its centre. An overhead

three-point superstructure, with one end attached to the building and the other two to two large vertical posts, was lowered onto the centre shaft assembly and locked in place. All the joints were traditional mortises and tenons, with braces and pegs to secure them.

Oak circles

The stonework on the rim didn't end up as a perfect circle, but hey, what did I expect? I laid out some sheets of ply and marked out a full-size template of the rim. Surprisingly, the green oak segments cut like butter on the bandsaw. Each end of the eight sections was half-lapped, put on the rim, glued up and fixed with stainless steel screws. Around the edge, special steel brackets secured the rim in place on the stonework.

The last main piece to make was a curved section that would go around the donkey's behind. Two lengths were shaped, finger-jointed and fitted on. All that remained was a bit of finishing off, and the job was done. Incredibly it all worked, and the completed mill is now a deserving centre of attraction, just as Steve intended.



1

We started by reassembling the remains of the original trough with the help of a fork-lift truck



2

Our builder made a fine fist of reconstructing the trough with some new stonework and a spot of mortar



3

My first woodworking job was to make up a thick solid oak disc to go in the middle of the mill



4

I made up the massive green oak rim to fit on the trough from eight bandsawn segments



5

The segments were joined using simple half-lap joints, secured with stainless steel screws



6

The various sections of the superstructure were all assembled with mortise and tenon joints



7

The first bit of steel – the central pivot point – is fixed in place on the central oak disc



8

Assembling the massive three-point overhead frame required the use of some improvised cramping



9

The structure finally came together as we hoisted the various components onto their support posts



10

The last piece to fit was the curved section that would go around the donkey's behind



BY PETER NICHOLSON

Cupboard love

The making of this wardrobe was undoubtedly one of the most demanding yet exciting projects I've ever undertaken. It's made as five separate pieces – the plinth, the base unit, the centre frame, the top unit and the cornice

The base and top units are made using marbled sycamore, decorated with burr ash veneer panels and Santos rosewood inlay. The bowed drawer fronts are rippled sycamore, as are the tambour doors, the centre frame and the cornice.

Once any project design has been approved by the client, the key to a successful project is always accuracy. Standard elevations are helpful, of course, fig 1, but this is where a full-size layout on a

sheet of plywood is indispensable. On this project I prepared one showing the movement of the tambour and the bow front, fig 2. During times of difficulty, measurements can then be taken direct from this layout to resolve any making issues.

Base first

The front of the base unit has a bow with a radius of 1857mm. The two false fronts are biscuit-jointed onto the cabinet sides at an

angle of 102° to follow the radius arc. This measurement was taken from my layout. The inner face of each cabinet side has routed housings to accommodate the drawer runners, and a rebate at the back to accept the framed back panel. These are best machined before the fronts are applied.

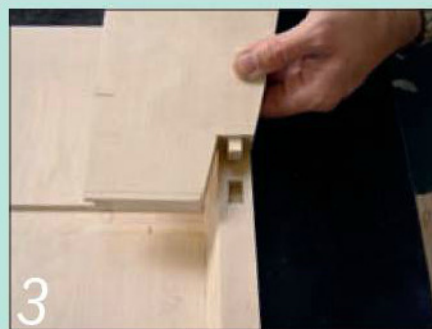
The six bearer rails can now be dovetailed into the cabinet sides. The back two will need to be set forwards to accommodate the framed back panel, while



1 The centre and rear bearer rails are dovetailed into the cabinet sides and secured with screws



2 The curved front bearer rails have an extra dovetail that engages in the edge of the false front



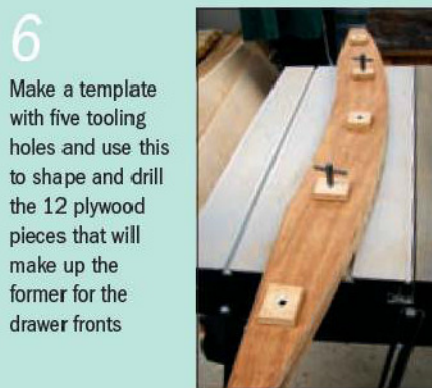
3 The curved drawer rail is tenoned into the edge of the false front and fits into the drawer runner housings



4 The oak drawer runners below the top drawer are stub-tenoned into the rear of the curved drawer rail



5 Assemble and cramp up the base unit. Note the rebate for the back panel at the rear of the carcass



6 Make a template with five tooling holes and use this to shape and drill the 12 plywood pieces that will make up the former for the drawer fronts



SYCAMORE WARDROBE CUTTING LIST

All dimensions are finished sizes in millimetres

Part	Qty	L	W	T
BASE UNIT				
Side panels	2	428	570	18
False fronts	2	428	68	24
Front bearer rails	2	950	155	25
Central drawer rail	1	950	155	25
Inner bearer rails	4	950	75	25
Drawer runners (oak)	2	400	70	25
Back panel stiles	2	430	75	18
Back panel rails	2	900	75	18
Back panel muntins	2	330	70	18
Back panel infills	4	330	155	6
DRAWERS				
Fronts (laminated)	2	850	178	16
Sides (oak)	4	570	178	15
Backs (oak)	2	850	150	12
Bases (veneered MDF)	2	820	620	6
PLINTH				
Front/back rails (front laminated)	2	910	78	18
Side rails	2	560	78	18
Feet	4	113	80	80
TOP UNIT				
Side panels	2	1070	557	18
False fronts	2	1070	68	18
Top panel	1	920	630	20
Base panel	1	920	630	20
False side panels	2	1050	470	22
Shelf (optional)	1	810	575	22
Back panel stiles	2	1070	75	18
Back panel rails	4	800	75	18
Back panel muntins	9	270	70	18
Back pane infills	16	270	160	6
Tambour slats	56	1050	15	10
Locking rails	2	1050	37	22
Canvas fillets	2	1050	20	15
CENTRE FRAME				
Front / back	2	975	80	20
Sides	2	600	80	20
Front moulding	1	975	12	21
Side moulding	2	600	12	21
CORNICE				
Front	1	980	90	22
Sides	2	600	75	22
Back	1	900	40	22
Dust board (edge-jointed sycamore)	1	840	560	6

You will also need burr ash veneer, rosewood strip inlay, about 4.5m of 3mm rosewood cock beading, canvas fabric for bonding the tambours, small rosewood offcuts for the handles and drawer knobs, and other offcuts for location blocks.

the front two are bandsawn to a radius of 1857mm after the dovetails are cut. **Photo 1** shows the dovetailed bearer rail, while **photo 2** shows the more complex post and side dovetail.

The radiused central drawer rail is tenoned into the false front and housed into the runner housings, **photo 3**. **Photo 4** shows the oak drawer runner stub-tenoned into the rear of the front drawer rail and screwed into the housing. Once the whole unit has been dry-assembled and checked, it can be glued up, **photo 5**.

Creating the laminate former

To laminate the two drawer fronts to the curve needed, I created a plywood former consisting of twelve pieces of 18mm thick plywood with a radius on one edge of 1857mm, bolted together using threaded bar, nuts and washers.

The easiest and most accurate way of doing this is to start with a template with five evenly spaced tooling holes, **photo 6**, each with a hardened bush inserted. Batch up the plywood into threes or fours and drill through the tooling holes. Insert tooling pins and mark around the template, then bandsaw the plywood roughly to shape.

Using a bearing-guided trimming cutter in a router table and the template located onto the plywood with tooling pins, rout each piece of plywood accurately to shape; then bolt all the pieces of plywood together through the tooling holes. They will all line up perfectly.

This former will be used to form the plinth later, and also as a trimming fixture, so accuracy and care are needed here.

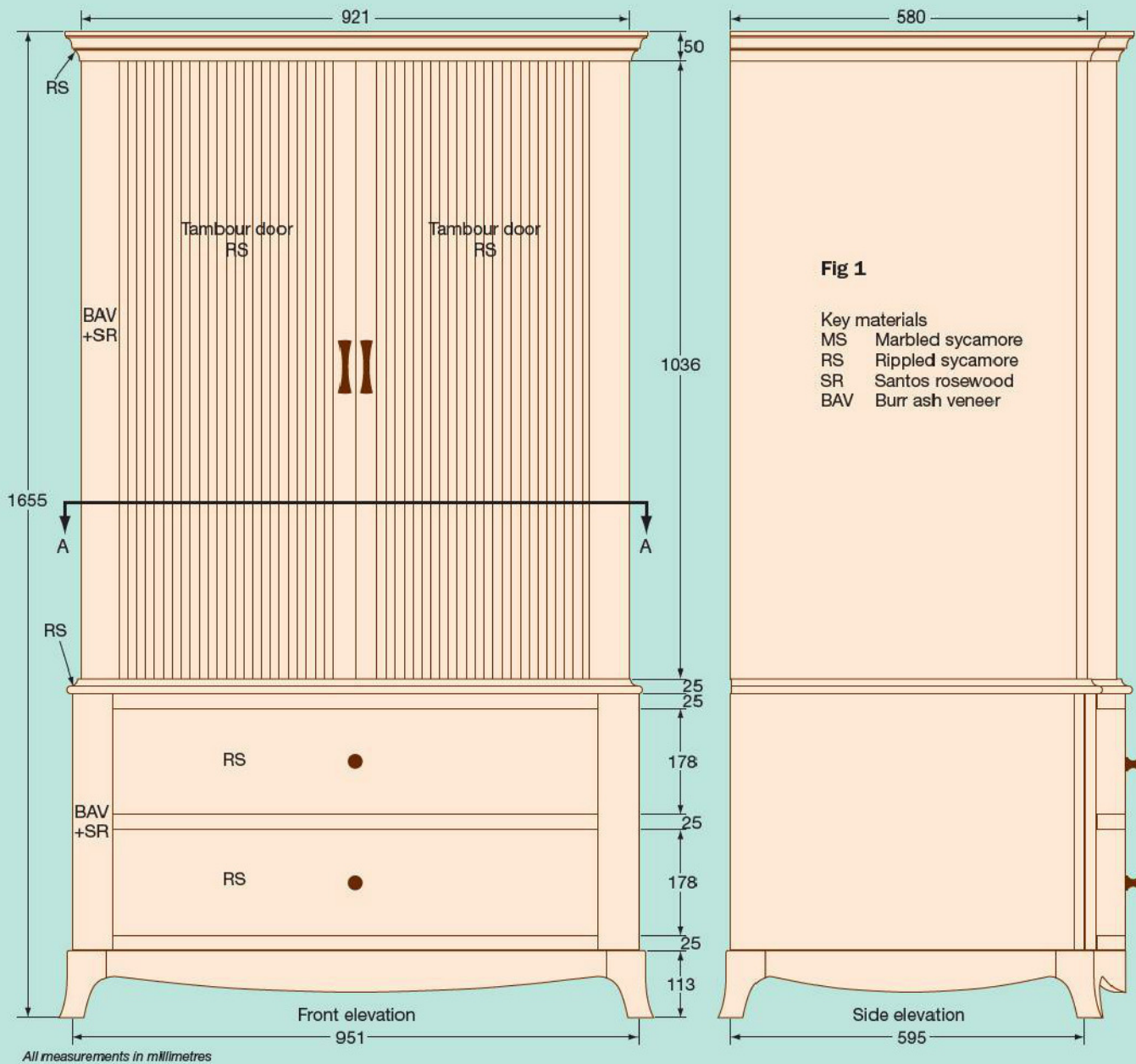
Making the drawer fronts

Drawer fronts made from a show timber such as rippled sycamore are always a major focal point, so careful timber selection is required. This often means that some timber is rejected after being planed up. These drawer fronts are made up from five 3mm thick veneers, glued together over the plywood former and held in place by strong webbing clamps. The veneers need to be cut oversize because some glue-line slippage is inevitable.

Try to ensure that both the face veneers are cut from the same plank so the grain matches on the two drawer fronts. I always use urea formaldehyde glues for laminating because they have much less spring-back than PVA glues. Leave each lamination glued up on the former for 24 hours.

Trimming the drawer fronts

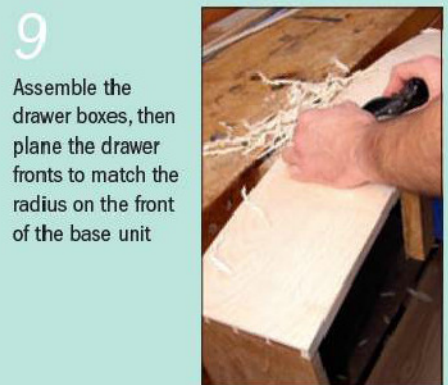
Once the laminations have been removed from the former, mark out on the inside of the



7 Mark the drawer size on the laminated front, cramp it back on the former and trim it to size



8 Use a block plane to create flats on the ends of the concave faces of the drawer fronts



9 Assemble the drawer boxes, then plane the drawer fronts to match the radius on the front of the base unit

10

Rebate the drawer sides to the depth of the dovetail tails, and the top and bottom to their full depth, ready to receive the cock beading



11 To cut the rebates, set up an auxiliary fence on your table saw and make several parallel cuts



12 Mitre the ends of the cock beading, test its fit on the drawer front, then glue and tape it in place



13 The plinth is a mortised-and-tenoned frame. The curved front is laminated like the drawer fronts



14 When you've assembled the plinth, plane an edge chamfer all round to fit the base unit



15 The back of the base unit is made up from stiles, rails, muntins and four solid infill panels



16 The completed panel fits in the rebates cut in the base unit's side panels, and is fixed with screws



17 The top unit's four panels are assembled using construction dovetails, trimmed with a sharp knife



18 Rout the tambour groove in the top and bottom panels using a template and a guide bush

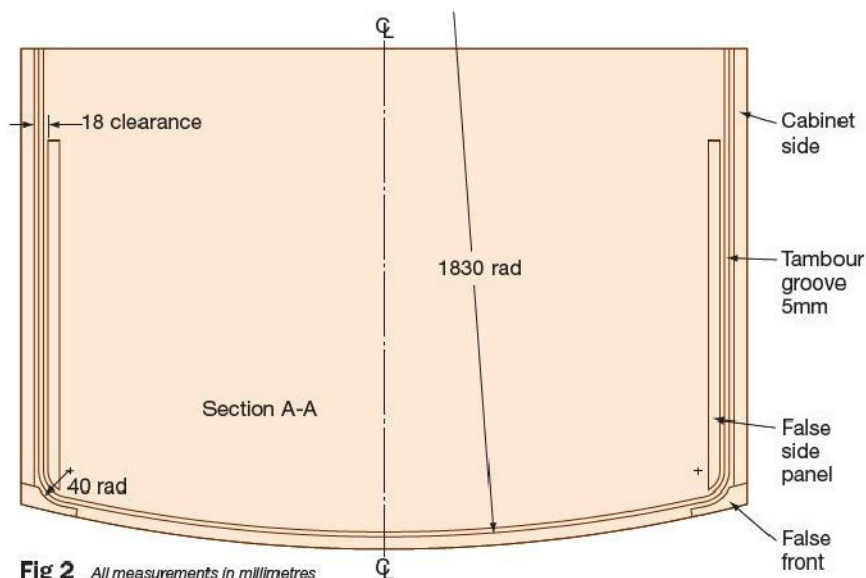


Fig 2 All measurements in millimetres

drawer the size required to fit in the base unit the carcass. The laminated drawer can then be re-applied to the former and trimmed on the router table with a bearing-guided cutter, **photo 7**. Once the drawer fronts have been sized to fit the base cabinet, you can start the dovetailing and prepare to assemble the two drawer boxes. Note that the drawer sides and back are in oak, while the drawer bases are veneered MDF.

There are two points to remember here. Firstly the concave faces of the drawer fronts will need flats planing on them to facilitate dovetailing, **photo 8**. Secondly,

when marking out the front dovetails remember to allow enough room for the cock beading to be fitted later.

Making up the drawers

Once the drawer boxes have been assembled and found to be a good sliding fit in the base unit, it is likely that the radius of the drawer fronts will not quite match the radius on the front of the base cabinet; this is because of the spring-back effect mentioned earlier.

To correct this, the drawer fronts will need hand planing. You must work across the grain, **photo 9**, because planing with the

grain will cause severe tear-out. Finish the job with a scraper and fine sandpaper.

Fitting the cock beading

This job will require each drawer front to be rebated top and bottom to its full thickness, but at the sides only to the depth of the dovetail tails, **photo 10**. There are several ways to do this rebating, but my preferred way is with the circular saw and an auxiliary fence, **photo 11**. Note that the crown guard has been removed for clarity.

The Santos rosewood cock beading can now be fitted. It will need to be mitred at the ends; cut each mitre with a sharp chisel and test its fit on the drawer front, **photo 12**. Then apply glue and use masking tape to hold the cock beading in place until the glue sets.

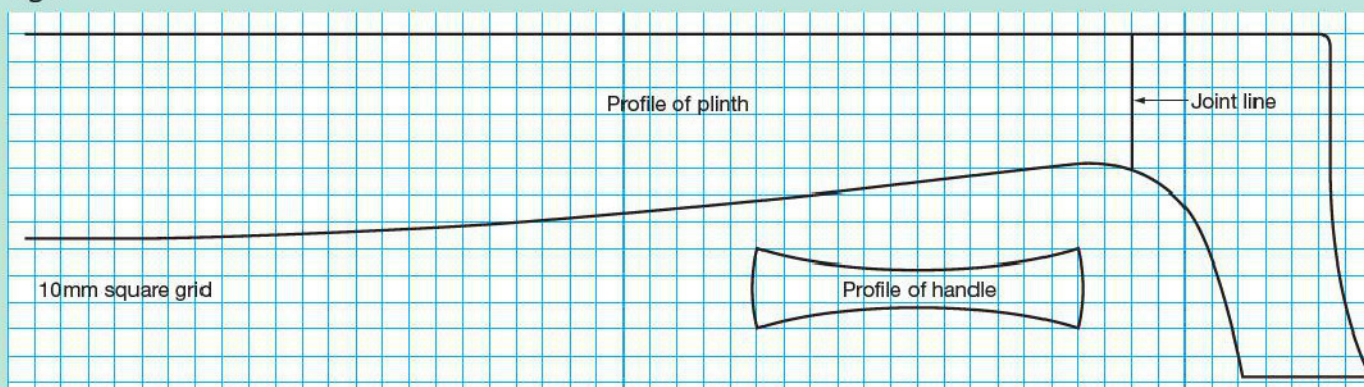
When it's dry, scrape the face of the cock beading flush to the drawer face. Don't sand it, as this will cause brown dust to become embedded in the sycamore grain.

Making the plinth

This is a mortise-and-tenon construction. The front rail is laminated in the same way as the drawer fronts to match the curve on the base units. The plinth is 6mm bigger than the base unit all round to allow for a chamfer to be planed on.

The shape of the feet and rails can be taken from **fig 3**, but cut all the mortises and

Fig 3



19

The groove follows the curve at the front corner of the panel. The cut-out on the corner is where the false front will be attached when the top unit is assembled



20

Each false front has a concave curve on its inner face to follow the tambour track. Make the waste cuts down to the line on a table saw



21

I broke out the waste by hand, then used an old convex moulding plane to smooth the curve



tenons while the components are square. Then mark them up and cut them to shape on the bandsaw when you're confident that everything fits. Smooth the curves with a bobbin sander if you have one. **Photo 13** shows the plinth components ready to be glued up and assembled. A chamfer can now be planed on the plinth to match the size of the base unit, **photo 14**.

Inlaying the plinth

Once the plinth has been sanded smooth all round, use a scratch stock to cut 1.6mm grooves into its front and side surfaces, 7mm up from the lower edge. Then glue Santos rosewood inlay into the grooves; to fit the tight radius on the legs you may have to soak the inlay in hot water first to prevent it snapping. The plinth is fixed to the completed base unit in the traditional way using wooden buttons.

Making the back panel

Being from the old school of woodworking, I'm a firm believer that the back of a piece of furniture should be made and finished to the same standard as the front. Nothing aggravates me more than seeing a cheap piece of plywood or MDF there.

I always make a mortised-and-tenoned frame with solid wood panels. **Photo 15** shows the components being assembled, and **photo 16** shows it being fitted into its

rebate, where it will be secured using brass screws. Which do you prefer? Frame or plywood? I think I can confidently say that there's no contest!

How the tambour works

The main consideration when making the top unit is the accommodation of the double tambour. This is an ideal space-saving method of closing any cabinet opening, and looks stunning if well made.

Each tambour consists of 28 slats of ripple sycamore mounted onto a canvas backing, running in a groove cut in the top and bottom panels of the top unit. The carcass must be truly square; otherwise the tambour won't run smoothly. Another very important consideration is that false side panels must be provided within the carcass, not only to conceal the tambour but also to stop the wardrobe contents from interfering with its movement.

Preparing parts for the top

The sides of the cabinet are dovetailed into the top and bottom panels with construction dovetails, which have pins the same size as the tails, **photo 17**.

The two false sides are housed into the top and bottom panels, leaving an 18mm gap between them and the sides of the cabinet, as shown in **fig 2**. This gap will allow the tambour to move freely.

I routed the tambour groove using a router

with a guide bush and a plywood template, **photo 18**. The end result is a 5mm wide groove on the inside faces of the top and bottom panels. The front corner of the groove is shown in **photo 19**, along with the template used to guide the router.

Subtle shaping

The false fronts have a 40mm radius hand-planed onto the inside of the face to accommodate the tambour when it travels around to the side of the cabinet. **Photo 20** shows the waste cuts I made on a circular saw, and **photo 21** shows my old convex moulding plane in action, smoothing down to the line. An extra pair of eyes (belonging to Nicholson Minor) is helpful here!

The false uprights will need similar treatment, but with a concave moulding plane, **photo 22**. The housings for the false sides can now be routed into the insides of the top and bottom panels, **photo 23**.

Once the back of the cabinet has been rebated to accept the framed back panel, the carcass can be glued up and checked for square.

Veneering and Inlaying

I find it a little sad that veneered panels and inlaid bandings are no longer much used in modern furniture, because they add a welcome touch of colour to bland woods such as sycamore.



22 The false side panels need a similar but convex curve – a job for my concave moulding plane



23 Use a router with a fence to create the housings for the false sides in the top and bottom panels



24 Assemble the top unit, then rout a recess 1mm deep in the face of the two false fronts



28 Align the 28 tambours, cramp them down on the bench and glue the canvas to their backs

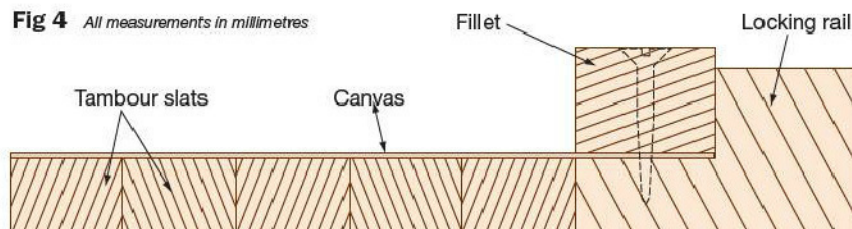


29 Cramp a straightedge across the assembled tambour and saw and plane the end shoulders



30 Slide each tambour into its groove from the back of the unit and check that it slides freely in its grooves

Fig 4 All measurements in millimetres



Using a router with a shaped block fixed to the fence, **photo 24**, rout out a rectangular rebate 1mm deep into the false fronts. A chisel will be needed to square the corners.

Use veneer tape to assemble the required number of veneers to fit the rebates, **photo 25**, then cut them to size with a sharp knife and trim them using a home-made shooting board. Test-fit the veneer panels into their rebates and adjust them if necessary.

The veneer can now be glued into the rebates. When it was dry I used a scratch stock to cut a narrow groove round each veneer panel, **photo 26**, to accept the rosewood inlay.

This inlay will need mitring at the corners. It is then glued in place and secured using a metal roller, **photo 27**. When the glue is dry, clean up the surface with a scraper.

Tambour time

Once the tambour doors were finished, I was very pleased with the symmetrical look

of the grain. I achieved this by carefully marking each slat when it was machined, and then keeping them in the right number order throughout the assembly process.

Once all the tambours were cut to length, I laid them flat on a table in number order and clamped them together. I then glued the canvas to the backs of the slats with aliphatic resin glue and rolled it flat. Don't swamp the work with glue because the canvas needs to stay flexible. **Photo 28** shows the tambour held securely with wood offcuts while the canvas is being glued in place.

Cutting the shoulders

The ends of the tambours need shoulders cut on them to reduce their thickness and allow them to run freely in their grooves. I screwed a wooden straightedge to the bench over the tambour and used it as a guide to cut the shoulders. Saw the shoulders first, then plane the tongues square, **photo 29**. Note that the tambour should run on the ends of the tongues and not on the shoulders; otherwise

rub marks will soon appear on the carcass.

Once this process is complete, check that the slats aren't stuck together and that the tambour will roll up easily. Then you can slide each tambour into its groove from the back of the top unit, **photo 30**, and check that it moves freely. Some candle wax on the tongues may help here.

Once you're satisfied, the tambour can be given its finish; my choice was Danish oil. Next you can fit each tambour with its locking rail, **photo 31**. These must be sprung in from the front because they are thicker in section than the tambour itself. The back of the canvas is held in place with a wooden fillet that's screwed to the back of the locking rail, as shown in **fig 4**.

Adding the back panel

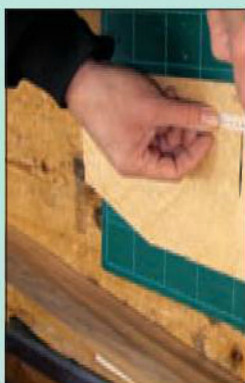
This is of the same construction as the back panel on the base unit, but is obviously much bigger. It's fixed into its rebate with brass screws; it mustn't be glued because if there are any problems with the tambours in the future, their only exit point is from the rear of the unit.

The missing link

The top and base units are linked by a simple open rectangular frame with a bullnose moulding on its outer edge, assembled with mitre joints. It's positioned on the base unit via location blocks on the top of this unit, and

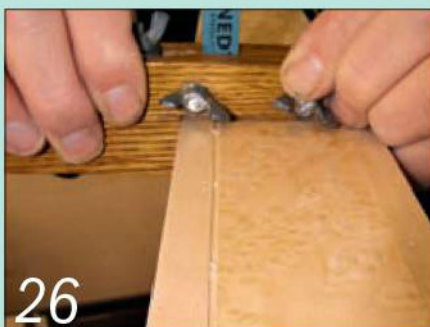
25

Use veneer tape to assemble the burr ash veneer leaves and cut them to size with a sharp knife so they fit within the recesses



26

Glue the veneer panels into their recesses. Then use a scratch stock to cut the grooves for the inlay



27

Glue the inlay in place, roller it down and clean off the squeeze-out with a cabinet scraper



31

Spring each tambour locking rail into place and screw on the fillet to its inner face – see fig 4 on page 18 for details



further location blocks on the underside of the top unit locate it on the frame.

A concave moulding trimmed with rosewood inlay is then fitted into the angle between the top unit and the bullnose edge. Note that it is glued only to the top of the frame, and not to the sides of the top unit.

Adding the cornice

This is a frame similar to the 'missing link' described above, with cove mouldings applied all round. A dust panel is fitted to the top of the cornice, rebated into the moulding and glued in place. Because the cornice is detachable, the space between the dust panel and the top of the unit can be used as secret storage.

Finishing touches

All that remains is to add the handles to the tambours and the knobs to the drawers. See **fig 3** for the handle profile. The curves are bandsawn at a 3° inward angle, then finished with a bobbin sander and glued to the locking rails.

The four rosewood knobs are turned on a lathe with a 12mm diameter tenon, and are glued into holes drilled in the drawer fronts.

To finish the unit, I applied several coats of Danish oil, then rubbed on clear wax to achieve a soft satin finish. You can then fit a hanging rail or a removable central shelf inside the top unit; the choice is yours.





