Woodworking CRAFTS

HAND, POWER & GREEN WOODWORKING • TURNING • RESTORATION • DIY

Carve a cawl ladle

TECHNIQUE
DIY kitchen sink drama

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ON TEST
Triton spindle sanders

PROJECTS
Garden play castle
Ebonised vanity unit top
Arts & Crafts chest of drawers

'GOLDEN RATIO' COFFEE TABLE • BEADING • SAW SHARPENING • GUIDED MACHINING




Machine Mart

66 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS

Clarke TABLE SAWS

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

FROM ONLY £72.99 EXC.VAT £87.59 INC.VAT

BEST SELLER

CTS10D

INCLUDES LEFT & RIGHT TABLE EXTENSION

MODEL	MOTOR	BLADE	EXC.VAT	INC.VAT
CTS800B	600W	200mm	£72.99	£87.59
CTS11	1500W	254mm	£154.99	£185.99
CTS10D	1500W	254mm	£169.98	£203.98

Clarke 4" BELT/ 6" DISC SANDER

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

CS4-6E

£92.99 EXC.VAT £111.59 INC.VAT

Clarke 6" BELT/ 9" DISC SANDER

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

CS6-9C

£239.00 EXC.VAT £286.80 INC.VAT

Clarke TABLE SAW WITH EXTENSION TABLES (250mm)

CTS14

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

£129.98 EXC.VAT £155.98 INC.VAT

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

evolution FURY5-S TABLE SAW

3 YEAR WARRANTY

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

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

Clarke WOODWORKING VICES

STANLEY. Record

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

WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke CHT152	Bolted	150/152/61	£14.99	£17.99
Stanley Multi Angle	Clamped	72/60/40	£18.99	£22.79
Record TV75B	Clamped	75/50/32	£21.99	£26.39
Clarke WV7	Bolted	180/205/78	£29.98	£35.98

BLACK & DECKER POWER PLANERS

TE-PL850

- 82mm cutting width

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

MODEL	MOTOR	DEPTH OF CUT	EXC.VAT	INC.VAT
Einhell TE-PL850	850W	3mm	£54.99	£65.99
B&D KW750K - GB	750W#	2mm	£57.99	£69.59

Clarke 1" BELT/ 5" DISC SANDER

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

£69.98 EXC.VAT £83.98 INC.VAT

CBS1-5

Clarke 40" WOODTURNING LATHE

Ideal for woodturning in the workshop

- 1016mm distance between centres allows for turning longer spindles
- Inc. tool rest, tail stock, drive centre, face plate & 3 chisel
- Large turning capacity of 350mm
- 4 turning speeds

NEW

CWL1000B

ONLY £136.99 EXC.VAT £164.99 INC.VAT

LOCKABLE TAILSTOCK

BENCH MOUNTED

Clarke 13" MINI WOOD LATHE

£154.99 EXC.VAT £185.99 INC.VAT

CWL325V

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

TURBO AIR COMPRESSORS

airmaster

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

FROM ONLY £89.98 EXC.VAT £107.98 INC.VAT

* 'V' Twin Pump

8/250

MODEL	MOTOR	CFM	TANK	EXC.VAT	INC.VAT
8/250	2HP	7.5	24ltr	£89.98	£107.98
7/250	2 HP	7	24ltr	£94.99	£113.99
11/250	2.5HP	9.5	24ltr	£109.98	£131.98
8/510	2HP	7.5	50ltr	£119.98	£143.98
11/510	2.5HP	9.5	50ltr	£139.98	£167.98
16/510*	3 HP	14.5	50ltr	£209.00	£250.80
16/1010*	3 HP	14.5	100ltr	£259.98	£311.98

Clarke 4" BELT/ 8" DISC SANDER

- Includes two tables
- 550W 230V motor

£159.98 EXC.VAT £191.98 INC.VAT

CS4-8

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

CDE7B

CWVE1

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

- Powerful 1100W motor
- 50 litre bag capacity
- Flow rate