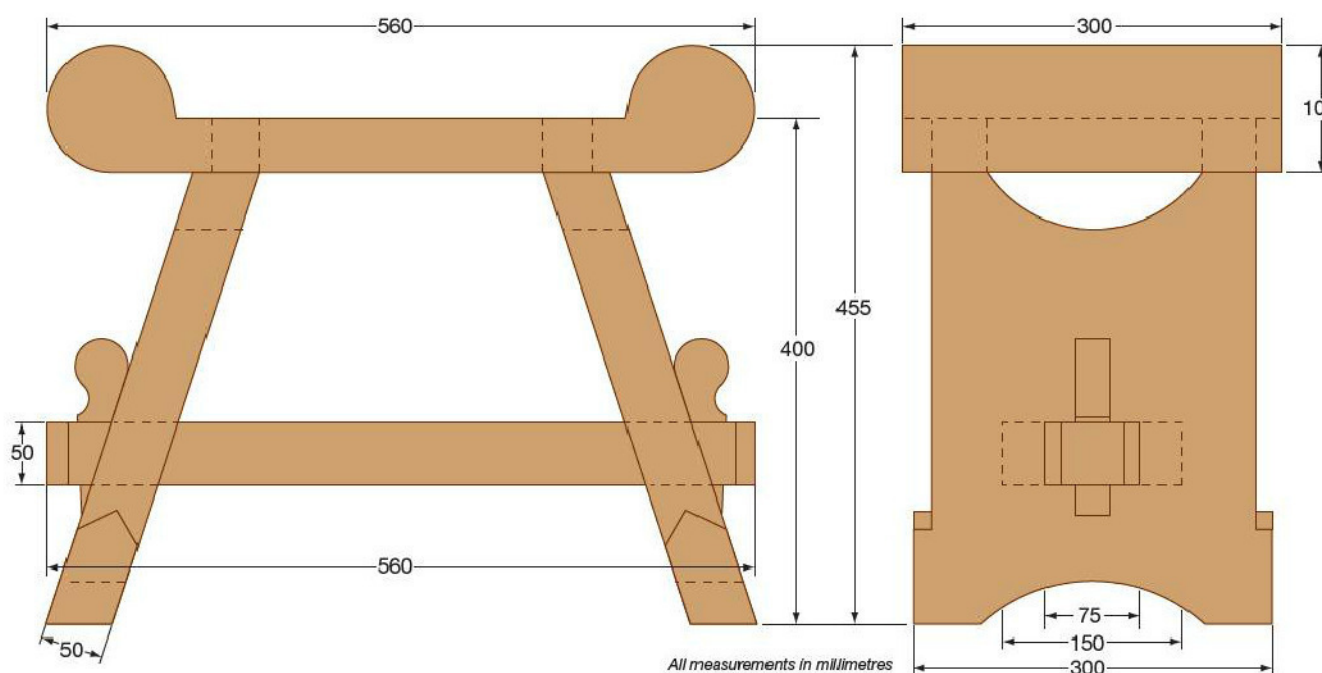
BY PETER BISHOP

A scroll in the park

I caught a glimpse of a weather-beaten garden seat in a magazine a few years ago, and rather liked the shape. It looked like an unrolled scroll on legs, and I designed this project around that concept. Its beauty is that you can make it as a single, double or triple seater. I made four!

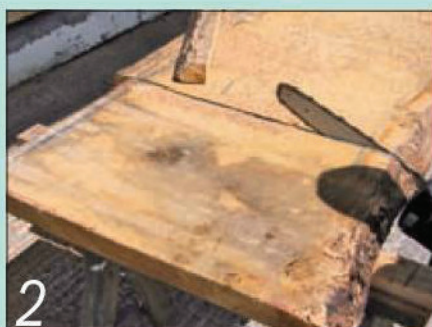
I guess you could use green oak, or any other fairly durable timber, but I chose well air-dried stuff for my seats. It's a little more expensive but, I felt, less likely to crack and split so much. Once the wood arrived I marked it out to produce the best

yield I could get from each piece, photo 1. Because the components were all interlinked on the base stock material, the best tool for this rough cutting was a small chainsaw, photo 2. If you use one, take care and wear all the safety gear.





These wide waney-edged boards are measured and marked to produce the best yield



A chain saw makes it easier to cut the odd shapes out from the stock boards

CARVED SEAT CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
Seat	1	600*	300	100
Legs	2	530	300	50
Brace	1	685*	150	50
Wedges	2	150	50	25

* Increase these dimensions to make double or triple seaters



A full-size drawing of end and front elevations makes the construction a whole lot easier. I used an old piece of melamine-faced chipboard



4 A further reduction of the nominal pieces can be done in a more traditional way



5 The seat material was badly cupped and needed surfacing on the underside to give a flat work face



6 Here you can see how the planing is gradually removing the cupping from the lower surface



7 Mark the positions of the leg mortises on each seat. Batch marking ensures consistency



8 Use a large flat wood bit to remove the bulk of the waste from each mortise...



9 ...then switch to a chunky mallet-powered mortise chisel to square up the holes



10 A full-size drawing allows you to take dimensions straight off it onto the components



11 Mark out the edges of the legs with the cutting angles at the lifted dimension points



12 Set your circular saw blade at an angle and cut the tenon shoulders on all the legs



13 Cut the cheeks of the twin tenons part of the way on the bandsaw



14 Finish off the cuts down to the angled shoulder line with a hand saw

Full-size plans

To help with the construction, I prepared full-size drawings on an old piece of melamine-faced chipboard, **photo 3**. This enabled me to work out the exact nominal and finished sizes, and also gave me something to work the angles off.

With the rough chainsawn pieces to hand, I reduced them further into each of the individual nominal components, **photo 4**. Some of the 100mm stuff had cupped quite badly, so I decided I would roughly surface the lower face, **photo 5**, to give me a flat face to work off and a sporting chance with the joints. **Photo 6** shows how much planing was necessary to get rid of the cupping.

Preparing the Joints

I marked each seat component out with the mortise positions to start with, **photo 7**. Then I used a big flat bit to bore out the bulk of the waste, **photo 8**, and cleaned up the holes with a mortise chisel, **photo 9**.

Once these holes were all cut, I set out the positions and angles of the tenons on the top of each leg, working directly off the drawing, **photo 10**. Having marked these, **photo 11**, I set a hand-held circular saw at an angle to cut the shoulders. It took a bit of trial and error, **photo 12**, but eventually I got the angle right.

Using a further combination of bandsaw (**photo 13**) and hand saw (**photo 14**), I completed cutting each tenon. After clearing away the final waste with a large bevel-edged chisel, I marked the curved cut-out between each pair of tenons and sawed them out.

Angling the tenons

One last job remained. Because the tenons on the angled legs are vertical where they enter the mortises in the seat, I had to mark both the length to which each tenon was to be cut down, **photo 15**, and also the angle at which it needed trimming to fit, **photo 16**. I made the first cut with a hand saw, **photo 17**, and the second with a wide chisel, **photo 18**.

So far so good; now I had to repeat all these steps on legs two to eight!

First assembly

I loosely assembled each seat to its pair of legs on a level surface. Using a bit of scrap as a support, I then marked the centre stretcher's position on the edge of each leg, and dismantled them again so I could mark out the centre mortise holes. I removed most of the waste with a flat drill bit as before, **photo 19**, and finished the job with a chisel, **photo 20**.



Make the curved cut-outs between the tenons, then mark the angled end cuts on them



Use a small template to mark the angles to which the cheeks of the tenons need to be cut



Make the external cut to the marked line on each tenon with a handsaw...



...and use a wide chisel to trim away the waste to the line on the other cheek



Mark the stretcher mortise on each leg and remove the bulk of the waste with a flat bit



Square up each mortise with a chisel. Follow the sloping guide lines marked on the leg ends



21 Mark the positions of the angled shoulders on the stretcher's tenons



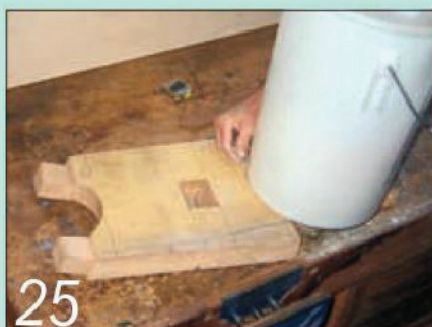
22 Cut a mortise in each end of the stretchers, then part-cut the tenon cheeks on the bandsaw



23 Finish cutting the tenon cheeks on the ends of the stretchers with a hand saw



24 Use a small template to mark the extent of the decoration on each edge of the legs



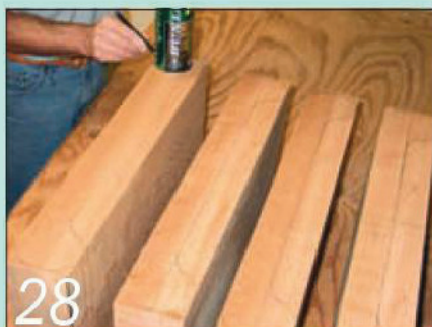
25 Use any suitable round object to mark out the curve that creates the feet



26 Trim the edges of the legs as far as the decoration on the bandsaw, and finish them by hand



27 Take the bottom angle of the foot from the drawing, and cut all the feet to length



28 Use a small can to mark the scroll profile onto the edge of each seat



29 Chop off the bulk of the waste from each end of the seats with the chainsaw



Stretcher template

I used one stretcher to mark out the mortise hole position on the legs. I then marked it with the shoulder positions for the tenons, **photo 21**. This was duplicated onto the others, along with marking out the position of the retaining wedge mortise hole at each end. I used my bench mortiser to cut the wedge mortise holes, cut the cheeks of the tenon shoulders on the bandsaw, **photo 22**, and finished cutting the waste off the tenons with a hand saw, **photo 23**. I then trimmed the corners of the stretcher off at 45°, and set about repeating the entire process on stretchers two to four.

Finishing the legs

Final shaping and decorating of the legs followed. Using a small piece of ply waste,

I made a template for the edge decoration and marked each one, **photo 24**. I hunted out a suitable large container and used the rounded bottom of that to mark the curve for the feet, **photo 25**.

I then cut away the waste from the leg edges down to the point of the decoration using the bandsaw, and finished off with a hand saw, **photo 26**. Finally, I cut the bottom ends of the legs to the correct angle, **photo 27**, and roughly cleaned up each leg in turn.

Forming the seat scrolls

Using a carefully selected round tin, I marked the scroll profile onto the edge of each seat, **photo 28**. First I chopped off the bulk of the end waste with the chainsaw,

photo 29. Then I made a series of relief cuts, to the depth of the seat, across each top, and used a mallet and wide chisel to remove the rough waste, **photo 30.** I had a few blisters after doing all four tops!

I have an Arbortech fitting for my disc cutter, and with this to hand the rest of the waste removal and shaping followed, **photo 31.** Finally a 40-grit belt in my sander roughly cleaned up the surfaces to an acceptably rustic finish.

Final preparations

Before fitting my four seats together, I used some 25mm thick oak scrap to make the stretcher wedges. I made a little template for them and marked round it, **photo 32.** I then cut them to shape on the bandsaw, **photo 33,** and cleaned them all up with coarse sandpaper.

Lastly, I had deliberately left the top of each tenon slightly too long, and I now cut expansion slots down each side of these to take locking wedges.

Assembly line

Because the seats were going to be used outside, I settled on a powdered resin glue to fix them together. I first attached two legs to each stretcher. Then I applied plenty of glue in and on the joints, **photo 34,** and dropped the tops on. Driving in the stretcher wedges next settled all the angles into their correct positions.

With this done, and each seat sitting on the leg tenon shoulders, I drove glued wedges into the expansion slots to make a permanent fix, **photo 35.** Later on, after waiting for the glue to cure, I cut the tenons off flush with the seat tops and tidied up the seat surfaces.

As a final touch to stop the stretcher wedges coming loose, I tapped a small copper pin through each point and into the leg behind, **photo 36.**

Weather or not

The seats are now finished and can be left to weather to a natural silver. If you feel inclined, a dose of clear wood preservative will help extend their life, especially if you apply it to the bottoms of the legs.

Further protection can be provided by oiling the seats. Clear tung oil is great for this, and tinted finishes are readily available from your local DIY shed.

Different sizes

As you will have noticed from the cutting list, you can change the length of the seat and the brace to make double and triple-length versions. Why not make a full set?



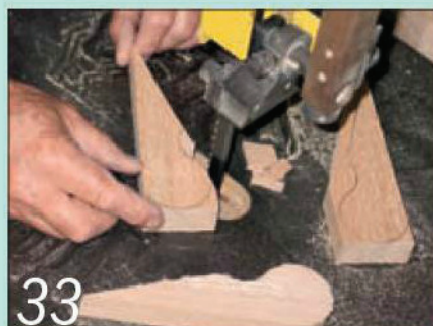
30 Create relief cuts with the chainsaw and chop out the waste with a wide chisel and mallet



31 I used an Arbortech attachment in my disc cutter to give the seats a rustic finish



32 Make a template for the wedges and mark them out on some 25mm thick oak scrap



33 Cut the wedges to shape on the bandsaw and clean them up with coarse sandpaper



34 Fit two legs to each stretcher and apply plenty of glue in and on the joints



35 Drop the top into place and drive a glued wedge into each expansion slot



36 Drive a wedge into each stretcher mortise and lock it in place with a copper pin



'THE' TOOL SPECIALISTS LOW TRADE PRICES!

Your No1 choice for Hand Tools, Power Tools & Machinery



WHERE ELSE CAN YOU GET TOP VALUE ON ALL THESE LEADING BRANDS...



MASSIVE CHOICE!

UNBEATABLE VALUE!

The personal touch – Nationwide

D&M Tools has been family owned and managed since 1978. We have earned a reputation as your trusted partner with the personal touch, combined with expert advice from our trained staff, great value and speedy nationwide service – **PLUS delivery is free for most orders over £99.**

Widest range – Biggest names – Best value

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 machinery all at the keenest prices.

You're just one click away from the latest offers...

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.

Subscribe to our regular email to keep up with our latest deals and offers!

DM-TOOLS.CO.UK

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

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



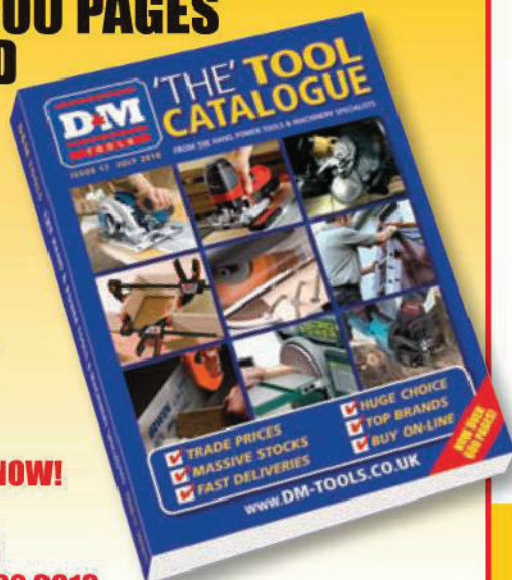
'THE' TOOL SHOW '10

WWW.THETOOLSHOW.COM

KEMPTON PARK RACECOURSE
8-10th OCTOBER 2010

NEW FREE CATALOGUE
OVER 600 PAGES
PACKED FULL OF THE BEST DEALS + THE LATEST KIT!

GET YOURS NOW!
VISIT OUR WEBSITE OR
TEL: 020 8892 3813



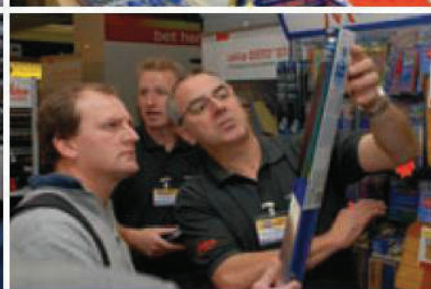
THE UK's No.1 BRANDED HAND, POWER TOOLS & MACHINERY EVENT



'THE' TOOL SHOW '10

WWW.THETOOLSHOW.COM

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



VISIT STANDS STAFFED BY THE MAJOR BRAND NAMES:



BOSCH

STANLEY

BOSTITCH



KEMPTON PARK RACECOURSE

STAINES ROAD EAST • SUNBURY-ON-THAMES • MIDDLESEX TW16 5AQ

8th-10th OCTOBER 2010

FRI-SAT 10am – 5pm • SUN 10am – 4pm

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





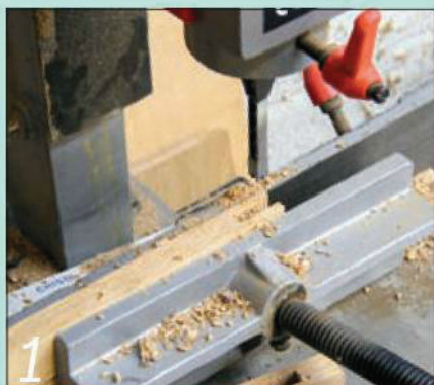
BY PETER DUNSMORE

First aid post

Some projects go well and some don't. This is one of those that didn't! My original intention was to make a small wall-hung cabinet, using some of the many offcuts that accumulate in a small bin by my workbench. But then I lost concentration for a moment...

I designed this cabinet primarily as a small first-aid cupboard to store family medical essentials in one handy place, but in reality the dimensions can be altered to suit other purposes. The outline plan in my head seemed OK, but during the gluing-up stage

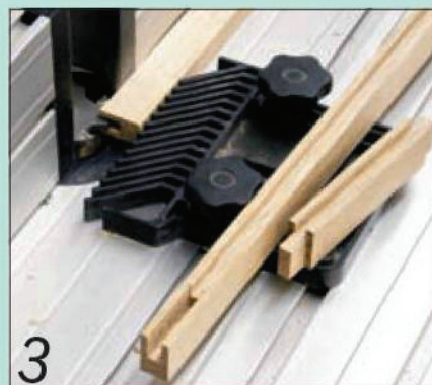
it occurred to me that I'd forgotten to cut some rebates inside the cabinet and, of course, by then it was too late. Hence the moulding I applied around the perimeter of the box to cover some endgrain that was now exposed around the top and base.



1 Ensure that the mortise is centralised accurately on the timber



2 Use a bearing-guided rebate cutter to make accurate tenons



3 Cut the grooves for the fielded panels with a straight or groover cutter



4 Repeat the joint-cutting and grooving process on the short rails



5 Set the position of the fence on the bandsaw to form the tenon shoulders



6 Use a bevel cutter to form stopped bevels on the rails and stiles as a decorative feature



Fig 1

WALL CABINET CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
FRONT & REAR PANELS				
Uprights	4	400	22	15
Top rails	2	275	45	15
Bottom rails	2	275	25	15
Rear muntin	1	360	45	15
Back panels	2	340	115	6 (MDF)
SIDE PANELS				
Uprights	4	400	25	15
Top rails	2	125	45	15
Bottom rails	2	125	25	15
Panels	2	350	112	12
DOOR				
Stiles	2	332	25	15
Rails	2	225	25	15
Muntin	1	305	25	15
Panels	2	300	102	15
Cupboard top/base	2	300	160	12
Cover mouldings	2	800	25	15

My original idea was to have the moulding only around the top which, in my opinion, looks much better. As well as the 'measure twice, cut once' mantra, don't forget the 'try a dry assembly before reaching for the adhesive' rule. I did.

A simple design

The components of this cabinet consist of small fielded panels let into frames

assembled with mortise and tenon joints. The rear panel is similar in construction, but the panels are 6mm MDF instead. It also has a vertical divider (muntin), for no reason other than the MDF I had available wasn't wide enough to make it in one piece. An added advantage of the muntin was the ability to screw the unit to the wall through it instead of through the MDF, which would make a more satisfactory fitting.

Preparing the slides

Begin the construction by making both side frames. Mark out the length of the mortises to be cut on the uprights and set the depth of cut on a mortising machine to a little over 12mm, **photo 1**. Check that the cutter is centralised. If you're in any doubt, take the timber out, turn it round and make the cut again to ensure that it is.

A bearing-guided rebate cutter is a quick and easy way to form the tenons, **photo 2**. Then cut the grooves for the fielded panels using either a straight cutter or a purpose-made groover cutter. The advantage of the latter is the way the waste chippings are thrown out of the groove instead of being trapped as they are with a straight cutter.

Set the depth of cut within the limits of the mortise width so it isn't widened, **photo 3**. Repeat the process for the top and bottom rails, **photo 4**. The shoulders on the ends of the rails can be cut quickly by setting the fence on a bandsaw to the correct width, **photo 5**.

Adding bevels

To soften the edges of the timbers, cut a stopped bevel using a bevel cutter, **photo 6**. Remember that these are stopped before the ends of the timber, and a method I find that works well is to make pencil marks on the opposite face of the timber where the bevel will start and finish. Then add a corresponding mark on the router table to show where to start and finish the cut. Ensure a sharp chisel is used to make the finish of the bevel ends crisper and more attractive, **photo 7**.

Adding the panels

Try a dry assembly of the side frame components and make any adjustments required. Then measure up and make the fielded panels to suit the frames, remembering to allow for the depth of the groove. Make each panel about 2mm narrower than measured to allow for any swelling in the width of the wood.

Select the panel cutter so the panel will be a sliding fit in the grooves, **photo 8**. Remember that the wider the cutter, the slower the router speed must be to avoid burning the timber. If you don't have a panel cutter, either leave the panels plain or form simple bevels on them using a plane.

Finish and assemble

Before gluing the various components together, apply a finish to the inside faces and the panel, **photo 9**, as access will be more difficult later. Avoid getting any finish on the joints; then glue the components together. Check that everything is square, add some cramps and set the two panels aside to dry, **photo 10**.

Making the back panel

The rear frame is made in a very similar way to the side ones, using mortise and tenon joints and having grooves cut along their length to take the 6mm thick MDF infill panels. The groover I use cuts a 6mm wide kerf that suits the MDF perfectly, **photo 11**.

The central muntin has a groove cut on each side, and fits into mortises cut in the top and bottom rails, **photo 12**. Glue the components together and check that all is square.

Making the front frame

The front frame is made to match the rear but obviously doesn't have the central muntin. Prepare its components, assemble it and put it aside to dry thoroughly.

Now for the bit I forgot first time around! Cut the rebates along the top and bottom edges of the four frames into which the top and base will fit. When these have been cut, form the rebates along the vertical edges so the frames can be glued together to form the case, **photo 13** and **fig 2**.

Assembling the case

A little care has to be taken here, but this method allows a good gluing surface area. The 3mm joint that's left visible will be camouflaged by the bevel that will be cut there later. Apply some PVA glue, cramp the components together and set aside to dry. Remember to fit the top and base at this stage; they will automatically keep the case square as the clamps are tightened, **photo 14**.



7 Use a sharp chisel to trim the ends of the bevels to a neat 45° angle



8 Select a panel cutter and field the panels so they'll fit in the grooves



9 Apply a suitable finish before gluing the side panels together



10 Glue and cramp the frames together and compare diagonals to check they're square



11 Cut the grooves in the back panel frames to suit the MDF panels



12 The muntin in the rear panel fits into mortises in the top and bottom rails

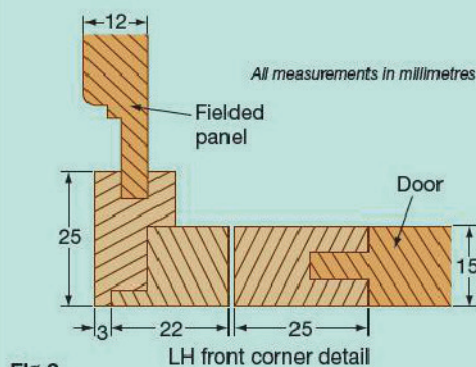
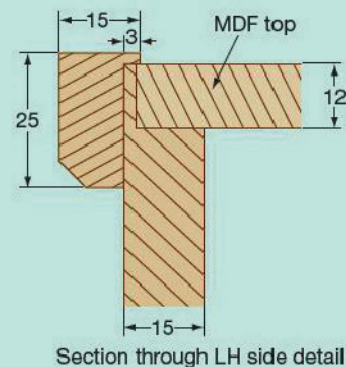


Fig 2



Section through LH side detail



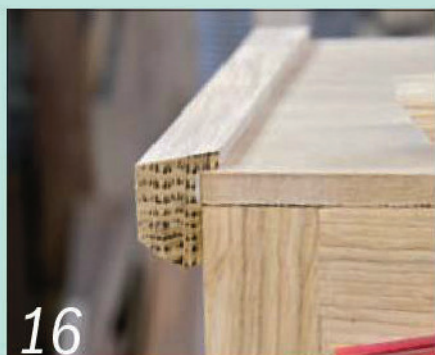
13 Cut rebates so you can join the four sides of the cabinet together



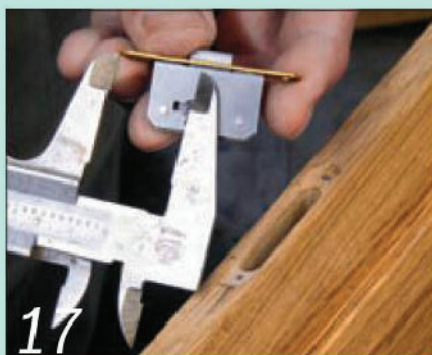
14 Fit the top and base panels to keep everything square, cramp up and leave to dry



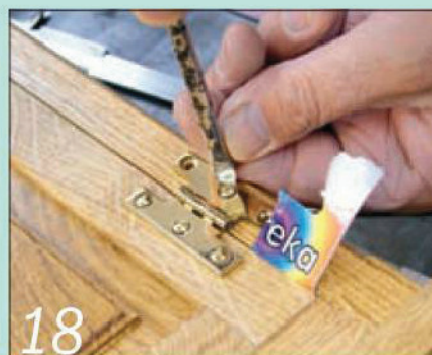
15 The door assembly mimics that of the rear frame, with a central muntin



16 A simple moulding hides the end grain I carelessly left exposed on the top!



17 Cut a mortise and a shallow recess to accept the small cabinet lock



18 Drill pilot holes and cut threads with a steel screw, then drive in the brass hinge screws

By the way, my top and base were of oak-veneered MDF that I had to hand, but there's no reason why solid oak couldn't be used providing it's well seasoned.

When the case is dry, use a router freehand with a bevel cutter to form the stopped bevels down the front edges of the case.



Making the door

The door fits into the front frame and follows the same assembly method as the rear frame, with mortise and tenon joints for the corners and a central muntin, **photo 15**. The grooves are cut to suit the fielded panels and are made in the same way as those on the side panels.

Remember to cut the stopped bevels on the inside edges of all five door

components, and take particular care marking out where they are to start and stop. It's a very subtle technique, but one that's well worth the effort when the cabinet is completed. Trim the ends of the bevels neatly with a sharp chisel.

Finishing touches

To hide the end grain showing on my rebate-less cabinet, I added a simple moulding, **photo 16**, and repeated this around the base. See **fig 2** again for the moulding position with the top panel properly rebated into the frames. Personally I feel that the lower moulding is unnecessary on a wall-hung cabinet, so omit it if you agree.

Fit a small lock to the door edge. Cut its mortise first, then use a straight cutter to cut its faceplate recess, **photo 17**, and a drill and a small chisel to form the opening for the key. Add an escutcheon plate and cut a small slot in the front frame to accept the latch.

The surface-mounted hinges are easy to fit, **photo 18**. Drill pilot holes and cut a thread in the wood first with a steel screw. Brass screws won't react with the oak and form black streaks in years to come, but they're easy to snap if over-tightened. Note the use of scrap card to position the door as the hinges are secured in place.

Finally, apply a finish to the exterior of the case. I wiped on three coats of Danish oil and allowed the finish to dry thoroughly before hanging the cabinet on the wall.



Hole in one!



The Everbuild Wood Filler range has a bright new look with easy to follow colour coded packaging and a product to suit every application.

The tried and tested trade formulas have been improved using the latest resin technology so that they dry quicker, sand down easier and take a stain better than any other filler on the market.

The Everbuild Wood Filler range – bright on the outside, and bright on the inside!

Everbuild Building Products Ltd Site 41, Knowsthorpe Way, Cross Green Industrial Estate Leeds LS9 0SW
Telephone: 0113 240 3456 Fax: 0113 240 0024 Email: info@everbuild.co.uk Website: www.everbuild.co.uk

Hegner - standing head & shoulders above the rest



Steady heavy weight construction for effective vibration damping & precise workpiece steadiness

Optional accessories
Super fine extraction
Machine stand
Finest blades

- Durability & accuracy
- Nothing comes close to its no compromise patented design
- Steady cutting action and longer blade life
- Finest straight-from-the-saw finishes
- A real investment in long term skill support

For a free information pack
call us on 01630 637375 Quote: GW-SS27

HEGNER UK

TECHNOLOGY SUPPLIES LTD

Phoenix House, Tern Hill, Market Drayton, Shropshire, TF9 3PX

Sales: 01630 637375 Technical: 01630 637376

Fax: 01630 637377 Email: sales@hegner.co.uk Website: www.hegner.co.uk



WESTONBIRT
THE NATIONAL ARBORETUM

KIDS GO FREE!

Giant tree carving
Creative woodcrafts
Workshops and talks
Celebrate the world of wood at

The amazing Festival of the Tree

23-30 August 2010

Proceeds from Sculptree auction go to support Tree Aid in Africa.



Sculptree 23 - 30 August. Spectacular carving for the charity auction on Bank Holiday Monday. www.sculptree.org.uk

Exhibitree 27 - 30 August. Learn and take part, or simply enjoy the exhibitions and family fun.

For the daily event programme go to www.forestry.gov.uk/westonbirt
Tel 01666 880220

Westonbirt, The National Arboretum, Tetbury, Gloucestershire GL8 8QS

Celebrating **150 Years**
In the Woodworking Trade

AUTUMN
WOODWORKING
SHOW AND SALE

Friday 10th September 10am - 5pm
Saturday 11th September 10am - 4pm

Approximately 50 Trade Stands, displaying the latest woodworking equipment. In the region of 30 top demonstrators

Massive sale of Tools, Timber and Accessories

Plus Refreshment marquee, Hobbies Shop with sale and demonstrations and Craft Gallery

All Welcome

Free Entry and Parking

Information sheet available mid August or see our Website

www.yandles.co.uk

All at: Yandle & Sons Ltd, Hurst Works, Martock, Somerset TA12 6JU

Tel: 010935 822207, E-mail: online-info@yandles.co.uk

Yandles
TIMBER | TOOLS | MACHINERY | HOBBY | GIFTS

Creative Welsh Woodturning Ltd.

www.turnerstoolbox.com



TURNERS' TOOLBOX
BY DAVID MARTIN

Woodturning – Woodworking – Woodcarving – Tools & Accessories



&
Shipped Worldwide



A sign of
Quality Craftsmanship
Assured



For more information

Visit our online tool store at:

www.turnerstoolbox.com

Tel: 01873 831589 – Mobile: 07984 987336

Email: info@turnerstoolbox.com

For a unique wide range of applications with lasting FEIN quality.

The new FEIN MultiMASTER sets – SELECT PLUS and TOP PLUS.



Now with even
more accessories!

FEIN MultiMASTER – the universal system for interior fitting and renovation.

No matter whether you're working on your home, car, hobbies or in the garden, FEIN offers you everything you need for interior fitting and renovation work with the new FEIN MultiMASTER sets, SELECT PLUS and TOP PLUS. That's because FEIN has included even more useful accessories in the two sets. But no matter which of the two sets you

choose, you'll be able to undertake all sawing, sanding and polishing applications, from renovating windows to restoring tiles in a professional manner with the powerful and versatile FEIN MultiMASTER.

www.fein.com

FEIN. Unverwüstliche
Elektrowerkzeuge.





BY GORDON WARR

T is for trinket

Wooden boxes are always popular. They're a pleasure to make, don't require much in the way of materials and can be finished in a few hours. You can create them in all shapes and sizes, and they make lovely gifts. And that's why I made this one...

Tea was first drunk in this country around 1650. It was very expensive, because it was subject to a heavy tax and the high costs of shipping it from China. The tax was reduced in the first quarter of the next century, but remained something of a luxury and a beverage for the rich.

It was such a valuable commodity that even amongst the well-to-do it was kept locked in special boxes, or caddies as they became known – the word is a corruption of the Malay word *kati*, which meant the weight of a small packet of tea. These caddies usually had two or three compartments so that different types of tea could be blended together to suit the taste of the drinker. Although usually made of wood, all-metal caddies were also made, but regardless of the material used the quality was always very high.

T is for taper too

One very popular shape for a caddy had tapering sides, and was often decorated with brass fittings. This is the pattern I've adopted for this trinket box project, but instead of fitting dividers I've introduced a lift-out tray. I used a hardwood I couldn't identify with certainty, but chose to veneer it anyway with some highly figured walnut I had available.

Preparing the parts

I started this project by preparing the wood for the sides and ends of the main part of the box, **photo 1**. The sizes aren't critical, which is why I haven't included a cutting list; you'll find all the chief dimensions on the drawing overleaf.

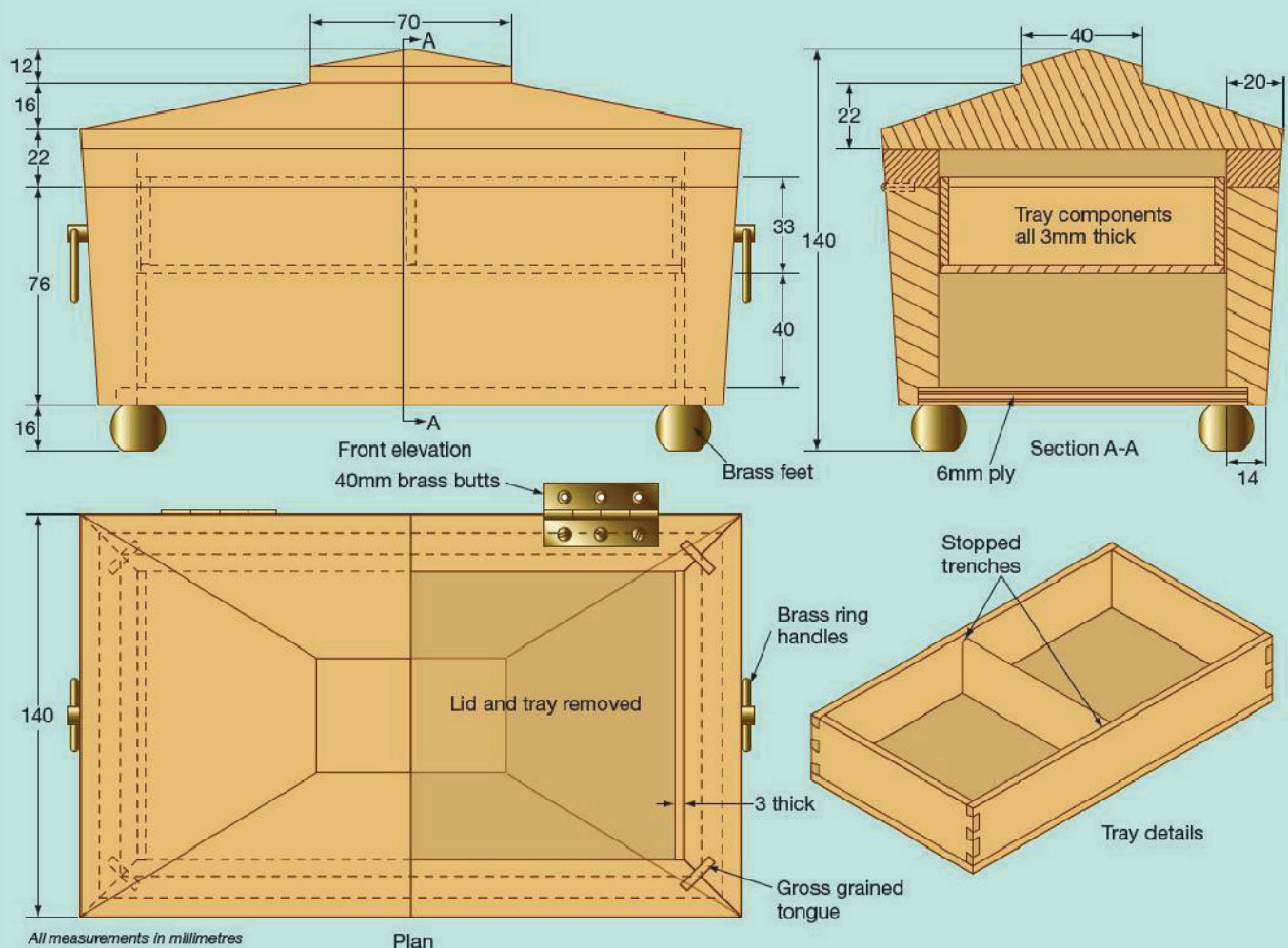
My box is jointed at the corners with mitres strengthened with hardwood tongues. These must be cross-grained so as to match the sides. Small dowels are an alternative.

Perfect mitres

For mitres to be successful, they must be cut at exactly 45°. I cut mine on my saw bench by tilting the blade to the angle required, **photo 2**. Even so, I made two or three trial cuts to ensure I could reach the required accuracy. An alternative way to achieve the final mitre angle would be to use a plane and a mitre shooting jig. Indeed, I used the same jig combined with a router to form the grooves for the tongues, **photo 3**. Note that whether tongues or dowels are being used, they must be located off-centre and close to the inner surface of the wood.

Assembling the box

I was quickly at the stage for assembling this part of the project, **photo 4**, but first I cleaned up all the inner surfaces. I then inserted the tongues and applied a



Start by thickening the material for the sides and ends of the box



I cut the mitres on my table saw; note that the crown guard has been removed for clarity



A router and my mitre jig formed the grooves for the loose tongues



Two sides, two ends, and four tongues are now ready for assembly



Insert the tongues and apply adhesive thinly to all the mitre surfaces



Level the top and lower edges of the box with a shaving or two of hand planing

generous coat of adhesive to the mitres, **photo 5**. Next, I assembled the box using a combination of my bench vice and a couple of sash cramps to ensure the four joints were held tightly together. Once dry, the edges needed just a shaving or two to ensure they were level, **photo 6**.

The lower inner edges of the box were soon rebated to accept the plywood base. I carried this out on the router table using a rebating cutter. Then I cut and glued the base in place. The top was initially added as a simple rectangle of wood, held in place entirely by adhesive. It was cut to be slightly oversize, and well cramped for a few hours.

Forming the tapers

Once out of the cramps, I planed off the excess to the sides and ends by hand, **photo 7**, then drew pencil lines on the underside showing the extent of the taper to all the outer surfaces. This taper can also be formed by hand planing, but a surface planer is a better – and quicker – option.

For this I tilted the fence, and made a series of passes to remove the excess, **photo 8**. Only fine cuts were made, each time tackling the ends of the box before the sides to minimise any risk of splching at the corners.

Creating the pyramid

Next I marked out the top to indicate the pyramid shape. Here the sides were again shaped on the planer, using the fence to provide the necessary guidance. However, the matching surfaces which slope towards the ends of the box could not be readily tacked by machine, so here I removed the excess wood by hand planing, **photo 9**.

The flat surface which remained at the top was carefully maintained so that once the capping piece had been fitted, the lines of intersection on the top would be continuous on both pieces making up this part of the box.

Veneering decisions

Now I was ready for the veneering. In fact my box, made with an unknown wood, would have been perfectly acceptable as it was. The veneering was something of an experiment. It was having some beautiful figured walnut veneer available that prompted me to tackle it.

I couldn't use cauls to hold the veneer in place, nor my home made veneering press. Both these methods require opposite surfaces of the object being veneered to be parallel. This leaves the choice between using traditional hot glue, contact adhesive and glue film.

I chose the last option. It's a method I've used before and it's very simple. Glue film is



7 Once the box is out of the cramps, plane off the excess to the sides and ends by hand



8 Form the taper to the sides on the surface planer. Tackle the ends first



9 Form the slopes to the end of the top entirely by hand planing



10 Use a hot domestic iron to bond the glue film to the veneer and the box



11 Position the veneer, protect it with brown paper and iron over it to bond it in place



12 Remove excess veneer from all the edges with a sharp knife or scalpel



13 Use a sharp block plane to trim the angled veneer edges on the box lid



14 Mark the cutting line and use a tenon saw to separate the lid from the lower part



15 Rub sawn edges off the lid and base on abrasive paper to smooth them



16 Cut the hinge recesses on the lid and attach the hinge. I used a drill guide here



17 Place the hinged lid on the base and mark the hinge leaf positions on it



18 The tray is made from 3mm thick stock with dovetailed corners. Note the stopped trenches



19 I finished my box with pre-catalysed lacquer, rubbed down between coats



20 Stick pieces of self-adhesive baize into the base of the box and the tray



21 Lastly, I added the handles on the ends and the brass feet on the underside...



22 ...before positioning the solid walnut capping piece on the top of the lid

essentially what it says it is – a film of heat-sensitive adhesive, initially held on a paper backing. A domestic iron is used to melt the adhesive and form the bond. However, I vary the technique slightly by using a double layer – one on what is referred to as the 'ground', and the other on the veneer.

Ironing time

I first cut the veneer to give me a total of eight pieces, each a little oversize to allow for trimming. I did likewise with the glue film, but cut two of each size required.

The first two surfaces I tackled were the ends of the box. The iron needs to be set on a medium heat, but you can always experiment to find the best temperature. After using the iron to apply the glue film to the veneer and the box, **photo 10**, I peeled off the paper backing. Then I brought the veneer and box together and applied the iron to melt the adhesive again and bond the veneer in place. I've found from experience that placing a piece of brown wrapping paper between the iron and the wood prevents any risk of scorching taking place, **photo 11**.

Bonding with the glue film is instant. I used a sharp knife to trim off the excess veneer, **photo 12**, then repeated the process on the sides of the box and the top surface, veneering the ends and then the long surfaces. A combination of knife, block plane (**photo 13**) and fine abrasive paper brought all the corners into full alignment and left the surfaces smooth.

The halfway cut

Now I was ready to sever the upper part of the box to form the lid. I first marked it with a gauge, then used a tenon saw to separate the lid, **photo 14**. I smoothed the two sawn edges by rubbing them over abrasive paper laid on one of my planer tables, **photo 15**. The lid and base were regularly checked against each other during this stage to ensure a good fit.

Adding hinges

The lid is hinged with a pair of 40mm brass butts. I recessed these butts into the lid first and then screwed the hinges to it. I used drill guides when preparing the screw holes, **photo 16**; these are clever little devices that ensure that the holes are exactly concentric with those in the hinge leaves. Then, by placing the lid onto the base of the box with the leaves of the hinges in the open position, **photo 17**, I was able to mark their exact locations and cut the remaining recesses with ease.

Making the tray

The little lift-out tray is very straightforward to use, and it provides an opportunity to cut and assemble dovetails in wood that's only 3mm thick, **photo 18**. The division in the tray is held in stopped trenches, and the base is made of solid wood. Having assembled it I then brought my belt sander into use to level the joints and smooth all the surfaces. The tray is supported within the box on pieces of 3mm thick material

that are simply glued to the inner faces of the box ends, as shown in the drawing.

Adding the grip

Just one job remained prior to the finishing, and that was to make the capping piece for the lid. This is solid walnut, initially made rather longer than actually required; then the sloping surfaces along the grain were prepared by hand planing. Next I cut it to length, and formed the slopes at the ends on the disc sander. The overall size of this piece must match the flat surface at the top of the lid.

Finishing line

After a final sanding with very fine abrasive paper, my box was ready for the finishing stage. For small projects such as this, I find pre-catalysed lacquer very simple to use; it gives a tough surface that's very pleasant to look at and to handle. I dilute the lacquer with about 10 per cent cellulose thinners, and apply it with a very soft mop. Three coats are normally sufficient, flattening down between coats, **photo 19**, with the last one being lightly abraded with grade 0000 steel wool dipped in a soft wax. A final buffing with a soft cloth leaves the surface with an eggshell sheen.

Felt and feet

The inside of the box base and the tray are covered in self-adhesive baize, **photo 20**. I then screwed on the brass feet, **photo 21**, added the ring handles at each end and glued the walnut grip in place on the top of the lid, **photo 22**.

Would you believe it?

Kieran's £20 bet is almost won!

When we spotted Andy Bell's recent posting on our website forum, we couldn't resist the opportunity to bring his story to a wider public. So we asked him to tell us a bit more about his friend Kieran Felton's incredible wooden motorbike. Here's the story, in his own words...

A night in the pub

After a few beers we all come up with some strange, wacky, far-out ideas. Normally these are quickly forgotten or dismissed in the cold light of day. Not this one...

Over the years the vision of wooden motorcycle kept coming back to haunt Kieran. Each time the design evolved, various details and design problems were resolved but nothing came of it, not even a 'fag packet' sketch. Then one night, when his mind was sufficiently lubricated, the subject came up once again. His mates dished out the some serious comrade abuse. "You'll never do it." "It won't work." "You can't cheat, it's got to be proper wood."

The bet was on

It was all too much for Kieran. The challenge was too ridiculous and the desire to prove his point too strong. Those fatal words "I bet you I can do it" were heard. So for a meagre £20 bet, Kieran committed himself to hundreds of hours of complex timber engineering.

He didn't hang about. Soon the materials were gathered together: 500ft of 80 x 9mm ash strips, odd pieces of oak and mahogany, loads of cramps, a vat of polyurethane adhesive and a donor bike (a Honda 600cc Transalp).

The build begins

The wheels came first, made with spokes of oak in-filled to make a solid wheel. Two rings were then clamped onto the original wheel rim. All was machined round with a router on a radius arm.

The frame is laminated from the ash strips. These were steamed to fit formers and layered to include steel reinforcements at critical load points. The forks are also laminated to avoid any weaknesses that could be present if a single solid piece was used. The same method was used for the 48in long curved handle bars, which were finished on a spindle moulder.

We let him off using steel to mount the headstock bearings and the fully clad fork yokes. After all, he intends riding this, and at 18 stone Kieran does need solid support!



The intricate fuel tank cover and turned filler cap contrast with the enormous curved handlebars



There are intricate details wherever you look, right down to the Celtic harp on the battery cover



The massive frame and serious suspension are more than a match for Kieran's statuesque build



The wheels feature less wood than any other part of the bike, but purely out of necessity



Decorative detail

The fuel tank has a solid timber cover put together from carefully jointed and steamed sections. The compound angled joints, curved sections and grain selection have all come together perfectly. Finished off with a Celtic Knot pierced fretwork design and a turned filler cap cover, it's a work of art on its own.

For a bit of contrast, the hand grips, lights and foot pegs were turned from mahogany. There are hundreds of little details like these that he's thought through and then hand-crafted. Every time you look more closely, there's something else to be amazed by.

Final chapter

After about 700 hours spent working on his masterpiece, Kieran almost deserves to win the bet for sheer dedication, perseverance, craftsmanship, ingenuity and total eccentricity. Unfortunately his woodworking skills far surpassed his skills as a motor mechanic. He'll get his £20 when the engine's running!

A better look

You can see more pictures of Kieran's bike by visiting www.getwoodworking.com/forums/postings.asp?th=39902&p=1 and following the link there to Andy's site.

EUROPEAN



WOODWORKING
SHOW



CRESSING TEMPLE BARN

Near Braintree, Essex, England

Saturday 2nd October 2010 - 10am - 5pm

Sunday 3rd October 2010 - 10am - 4pm

DEMONSTRATIONS & TRADE STANDS

Woodturning • Woodcarving • Chairmaking • Green Woodworking • Basketmaking
Pyrography • Workshop Machinery • Hand Tools • Traditional Crafts
Musical Instrument Making • Japanese Joinery • Power & Chainsaw Carving
Timber Sales & much more

STORY TELLING • ST. PETER'S BREWERY • FOOD & DRINK STALLS

TICKETS 01473 785946

Pre-booked tickets £6.50 Concessions £5.50 Entry on the day £8 Concessions £6

Free entry under 16's

www.europeanwoodworkingshow.eu

Carpenters' Fellowship ANNUAL OAK FRAMING CONVENTION

To be held this year on Saturday 4th September

Cressing Temple Heritage Site, Essex

A full day of activities including

- practical demonstrations
- workshops
- presentations
- stalls
- refreshments

**Watch us building and demonstrating a Medieval
siege weapon - an authentic Moat Perrier**

For ticket prices and programme details:

www.carpentersfellowship.co.uk

Thomas Flinn & Co.,
Home to The World of Woodworking
Sheffield Saw Manufacturers since 1923.

A thing of beauty...



... is a joy to behold

See this and more Sheffield tools online at www.worldofwoodworking.co.uk

Selling favourites from Pax and Lynx Saws, Crown Hand Tools, Robert Sorby,
Clifton products and Joseph Marples Measuring Tools.

Tel: 0114 272 5387

Email: orderonline@flinn-garlick-saws.co.uk

114 Harvest Lane, Sheffield S3 8EG



BY ANDY STANDING

WORKSHOP MACHINES 2

Cutting joints on the table saw

The table saw is not only an excellent tool for ripping and cross-cutting timber and sheet materials. It's also an accomplished joint-cutting machine. After explaining how to set up your machine last month, I'm going to show you how you can cut a range of clean, accurate joints on it

Before you can start cutting joints, there's one small problem to deal with. The majority of table saws are supplied with the crown guard mounted on the riving knife. Modern safety legislation dictates that the guard shouldn't be removed unless suitable alternative guarding is provided. In the past, many woodworkers would have had no qualms about discarding the guard and using an unguarded machine. What you do in the privacy of your own workshop is entirely up to you, of course, but an unguarded machine in the hands of an inexperienced user is a recipe for disaster.

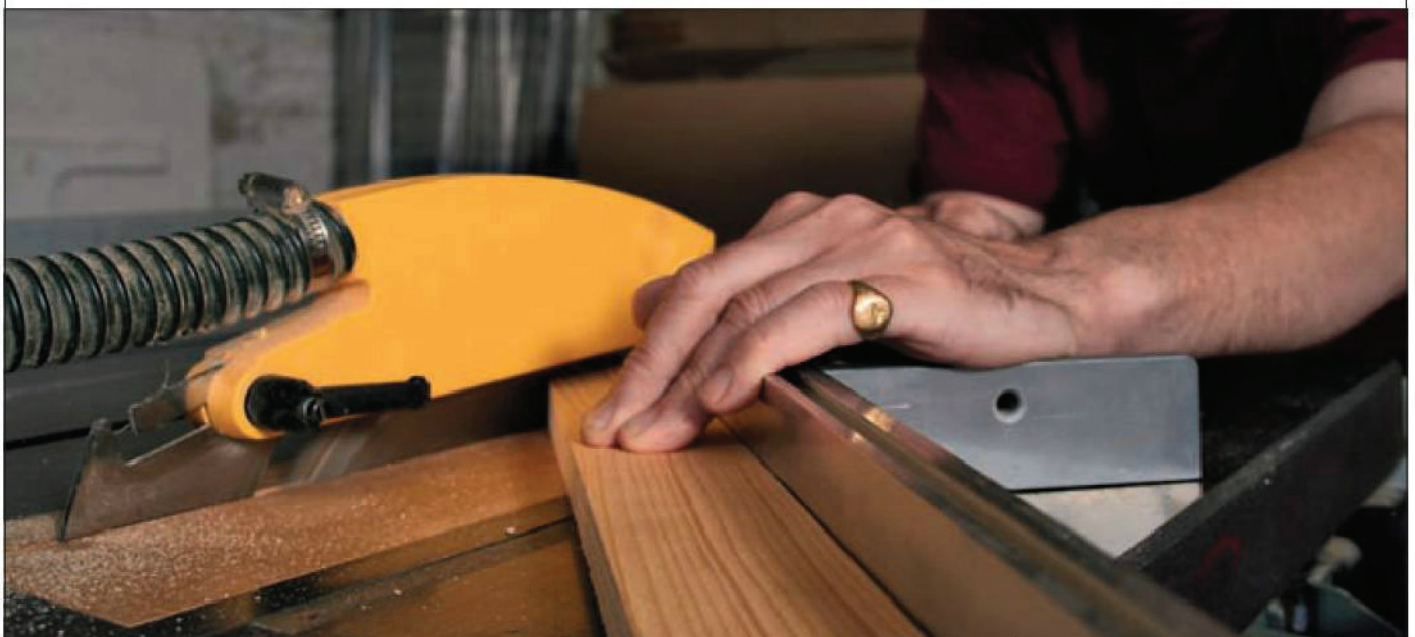
Making partial cuts on the table saw is essential to many joints, so the crown guard and the riving knife need to be separated.

The safest way to achieve this is to employ a suspended crown guard such as the Axminster version shown here. You can leave the riving knife in place, so long as it's set a little below the top of the blade.

First steps

In the first part of this feature I described how to set up and adjust your saw, and it's obviously important to ensure that it's cutting accurately before you try any joint cutting.

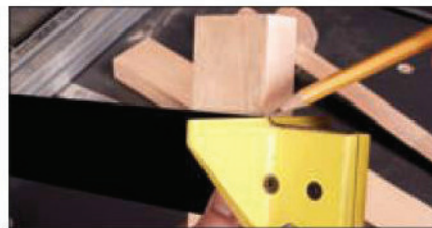
To cut clean joints you need to use the right blade. A good general-purpose blade is usually ideal. For a 250mm diameter blade this should have 40 to 50 teeth. Flat-top teeth are best for joint cutting, though the majority of blades now have alternative top bevel (ATB) teeth which are also perfectly acceptable.



CUTTING HALVING JOINTS



1 Start by marking the shoulder length on one component with a try square. Continue the line all round the workpiece



2 Use the first component and the try square to mark the position and width of the halving on the second component

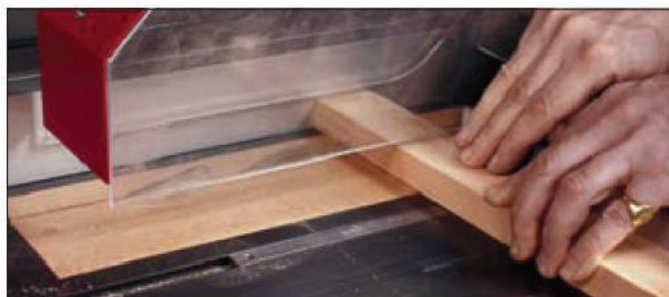


3 Carefully mark a line with a marking gauge at exactly half its depth on one of the components. It's not necessary to mark both



4 Raise the guard and place the workpiece next to the blade. Raise the blade until it is aligned with the marked line and lock it in position

5 Place the workpiece against the mitre fence and set the blade on the waste side of the shoulder mark. Move the rip fence up to act as a stop. As it's only a partial cut, there won't be any offcuts to get jammed between the fence and the blade



6 Lower the guard and start the saw. With the end of the workpiece held against the rip fence, make the first pass over the blade by moving the workpiece and mitre guide forward. Keep the work against the rip fence and return to the starting position

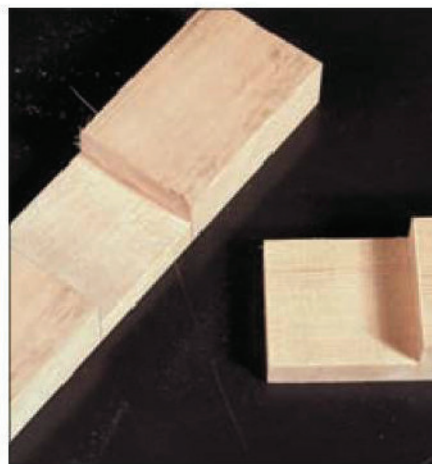


7 Move the workpiece approximately one blade's width away from the rip fence and repeat the process. Carry on working along the workpiece pass by pass until all the waste is removed

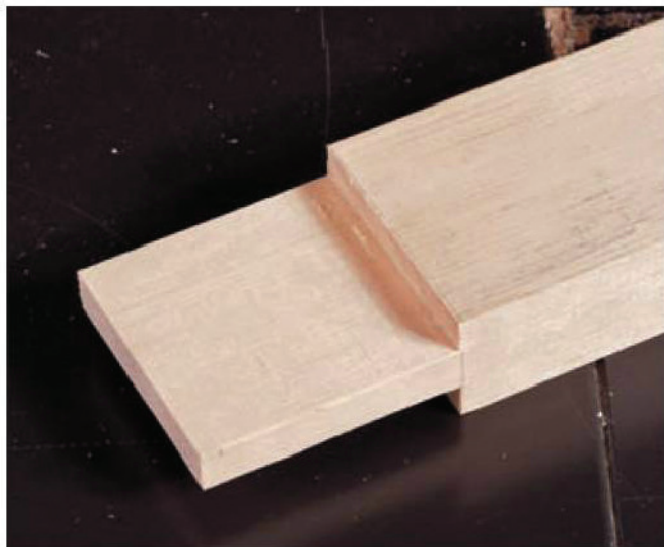


8 To cut the second half of the joint, repeat the process on the other component. Leave the blade height setting alone, but adjust or remove the rip fence as necessary. If the joint is to be cut in the middle of a component rather than on one end, cut both edges of the halving first, then remove the waste

9 The two machined components are remarkably clean straight from the saw. All they need is a light sanding to remove the whiskers, and they're ready to assemble. Any further joints you cut with this set-up will be identical – useful for batch production



CUTTING TENONS



1 Cutting a tenon is very similar to making a halving joint, and relies on careful measuring and setting. Use the rip fence again to set the shoulder length and cut both shoulders



2 Remove the waste on one side of the workpiece a blade's width at a time, as you did for the halving joint. Then turn the work over and repeat the same process to complete the tenon



CUTTING REBATES



WARNING
If you have the waste between the blade and the fence, it will be fired at high speed off the back of the table when it is released, with possibly painful consequences



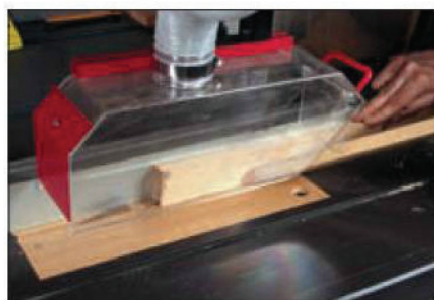
1 Mark the required rebate dimensions clearly on one end of your workpiece



2 Hold the workpiece on edge and set the height of the blade to the pencil mark



3 Use the rip fence to position the blade so it will cut on the waste side of the line



4 Lower the blade guard and make the cut, using a pair of push sticks to guide the workpiece



5 Lay the workpiece on its side next to the blade and re-set the blade height



6 Set the rip fence, making sure that the waste is on the open side of the blade



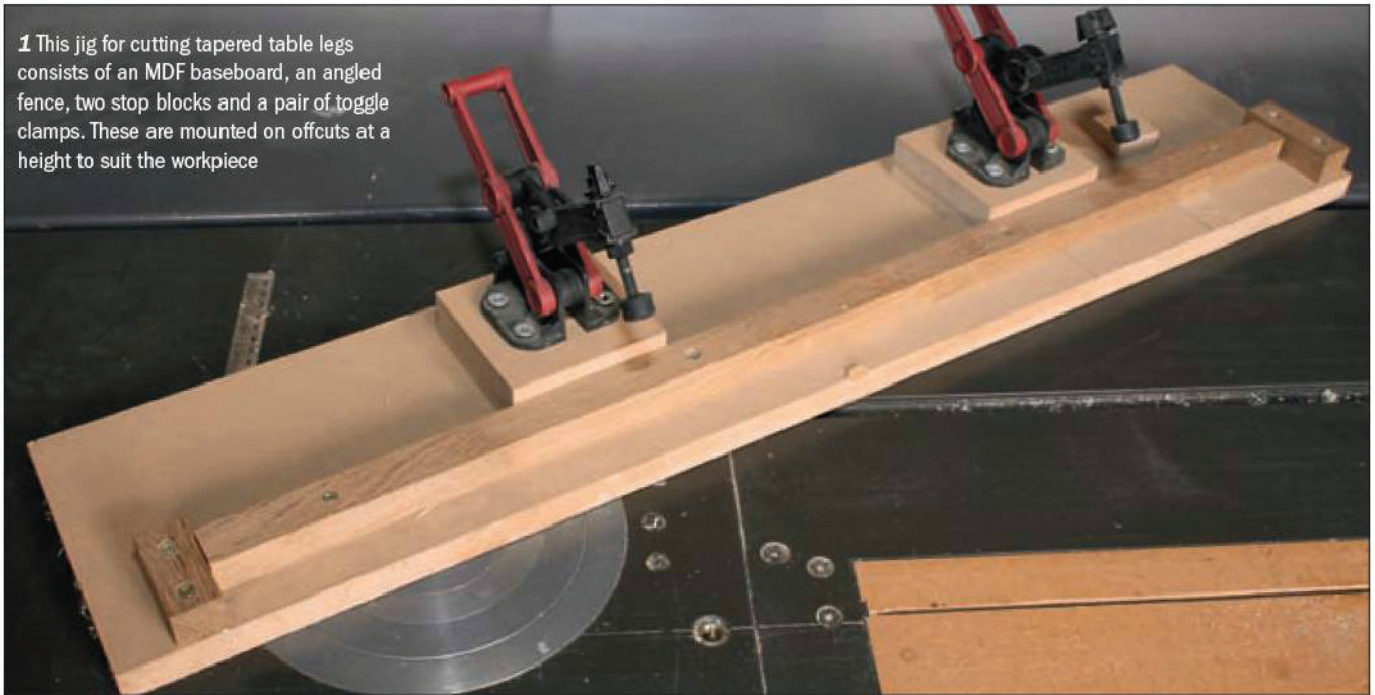
7 Lower the guard and make the second cut, again using a pair of push sticks for safety



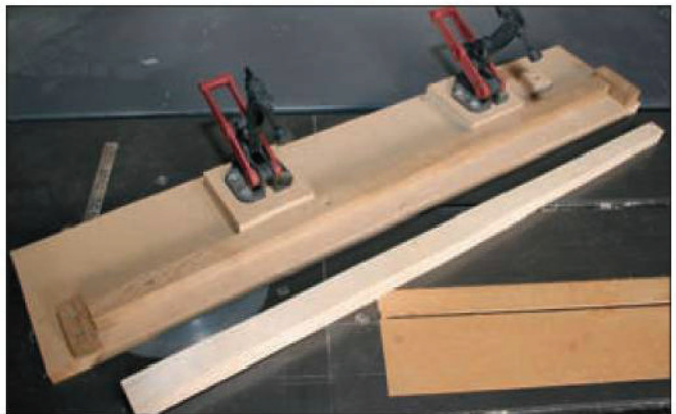
8 The waste piece falls harmlessly away from the rebate as the cut is completed

CUTTING TAPERED TABLE LEGS

1 This jig for cutting tapered table legs consists of an MDF baseboard, an angled fence, two stop blocks and a pair of toggle clamps. These are mounted on offcuts at a height to suit the workpiece



2 Cut the leg to length and clamp it securely in the jig. Then move the whole assembly over the blade in one smooth pass while guiding it against the rip fence



3 Release the clamp, turn the leg through 90° and re-clamp it. Then repeat the cutting process to create the matching taper on the adjacent inner face of the leg

Table saws aren't designed to be used freehand, and rely on fences and guides to steer the timber past the blade in a safe and controllable way. Of course you can also make your own jigs for specific jobs. I often make tables with tapering legs, so I made a jig to produce them on the table saw. It is a very simple design using a pair of clamps to hold the workpiece in place. It runs along the rip fence.

Setting the angle

Before starting to make the jig, design your leg and work out the angle of the taper. Take a piece of timber of the correct size and mark it out. You can then use this as a template to make your jig. With some complicated jigs, it is often worth spending a little time building in adjustable features so that they can cope with

a range of timber sizes and angles. The tapering jig, however, is very simple and quick to make, so it is actually easier to make several to suit different jobs rather than trying to make one universal jig.

Making the Jig

The baseboard is made from MDF and the size chosen here is to taper a leg for a high table. Lay your marked-out leg on the baseboard and align the taper with the edge. Screw a timber fence onto the baseboard along the back edge, and fix a stop block at either end. The toggle clamps now need to be fixed in place. Use blocks to bring them up to the right height to suit your workpiece. Make sure that they will not touch the rip fence, the saw blade or the crown guard. Screw the blocks through from underneath,

and then fix the toggle clamps on top, **photo 1**. Adjust the clamps carefully so that the workpiece will be gripped securely.

Using the Jig

Set the rip fence to exactly the width of the baseboard, and adjust the blade height until the teeth are just a little higher than the top of the workpiece. Check that the leg is tightly clamped in place, then make the cut in one smooth movement without hesitating or stopping, **photo 2**. Turn the leg to expose the adjacent face, re-adjust the toggle clamp and make the second cut, **photo 3**.

This jig is designed to taper only the two inside faces of the leg, leaving the outside square. If you wish to taper all four faces, you will either need to make a second jig or dismantle this one and re-align the fence.

THE MC760 FILTER SYSTEM

THE MC760 AIR FILTER CAN BE USED FOR A VARIETY APPLICATIONS

THREE DIFFERENT FILTERS AVAILABLE FOR THE MC760

FILTERING DUST FROM THE AIR IN YOUR WORKSHOP.

REMOVING FUMES & SMOKE, OR PYROGRAPHY.

COLLECTING OVERSPRAY FROM AIRBRUSH WORK

THIS AIR FILTER IS VERY POWERFUL. IT WILL FILTER OVER 750 CUBIC METRES OF AIR PER HOUR. THATS EQUAL TO FILTERING A LARGE DOUBLE CAR GARAGE 10 TIMES PER HOUR. IT CAN BE USED FREESTANDING OR WALL MOUNTED.

THE MC760 BOOTH IS IDEAL FOR WORKING CLOSE TO THE MACHINE WITH POWER TOOLS AS IN SMALL CARVINGS, OR PYROGRAPHY AND AIRBRUSH WORK.



WHY BREATHE DUST?

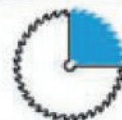
WHEN THERE IS A MICROCLONE FILTER TO SUIT ALL SIZE OF WORKSHOP AVAILABLE FROM WOOD WORKING SHOPS AROUND THE WORLD

ACROL UK LTD

0044 (0) 2392 502999

PROFILE CUTTERS

scm
Authorised Stockist



TWEEKSBURY
SAW COMPANY LTD

MADE TO ORDER

FAST TURNAROUND

STEEL UNIVERSAL CUTTER BLOCK

93mm dia x 40 x 30mm
or 1 1/2" bore



£49 + VAT

We manufacture and supply cutters for all current cutter blocks, we carry a wide range of standard tooling machinery.



Newtown Trading Estate, Tewkesbury Glos. GL20 8JG

Tel: 01684 293092 Fax: 01684 850628

E-Mail: sales@tewkesburysaw.co.uk

www.tewkesburysaw.co.uk



DRIVES DIRECT
Digital Phase Converters

• www.drivesdirect.co.uk
• sales@drivesdirect.co.uk
Recommended by www.lathes.co.uk

DIGITAL INVERTERS

Basic 220 Volts input - 220 Volts output

These small and compact basic 220 Volt output inverters allow you to run a DUAL VOLTAGE motor from a single phase supply, they come in sizes from 1/4 HP up to 3 HP (0.18kW up to 2.2kW) and offer SOFT START, SPEED, ELECTRONIC BRAKING and JOG functions via the low voltage remote control terminals, they are perfect for fitting into workshop machines, it is often possible to connect the remote START/STOP and FORWARD/REVERSE to the machines existing controls as long as they are of the maintained type (IE not push button).

- 1/4 HP (0.18kW) £77.50
- 1/2 HP (0.37kW) £94.95
- 1 HP (0.75kW) £134.95
- 2 HP (1.5kW) £189.95
- 3 HP (2.2kW) £239.95

Basic 220 Volts input - 415 Volts output

These basic 415 Volts output inverters come in 3 sizes from 1HP up to 3HP and they offer all the functions of the 220 Volt output version BUT the fact they offer 415 Volts output means they can be used with motors that are NOT DUAL VOLTAGE, this would often be the case on older motors or on DUAL SPEED motors.

- 1 HP (0.75kW) £274.95
- 2 HP (1.5kW) £329.95
- 3 HP (2.2kW) £419.95

All of the inverters above are available as IP-65 units for applications where dirt/dust or fluid ingress may be a problem, these units have a built in mains power ON/OFF switch, FORWARD/STOP/REVERSE selector and a SPEED CONTROL as well as a digital display and programming pad, please ring our sales office for pricing on any of these units.



THE NEW DRIVES DIRECT ROTARY PHASE CONVERTER

**THE BEST QUALITY
AT THE BEST PRICE
ANYWHERE**

- Simple Plug and Play 3 Phase Conversion.
- 240V Single phase input with a 415V 3 Phase+N output via a 5 pin socket.
- Input and Output overload protection via MCB.
- Input Amp meter.
- Pushbutton START/STOP controls.
- Mains ON Pilot Light.
- No MINIMUM LOAD required.
- 2HP - £475
- 3HP - £550
- 4HP - £650
- 5 1/2 HP - £750
- 7 1/2 HP - £950
- 10HP - £1095
- 15HP - £1375



3 PHASE ELECTRIC MOTORS

We offer a range of high quality aluminium 3 phase motors in sizes ranging from 90 Watts (1/4 HP) up to 2200 Watts (3 HP), the 90 W motor being one that's small enough to hold in the palm of your hand with a 6mm shaft that's perfect for fitting to bench top lathes etc. Prices start at £39.95



MOTOR & INVERTER PACKAGES

We also offer matched motor and inverter packages for retrofitting to your machine with remote control boxes if required, we can supply everything you need for these conversions including motor pulleys, cable and connectors. Please contact us with your requirements. Prices start at just £99.95



DIGITAL PLUG & PLAY CONVERTERS, POWER YOUR WHOLE WORKSHOP WITH ONE CONVERTER

These units come in sizes ranging from 5 1/2 HP up to 30 HP and they will convert a single phase 240 Volt supply into a 415 Volts 3 phase regulated output, various versions are available from units to power basic machines up to advanced systems that can be used to run CNC machines and welders via a workshop ring main and are able to run more than one machine at once, please call us with your requirements.

Prices start at £649.95



At Drives Direct we pride ourselves on customer service and we offer you full telephone technical support to guide you through the wiring and programming on any products purchased from us, you can buy with 100% confidence that you have the correct item for the job and that you will receive all the help you need to get up and running, this service is available from 10.00am until 10.00pm.

You are not just purchasing a box from Drives Direct!

All prices include VAT
Drives Direct is a trading name of Drives Direct(Inverters) LTD.



Tel: 01773 811038 • Fax: 08717 334875 • Mob: 07976 766538



BY ALAN HOLTHAM

Routing on location



CLAMPING SOLUTIONS

To address some of the work-holding issues with this work station, I decided to incorporate a variety of clamping devices from the Veritas range. These include a hold-down as well as fixed and adjustable bench dogs and some clever panel clamps. They're all based around a universal $\frac{3}{4}$ in diameter shank, which makes them completely interchangeable. I figured that with a combination of these, in conjunction with the wide overhang of the top to allow easy clamping and the vertical clamping board on the end of the bench, I would be able to hold virtually anything!



The Veritas hold-down (left) and a pair of their very clever Wonder Pups

In the workshop you can set up all your equipment to your own specification. Everything's in the right place and stands at the right height. Out on location, you have to make do and mend... or in my case, make do and bend. My back was soon crying out for a solution...

Some time ago I made a full-sized router bench specifically designed to bring the workpiece up to a more comfortable working height and also allow it to be clamped more easily. Although this has been highly successful and is used on a regular basis in my workshop, it's far too cumbersome to move around for site work. I also realize that not everyone has the room to spare for such a dedicated bench.

Call up the Workmate

The obvious alternative for site work is a standard portable folding workbench. However, although these are extremely useful for general woodworking, they're usually far too low for router work. Even a woodworker of average height will end up with backache

after spending time hunched over the router on this sort of bench. I'm relatively tall and find them particularly uncomfortable.

Designer solution

An imminent job requiring a lot of router work away from the workshop prompted me to make this simple add-on work station, which overcomes all the problems by simultaneously raising the working height and also giving a variety of different clamping options.

Clamping the work securely seems to be half the battle when you're using the router, and this extra height allows you to get much closer to the action without any of that back-breaking bending. The finished work station is easily transportable and takes up



1

Some softwood scraps and MDF offcuts are all you need to make this work station



2

It took me about 20 minutes to cut and plane all the parts to shape and size



3

Start work by marking the positions of the rows of dog holes on the MDF top



little space in the workshop, yet it can be quickly set up and used when needed on site.

Bits and pieces

The construction of the work station is very crude and requires only a small amount of material, most of which you can probably find as offcuts scattered around the workshop, **photo 1**. I used a combination of bits of softwood and some 18mm MDF, but the design and construction can easily be modified to suit what you have available.

It took me about 20 minutes with the circular saw and planer to reduce it all to components of the right shape and size, **photo 2**. You don't require finesse for this sort of job! I never like to make a new bench too well; otherwise I'll end up being afraid to

use it in case it gets damaged or marked. Remember: this is just a tool to help with your woodworking, not a piece of fine furniture, and you can soon make another one when it gets tatty.

Arranging the dogs

The first stage is to mark out the MDF top to take the array of dog holes, **photo 3**. I settled on two symmetrical rows of holes, spaced 100mm apart, with a central hole at one end to accommodate an adjustable panel clamp. The exact arrangement of these holes is a matter of personal choice, but luckily I've found that this layout has so far covered virtually all my needs.

The holes need to be very slightly oversize to allow the dogs to drop in easily. Most bits

will drill a hole to a dead size, and I haven't anything that will give me a clearance hole for $\frac{3}{4}$ in. A good tip here is to use a cheap spade bit which will probably drill oversize anyway, **photo 4**. If the hole is still too tight, grip the bit in a vice and give the shank a tap to bend it very slightly. This rather crude solution solves the problem, but keep the bit clearly labelled for future use so you don't use it by mistake when you actually want to drill a hole of the proper size!

Routing around

Now the dogs should drop into the holes, **photo 5**, but it can still be a fiddle lining them up. To overcome this, run round the top of each hole with a tiny bearing-guided radius or chamfer bit, **photo 6**, to provide a



4 Drill the holes with a flat wood bit; a cheap one will probably drill slightly over-size



5 It can be a fiddly job engaging the dogs in holes with a square edge profile...



6 ...so run round each one with a small bearing-guided radius or chamfer bit



7 This will provide a neat lead-in that makes locating the dogs quicker and easier



8 While you've got the router out, run it along the edges of both sides of the top



9 Glue and screw on the battens to which the four uprights will be attached



13 Screw the base panel to the batten, then attach the base to the rest of the assembly



4 The work station should now sit squarely on the bench, securely clamped by its jaws



15 Note how the vertical clamping board clears the left-hand end of the bench



19 A Wonder Pup and a fixed dog act as a tail vice for holding longer workpieces



20

The vertical clamping board at the end is ideal for securing work for jointing



21 The overhang all round the top is another deliberate design feature...

neat lead-in that makes locating the dogs much quicker and easier, **photo 7**.

While you've got the router out, here's another little job for it. Although I mentioned earlier that the work station is purely functional rather than a piece of furniture, it only takes a few seconds to run round the edge of the top with the same radius bit to remove the sharp edges and make the whole job look a lot more professional, **photo 8**.

Building the box

Screw the softwood battens for attaching the uprights to the underside of the top, spacing them carefully to keep the dog holes clear of obstructions, **photo 9**. Then glue and screw the four uprights in place. Drive the screws through the MDF into the

softwood, rather than the other way round, for maximum strength, **photo 10**.

Although the structure was quite rigid at this stage, I also added a couple of angled braces, **photo 11**, which on reflection might have been better fixed to the base rather than the top, but in reality the whole thing is rock solid. I also attached the vertical end clamping board to its batten at this stage.

The bench connection

The work station is secured on a portable workbench via a batten screwed to its underside and clamped in the bench jaws. To ensure that it sits down firmly on the top of the bench, carefully machine the clamping batten to be slightly less than the maximum available height between the bench jaws and

the framework below, **photo 12**.

Screw the underside of the base to the batten first. Then attach the whole thing to the uprights and to the vertical clamping board, **photo 13**. Remember to drill proper pilot holes when you're screwing into the edge of MDF panels, to minimize the risk of splitting it.

Ready to rout

The whole thing should now clamp firmly into your workbench, **photo 14**. So long as this is standing squarely on solid ground, you'll now have the perfect routing station, **photo 15**. This simple solution brings the job up to a much more accessible working height, and painful 'routers' stoop' becomes a thing of the past!



10 Then glue and screw the uprights to the battens, not the other way round



11 Add a couple of angled braces to stiffen the structure. Note the screw positions



12 Machine the clamping batten so it sits just below the jaws on the portable workbench



16 This assortment of Veritas bench aids will solve almost all clamping challenges



17 Two fixed dogs and an adjustable Wonder Pup are ideal for holding round work



18 A hold-down and a fixed dog (out of sight) anchor flat workpieces in place



22 ...that allows you to use cramps to secure workpieces you can't hold in any other way

Clamping options

There's a wide range of options to choose from when it comes to clamping the work, and any of the devices I mentioned earlier can be used singly or in combination to provide a virtually universal grip, **photo 16**.

For example, two fixed dogs used in conjunction with a Wonder Pup will allow you to hold curved or circular work, **photo 17**. The most useful clamping arrangement for flat work is to use a single fixed dog and the hold-down, **photo 18**. A Wonder Pup used in conjunction with a fixed dog gives you the effect of a tail vice for working with longer workpieces, **photo 19**.

The vertical board on the end of the workstation is ideal for securing work for jointing, and is probably one of its best



features, **photo 20**. The wide overhang of the top is another deliberate design feature, **photo 21**, which allows you to use a selection of standard F or G cramps if you're working on a piece that's difficult to hold in any other way, **photo 22**.

Last thoughts

This is one of those projects that I wish I'd made years ago. It has already seen some

FURTHER INFORMATION

Veritas bench aids

- Brimarc
- 0300 100 1008
- www.brimarc.com

serious action on site, and I haven't found much that needs changing for the Mark 2 version. Perhaps the only modification I'd make is to fit a removable upright fence to the vertical clamping board to give a more positive hold when you're working on the end of long pieces. More importantly, my ageing back is greatly relieved, and routing work out on location is now a pleasure rather than a pain!



great for your woodwork



BD5368
350W 230V Belt and
Disc Sander
Stock No. 50021

£145.70
*TSP Inc. VAT

Woodworker
BEST ON TEST



SG80
80W 230V Airless Spray Gun
Stock No. 75085

£19.99
*TSP Inc. VAT



R5230K
230W 230V 125mm Random
Orbit Palm Sander
Stock No. 41458



BV150/L
150mm Engineers Bench Vice
Stock No. 45232

£59.97
*TSP Inc. VAT



CD36LIA
3.6V Cordless Li-ion
Screwdriver Kit
Stock No. 76216

Li-ion
£22.75
*TSP Inc. VAT

£37.99
*TSP Inc. VAT



SU5
Heavy Duty Plastic
Shelving Unit
Stock No. 49394

£65.80
*TSP Inc. VAT

products not included

TB530
Extra Long 4 Tray
Cantilever Tool Box
Stock No. 88904

£42.50
*TSP Inc. VAT



S815
15 Bin Wall Storage
Unit Set
Stock No. 48492

£11.25
*TSP Inc. VAT

DRAPER Expert **SUPERCUT™ SC SERIES**

"A good all round, good quality, comfortable to use and sharp saw that's keenly priced from a reliable brand"

Peter Brett - TOOL BUSINESS & HIRE

SC550
550mm/22" Soft Grip Hardpoint Handsaw
Stock No. 49284

£8.60
*TSP Inc. VAT

11tpi/12ppi



SC375
375mm/15" Soft Grip Toolbox Saw
Stock No. 49292

£8.99
*TSP Inc. VAT

7tpi/8ppi



SC250
250mm Soft Grip Hardpoint Tenon Saw
Stock No. 49281

£7.99
*TSP Inc. VAT

11tpi/12ppi



For more information search for 'supercut' on draper.co.uk.

Alternatively ask your stockist for a copy of the 2010 edition catalogue or visit draper.co.uk/catalogue.

www.draper.co.uk TO SEE OUR FULL RANGE AND STOCKIST DETAILS



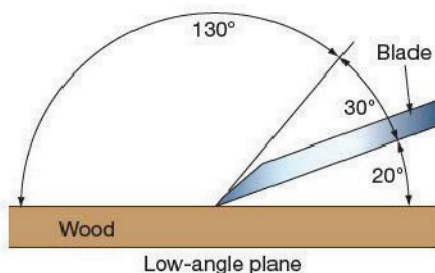
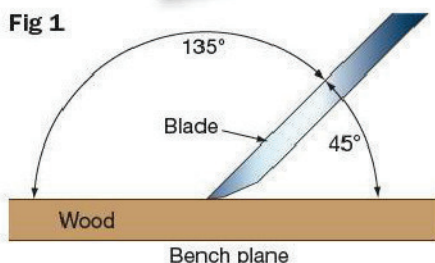
BY GORDON WARR



Low-angle planes: myth or magic?



Fig 1



1
A block plane is ideal for end-grain jobs such as trimming mitres



2
A shoulder plane does as its name says; it trims tenon shoulders

The angle at which the blade of a plane is set in its body is significant for both its intended purpose and its performance. But what is the real difference between a standard bench plane and a low-angle one?

The blade angle on bench planes was set at 45° generations ago when all planes were made with wooden bodies, and when metal bodies were introduced during the 19th century this angle wasn't changed. The blade is held within the body with the grinding/honing bevels facing the rear, and there is normally a back iron fitted to the blade.

A change of angle

However, with the use of metal for plane bodies came the introduction of low-angle planes, with block, bullnose, and shoulder types being the most common. These have their blades held with their bevels facing forwards, and don't have back irons. Because of this, the body of the plane is designed to give support immediately behind the cutting edge, with the better block planes having an adjustable sole to the front of the blade whereby the mouth of the plane can be controlled. With low-angle planes, the angle at which the blade is set in the body is normally 20°.

Keeping an edge

With all planes, the grinding angle for the blade is 25° and the honing angle 30°, or very close to these figures. If the blade is honed at an angle greater than 30° the sharpness can be increased, but the edge becomes weaker and there is an increased risk of it becoming chipped by hard knots.

Angle of approach

The critical angle with all planes is that which the cutting edge actually makes with the wood. With all bench planes this is the 45° angle at which the blade is set in the plane body, giving an 'approach' angle of 135°, fig 1.

With a low-angle plane, the angle the cutting edge of the blade makes with the

wood is not the 20° at which it rests in the plane body, but 20° plus the honing angle. Therefore the effective angle is actually 50°, giving an 'approach' angle of 130°.

What this means is that so-called low-angle planes have effective approach angles which are in fact greater than with bench planes.

Looking back

I have a Stanley catalogue issued in the early days of the last century, when the firm was known as the Stanley Rule and Level Company. Over thirty types and sizes of block and other low-angle planes are illustrated in its pages, but not all have their blades set at 20°. A few have their blades set at a lower-than-usual 12°. Even with these planes, the effective angle is 42°, and while this is 8° lower than on most block planes, it is only 3° less than a bench plane.

Chattering on

So what are the advantages of a plane with its blade set at 20°? The main benefit is that the body of the plane holds the blade immediately behind the cutting edge, giving considerable support and thus virtually eliminating the possibility of chatter. With bench planes, the cutting edge is several millimetres from the frog on which it rests.

Modern blades are only about a third the thickness of wooden plane blades, and this gap can give rise to chatter. The problem of chatter is all the greater when end grain is being planed, as this offers more resistance to being cut. A further advantage is that block and similar planes can be used with one hand, and the better ones also have adjustable mouths.

So there it is. Of course block planes have their place in our kit of tools, but to refer to them as low-angle planes is misleading and something of a myth.



BY KEITH SMITH

Shop notes

To celebrate the eventual arrival of our summer, I decided to have a Sunday off recently. It's hard to relax, having got used to working all the time, but the latest edition of *The Woodworker* had just arrived so I took the rare opportunity to sit out in the sun and read it from cover to cover

At the back I spotted an advert in Marketplace for 'blanks and planks', which sounded interesting. A quick phone call later and my quiet day was over as we headed off up to Newport to meet *Woodworker* reader Richard Talbot. Richard is a trained joiner but has diversified into camper van conversions; you can see what he does at www.paybackproject.co.uk. He showed me round his workshops, and I was amazed at how much he could fit into a relatively small van – including of course the kitchen sink! Now I know what I can do with my van when I retire.

Timber to go

Richard had amassed quite a lot of timber which he was now too busy to use, including some large oak and sycamore



boards (above) and a good selection of turning blanks for which I could definitely find a use. After some negotiation and the handover of generous wads of cash, we set off back home with a whole van-load of potential new projects.

A day at the fair

I'm starting to like having Sundays off, and the next weekend we went up to St Asaph in North Wales to visit Woodfest Wales. The weather was kind and it was good to see the large site was packed with visitors. This is a genuine family event with something for everyone; there is even a fair to keep the children amused. A number of clubs had displays of turning and woodcarving, and were eager to drum up new members.

I took the opportunity to buy some very thin

cyanoacrylate adhesive from Star Loc adhesives (www.starloc.eu). This is ideal for gluing those inevitable fine splits that occasionally occur when machining. It has a long shelf life (up to seven years if kept in the fridge), so I also bought a pack of disposable tips as the nozzle soon gets blocked with this type of glue.

Getting a grip

At these shows there's always some wonderful new gadget being demonstrated – you take it home and wonder why – but I was intrigued enough with the Toulon 2000 power driver to buy one. This is a screwdriver bit for use in a cordless drill/driver, and what attracted me was its ability to grip slotted screws. Normal magnetised driver bits work well with steel Pozidriv screws, but not with stainless steel or brass ones, and this sort of bit obviously can't hold a screw with a slot. The Toulon holds the screw head in the bit with four spring-loaded ball bearings, making one-handed insertion of almost any screw possible. This is one gadget that really works!

Awkward rules

Making windows is usually a staple part of the small joinery shop business, but changes to the Part L of the Building Regulations which come into effect in October 2010 look as though they'll make it very much more difficult and expensive for the small joinery shop to produce windows. Currently, so long as the window has the correct double glazing units fitted, the building control officer will pass it. However, from October it's the whole window that needs approval, not just the glazing.

Passing the test

The changes mean that the window design and specification will have to be submitted to an accreditation agency. They will assess whether the frame and glazing meet the current energy efficiency ratings, and will produce a certificate allowing that particular window to be manufactured.

Unfortunately any change to the design or specification will require a new accreditation. This is fine for a large firm which will make many hundreds (or even thousands) of the same window, but for a small firm that makes individual windows the costs will be prohibitive. As if that isn't bad enough, it appears that they are planning to make it a condition that any firm making windows must be 'ISO 9001

registered', which doesn't seem a practical proposition for a small joinery shop.

So if you have a window that needs replacing, it may be a good idea to do it before the new regulations come into effect. Soon there may be few small joinery shops willing to make the sort of windows we've been tackling recently.

Endless painting

We've spent the last couple of weeks making some windows for a listed building. They have an odd detail on the front – like a broomstick handle moulding – which has made them awkward to copy, but it has been the painting which has taken us so much time. These are the first painted windows we've made for a while... and probably the last if I have to do all the painting again! With two coats of clear preservative, two undercoats and two topcoats to apply, I've spent over a week doing nothing but wielding a paintbrush, and I really hate painting!

I have just one tip to offer anyone in the same boat. Invest in a proper sash brush; it makes cutting in round each window so much quicker and easier.

Post script

In the July edition of *The Woodworker* I lamented the fact that I'd ruined the abrasive in my drum sander when resin built up in a band around the drum and I couldn't get it off with a crêpe block. This prompted *Woodworker* reader Eddie Mann to email me with a solution.

"Just read your article and thought you might like to try my solution for clogged sandpaper. Whatever the sander you're using, remove the abrasive and spray it with oven cleaner. Leave it for five minutes or so, depending on how bad it is. Then gently brush it off with a wire brush while holding it under a running tap. Allow the abrasive to dry and it will be as good as new."

I've tried it with the belt in question and it worked, so thanks Eddie for that money-saving tip! If anyone else wants to try this, the only thing I would watch with drum sander belts is that you don't get them too wet in case they shrink as they dry.

FURTHER INFORMATION

- Toulan 2000
- PO Box 94
- Wilmslow
- Cheshire SK9 3FJ



1 Woodfest Wales takes place on a large site that was packed with machinery displays outdoors. No Glastonbury-style mud this year either!

2 The show also featured amazing displays of work from a number of clubs. I've certainly never seen wooden umbrellas before!



3 The Toulan 2000 automatic screwdriver bit is an ingenious design that really works



4 Simply push the screw you want to drive in past the spring-loaded ball bearings



5 Once engaged, the screw is held securely until you retract the sliding collar



6 I love making windows, especially copies like these to go in listed buildings



7 They featured an unusual broomstick handle moulding that was tricky to copy



8 Thank heavens for the humble sash brush, the only tool that cuts in well round glass



BY ANDY STANDING

Cutting corners

Mouldings are usually made either on a router table or a spindle moulder. However, the average workshop doesn't normally have the specialist machinery needed to produce really large mouldings such as cornices, so these are often bought in. But there is another way...

Cornice mouldings can be wide and incorporate deep concave curves. You might think that you'd need a large convex cutter to produce this kind of profile. If so, then you'll probably be surprised to learn that in fact these mouldings can be produced in almost any workshop, without either a spindle moulder or a router. The only machine you need is a table saw.

The changing of the guard

Before you contemplate using your table saw to make mouldings, you must ensure that you have suitable guarding fitted. This technique involves removing both the crown guard and the riving knife, so a suspended guard is needed to cover the blade and protect the operator. The guard featured here is available from Axminster and can be fitted to most table saws.

A question of geometry

This is actually a fairly simple process, though it must be carried out with great care. The idea is to pass the workpiece across the top of the saw blade, and by taking a number of extremely shallow cuts, gradually to form a concave surface.

The shape of the curve depends on the angle at which the blade and workpiece meet. If the angle is small, the curve will



1 Hold a try square on the edge of the table and mark a line across the table insert at the point where the top of the blade protrudes. Then set the blade height to the maximum depth of your curve



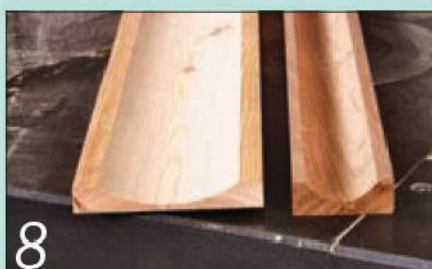
2 Take your setting gauge and adjust it so that the sides are exactly the width of your curve. Lay it across the blade and angle it until the lowest teeth are just touching the inner edges



3 Mark the positions of the inner edges of the setting gauge on the table insert with a pencil



7 To cut a smaller radius curve on a narrower workpiece, reduce the approach angle



8 This pair of mouldings was produced with the same blade, simply by varying the angle



9 Clean up the surface carefully with a gooseneck cabinet scraper or abrasive paper



have a tight radius, and as the angle increases so does the radius, until at 90° it will be the radius of the blade itself.

The more acute angles are much easier to deal with, as the sideways pressure on the blade is relatively low and the work is easier to feed. This technique relies on patience and a delicate touch. You must take very shallow passes and ensure that any sideways pressure on the blade is kept

to a minimum. Your fences and guarding must be securely in place before you begin. Use a crosscut blade for a finer finish.

First Steps

It is well worth spending a little time experimenting on some offcuts before risking a valuable workpiece. One of the first problems you'll find is that it can be difficult to align the centre of the curve on the

workpiece. To help you do this, it's worth marking the highest point of the blade on the table surface.

You will also need to make a simple setting gauge to help work out the correct angle to produce your desired curve. This gauge is a loosely assembled rectangle of battens with a single screw at each corner, so the distance between the long sides can be varied while keeping them parallel.



4 Mark the curve centre on your workpiece and position this on the reference line over the blade. Align the workpiece parallel with the setting lines



5 Using the workpiece as a guide, clamp a pair of fences or battens across the table to guide the workpiece across the blade at the correct angle. Here the mitre fence has been locked in position to guide one edge



6 Lower the blade guard and raise the blade so it just protrudes above the table; then take a shallow pass. Check the position of the cut, and adjust if necessary. Continue taking shallow passes until you reach the desired depth

10

Now it is just a matter of removing the square edges so that the moulding will sit at the correct angle. Tilt the saw blade to 45° and place the moulding 'curve up' on the table. Rip down each edge so that the blade just reaches the edge of the curve. Turn the moulding over and repeat the process, though this time leaving 2 or 3mm between the curve and the blade





BY VERE SHANNON

A fine marker



1 Scribe the outline of the two blade recesses on the wood with a sharp cutting gauge



2 Remove the waste from each face to a depth of 0.65mm with a narrow chisel

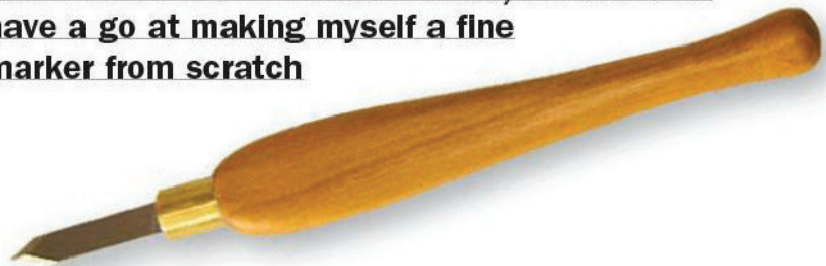


3 The four components - two handle halves, the blade and the ferrule - ready for assembly



4 Clamp the handle halves together in a vice and check that the blade slides in easily

I've had a Crown marking knife for several years and, while it has served me well for general scribing, it's too large for fine work. Having looked for a suitable knife for a while without success, I decided I'd have a go at making myself a fine marker from scratch



I decided that the blade should have one flat face, with the other face having double bevels meeting at a point with an acute angle of around 55° . I wanted it to protrude from the handle by 25-30mm and to be about 6mm wide. My Crown knife has a blade 1.4mm thick, so I judged that I'd need some suitable steel in the range 1.2-1.4mm for adequate rigidity and to allow for the bevelling.

Basic metalwork

I decided to use a redundant down-cutting jigsaw blade. The steel is 1.3mm thick and the teeth are small enough to grind off easily, providing a blank 6mm wide and about 60mm long. I ground the blade into the desired size and shape (including the bevels) on a grindstone fitted with an adjustable table, holding the blade in vicegrips and taking great care not to overheat the steel. Alternatively, the shaping can be done by clamping the blade in a vice and filing by hand.

I then smoothed the roughed-out blade using various grades of abrasive paper attached to a piece of plate glass, a method commonly used to flatten chisel backs and sharpen tools.

For the ferrule I used an 11mm length of brass pipe with an internal diameter of 8mm and an external diameter of 10mm. I'd have liked something a little bigger, but it was the only size I had...

Basic woodwork

The best way to make a suitable handle was to laminate it out of two pieces of wood. I had an off-cut of cherry 15mm thick, so I cut two pieces 160mm long and 30mm wide. This would give me a 30mm square blank after laminating, and provide sufficient material for holding in the lathe and subsequent trimming.

To mark out the recesses on the adjoining faces to take the blade, I scribed two 45mm long lines on each of the two faces, exactly 12mm from the edges, using my home-made cutting gauge, **photo 1**. This marks out and centres the 6mm slots for holding the blade. I then carefully removed the waste material to a depth of 0.65mm in each face using a narrow chisel, **photo 2**.

Photo 3 shows the four components of the knife. Clamp the two handle strips in a vice, grip the top 15mm of blade, and check that it can slide easily into the slot, **photo 4**. Trim the slot further as necessary until you have a good fit.

Laminating the handle

Next, spread glue thinly on the two faces, **photo 5**. You need just enough to get a good bond, but not so much as to get any significant squeeze-out into the blade slot when cramping. Now align the two faces precisely and secure them with cramps, **photo 6**. Clean off any squeeze-out in the slot using the blade.

At this stage, make and insert a short (10mm) plug of wood into the end of the slot using a touch of glue. This helps provide a firm base when turning on the lathe.

Turning the handle

When the glue has hardened, remove the cramps and mark out the exact centres on each end. Mount the work on the lathe with the slot part at the tailstock end and turn it to a cylinder using a roughing gouge.

Now mark out and scribe four lines on the cylinder using the point of a skew chisel: one at 20mm from the drive centre end which corresponds to the end of the handle; the second and third at 26mm and 15mm respectively from the tailstock end to mark out the ferrule dowel section; and a fourth 10mm from the end. The last will give sufficient extra material for forming the ferrule dowel and trimming, but will still leave enough waste to keep the parting tool clear of the tailstock centre.

Turn the handle to your preferred shape, with the ferrule dowel having precisely the same dimension as the internal diameter of the ferrule – 8mm in my case. The finished

turned section which forms the handle is shown in its pre-trimmed shape in photo 7.

Finishing touches

The next step is to trim off the waste material at the ferrule end – exactly 15mm from the end if you are using a ferrule 11mm long. Don't remove the waste material at the other end just yet. The blade should be able to slide into the slot that has now miraculously re-appeared! Test-fit the ferrule, and trim it if necessary – but only enough to give a tight fit.

Next, fit the blade permanently in the slot using epoxy adhesive and do likewise to the ferrule, tapping it on using a pin hammer if it's a tight fit. Now saw off the waste end and trim the handle further to your preference. In my case I sanded two flats to prevent the knife from rolling off the bench, and then filed and sanded it to the final smooth shape.

Varnish, wax or oil the handle to taste and clean up the blade and ferrule using fine steel wool. The end result should be a tool which will greatly improve accuracy when making dovetails and other joints that require precise marking out. Made out of scraps, it cost me nothing apart from a few hours of my time.



5 Spread PVA glue thinly on the two halves, keeping it clear of the blade recesses



6 Clamp the halves together and use the blade to clean any squeeze-out from the slot



7 Turn the handle to its final shape. Note the projecting ferrule dowel on the right

myHobbystore.co.uk

DVD OFFER

NEW

ROB COSMAN'S
**THE GREAT
HAND PLANE
REVIVAL**



£19.95

The Great Hand Plane Revival – Bench-side instruction on tuning, sharpening and using your grandfather's old plane!

The Great Hand Plane Revival Contains:

- Four quiet, safe and relaxing reasons to use a hand plane.
- The five contact points on a plane
- Using the thick IBC/Cosman improved blade/breaker combination
- How to rework your plane without upsetting grampa!
- Learn how training wheels teach freehand sharpening
- Bench grinder basics for accuracy and safety
- Plane back preparation in 40 seconds with the Charlesworth ruler trick
- Hand planing techniques that all but eliminate sanding

Included on this DVD: The Great Hand Plane Revival Shop Notes in pdf format.

£21.45 1. Hand-cut Dovetails	£21.45 2. Hand Planing & Sharpening	£24.96 3. Advanced Hand-cut Dovetails	£21.45 4. Rough to Ready
£32.00 5. Drawer Making - The Professional Approach	£32.00 6. Hand-cut Mortise and Tenon	£21.45 7. Mastering the Dovetail Saw	£21.45 8. Scraping Wood

www.myhobbystore.co.uk

or call **0844 848 8822**

PHONE LINES OPEN 9.00AM - 5.30PM MON-FRI



Don't forget to sign up for our **FREE** newsletter for more special offers!



BY ROGER BERWICK

She loves yew!

I do a lot of turning work as my core business is the design and production of bespoke hardwood furniture, although most of it is incorporated into the furniture. Sadly for me, I seldom get asked to turn a bowl or a platter... but sometimes opportunity knocks



A few weeks ago I relocated my timber store on the farm where my workshop is situated. The gym opposite me wanted to extend, so I moved it to give them the extra space they required. I didn't get any help from the fit, muscle-bound individuals there, and after several days' hard work I came to the conclusion that I didn't need gym membership; I was getting more exercise than them anyway!

My final job was to move a complete butt of prime English yew that had been carefully

stored for a number of years, and I thought how pleasant it would be to take a piece and turn a bowl or platter purely for my pleasure. Then fate took a hand...

An unexpected commission

Later that day a gentleman came into the workshop with his wife, asking if I had any yew. It transpired that over the years she'd been collecting hand-turned wooden fruit, and wanted a big platter to display them at their best. Apparently another wood turner had already made them a fruit bowl, but they said that the fruit was lost inside it.

We discussed the options for some time, and eventually decided that a large platter





1
First steps; marking out a series of 350mm diameter circles on the yew board



2
I cut several blanks to size on the bandsaw and set the rest aside for the future



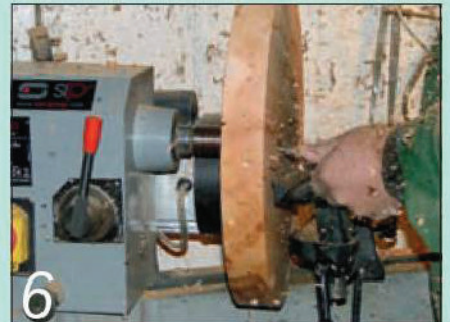
3
I added a plywood washer to my screw chuck so the screws didn't go in too far



4
The blank is mounted and the tool rest adjusted; let the turning commence!



5
Start by truing up the edge of the blank with a freshly sharpened bowl gouge



6
Reposition the tool rest and start turning the face that will become the base



7
Level off the base of the platter, working from the rim towards the centre



8
Mark the position of the dovetail recess for the combination chuck, then cut it



9
Remove any remaining gouge marks by sanding the base of the platter. I used a foam-backed abrasive pad in my cordless drill to follow the contours

about 350mm (14in) in diameter was the answer. The fruits would then sit on it rather than in it, with the yew rim surrounding them almost as a frame.

After we'd agreed a price and timescale they went on their way, leaving me thinking that someone up there was definitely looking down on me!

Turning time

A few days later I had time to make a start on the turning. I selected a wide, flat board from my store, laid it on my bench and marked the position from which I could cut the appropriate blank using trammel points, **photo 1**.

At the same time I cut the rest of the board into blanks on the bandsaw for future

use, **photo 2**. The blanks were 50mm thick, and the off-cuts confirmed that the wood was going to have a great grain pattern and colour.

I pre-drilled the chosen blank to take a screw chuck, **photo 3**. I added a plywood washer so the screw thread didn't go too far into the blank, and attached the chuck securely.



10 Grab a handful of yew shavings and use them to burnish the spinning blank



11 Apply a generous coat of friction polish; I prefer to do this with the lathe stationary



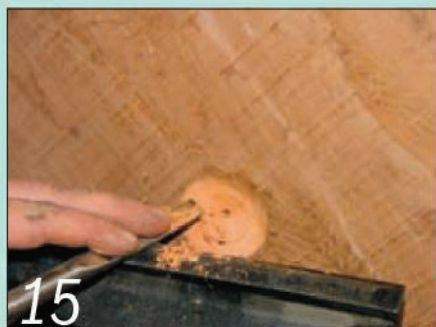
12 When you have an even coat, restart the lathe and polish up the finish



13 Fit the combination chuck into the dovetail recess you prepared earlier...



14 ...and mount the chuck on the lathe, ready for the platter's face to be turned



15 Start work in the centre of the blank by turning out the screw chuck thread



16 Taper the outer part of the blank's face gradually down towards the edges

I have two lathes in my workshop, one capable of spinning tree trunks and a smaller one that seemed ideal for this project. I mounted the blank on the lathe and adjusted the position of the tool rest, **photo 4**. After giving it a spin by hand to ensure it wasn't catching, I was ready to begin turning.

Round and round

I started work on the edge with a freshly sharpened bowl gouge to get the blank perfectly round, and lovely ribbons of yew started peeling off, **photo 5**. With the blank round, I repositioned the tool rest and started turning the face which would eventually become the bottom of the platter, **photo 6**. But then I unearthed a significant defect within the blank in the form of a pronounced crack. I decided to try turning it out, but I soon realised that I'd have to start again and reluctantly set the first blank aside.

A fresh start

After completing the turning to the same stage on a new blank, I levelled the surface, **photo 7**, and marked the position of the dovetail recess for the combination chuck using a pencil and vernier callipers, **photo 8**.

I cut the recess with a smaller bowl gouge and made the dovetail cut using a skew chisel. With the recess cut, I then continued with the shaping of the base of the platter using a small sharp bowl gouge.

The gouge left a very fine finish, but there were still marks which needed sanding out. I used a foam sanding pad mounted in my cordless drill, **photo 9**, and after working through successively finer grits, I soon had the bottom of the platter ready for finishing.

Bottoms up

I started by burnishing the surface with a handful of shavings, **photo 10**, before applying a coat of friction polish. I prefer to apply this with the wood stationary, **photo 11**. When I'd achieved a good even coat, I restarted the lathe and polished the finish to a soft sheen, **photo 12**.

With the bottom complete, I fitted the combination chuck into its prepared recess, **photo 13**, and mounted this on the lathe, **photo 14**. It was time to start turning the top surface of my platter.

The second cut

I made the initial cuts with the gouge in the centre of the blank where the screw chuck thread had been, **photo 15**. From here I tapered the face of the blank down towards the edges, **photo 16**, and then slowly removed the centre to form the recessed inner hollow, **photo 17**.

The final stages involved working back out towards the rim of the platter to create a shallow rise and fall, **photo 18**. The outer rim of the bowl is no more than 3mm thick now, so proceed with care!

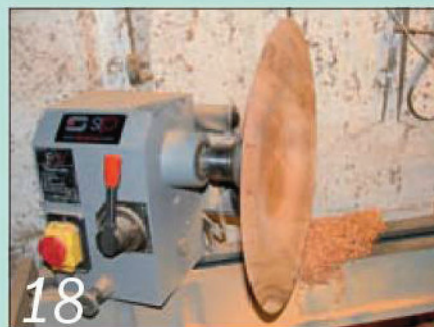
Final touches

To finish the platter, I began sanding with the foam pads in my cordless drill, using successively finer grits before switching to fine wet-and-dry paper. With that done, I gave the surface a burnish with shavings as I'd done for the underside earlier, **photo 19**. I then applied a couple of coats of friction polish, cutting back the first coat with fine wet-and-dry paper, **photo 20**.

The last task was to put on a coat of Mylands light brown wax with a Webrax pad and to buff up the surface to a fine sheen. Then I removed the platter from the lathe and set it on my workbench so I could admire another successfully completed commission, **photo 21**. It was time to call my clients and arrange delivery...



17
Then slowly remove the centre area to form the recessed inner hollow



18
Carefully complete the shaping to create a shallow rise and fall across the disc



19
Sand the face as you did for the underside, then burnish it with yew shavings



20
Apply two coats of friction polish, cutting back the first coat with abrasive paper



21

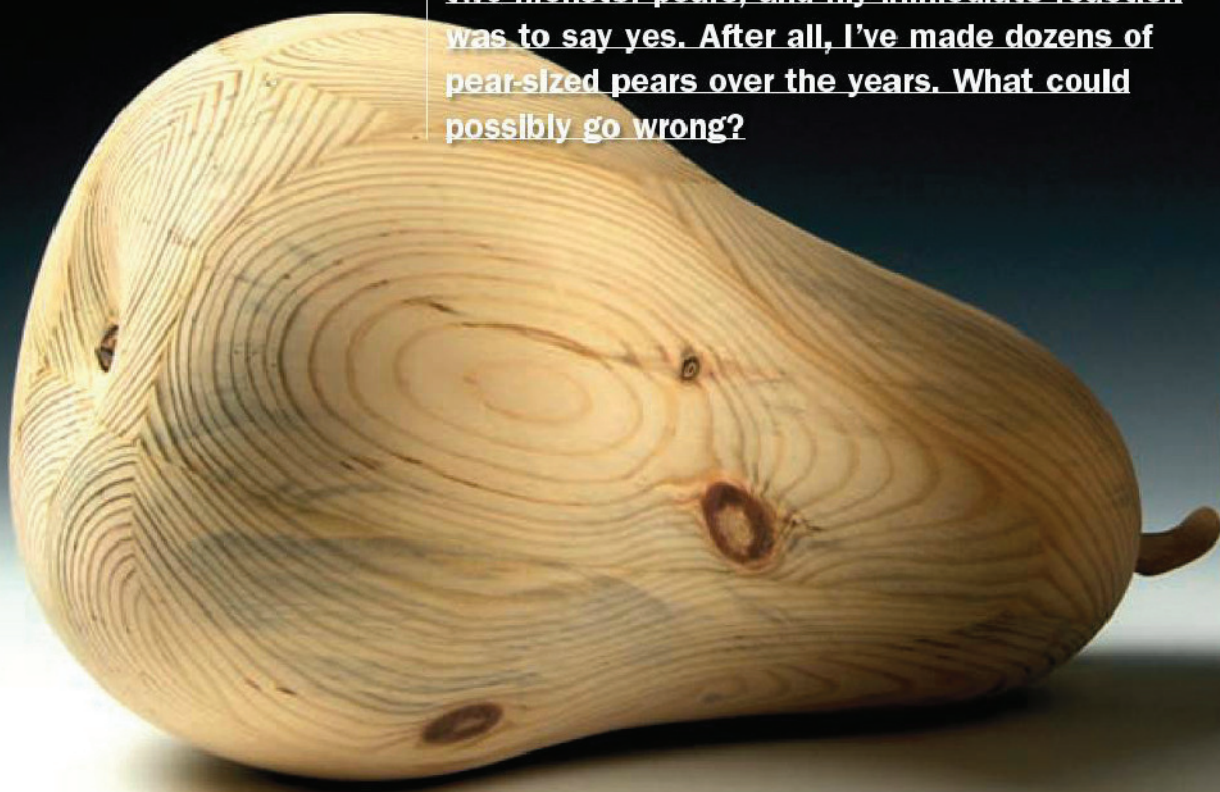
Rub on some light brown wax and buff the surface to a fine sheen. Job done!



BY BOB CHAPMAN

Two of a kind

I was asked recently whether I could make two monster pears, and my immediate reaction was to say yes. After all, I've made dozens of pear-sized pears over the years. What could possibly go wrong?



In fact, scaling things up does introduce difficulties of its own, and the first of these was finding pieces of wood big enough for the job. These two pears were to be 300mm long – about three times life size. My regular pears are about 112mm long and 75mm in diameter, and I normally use a variety of hardwood offcuts to make them. Maintaining the same ratio for pears 300mm long would mean their diameter had to be around 200mm. Finding pieces of reasonably dry hardwood this big isn't easy, and gluing several pieces of wood together seemed to be the only viable answer.

Permission granted

The commission was from a media production company, and the pears were destined to be used in some sort of animation sequence. The company wanted them sanded smooth but otherwise unfinished as they were to be painted, so I checked with the company that it would be acceptable to fabricate them from several smaller pieces. Back came the answer I wanted to hear: no problem!

A pair of blocks

I had several lengths of 100 x 50mm pine in the workshop, and although I find this a

most unpleasant wood to turn, it seemed sensible to use it for this project because of the paint finish. After running them through the planer thicknesser I squared them up at a size of approximately 95 x 45mm. I then cut them into shorter 325mm lengths and glued them together with a good-quality PVA adhesive, **photo 1**.

Avoiding a dig-in

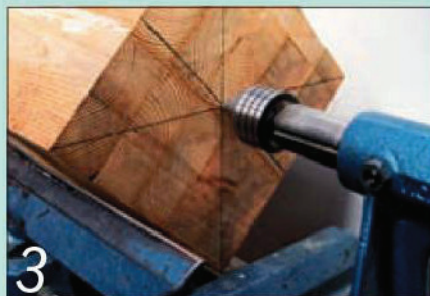
After finding the centres of the two ends, I mounted the block between centres using a Stebcentre as the drive, **photo 2**. With a piece of this size any dig-in is likely to be a



1 Use a good quality PVA adhesive to glue the pieces of softwood together



2 A Stebcentre is much safer to use than other drives if you get an accidental dig-in



3 I soon found that the corners of the block wouldn't clear the banjo



4 I removed the corners as far as the tool rest would let me reach



5 The banjo now slipped further under the block so I could remove more wood



6 Reposition the tool rest and true up the front face with a bowl gouge



7 Form a dovetail spigot to fit the chuck using a gouge and skew chisel



8 Start shaping the fat end. The gouge must be really sharp to give a good finish

problem, and I wanted the extra security that a Stebcentre offers over a four-prong drive centre. With the Stebcentre, if you have a catch the work will simply stop rotating. The Stebcentre will then grind a groove in the stationary timber, but the drive can be taken up again simply by tightening the tailstock. Using a four-prong drive centre, a similar catch might result in the piece coming off the lathe, possibly with serious consequences.

Catching corners

With the piece mounted, the next problem became evident. The corners of the block

were too large to rotate over the lathe's banjo, **photo 3**. Fortunately the toolrest would still reach a short distance along the workpiece, and I used a freshly sharpened roughing gouge to remove the corners as far as I could reach, **photo 4**.

After removing the corners for a short way, I found that the banjo would now fit under the block, **photo 5**, allowing me to remove a further length of the corner. I progressed in this way from right to left until I'd removed the corners over the whole length of the block and the banjo and tool rest could be moved freely.

Time for turning

After bringing the rest round the left-hand end of the block, I trued up the face with a 13mm bowl gouge, **photo 6**. At the same time I formed a spigot, partly with the gouge and then with a skew chisel, to form a sharp internal angle, **photo 7**. This dovetailed spigot will be used to hold the block in a four-jaw chuck later on.

Going pear-shaped

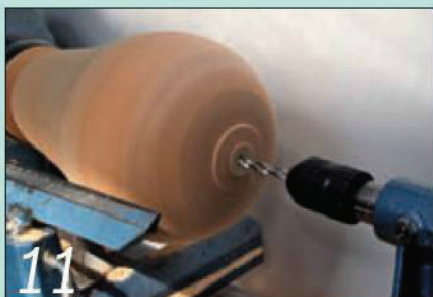
The widest part of the pear is at about a quarter of its length from the fat end, and I used a pencil to mark this on the blank.



9
The spindle roughing gouge removes waste wood fairly quickly



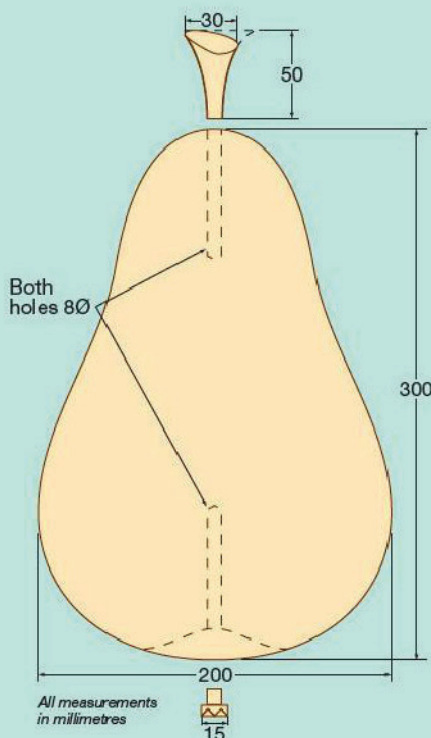
10
As you work towards the narrow end, stop short of the spigot



11
Remove the tailstock and drill an 8mm diameter hole to take a chuck screw



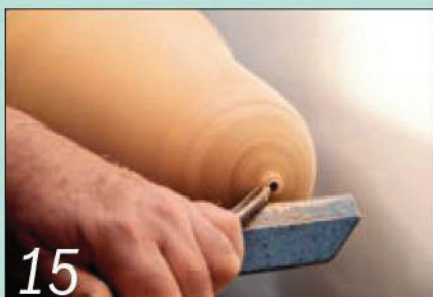
12
Use a small bowl gouge to form the shallow recess in the fat end



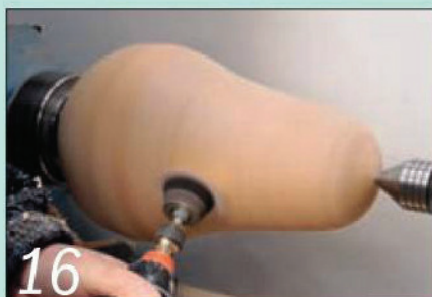
13
Fit the chuck screw with a protective disc of thin plywood



14
Remount the pear and continue shaping the thin end as far as possible



15
Withdraw the tailstock and finish the shaping with the lightest of cuts



16
Power-sand the pear on the lathe, working down through the grits

Note that it's the thin end that will eventually be held in the chuck. I then used the bowl gouge to shape the curve of the fat end, **photo 8**, working as near to the tailstock support as possible without removing it.

With the fat end shaped, I started to turn the pear down from the pencil mark towards the narrow end, **photo 9**, stopping just short of the dovetail spigot, **photo 10**.

Changing chucks

I removed the pear from the two centres and gripped its dovetail spigot securely in a four-jaw chuck. With the tailstock removed, I was then able to drill an 8mm hole in the fat end, **photo 11**, deep enough to take my longest chuck screw.

With the tailstock centre brought back up into the hole for additional support, I shaped the shallow recess in the fat end of the pear with a 10mm bowl gouge, **photo 12**, working as close to the tailstock centre as possible. Then I removed the tailstock centre so I could complete the recess all the way into the hole.

Changing ends

Next I removed the pear from the chuck and fitted the chuck screw, making sure it located properly behind the jaws. I screwed the fat end of the pear onto the chuck screw, making sure it was tight up to the chuck jaws. This is essential to support the pear while it rotates. To prevent damage to the pear I first screwed a thin disc of plywood onto the screw and up to the chuck jaws to act as a cushion and prevent the corners of the jaws digging into the wood, **photo 13**.

Final shaping

With the tailstock centre in place for added support, I carried on shaping the thin end by removing the dovetail spigot and rounding over the end with the bowl gouge, **photo 14**. The tailstock must be removed to complete this process, and the pear has its least support while this is done. I carefully removed the last of the waste with a small bowl gouge, taking the lightest of cuts, **photo 15**. As soon as I'd finished, I brought the tailstock centre back up again.

With the shaping finished and the pear once again supported securely at both ends, I power-sanded it, working from 120 grit down to 400 grit, **photo 16**, and removed it from the lathe. If sealing and polishing had been required, this is the stage at which I would have done it.

Adding a stalk

I shaped the stalk from a small piece of beech. After turning it to a 30mm cylinder, I

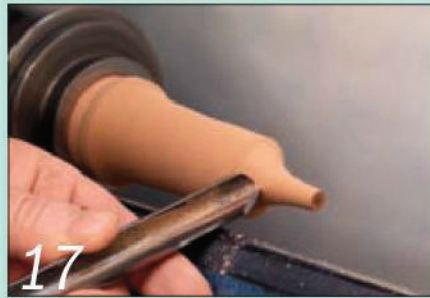
shaped the last 50mm into a smooth 'trumpet' shape, narrowing it to 8mm to fit the hole in the pear, **photo 17**.

I parted it off with a narrow parting tool, **photo 18**, and then sanded it at an angle on a sanding disc attached to the lathe, **photo 19**. This needs a steady hand to avoid catching your fingertips on the sanding disc. Use one hand to steady the other and work carefully on the outer part of the disc, with the lathe running at a slow speed. Gradually cut away one side of the trumpet to make it into a more natural looking stalk, as shown in the diagram opposite.

Making the calyx

On pear-sized pears I always use a clove to represent the calyx – the remains of the flower – on the end of the fruit, but a clove would be insignificant on a pear of this size. Instead I turned a small section of the beech down to about 15mm, and formed an 8mm spigot on this to fit the hole drilled in the fat end of the pear, **photo 20**. I then parted this off, leaving the widest part about 5mm long, **photo 21**.

I sanded several V-shaped grooves into this piece using the corner of a sanding disc, **photo 22**. Finally I glued this imitation 'calyx' into the hole in the fat end of the pear and stuck the stalk into the narrow end. Then I did it all over again for the second pear...



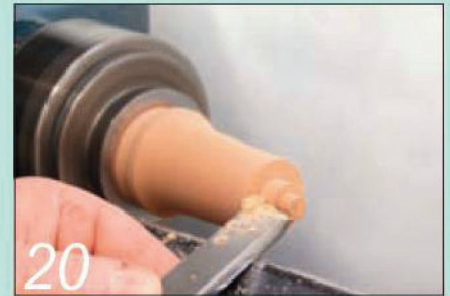
17 Turn a beech offcut into a smooth trumpet shape measuring about 50mm long



18 Part it off close to the widest point using a narrow parting tool



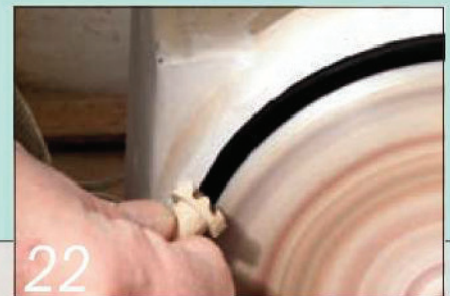
19 Shape the top of the trumpet at an angle on a slow sanding disc



20 Shape the calyx with a skew or parting tool, then form a small spigot on it



21 Part off a section about 5mm away from the top of the spigot



22 Use the disc sander to form a zig-zag shape around the outer edge of the calyx



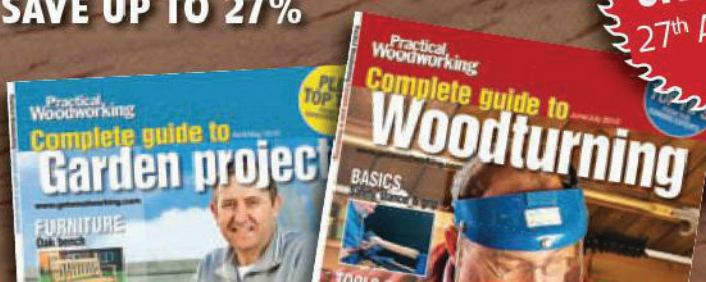
FREE SUBSCRIPTION TO

Practical Woodworking when you subscribe to The Woodworker & Woodturner

GREAT REASONS TO SUBSCRIBE:

- FREE SUBSCRIPTION TO PRACTICAL WOODWORKING FOR A YEAR
- DELIVERED TO YOUR DOOR
- JUST £8.50 EVERY 3 MONTHS
- SAVE UP TO 27%

HURRY
OFFER CLOSES
27th August 2010



BY PHONE: 08456 777 807 quote ref. V039



ONLINE: www.getwoodworking.co.uk/subscribe

Alternatively, you can complete the form below and return, with payment, to the address provided.

UK ONLY SUBSCRIPTIONS:

I would like to subscribe to *The Woodworker* for 1 year (13 issues) with a one-off payment of £37.60

SAVING 20%

OVERSEAS SUBSCRIPTIONS:

I would like to subscribe to *The Woodworker* for 1 year (13 issues) with a one-off payment: ☐ **Europe** (incl Eire) £59.99 ☐ **ROW Airmail** £59.99

For all Canadian, North and South American subscriptions please call 001 877 363 1310 or go to www.expressmag.com

PAYMENT DETAILS:

☐ **Postal Order/Cheque** ☐ **Visa/Mastercard** ☐ **Maestro**

Please make cheques payable to MyHobbyStore Ltd and write code V039 on the back

Cardholder's name

Card no: (Maestro)

Valid from Expiry date Maestro issue no

Signature Date

YOUR DETAILS:

Mr/Mrs/Miss/Ms Initial Surname

Address

Postcode Country

Tel Mobile

Email D.O.B.

DIRECT DEBIT SUBSCRIPTIONS (UK ONLY):

CODE V039

I would like to subscribe to *The Woodworker*, paying £8.50 every 3 months by Direct Debit.

SAVING 27%

Please complete form below

Instructions to your bank or building society to pay by Direct Debit. 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 MyHobbyStore 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 MyHobbyStore 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. **TERMS & CONDITIONS:** Offer ends 27th August 2010. Subscriptions will begin with the first available issue. Please continue to buy your magazine until you receive your acknowledgement letter. Refund requests must be in writing to the Publisher and will not be given on accounts with less than £20 credit. A £5 admin charge will apply and will be deducted from any refund. Refunds will only be given at the Publisher's sole discretion. We will use the contact details supplied to communicate with you regarding your *The Woodworker* subscription. Your details will be processed by MyHobbyStore Ltd & *The Woodworker* in full accordance with all relevant UK and EU data protection legislation. MyHobbyStore Ltd & *The Woodworker* may contact you with information about our other products and services if you DO NOT wish to be contacted by MyHobbyStore Ltd & *The Woodworker* please tick here: ☐ Email ☐ Post ☐ Phone If you DO NOT wish to be contacted by carefully chosen 3rd parties, please tick here: ☐ Email ☐ Post ☐ Phone

SEND TO: THE WOODWORKER SUBSCRIPTIONS, TOWER HOUSE, SOVEREIGN PARK, MARKET HARBOROUGH, LEICS LE16 9EF



BY CHRIS CHILD

ESSENTIAL TURNING TOOLS 3:

Woodturning scrapers

Chris finishes his three-part look at the turner's essential tools by examining single-bladed scrapers. They come in all shapes and sizes, and perform an important role in turning because they can operate in situations where other tools cannot

In the main photograph above, there's a collection of single-bladed scrapers that I use fairly regularly. Moving clockwise from the bottom, you can see a miniature purpose-ground moulding scraper, a pair of captive ring scrapers, a heavy hollowing scraper, a large square scraper, a small hollowing round-nose scraper, a dovetail scraper, a large round scraper, two miniature round-nose scrapers, a tiny side bead scraper and a miniature square scraper. Some of these have been ground out of blank high-speed steel bars, and all have been shaped and altered from when they were originally manufactured.

Apart from altering the shape of a scraper blade to suit your turning requirements, the one important modification you must perform on any square scraper is to grind away the side of the blade so that it doesn't bind against the wall of the project being hollowed, **photo 1**.

What makes a scraper?

You can use almost any woodturning tool as a scraper simply by lifting the handle so it's above the height of the cut. Skew chisels, beading, parting tools and even spindle gouges are regularly used in this way. In **photo 2** a miniature skew chisel is being



1 Grind away the side of a straight scraper so it doesn't bind in the recess



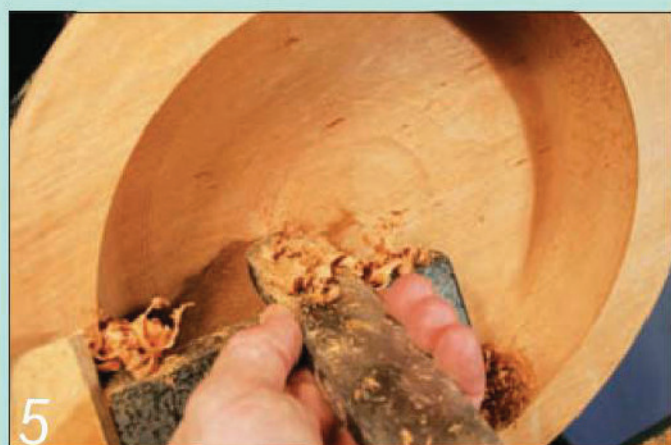
2 This skew chisel is being used on its side to form a bead round a tile recess



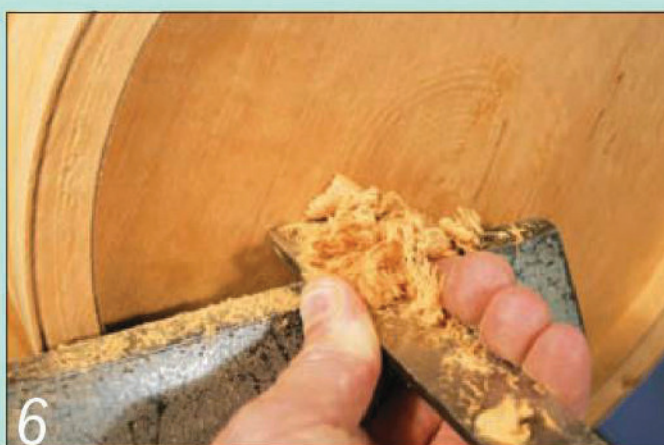
3 Hold the scraper flat on the tool rest and draw the edge along the surface



4 Unfortunately the scraper sometimes creates unsightly broken endgrain



5 No one is going to be put off by rough grain on the underside of a stool...



6 ...and the scraped-out recess for the stool cushion will never be seen

used on its side to form the bead around a circular tile recess on a cheeseboard.

Tools specifically made for scraping should ideally have thick cross-sections to provide strength, rigidity and mass – all essential if the tool is to withstand any

tendency to vibrate while it's cutting.

All good-quality scrapers have blades made from high-speed steel, which produces an edge with a longer cutting life than that of carbon steel. The angle of bevel on a typical scraper can be as high as 85°,

which makes the tool highly resistant to digging in. I usually grind mine to an angle of about 60°, which makes the tool less stable but sweeter cutting.

When it comes to sharpening I, like most woodturners, use the scrapers straight from



the dry grindstone, having created a substantial burr on the cutting edge first. For the best results on a wet grindstone, I grind a more acute 45° bevel which I then hone till the edge is chisel-sharp. This edge will stand repeated honings before it needs any regrinding work.

An Imperfect finish

Scrapers are used by holding them horizontally, flat down on the tool rest, and then drawing the cutting edge lightly along the surface of the workpiece, **photo 3**. They're very simple tools to use, but unfortunately the finish sometimes leaves much to be desired – a problem that becomes fully evident only when the lathe is stopped, **photo 4**.

No amount of sanding will remove broken endgrain when it's this bad. The poor finish is partly due to the exceptionally dry and coarse piece of maple being turned, but just as much to the action of the tool itself. I rarely use a scraper to finish the outside of a bowl; instead I rely on a sharp gouge and correct slice-cutting technique.

The right time

So when should you use a scraper? The simple answer is: when you have to, or when the finish doesn't matter. No one is going to be put off by a bit of rough grain area on the underside of a hollowed-out footstool, **photo 5**, and the recess for the cushion insert will never be seen, **photo 6**.

Scrapers were the traditional tool of the pattern maker, where accuracy was much more important than finish. The scraper's controllability makes it the ideal tool for cutting shapes to the right size and depth, such as when recessing a tile, **photo 7**, or forming the dovetail recess for the jaws of a chuck, **photo 8**. Of course if the grain is dense enough, it will scrape as cleanly as it will slice, but there are not many timbers that perform like this, lignum vitae and boxwood being two common exceptions.

A scraper works more effectively when the grain runs diametrically across the work, as on the face of this small oak table, **photo 9**, or on the floor of a bowl, **photo 10**. A big round-nosed scraper is usually safe only when working on areas of side grain and then, to avoid dig-ins, only part of the scraper's cutting edge is brought to bear on the wood surface at any one time.

Cutting cavities

Hollowing endgrain is the main function of scrapers, and it's sometimes easier to work the tool from the middle of the cavity outwards, as this enables the edge of the



The hook on this side-cutting scraper can be used...



...to undercut the side wall at the base of the recess



The first ring scraper rounds off the corners



It is then rotated to cut one side of the ring



The second scraper is used to cut the other side



Light cuts are made at each side to free the ring

SPECIAL PROFILE SCRAPERS

There's a wide range of ready-made scrapers available that are designed to perform specific woodturning tasks, but it's often very useful if the turner is able to make his own by modifying an existing tool.

Side-cutting scraper

This scraper, shown in **photos A and B** making a housing joint for a floor board in the base of a box, is also a vital tool in connection with thread cutting, where it is used to form a recess for the thread-chasing tool to start in.

Captive rung scrapers

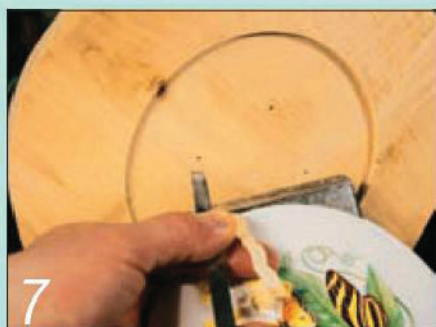
Another useful addition to the turner's toolkit is a pair of captive ring scrapers to make loose rings. After blocking out the square section to the outer dimensions of the ring with a parting tool, the outer corners are then rounded using one of the ring scrapers, held at the appropriate angle, **photo C**. The tool is then rotated so the point cuts one side of the ring, **photo D**. The second ring scraper is then used to form the other side of the ring, **photo E**. Light cuts are then applied to each side alternately until the ring breaks away, **photo F**.

Miniature scrapers

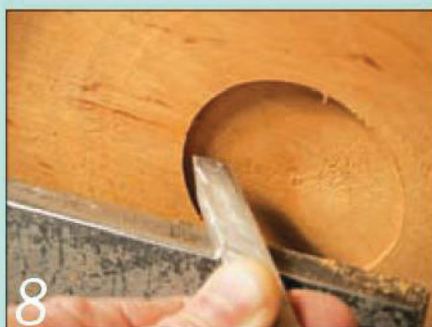
This miniature scraper was purpose-ground to form the profile in the face of a set of draughtsmen, **photo G**. The tool was made from a blank bar of high-speed steel. I ground an acute bevel on the end which thinned the edge so I could hone the shape using a diamond rod and a coarse slipstone. The combination of a fine-grained wood – in this case kingwood – and a fast lathe speed allowed me to create a set of cleanly formed draughtsmen simply by feeding the profile directly into the face of each disc blank in turn.



This scraper was ground to profile draughtsmen



7 The scraper's controllability makes it ideal for cutting shapes to size...



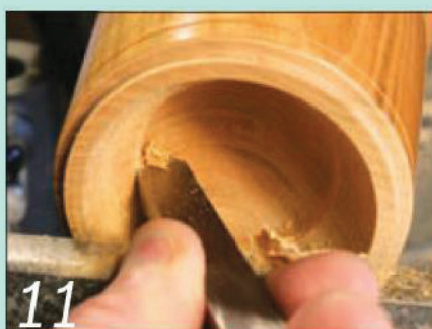
8 ...or for creating a dovetail recess on the workpiece to take chuck jaws



9 Scrapers work best when the grain runs diametrically across the work



10 Here a round-nose scraper is being used to finish off the floor of a bowl



11 In cavities it's sometimes easier to work the tool from the middle outwards



12 To hollow out a recess, move the tool straight into the face of the work

tool to cut from behind the fibres of the wood – removing them by the roots as it were, **photo 11**. A thick cross-section is still required to provide strength and rigidity to the tool, and the length of the handle needs to be much longer than normal to exert the necessary leverage when working at depth.

If your woodturning involves a lot of end grain hollowing, you may like to regrind your scraper with two different radii: a sharp curved nose for a full frontal attack where the angle of the end grain makes it toughest to cut, and a more gently curved side for cutting the sides of the cavity where the softer side grain is less of a problem to remove. The heavy hollowing scraper in the main photograph on page 67, fourth from the bottom on the left, has been ground in this way.

Little boxes

Scrapers are used most often for hollowing square cavities in turned boxes and other hollow vessels where it's impossible to employ a conventional cutting tool. For forming a deep square cavity within a box, I use a square scraper which has had its side edge ground back (see **photo 1** again) so it doesn't bind against the concave wall of the box.

To remove the majority of the waste, the tool is used in a forward motion, straight

into the face of the work, **photo 12**. In some cases it's more practical to pre-drill a central hole and open this up by sliding the scraper down in the fashion of a reamer. The full width of the cutting edge must be prevented from biting into the floor of the box at all costs as this will probably cause a tremendous snatch and may dislodge the workpiece from the lathe.

To cut the floor, the side of the scraper is brought to bear at the central point of the work and made to cut with the corner of the tool's edge. The scraper is then moved laterally across the floor, cutting away less than a millimetre at a time, with the sharpened outer side of the tool, **photo 13**. You can see in the photographs how very little of the cutting edge is used.



13 Move the scraper laterally across the box floor, cutting a millimetre at a time

Subscribe to our online version of **The Woodworker**
& Woodturner

**NEW
OFFER!**

The Woodworker **DIGITAL**

**13 issues a year available
to view online as soon as
the magazine is published.**



- **13 ISSUES A YEAR FOR YOU TO VIEW ONLINE**
- **ACCESS TO SUBSCRIBER ONLY TV CHANNEL**
- **ACCESS TO SUBSCRIBER ONLY WEB ARTICLES**
- **ACCESS TO THE LAST 2 YEARS OF DIGITAL MAGAZINES**

6 months ONLY £9.99 or 1 year ONLY £19.95



www.getwoodworking.com/subscribe



08456 777 807 QUOTE G002

In an industrial situation, planing and thicknessing are normally carried out on separate machines rather than on a combination one. This has several advantages, the main one being that the tables on the planer can be much longer, making it much more effective for straightening twisted material. This Jet planer is a good case in point

Jet 60A planer

£1089



The disadvantage is that you have the expense of two machines, but for regular users the sheer convenience of separates soon overcomes the cost issue. I've opted for separates in my own workshop, but the tables on my planer aren't over-long, so I was particularly interested in trying out the Jet 60A. Next month I'll look at a suitable thicknesser to go with it.

Quality street

Planer tables can never be too long, and the 60A is well served in this department. Combined with a planing width of 200mm this gives you plenty of capacity, and the tables themselves are finely ground cast iron with a super-smooth finish. In fact, the whole of this machine is very well engineered with plenty of cast iron – hence the beefy 160kg weight – so this is definitely a trade-oriented machine. However, a heavy-duty wheel base is available for an extra £73 if you need the flexibility of being able to move it around the workshop.

Although of far Eastern origin, like many machines these days,

the build quality of the 60A is definitely of a high standard, with none of the rough castings and peeling paint you so often see. This is reflected in the price, which still represents extremely good value for money.

Amazing fence

The next feature that caught my eye is the incredibly substantial cast iron fence. It's beautifully machined and adjusts extremely easily, with clear scales and micro adjustment for the stops. A particularly interesting feature is its ability to tilt both ways by up to 45°, making it much easier to plane chamfers as the timber can't slide away off the fence. There are also preset stops that allow you to lock the fence at standard angles and then return it to zero. I haven't seen this facility before, and have always struggled to plane angles with the fence tilted in the conventional way.

The only issue I had with this fence is that something was not adjusted correctly on the model I tested, and the beautifully



The massive cast iron fence is superbly machined and very easy to adjust



Depth-of-cut adjustment is by means of a lever you move and then rotate



The rear table is also adjustable, which makes setting the knives much easier



The cutter block guard is quick and easy to adjust, so you're more likely to use it



TESTED BY ALAN HOLTHAM

polished cast iron table was being marked by the fence. Hopefully this can be corrected or the table surface will soon be spoiled.

Easy adjustments

Coarse adjustment for depth of cut is achieved with a quick-action lever; then for fine adjustment you just twist the handle. The rear table is also adjustable, a feature that I think should be standard on every planer, as it makes setting the knives so much easier. Pre-settable stops allow you to restrict the range of movement on both tables if required.

Maximum depth of cut is a very respectable 8mm, which is actually quite achievable as the 2.8kW motor with its twin belt drive provides ample power. The machine is noisier than I expected in use, but ear defenders are a necessity anyway, particularly for prolonged use.

The 78mm diameter cutter block is fitted with three resharpenable HSS knives, so the surface finish is excellent. Three knives are obviously more difficult to set, but you're provided with a setting gauge to make the job easier. The cutter block is guarded by a fairly standard but nevertheless substantial bridge guard. As it's quick and easy to adjust, you do actually tend to use it!

Power In, waste out

Because of the high power input, the machine is run off a 16-amp C-form connector plug, so it will require a separate supply if your workshop has only standard 13-amp sockets.

Dust extraction is about as good as you get on a planer, with the chute inside the stand funnelling the shavings down to a 100mm dust extraction outlet. I was impressed by how well this worked, as my own machine frequently clogs up. This one is so simple yet very effective.

Planing away

This machine is hard to fault. Its main use is obviously for flattening and straightening long workpieces, and so long as you orientate them correctly with the concave face down on the table it's no problem to straighten even the most twisted pieces. With these long tables at both infeed and outfeed ends, even really heavy workpieces are no problem to control.

The superb fence has plenty of support for shooting edges, but it was the reverse tilt facility for chamfering that really caught my imagination. This makes a tricky job so much easier.

Lastly, if you have a lot of material to remove, don't be afraid to set maximum depth of cut and blast it away in one pass. However, this really isn't recommended if you want a super-fine finish!

SPECIFICATION

MOTOR	2.8kW
CUTTING SPEED	16,500/min
CUTTER BLOCK DIAMETER	78mm
MAX CUTTING DEPTH	8mm
MAX PLANING WIDTH	200mm
TABLE LENGTH	1820mm
FENCE LENGTH	960mm
EXTRACTION OUTLET	100mm
WEIGHT	160kg

VERDICT

This is an excellent machine that does everything you would expect with minimum fuss. The quality of the engineering makes adjustment and setting quick and easy, so you can concentrate on the job and forget about working within any machine limitations. I like it!

PROS ■ Excellent build quality
■ Reverse tilting fence
■ Efficient extraction

CONS ■ None, bar the fence marking the table on my test machine

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

FURTHER INFORMATION

■ Brimarc
■ 0300 100 1008
■ www.brimarc.com



Because of the high power input, the machine needs a dedicated 16-amp supply



Even long, heavy workpieces are easy to control on the two long tables



The 120mm high fence provides plenty of support when shooting board edges



The fence's brilliant reverse tilt facility makes chamfering a piece of cake!

When it comes to accurate timber dimensioning, the machine of choice is usually the table saw. However, there are occasions when this simply isn't practical and a portable circular saw is needed. This Metabo model is a rugged and powerful tool with a generous cutting capacity, and is available with or without a guide rail



Metabo KS66 Plus circular saw and guide rail

Even if you're lucky enough to have a fully equipped workshop, a portable circular saw is still an extremely useful tool. For ripping large boards down to size or converting sheet materials, you need to be able to cut straight. A handsaw can be used, of course, but a powered saw is easier. The Metabo KS66 Plus is a heavyweight professional saw that's built to cope with demanding jobs.

It's a fairly conventional design that isn't festooned with lasers or other gadgetry, just solid engineering. The main grip is rubber-insulated and houses the large power trigger. An additional handle is mounted on the front. The majority of the machine is made from cast magnesium, apart from the motor body and handle.

Safety features

Circular saws are among the more dangerous power tools and need to be handled with respect. This saw incorporates welcome safety features such as an automatic safety clutch that cuts the power if the blade becomes jammed or overloaded.

Another feature that is becoming increasingly rare is the riving knife. Manufacturers quite reasonably assume that there is little need for one, as the majority of users work with sheet materials, where it would be superfluous. But if you want to rip solid timber, a riving knife is a necessity, as without it you risk the kerf closing on the saw blade and making life difficult. A riving knife is fitted to the Metabo.



The fine adjusters under the baseplate ensure a good fit on the guide rail



The riving knife supplied with this saw is essential for ripping solid wood



The cast magnesium baseplate can be set to any bevel angle up to 45°



Adjustable stop blocks can be set to restrict the saw's travel along the rail



TESTED BY ANDY STANDING

Blades and guards

A thin-kerf 14-tooth TCT blade comes with the saw. This works well for ripping and general use, but a finer blade is needed for sheet materials and more delicate work. Blade changing is straightforward, thanks to the spindle lock and Allen key, both of which are supplied.

The saw blade is protected by a pair of sturdy metal guards. The upper guard also houses the connection for the dust extraction outlet. The lower guard is strongly sprung but is fitted with a lever for manual opening.

Baseplate details

The saw's baseplate is neatly cast with extensive bracing. It provides a smooth, solid surface on which to run the saw. A groove is cut in the underside to fit onto the guide rail. A pair of fine adjusters ensures that the saw is a snug fit on the rail. There's also a pair of small clamps to hold the side fence; this can be attached to either side of the baseplate. The depth of cut and bevel adjusters are both well marked and reliable.

Guide rail option

The test machine was supplied with the optional guide rail. This is 1500mm long and has rubber strips on its base to anchor it on the workpiece. A pair of clamps is available to secure it in position, but it's perfectly usable without them.

The saw sits on the guide rail with the blade running directly along the plastic edging strip. This serves two functions. Firstly, it protects the top of the workpiece from breakout as the saw cuts, and secondly it makes it simple to align the rail onto the marked cutting line.

The rail is supplied with a pair of adjustable stop-blocks to restrict the travel of the saw along it, though this feature is probably more useful when using the rail with a router.

Using the saw

This is a large and fairly heavy machine, which is both a good and a bad thing. Good, because it sits securely on top of the workpiece or guide rail and is very stable to use. Bad, because you have to carry it around. However, this is a small price to pay for such a solid and well-mannered tool. The motor runs smoothly and isn't that noisy. It produces considerable power and will rapidly cut through the hardest timber. The handles are comfortable, the adjusters are secure and overall this is an impressive machine.

SPECIFICATION

MOTOR	1400W
BLADE DIAMETER	190mm
NO-LOAD SPEED	4200rpm
MAX DEPTH OF CUT	90° 66mm
	45° 47mm
WEIGHT	5.5kg

VERDICT

This is a powerful and precise machine that's solidly made and comfortable to use.

PROS

- Good safety features
- No gimmicks
- Precise guide rail

CONS

- Heavy to carry around

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Metabo
- 02380 732000
- www.metabo.co.uk



The saw sits on the guide rail with the blade running against its plastic edging strip



The main handle is rubber-insulated and houses the large power trigger



Changing blades is easy thanks to the spindle lock and supplied Allen key



For cutting sheet materials, you'll need to fit a finer blade than the one supplied

I'm an enthusiastic fan of spindle moulders. Despite their undeserved reputation for being dangerous, I think that in many cases they're actually safer than a router. However, there has been little choice in the 'professional consumer' price category... until now, as Record Power tries to redress the balance with this new model

Record SM100 spindle moulder



The essential requirement for a spindle moulder is sheer mass to damp down any vibration during the cut, and this model doesn't disappoint. Although the weight isn't quoted anywhere the whole machine is very heavily built, with a finely ground cast iron table top.

Good guarding

The fence and guarding arrangement on lower-end spindle motors is always something of an Achilles' heel, but the SM100 has this well covered. A deep aluminium fence is fitted to a large cast spindle hood, and the fence itself extends well beyond the extremities of the table, giving you plenty of support for long workpieces.

The SUVA type guard has rollers for the overhead part, which is always an excellent arrangement. I first used this type of hold-down on a Scheppach HF30 spindle moulder, and from then on I wondered why something so simple and effective should not be standard on every other machine. The rollers provide very positive downward pressure on the table, yet allow the work to feed through with ease.

My only slight disappointment in this department is that the guard cannot be hinged up out of the way. It has to be physically removed by slackening off a couple of bolts if you need to make any adjustments to the cutter block, but this is only a minor concern.

Clever fencing

The two components of the fence are also independently adjustable – an essential requirement if you're making full-face cuts. Surprisingly it is often lacking, even on some of the more expensive machines, and you then have to start packing out the fence with shims.

The fence faces are grooved in a regular pattern, which puzzled me for a while until I discovered that you can buy a set of fingers to fit into the slots, allowing you to close up any gaps around the cutter block and provide even more support for the workpiece. What a good idea! I've never seen this feature before and was genuinely impressed by it, as it also helps to realign the two halves of the fence if you're not doing stepped cuts. It also helps the dust extraction efficiency, which is already good, as there are extraction points both above and below the table.



The guard has rollers for the overhead part – always an excellent arrangement



The two components of the fence are independently adjustable



These slot-in fingers link the fence halves and close up any gaps around the cutter block



Power and speed

The motor is a surprisingly beefy 3.5hp – more than enough for anything this machine will do, although it does have to run off a 16-amp power supply. Power transmission is via a four-step poly V pulley, the motor being fitted on a hinged mount for easy speed change. The selected speed is then indicated on the panel on the front of the machine. The speed range is excellent, going from 9000rpm down to 1800rpm, so you can safely use large panel-raising cutters and also drop down to the lowest speed if you want to fit a sanding bobbin.

Surprisingly there is also a reverse facility, though this can't be used safely for normal hand-held operations. However, if at any stage you fit a power feed, the ability to reverse the cutter rotation often helps produce a better quality cut on timber with difficult grain formations. The table is already drilled if you do decide to add a power feed.

Fine tuning

The large rise-and-fall handle allows for fine and smooth adjustments to the cutter block height. The SM100 has a total spindle travel of 100mm. The lock on this handle is disappointingly flimsy, but nevertheless appears to be effective enough. There is a surprisingly accurate spindle height readout scale – again a feature normally reserved for much more expensive machines. Once you've set the cutter block height, the handle on the rise and fall wheel can be stowed away to prevent you accidentally knocking into it and altering the setting.

The maximum table opening is 200mm, but this can be stepped down with a series of inserts. A very good selection of spacer collars is also provided for the spindle itself, to allow coarse adjustment of the cutter block height.

Moulding heaven

In use, the abundance of power from the motor allows even the heaviest of cuts to be made in one pass. The sheer mass of the machine means that with these large cuts it just hums without a trace of vibration, making it very pleasant to use. Dust extraction is equally efficient. The one feature that's seriously lacking at the moment is a sliding table which would increase the machine's versatility enormously, but this has been promised for delivery later in the year.



The speed selected is displayed on the panel on the front of the machine



The large rise-and-fall handle allows easy adjustments to the cutter block height

SPECIFICATION

MOTOR	3.5hp
MOTOR SPEED	2800rpm
TABLE SIZE	690 x 480mm
TABLE HEIGHT	900mm
TABLE OPENING	200mm
SPINDLE DIAMETER	30mm
SPINDLE TRAVEL	100mm
SPINDLE SPEEDS	1800, 3000, 6000 & 9000rpm
WEIGHT	160kg

VERDICT

In spindle moulder terms this is very much a budget machine, but it still turns in a totally professional performance. It's one of the most user-friendly machines I've tested, and provides an excellent introduction to the world of spindle moulding.

PROS

- Weak spindle height lock
- Minimal vibration
- Excellent fence and guarding

CONS

- Lack of hinge facility on overhead guard

VALUE FOR MONEY

PERFORMANCE



FURTHER INFORMATION

- Record Power
- 01246 561520
- www.recordpower.co.uk



The motor is cleverly hinge-mounted to facilitate easy speed changes



A series of inserts allows you to step down the 200mm table opening



The motor's power allows even the heaviest of cuts to be made in one pass

There's a growing range of small mortisers to choose from, with a maximum chisel capacity of 12mm. They all have a fixed table to support the workpiece, meaning this has to be moved laterally by hand as the mortise is cut. This new model is from Kity

Kity MB16 bench mortiser

Kity needs no introduction to most woodworkers. Indeed it was this France-based manufacturer that developed the quality 'small' machine with many refinements for both amateur and professional use. I've had two of their machines in my own workshop for many years; they've required virtually no maintenance and run as sweetly today as when they were new.

Strength matters

Even small mortisers such as this one have to be extremely robust. The load imposed on the components in use is very considerable; the larger the chisel and the harder the wood, the greater this is. Because of this, cast iron is the predominant material used, as it won't flex and remains rigid under load.

This Kity machine is no exception to this principle, with no skimping on the quality of the materials used – there's hardly a trace of plastic to be seen. Steel is used where appropriate, while the table is faced with MDF. This makes good sense; metal here would impose a risk of damage to the chisels, and the MDF can be readily replaced when it becomes worn.

Direct drive

As is normal with all mortising machines, the motor spindle connects directly with the chuck and thus the chisel and bit. Movement of the head of the machine is controlled by the handle on the right, which operates via a sturdy rack and pinion system. This handle is linked to the horizontal spindle by a form of toothed connection, and allows for repositioning to suit the nature of the work being undertaken.

Access to the chuck is gained via one of the cover plates which enclose this part of the machine. There is one on each side of the head, but only one has to be removed to allow access for the chuck key.

The whole of the head slides up and down on the steel column, with the head incorporating a dual adjustment system to ensure smooth movement without any play. The head is supported on a gas strut; this ensures that after lowering the head, it is readily raised by the strut to its upper position.

Holding the work

The fence is readily moved forwards and backwards, and is locked in the position required where its rear support passes through the



The fence is locked in position where it passes through the column



This toothed connector allows the handle position to be altered



The depth stop controls the lower limit of movement of the head



This adjustment limits the possible rotational movement of the head



TESTED BY GORDON WARR

column. The fence carries the hold-down shoe, which requires an Allen key to lock it in place. This shoe can be removed and inverted to suit the height of the material being mortised. However, the lowest position of the shoe is 40mm because of the fence; this simply means that with wood thinner than this, packing has to be introduced under the workpiece.

In fact this packing is beneficial; it will protect the table when sooner or later the chisel is driven too low and passes completely through the wood. Through mortises should always be formed from opposite faces of the wood, of course, and to control the depth of the mortise, a stop is provided to the left of the machine.

Setting up tips

I was now ready to mount a chisel and bit into the machine. In any mortiser, two key points have to be watched when this is being carried out. First, the chisel must be square to the fence; to check this I use an engineer's try square. Secondly, there must be clearance between the ends of the bit and the chisel. To achieve this, I insert a 2p piece between the shoulder of the chisel and the sleeve into which it fits. With the ends of the chisel and bit initially brought level and the bit tightened in the chuck, I remove the coin and raise the chisel by the thickness of the coin, then lock it tight and check again that it's square to the fence. I always mount the chisel so that the window is facing the right, then make the cuts working to the left. This allows for better ejection of the chippings.

Mortise time

I set the fence, hold-down shoe and depth control to suit my first sample of wood, and cut my first mortise. I had no problems carrying this out in softwood, but with a piece of hardwood on the table, I found that progress was best maintained by taking only small sideways cuts along the mortise. With any mortiser, the aim is to remove the waste from the mortise, not to drive the chisel as deep as possible into the wood.

I tried further pieces of wood and different sizes of chisel, and found that alternative bits were quickly fitted and of course, being smaller, they cut the wood much more easily. The depth stop is particularly useful when cutting blind mortises, and especially so if the wood is fairly thin, and is also of benefit when cutting the haunch part of the joint.

SPECIFICATION

MOTOR	370W
NO-LOAD SPEED	2850rpm
TABLE SIZE	345 x 150mm
FENCE SIZE	345 X 40mm
CHUCK CAPACITY	12mm
SPINDLE TRAVEL	70mm
TABLE MOVEMENT	120mm
WEIGHT	18kg

VERDICT

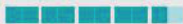
This is a safe machine, easy to set up and use, and will meet the requirements of the typical amateur woodworker. Many professional shops would also be happy to have the MB16 at their disposal.

PROS

- Solid construction
- Excellent performance
- Reversible hold-down shoe

CONS

- None

VALUE FOR MONEY 
PERFORMANCE 

FURTHER INFORMATION

- NMA Agencies
- 01484 400488
- www.nmatools.co.uk

Drilling bonus

It's not generally realised that a mortiser can also be used, with limitations, as a static drilling machine. The restrictions on its capabilities include the shank of the drill, which must not be greater than the capacity of the chuck, and the length, which must be around 150mm overall.

I tried out a selection of bits which met these two criteria to bore a variety of holes in both softwood and hardwood. The results showed that even with the largest drill bit there is still plenty of power to spare.



The screw at the front of the head locks the chisel in the chuck



The workpiece is moved along by hand as successive cuts are made



Small mortises can be cut very quickly, even in dense hardwoods



The mortiser can also be used as a drill press for boring holes

A power feed isn't something you often find in a home workshop. However, it's an extremely useful bit of kit, especially if you work alone and are involved in making furniture or larger projects. Safer than hand-feeding, it will also improve the quality of your machining by ensuring a constant feed speed

Co-Matic M3 Baby power feed



The Co-Matic power feed is a neat little machine. It's mounted on an adjustable arm that swings over your machine and can be positioned where needed. The arm is supported by a solid base which can either be bolted directly to the machine table, or, as in this case, mounted on the removable bracket, which means that you don't have to drill into the machine table. The bracket also makes it simple to move from machine to machine. It is easy to assemble and set up and is very solidly made.

The way it works

The power feed uses a small motor to drive three non-marking plastic wheels. These are mounted on their own independent suspension systems to provide a little pressure on the workpiece as it runs through. The central control panel allows you to select the direction of travel and the feed speed.

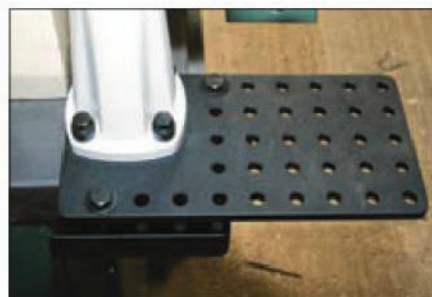
Like any woodworking machine, a power feed must be carefully set up, especially as it replaces the guards on some machines, such as



The control panel governs feed speed and direction of travel



Three plastic rollers drive the workpiece past the machine cutter



The universal mounting plate makes machine changeovers simple



TESTED BY ANDY STANDING

spindle moulders and router tables. The power feed can be used either horizontally or vertically, depending on your workpiece. So it either holds the work down on the table or sandwiches it against the fence. To get the best performance, make sure that your machine table and fence are both clean and smooth to provide a good friction-free surface. A coat of furniture wax on the surfaces helps.

Setting up

On a spindle moulder or router table, set up your fences and cutter as usual, but don't fit any hold-downs or featherboards. Lower the cutter so it can't contact the workpiece and swing the power feed into position. It can be located in the centre of the table parallel to the cutter, or slightly towards the outfeed fence.

Use a workpiece to set the height and position of the feeder unit. It should be tilted slightly towards the fence, if being used horizontally, or slightly down towards the table if being used vertically. Once set, switch it on and make sure that the workpiece runs smoothly against the fence, without wandering off-line.

The feed speed is adjustable, and you'll find the correct speed for each job by trial and error. If you run it too slowly, the cutter is liable to burn the timber. If you set it too fast, the cutter may be overloaded and will produce a poor, rippled finish.

Using the power feed

Having been slightly sceptical of the value of a power feed in a non-commercial setting, I found myself being completely won over by it. After some initial fiddling, it became quick and easy to set and a pleasure to use. It's like having your own dedicated machinist. You simply feed the timber in at one end and collect it at the other. Larger workpieces are no problem and the quality of finish is consistent.

It also allows you to do things that are impossible by hand, such as climb-cutting, where the workpiece is fed into the machine with the direction of the cutter, rather than against it. This produces an excellent finish, particularly when using wild-grained timbers, which tend to tear out when routed or moulded conventionally.

Summing up

I really enjoyed using this machine on the spindle moulder, router table and table saw. It's a great safety aid as you never need to put your hands near the cutters. It simplifies the machining process and ensures consistent results, really coming into its own on repetitive jobs. It can be fitted or removed from a machine with two bolts, when using the universal mounting plate, and takes up little space. If you do a lot of machining I would recommend this power feed highly.

SPECIFICATION

MOTOR	90W
FEED SPEED	2-12m/min
ARM REACH	260mm
WEIGHT	12kg

VERDICT

This is a simple and efficient light-duty power feed – straightforward to use, and easy to fit and remove. It can be used on a variety of machines, and is almost like having a second pair of hands.

- PROS**
- Easy to set up and use
 - Safe and efficient
 - A real bonus on large projects

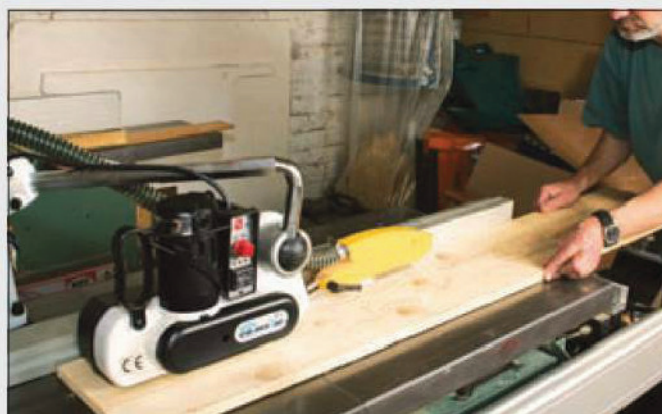
- CONS**
- None

VALUE FOR MONEY 

PERFORMANCE 

FURTHER INFORMATION

- Axminster
- 0800 371822
- www.axminster.com



Letting the power feed do the work on the table saw



The drive can be set up in the horizontal position...



... or can be reconfigured into a vertical drive unit



Giving the workpiece a helping hand on the spindle moulder

Choosing a cordless drill has always been a bit of a compromise, but the choice is getting easier as the tools become more refined. Battery power is increasing, while size and weight are decreasing. The latest DeWalt combi drill is a perfectly manageable tool which combines all the latest technology to produce tremendous performance



BATTERIES	2 x 18V Li-Ion 2.0Ah
POWER OUTPUT	450W
NO-LOAD SPEEDS	500, 1250 & 2000rpm
CHUCK SIZE	13mm
MAX DRILLING CAPACITIES	
	wood 50mm
	metal 13mm
	masonry 16mm
WEIGHT WITH BATTERY	2.5kg
ACCESSORIES	storage case, fast charger, side handle

This is a sophisticated and versatile drill with all the performance you could want.

PROS

- Great performance
- Fast charging
- Excellent chuck

CONS ■ Some may find it a little heavy

VALUE FOR MONEY

PERFORMANCE 

- DeWalt
- 01753 567055
- www.dewalt.co.uk

The DeWalt is well balanced, with its T-shaped design making it sit comfortably in the hand. The main handle is covered with soft-grip rubber and the trigger is wide and progressive. It's fitted with a compact Li-ion battery rather than the larger Ni-MH type. Not only are these lighter: they also last longer, averaging 2000 charge cycles – double that of Ni-MH batteries.

The controls are simply laid out, with the three-position gear selector on the top and a pair of setting collars on the main barrel. The torque setting ring is operational only when screwdriving mode is selected. A useful LED work light mounted above the trigger comes on when the motor is running.

Drill chucks can cause problems. Some are hard to tighten, some slip and some jam up completely. However this chuck is certainly one of the best I've ever used. It's self-tightening, which means that it increases its grip as you use the tool. It's very fast to use; just insert the bit, tighten it gently and it grips securely.

As you would expect, this is a pretty impressive machine. The three-speed gearbox really enables you to tailor the power to suit the application. The highest speed is ideal for both twist drilling and hammer drilling. The slowest speed provides ample power for screwdriving, and the middle speed is good for large-diameter flat bits and general use.

I compared it to an earlier DeWalt Li-ion drill and it was noticeably more powerful. The earlier model would stall when using large flat bits, whereas the 925 simply carried on. The power delivery is very smooth, making this a particularly pleasant machine to use.

The DCD925 has terrific performance, an excellent chuck, comfortable controls and powerful, fast-charging batteries. Though it's not exactly cheap, it represents great value for money.



The self-tightening chuck increases its grip as you use the tool

The Li-ion battery has plenty in reserve when you're driving large bits



The slowest speed provides ample power for driving large screws



With hammer action activated, masonry drilling is fast and efficient

Along with a huge range of turning tools, Robert Sorby also produces an assortment of sundry items for the woodturner, including the Modular Tool Rest System which is designed to suit the vast majority of lathes currently available

TESTED BY
GORDON WARR



Robert Sorby modular tool rest system

This can be purchased as a complete system or as individual components. The central part of the system is the stem, which fits into the tool rest support. Stems are available in a range of diameters – five Imperial and two metric – to suit various lathes. The upper end is threaded, and the crossbars are screwed onto this. A couple of flats are machined onto the stem, allowing you to tighten the connection with the crossbar using a spanner.

Crossbar choices

Straight crossbars are available in three lengths – 4, 6 and 9in. Two more are available with an 'S' shape, designed as rests for bowl turning. The crossbars are of hardened steel, to provide a long life and eliminate the wear and notching often associated with conventional cast-iron rests. The final component of the system is the box scraper platform, intended to provide positive support to the tool when hollowing out boxes.

Using the tool rest

On the lathe, I found it difficult to position the straight rests close to the workpiece when it is of small diameter, and when it is being held between centres. This depends on the nature of the tool rest stem holder, and how much flexibility there is with its positioning.

The two bowl rests provide very good support for the tool when tackling bowls of average size and traditional outline. When using these rests, far less repositioning of the rest is needed than would be the case with a normal rest.

The scraper platform is particularly helpful, providing plenty of support deep into a box of typical size, and also helping to dampen any vibration there might be.



£106.75

THE SYSTEM

STEM SIZES ½, ⅝, ¾, 1 & 1½in, 25 & 30mm

ACCESSORIES 4, 6 & 9in straight crossbars

2 curved bowl rests

box scraper platform

VERDICT

This modular system is not the complete answer to providing a rest for every possible turning situation, but it goes a long way towards solving the problem of supporting tools in a flexible way.

VALUE FOR MONEY

PERFORMANCE

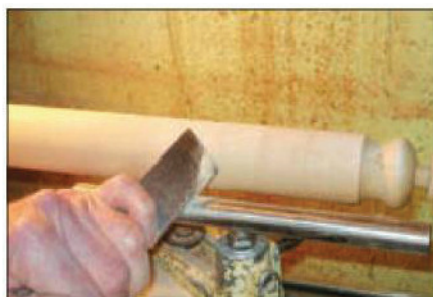


FURTHER INFORMATION

- Robert Sorby
- 0114 225 0700
- www.robert-sorby.co.uk



You can tighten the connection between stem and crossbar with a spanner



The longest crossbar is ideal for jobs such as spindle turning



The internal bowl rest provides good support for the tool



The box scraper platform provides easy access and good stability

COURSES

Peter Sefton Furniture School

*A new career in a year?
Fast-track your furniture making skills*

“ Learn the art of bespoke furniture making and the skills of fine woodworking on our intensive 9-month course. We're the only private Furniture School in the UK dedicated solely to teaching this specialist craft.

Or why not try our specialised shorter courses - we do 15 a year. We have only a limited number of places available for all courses. ”

Peter Sefton, Furniture Maker and Master Craftsman

Our workshops are located in rural Worcestershire, at the foot of the Malverns; find out more at www.peterseftonfutureschool.com or call us on 01694 591014

TREND COURSES & ROUTING DEMONSTRATIONS

ROUTING COURSES
For details of our one or two day sponsored routing courses with full instruction on a wide range of routing applications visit...
www.trend-uk.com/courses

ROUTING DEMONSTRATIONS
For details of our routing demonstrations around the UK visit...
www.trend-uk.com/shows

or call: 0800 487363
email: enquiry@trendm.co.uk

trend
routing technology

AD/09/09

COURSES

THE CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE

Our School is unique. Each of our 20 students enjoys individual tuition and classes taught by some of the UK 's leading experts. They also have 1500 hours of practical bench - time.

But what makes our school stand out from the rest is the buzz of 20 people learning from each other, sharing ideas, solving problems together. No other School can match this experience

Tel: 01620 810680
Email: info@chippendale.co.uk
www.chippendale.co.uk

To advertise on these pages call Katie on:
0844 848 5244

or email:
katie.lord@myhobbystore.com

CLOCKS

Christopher Milner Woodworking Supplies

1,000+ product lines in stock
Clock & Accessories (Quartz & Mechanical). Barometers, Thermometers, Cabinet Furniture, Screws, Plans, Kits, Polishes, Adhesives, Abrasives etc.

FREE catalogue available
(Dept WW), Beresford Lane, Woolley Moor, Nr. Alfreton, Derby DE55 6FH
Tel/Fax: 01246 590062
milnerwoodwork@aol.com

HERMLE / KIENINGER MECHANICAL CLOCK WORKS DELIVERED EX STOCK

Also available. • Dials • Quartz • Brassware

Martin H Dunn Ltd
The Clock Gallery Clarks Road,
North Killingholme, North Lincolnshire DN40 3JQ
www.martindhunn.co.uk
FREE PRINTED CATALOGUE
Showroom Open Mon - Fri 10am - 5pm, Sat 10am - 4pm
Tel: 01469 540901

Why not visit...

getwoodworking.com

www.welshwindsors.com
Learn to make a Windsor Chair

5 DAY COURSES in Mid-Wales

One to One learning

Inclusive cottage accommodation, tools and materials provided

See the website or tel: 01691 648299

A WOODWORKING HOLIDAY IN A STUNNING LOCATION!

FITTINGS

House of Brass
FROM CLASSIC TO CONTEMPORARY
BRASS • CHROME • BLACK IRON • ANTIQUE • CHINA

SHOWROOM: NOTTINGHAM NG1 4EF
Tel: 0115 947 5430 (24HRS)
Web: www.houseofbrass.co.uk
FREE COLOUR CAT. EXTENSIVE RANGE

HOBBIES

Visit our website at www.hobby.co.uk

HOBBY'S
The Modelmaker's Yearbook

ANNUAL 2010
• NO.40
• 308 PAGES

FREE
Greenhouse Plan by James Parker
Jewellery Kits
New R.C. Helicopters and more
3D Cross-Stitch Models
New Maisto Car Models
12th Scale Shop Fronts

£3.15 FREE P&P

Visit our website at www.hobby.co.uk
t: 020 8761 4244 e: mail@hobby.co.uk
Available from WH Smith and leading newsagents or direct

WEEKLY OFF COMPARE PRICES

FINISHING PRODUCTS



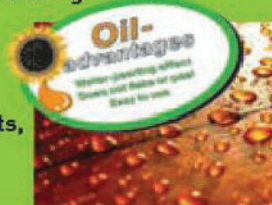
The Natural Touch from Osmo

An easy to apply, decorative finish for all exterior wood, Natural Oil Woodstain offers a high quality finish which allows the wood to breathe and reduces the risk of swelling and shrinkage.

- protects against all weather conditions
- prevents mould, algae and fungal decay
- no cracking, flaking, peeling or blistering

Available in 16 colour zones, anything from Pine to Mahogany and Walnut to Fir Green.

Suitable for doors, windows, carports, timber cladding, wooden decking, garden houses ...



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



MUSICAL INSTRUMENTS

Violin and Guitar Makers' & Repairers' supplies

Choose from our wide selection of tonewoods, tools, parts, accessories and books for amateur and professional alike.

Callers or Mail Order welcome. Catalogue £1.50

Touchstone Tonewoods Ltd
44 Albert Road North, Reigate, Surrey RH2 9EZ
Tel. 01737 221064 Fax. 01737 242748

AUCTIONS

DAVID STANLEY AUCTIONS Antique Tool Fair and Auction at:

THE BRETBY CONFERENCE CENTRE
BRETBY, NR BURTON ON TRENT
on Wednesday 4th AUGUST
AT 10.30am prompt

Viewing Tuesday 12Noon-7pm & on morning of sale from 8am
Dealer tables available £25 each
"summer special £15 each"

Catalogues £5 from DAVID STANLEY AUCTIONS,
OSGATHORPE, LEICESTER LE12 9SR

TEL: 01530 222320
Catalogue@davidstanley.com

FAX: 01530 222523
www.davidstanley.com

To advertise here...
...call Katie on 0844 848 5244

ROCKING HORSES

The Rocking Horse Shop

Designers, Makers & Restorers of
Excellent Wooden Rocking Horses in
the best Tradition of English Hand
Craftsmanship for over 33 years



You could make a Rocking Horse! SPECIAL OFFER FREE Plan

17 Different Projects (RRP £14.99)*

When you buy the Horse Timber Pack

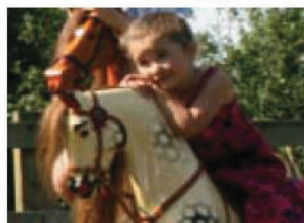
Price includes UK postage
* offer ends 31/08/2010

For more details see our website

www.rockinghorse.co.uk

For info, FREE catalogue or order phone 0800 7315418

The Rocking Horse Shop,
Fangfoss, YORK YO41 5JH



ROCKING HORSES



Specialising in quality rocking horse accessories for over 40 years



Visit us now at

www.margaret-spencer.co.uk

MARGARET SPENCER & Co.

TELEPHONE: 01621 828234

E-MAIL: SALES@MARGARET-SPENCER.CO.UK

CHAPEL COTTAGE, HOWE GREEN ROAD, PURLEIGH, ESSEX, CM3 6PZ

SUPPLIERS OF QUALITY ACCESSORIES FOR ROCKING HORSE MAKERS AND RESTORERS

TIMBER SUPPLIES

BRITISH HARDWOODS
THE OAK SPECIALISTS

**Buy quality Timber
Online
Trade Prices**

www.britishhardwoodsonline.com

Tel: 01535 637755

W.L. West & Sons Ltd
Selling - Petworth, West Sussex, GU28 0PJ
T: 01798 861611 F: 01798 861633

- Hardwoods Temperate, Tropical & Exotic
- Wood finishes
- Australian Burrs
- Woodturning Blanks 15+ Species available
- Woodturning Courses
- Beginner • Intermediate • Refresher
- Woodworking Machinery
- RECORD POWER charawood
- Woodworking Tools
- Fencing, Gate & Decking Products
- Bespoke Garden Furniture
- Timber & Tools for D.I.Y. • Cliving Woodturning • Furniture Projects

WESTS WOOD SHOW 2010 May 7 & 8
shop@wlwest.co.uk

Open Mon-Fri 8.5 - Sat 9.30-1.30pm (New Mar)
www.wlwest.co.uk

TIMBER SUPPLIES

INTERESTING TIMBERS

Wide selection of English grown timbers in most sizes. Air and kiln dried. Boards prepared to size. Turnery blanks, spalted woods and burrs also available. Send for details (SAE please) or come and see us (please ring first). We will ensure a helpful personal service.

David and Catherine Simmonds,
Wells Road, Emborough (13), Bath BA3 4SP
Tel: 01761 241333
www.interestingtimbers.co.uk

TOOLS & EQUIPMENT

**MAIL ORDER
NARROW BANDSAW
BLADES
MANUFACTURED TO
ANY LENGTH
PHONE NOW FOR QUOTATION
OR PRICE LIST**

TRUCUT

Spurside Saw Works, The Downs,
Ross-On-Wye, Herefordshire HR9 7TJ
www.trucutbandsaws.co.uk
Tel: 01989 769371
Fax: 01989 567360

**TOP QUALITY - LOW PRICES
VSM - VITEX ABRASIVES**

KK532F Starter Pack (4 Metres) £12.95
inc. VAT and UK post. 1/2 metre each of grits
80, 120, 150, 180, 240, 320, 400, 600

Also the NEW *GRIP - A - DISC*
Power Sanding/Finishing System

Plus lots of Belts, Discs, Stars, Low cost KK114
We also stock WOODTURNERS SUPPLIES
Timber/Bowl Blanks/Tools/Waxes/Finishes
Glues/Chucks/Glassware/Cutlery/Sandries.

SAE FOR CATALOGUE

Jill Piers Woodturning Supplies
2 Kimberley Villas, Southmill Road,
BISHOPS STORTFORD, HERTS CM2 3DW
Tel/Fax: 01279 653760

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

CHESTNUT
PRODUCTS
first for finishes



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

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

PO Box 536
Ipswich IP4 5WN

Tel: 01473 425878 Fax: 0800 066 4442
www.chestnutproducts.co.uk
mailroom@chestnutproducts.co.uk
Stockist enquiries welcome

TOOLS & EQUIPMENT

Henry Taylor Tools

Peacock Estate
Livesey Street
Sheffield S6 2BL

Tel: +44 (0)114 234 0282

Fax: +44 (0)114 285 2015

email: sales@henrytaylortools.co.uk

website: www.henrytaylortools.co.uk



Makers of fine hand tools since 1834. Each individual tool is hand forged and hand finished by our Sheffield craftsman. Choose from our vast selection of cranked paring, incannel paring, incannel & outcannel firmer gouges, registered mortice, cranked bevel edge paring, long thin paring, bevel edge socket, heavy duty socket firmer, offset sockets, short cranks and swan necks. They will perform and serve you well for many years to come. See our website for a list of stockists or simply contact the office.

SHOP GUIDES

Wessex Timber
WORLDWIDE HARDWOOD & SOFTWOOD
Stockholders & Manufacturers

ASH, BEECH, CEDAR, CHERRY, CHESTNUT, DOUGLAS FIR, ELM, IROKO, JELUTONG, LIME, MAHOGANY, MAPLE, OAK, PITCH & YELLOW PINE, POPLAR, SYCAMORE, TEAK, WALNUT ETC.

FULL MACHINING & JOINERY SERVICE
SHEET MATERIALS CUT TO SIZE & CNC ROUTING
INTERNATIONAL DELIVERY. ANY QUANTITY

Tel: 01452 740610 (Fax: 740407)
www.wessextimber.co.uk

HERTFORDSHIRE
Cuffley

TILGEAR

Bridge House, 69 Station Road, Cuffley EN8 4TG

Tel: 01707 870434
Fax: 01707 870383

Open: Monday - Friday 9.30am - 5.00pm

A, B, H, M, R, T, W

trend FESTOOL

WEST YORKSHIRE
Leeds

D.B. Keighley Machinery Ltd.
Vickers Place, Stanningley, Leeds LS28 6LZ

Tel: 01132 574736
Fax: 01132 574293

Open: Mon-Fri: 9am-5pm

www.dbkeighley.co.uk

P, A, W, M, C, B, G, T, D, M

HERTFORDSHIRE
Hatfield

HEALY'S
FESTOOL SHOP

Unit 27 lo Centre, Hearle Way
Hatfield Business Park
Hatfield, AL10 9EW

Tel: 01707 278150

e-mail: sales@healystools.co.uk
www.healystools.co.uk

Mon - Fri 9.00am - 5.00pm
Sat 9.00am - 12.00noon

WEST YORKSHIRE
Leeds

GEO SPENCE AND SONS LTD.

101 WELLINGTON ROAD,
LEEDS LS11 1BX

Tel: (0113) 2790507,
Fax: (0113) 2636817

Mon.-Fri. 8am - 5pm Sat. 8am-12noon

HFWWM.COMFAD

Your Business could be seen here for less than you think...

YOU

...to advertise

Call Katie on
0844 848 5244

FOR SALE

30 plus reclaimed pitch pine square edged boards

- 7/8" - 2" Thick
- 12" - 14" Wide • 95" Long

Offers

Telephone: **01642 532202** North East

WEB DIRECTORY

DM TOOLS

THE PEOPLE FOR TOOLS
HAND, POWER TOOLS & MACHINERY SPECIALISTS

TOP BRANDS • TRADE PRICES • HUGE RANGE

WWW.DM-TOOLS.CO.UK

WEALDEN TOOL COMPANY

Router cutters
Spindle tooling
Circular sawblades
Online catalogue & ordering

www.wealdentool.com

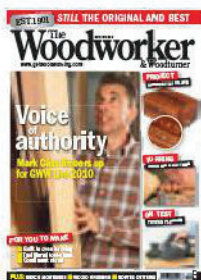
BACK ISSUES AVAILABLE FROM OUR READER SERVICES DEPARTMENT
AT £3.40 PER ISSUE (£3.60 FROM APRIL 2010), PLUS POSTAGE AND PACKING

CALL 0844 848 8822 TO ORDER YOUR COPIES

Every month we aim to bring you the best projects, the widest range of tests and the most useful techniques, building up into a complete library of essential woodworking knowledge.

If you've missed an issue, here's your chance to find that vital tool test or project.

If an issue is sold out, we can send you a photocopy of the feature at a discount price.



OCTOBER 2009
PROJECTS: Beech trivet, Oak oven housing, Traditional tool chest, Marquetry inlays, Furniture test frame
FEATURES: Machines & jigs – the bench mortiser, Finishing wood 3 – working with oils, Spiral and downshear router cutters, Shop Notes
TURNING: Bobbins, buttons and knobs, Condiment stand
TESTS: Power planers – 3 tools from Wickee, Ryobi and Makita; Bosch cordless screwdriver, Evolution Rage sliding mitre saw, Metabo cordless drill driver, Axminster headless pinner, Bostitch brad nailer



MARCH 2010
PROJECTS: Prize workshop 3, Oak coffee table, Double-sided games board, Arts & Crafts footstool, Chessmen box
FEATURES: Drawer design and construction, Router jigs, Scrollsaw basics 2 – Puzzles and fretwork, Cramping workpieces, Shop notes
TURNING: Techniques for split turning, Kitchen roll holder, Regrinding fingernail gouges
TESTS: Startrite 352E bandsaw, Leigh VRS vacuum and router support, Festool Kapex sliding mitre saw, Erbauer router, Bosch Extra-clean jigsaw blades



NOVEMBER 2009
PROJECTS: Garden gate, Marquetry box, Bread bin, Glue tote, Dolls' house
FEATURES: Machines & jigs – the router, Finishing wood 4 – filling the grain, Panelling cutters for the router, Cutting dovelling square, Shop Notes
TURNING: Cherry bowl, Round picture frames, Oak knobs
TESTS: Einhell RT-BS75 belt sander, Routers – 3 tools from Aldi, Ryobi and Trend, Sand-Flee SF-0900 and SF-1800 portable drum sanders, Record BM16 bench mortiser, Einhell RT-CS165 circular saw, Makita BMR Job Site radio



APRIL 2010
PROJECTS: Tall bookcase, Inlaid box, Window frame, Ledge-and-braced doors
FEATURES: Sharpening tools by hand, Choosing and using hand saws, Bandsaw jig, Quarter-matching burl veneers, Shop notes
TURNING: Ashes urn replica, MDF table lamp, Birch bird box, Turning bobbins
TESTS: Woodstar oscillating drum sander, DeWalt impact driver, Wera BiTorion driver bits, Makita router, Easy Wood turning tools, Colt Zero Mark countersink kit, Proxxon carver package, Pen-turning mandrels, Victor saws



WINTER 2009
PROJECTS: Backgammon table, Ladder shelf unit, Corner display cabinet, Cigar-box storage, Bench hook
FEATURES: Machines & jigs – the circular saw, Finishing wood 5 – Using wood stains, Panel mould cutters, Making a vacuum press, Shop notes
TURNING: Tapered laminated vase, Turning green wood
TESTS: Corded drills – 3 tools from B & Q, Bosch and Metabo, Scheppach Basato bandsaw, Veritas scraping plane, Trend mortise base, Woodpecker coping sled, Sorby Sovereign system



MAY 2010
PROJECTS: Oak music cabinet, Bandsaw boxes, Hall console, Picnic table, MDF stool
FEATURES: Using bench grinders, Narrow bandsaw blades, Trend Varijig router guide system, Choosing chisels, Shop notes
TURNING: A branch-wood vase, Long-hole boring, Lidded boxes, Turning bobbins
TESTS: Record Power lathe, Scheppach deco scrollsaw, Makita 23g pinner, SIP multi-purpose saw, Erbauer planer thicknesser, Startrite mortiser, Trend digital angle rule, Painter's pyramids, Dakota demagnetiser



DECEMBER 2009
PROJECTS: Chisel rack, Walnut veneered mantel clock, Bird box, Console table
FEATURES: Cabinet scrapers, Making panel and frame assemblies, Finishing wood 6 – French polishing, Specialty router cutters, Shop notes
TURNING: Iroko bowl, Earring stand, Turning fruit 1 – Apples and pears
TESTS: Belt sanders – 3 tools from B & Q, Bosch and Makita, Scheppach wet grinder, Peltor Workstyle radio ear defenders, Torxkey dry grinder jig, Bosch planer, Sorby ProEdge sharpening system



JUNE 2010
PROJECTS: Expanding book rack, Writing slope, Mitre saw work station, Instrument case, Plant trough
FEATURES: Jigs and tool rests for bench grinders, Setting up bench planes, The cistern dovetail, Shopnotes
TURNING: Three-legged stool, Sandglass case, Indexing on the lathe 1
TESTS: DeWalt random orbit sander, Scheppach spindle moulder, TuffSaw bandsaw blades, Skil belt sander, GemRed bevel box and laser level, SIP sliding mitre saw, Makita planer, Trend clamps, Robert Sorby indexing system



JANUARY 2010
PROJECTS: Prize workshop 1, Oval coffee table, Ornamental maple box, Nine-drawer pine chest, Bar cramps
FEATURES: Carcass and face frame construction, Templates for routing panels, Fitting box hinges, Patching housings, Shop notes
TURNING: Iroko bowl 2, Turning fruit 2 – Lemons and things, Cake stand
TESTS: Axminster bench-top thicknesser, Einhell hammer drill, Bosch circular saw, Colt MaxiCut Forstner drill bits, Einhell sliding compound mitre saw, Record table saw



JULY 2010
PROJECTS: Tool tote, Dressing table, Gazebo, Artist's painting box, Bathroom cabinet
FEATURES: Router cutter storage, Choosing and using cramps, Specialist planes, Shop notes
TURNING: Penmaking basics, Indexing on the lathe 2, Woodturning chisels, Secret ring tree
TESTS: Axminster screwdriver bits, Bosch jigsaws, SIP woodworking centre, Jet oscillating drum sander, Veritas dowel cutters, Einhell Multi sander, Einhell pendulum jigsaw



FEBRUARY 2010
PROJECTS: Prize workshop, Oak bedstead, Walnut coffee table, Ironing board, Winding sticks
FEATURES: Making and hanging kitchen cabinet doors, Using the bench mortiser, Scrollsaw basics 1, Measuring and marking, Moving 8 x 4ft boards, Shop notes
TURNING: Turning fruit 3 – Making the platter, A bench for the lathe, Reshaping fingernail gouges
TESTS: Mafell P1cc jigsaw, Axminster bench mortiser, Clifton No 3 smoothing plane, Colt pen drills



AUGUST 2010
PROJECTS: Garden bench, Music stand, Bedside tables, Plant obelisk, Foot stool
FEATURES: Table saw set-up, Power tool jigs and tricks, Making a smoothing plane and plane irons, Shop notes
TURNING: Indexing on the lathe 3, Mushroom needle case, Guide to woodturning gouges
TESTS: Bosch cordless screwdriver, Metabo sliding mitre saw, Bosch impact driver, Inca Super System metric jig, Bosch digital angle measurer, SIP dust collector, Bosch Clean hinge cutter, Axminster flexible drive unit, Axminster clamps, Roy Child mini screwchuck

MARKETPLACE

Our **FREE** classified advertisement service

Send
or email a
photograph of
your item and
we'll include it
with your ad for
FREE!

FOR SALE

Wooden steamer box for bending wood, 54 x 7 x 7in, complete with 2kW Warrior steamer, bending template and trestles; £50.
01253 864443 (Lancashire)

Rexon thicknesser, £200; Rexon 6in bench jointer, £100; Rexon bench mortiser, £100; 10in sliding compound mitre saw, £100; router table with router, £100.
01772 734613 (Lancashire)

Elu dovetailer in superb condition, with 1/4in router cutter, router bush, height adjuster and mint instruction booklet; £45 (£50 inc p&p).
01722 413167 (Wiltshire)

Kity K5 combination woodworking machine, in full working order with extension table and new mortising bits; oiro £250. Buyer collects outside East Sussex.
01424 223861 (East Sussex)

Wooden planes, about 40 in number, including try plane and jack, rebate, plough and moulding planes; offers please.
01257 480074 (Lancashire)

Electric iron for veneering, Eclipse saw setting tool, saw attachment for Arcoy drill; £4 each.
02392 376245 (Hampshire)

Stanley plunge router, 1970s model no 1287, 1120W, 27,000rpm, 3/8in collet with 1/4in reducer; £45 ono.
020 8647 4970 (Surrey)



Engineer's tools, all hand-made in own hand-made tool box, over 50 years old, enthusiast's item; oiro £500.
07855 820757 (Notts)

Shopsmith Mark V with standard extras plus jigsaw; oiro £195. Hegner SE Multicut speed control, needs attention; £95.
01205 280449 (Lincs)

Diamond fretsaw, heavy-duty model with electronic variable speed, complete with instructions; £120 ono.
01440 709507 (Suffolk)

Woodworker magazines, 116 copies from 1999-2008; £25 ono.
020 8647 4970 (Surrey)

Tool collection – large quantity of hand and power tools, good condition; phone for details.
01293 401258 (West Sussex)

Shopsmith Mark V, table saw, pillar drill, lathe etc, plus bandsaw and dust collector, with full instruction manual; £850 ono. Please telephone or send an email to helen.and.ray@btinternet for more details.
01753 648319 (Bucks)

Fox F28186 bandsaw, 150mm, brand new and still boxed, ill health forces sale; £100. Buyer collects.
02380 440102 (Hants)

Coronet Elf lathe with bowl turning attachment and tool rest, plus gouges, chisels and other accessories; £160.
01608 642281 (Oxfordshire)



Hegner Multicut 2S scrollsaw and hold-down, in good working order, with Axminster stand and a few blades; £175.
01953 681393 (Suffolk)

Very large elm slabs, approx 30 cu ft in total, 3in thick @ £35 per cu ft and 4in thick @ £45 per cu ft.
01692 404214 (Norfolk)

Axminster pen lathe with mandrel, chisels, extra faceplate, junior chuck, three collets, head/tailstocks, owner's manual, as new; £100.
01634 232548 (East Kent)

WANTED

Saw planer thicknesser, would consider Shopsmith at reasonable price.
01268 558814 (Essex)

Sliding table carriage for Scheppach ts2000 table saw; will collect anywhere in the UK.
01253 736365 (Lancs)

Woodworking tools: planes by Norris, Spiers, Mathieson, Preston, Slater etc, brass braces, interesting rules and spirit levels; top prices always paid, auction prices beaten.
01647 432841 (Devon)

Woodworking hand tools, especially old wood and metal planes, wanted by collector. Write to Mr B Jackson, 10 Ayr Close, Stamford PE9 2TS or call
01780 751768 (Lincs)

Spiers / Norris planes wanted by private collector; top prices paid for quality tools.
01530 834581 (Leics)

USE THIS FORM TO BOOK YOUR **FREE** AD

The Woodworker
MARKETPLACE

This space is available only to private individuals wishing to buy or sell woodworking machinery and tools. The maximum value of any item for sale must not exceed £500. For items over £500, please ring 01689 869852. Each coupon is valid for one free insertion in the next available issue. **MAXIMUM NUMBER OF WORDS 20.** The publisher accepts no responsibility for errors or omissions in this section.

PLEASE GIVE GEOGRAPHICAL LOCATION (ie. BEDS, BUCKS ETC.)

Name _____

Address _____

Postcode _____ Daytime tel no. _____

Signature _____

Please publish this advertisement in the next available edition of *The Woodworker*. I am a private advertiser and have no trade connections.

PLEASE TICK: FOR SALE ☐ WANTED ☐

My advertisement reads as follows (max. 20 words):

Please write your advertisement in **BLOCK CAPITALS** and send it to: The Woodworker Marketplace, MyHobbyStore Ltd, Hadlow House, 9 High Street, Green Street Green, Orpington, Kent BR6 6BG. You can also email your free ad to: thewoodworker@myhobbystore.com **Send/email a photograph of your item and we'll include it with your ad for FREE**

A blast from the past...

This month's lucky dip in the bran tub that is *The Woodworker* archive has come up with two issues from very different eras: late Edwardian and early Elizabethan. They reveal very clearly how woodworkers' interests have changed over the years...

AUGUST 1910

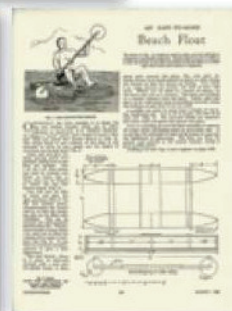
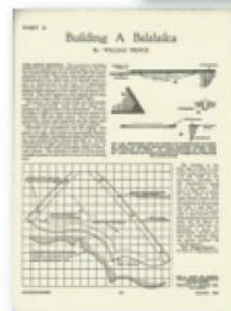
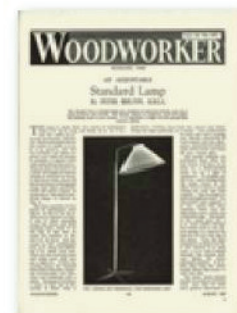
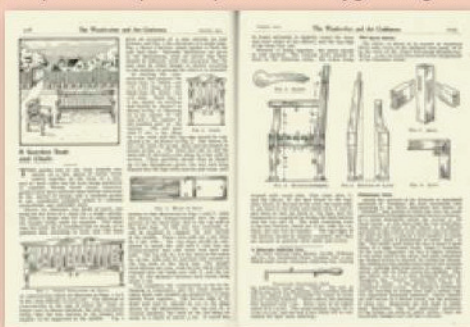
The *Woodworker* underwent one of its periodic changes earlier in 1910, moving from weekly to monthly publication. It had also recently absorbed another publication called *The Art Craftsman*, and the end result was a 48-page magazine positively stuffed with an eclectic mix of features on a wide and loosely connected range of subjects.

The issue opened with a wonderfully ornate carved shaving mirror, and the Special Supplement to the magazine contained a full-size plan for it at no extra cost! The initial shaping work required the use of the bowsaw and the spokeshave, while transferring the design for the carving from plan to workpiece called for lots of carbon paper. Then it was time to set to work with a full array of hand carving tools.

One of the main woodworking features in this issue was a continuation of a series of articles on making a suite of furniture for the bedroom. This month it was the turn of the wardrobe, and a very handsome piece it promised to be!

The other was a piece on making a garden seat and chair, and we couldn't help but notice many structural similarities between this and the traditional bench Paul Sellers presented in the last month's issue of the magazine. *Plus ça change...*

Then the *Art Craftsman* took over, with features on hand-made jewellery, art needlework, Danish carvings and instructions for making your own decorative plaster tiles, tablets and nameplates. There was even a double-page spread called *The Collector* (sub-titled 'Collecting for the Man of Moderate Means'), which this month gave readers advice on finding items for the fireside – fenders, coal scuttles, trivets, chestnut roasters and fire irons. It all painted a perfect picture of a bygone age.



AUGUST 1960

What a contrast strikes the reader on opening the magazine 50 years on. The lead feature was a futuristic turned mahogany standard lamp with an adjustable steel tube carrying the lampholder and a pleated paper shade.

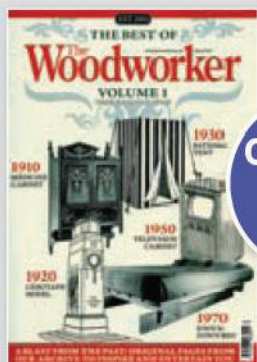
This was followed by a 'modern-type' sink unit, a forerunner of today's fitted kitchens. It was designed to take a standard steel or enamelled sink and draining board, and featured a cutlery drawer and two cupboards closed with the then fashionable sliding doors. Chipboard was the primary raw material, and paint the recommended finish.

Workshop addicts could read about 'Taking up woodwork the modern way', which this month featured *Uses of the Circular Saw and Table*, and showed plenty of dangerously unguarded blades in use! Then they could tackle tonguing, grooving and template routing, and learn how to cut hopper dovetails for making boxes with sloping sides. There was also a useful chart for calculating the weight of timber from its cross-section, species by species – all very complicated!

The traditional woodworker was catered for with a series of small projects, ranging from an inlaid trinket box to a handy shoe-stand and polish-holder. There was also an amazing 'weekend' project for making a beach float almost 7ft long and 3ft wide out of plywood on a simple softwood frame. There was even a double-ended paddle to go with it!

Most extraordinary of all was the ongoing saga of *Building a Balalaika*, which this month reached part 6 in the series with the edging of the instrument's body and the fitting of the fingerboard. Only part 7 – the essential stringing up and tuning stage – remained to be published the following month. We wonder how many readers actually made one, and whether any have survived...

THE BEST OF THE WOODWORKER



If you like '**A blast from the past**' you'll love our latest publication.

ON SALE NOW
£4.99*

The Best of The Woodworker features complete articles taken from each decade of *The Woodworker*, from its first issue in 1901 right up to the 1990s.

*Available from www.myhobbystore.co.uk.
Price quoted excludes p&p.

More from *The Woodworker* archive next month...

NEWTON TESLA

SMOOTH, QUIET, HIGH PERFORMANCE VARIABLE SPEED CONTROL FOR YOUR LATHE OR MILL

Supplier to industry since 1987 of high power speed control systems from 100W to 2,200,000W,

MITSUBISHI INVERTERS from £120 inc VAT



HIGH PERFORMANCE INVERTERS
For serious machining duty
240V 1-phase input, 220V 3-phase
output, for you to run a dual
voltage (Delta wired) three phase
motor off your 1-phase supply.

Six sizes from 0.1kW (0.12hp) to
2.2kW(3hp). CNC COMPATIBLE

Built-in user keypad, display and Digital Speed Dial.
Unique Integrated Emergency Stop Function.
Advanced Torque Vector control for optimum
performance. High Reliability and Long design life.
Fully CE Marked and RoSH Compliant.
Compatible with our Remote Control stations, and
supplied pre-programmed at no extra cost.

IMO 'LOW COST' INVERTERS from £99 inc VAT

LOW COST INVERTER DRIVES

2-YEAR WARRANTY

230V 1-phase input, 220V 3-phase
output, for you to run a dual
voltage three phase motor off
domestic single phase supply.
Five sizes: 0.2kW (to 2.2kW (3hp)).
Built-in programming keypad
display and Digital Speed Dial.
Low-cost Inverter drive with
simplified torque vector control.

Integrated EMC radio noise filter as standard.
CE Marked.

Compatible with our Remote Control stations, and
supplied pre-programmed at no extra cost.



REMOTE CONTROL STATIONS from £65 inc VAT



Remote control station Pendants
suitable for use with all our
Mitsubishi Electric and IMO Inverters.
Industrial grade push buttons
Featuring START, STOP, Forward &
Reverse, RUN/JOG, & Variable Speed
potentiometer.

3-wire control - Behaves like a
No-Volt-Release function.
Beware of low quality copies of our
original tried and tested controls
Fitted with 2-metre control cable and
supplied with wiring diagram.

PRE-WIRED LATHE SPEED CONTROL SYSTEMS

The original and best
lathe speed control system,
suitable for Myford
ML7, Super 7, Raglan,
and Boxford lathes.

Pre-wired ready to go!

Power Range: 1/2hp,
1hp, 2hp and 3hp.

Smooth control across
entire speed range, giving chatter free machining and
excellent finish unattainable with single phase motors!
Quiet, vibration free operation. EMC Compliant.
High torque even down to the lowest speed.

Powered from domestic 240V single phase mains.

Complete electronic motor protection.

Simplifies screw-cutting and tapping.

Made in the UK. ISO9001/2008 Quality Assured.

Prices start from £409 inc VAT. UK Delivery is £18.



**PAYMENT BY ALL LEADING CREDIT / DEBIT
CARDS AND PAYPAL.
NO SURCHARGE FOR CREDIT / DEBIT CARD
PAYMENTS**



ELECTRIC MOTOR SALES

We stock a large range of high quality AC
motors, Single & Three Phase, both in the
standard METRIC and IMPERIAL sizes.
0.09KW to 375KW

We have extensive knowledge regarding
which motor frame sizes go on which
Machine, and can match the
correct specification of motor for you.



Newton Tesla (Electric Drives) Ltd,
Units G14-15 & G18, Warrington Business Park, Long Lane,
Warrington, Cheshire WA2 8TX, UK.
Tel: 01925 444773 Fax: 01925 241477
E-mail: info@newton-tesla.com Web: www.newton-tesla.com



**NEW
PRODUCT**

BS400 Heavy Duty Bandsaw

The new BS400 bandsaw offers professional quality, industrial features and large capacities to the mid range bandsaw market. Ideal for the workshop with limited space, this machine brings affordable solid performance and reliability within reach of the discerning woodworker.

Max. Depth of Cut: 305mm
Throat Depth: 416mm
Motor Power: 2hp

Now Only
£749.⁹⁵
Inc VAT



Prices valid until 31.08.2010. E&OE.

BS250



BS300E



BS350S



BS400



BS500



The Record Power Bandsaw Range

RECORD POWER
ESTABLISHED 1909®



STARTRITE®



TOP DEALS
FREE ENTRY
FREE ADVICE

**'THE' TOOL
SHOW '10**
8-10 October 2010

Kempton Park
Racecourse,
Staines Road East,
Sunbury on Thames,
Middlesex TW16 5AQ

RECORD POWER
ESTABLISHED 1909®

www.recordpower.co.uk

Tel: 01246 561 520 Fax: 01246 561 537 Email: sales@recordpower.co.uk

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.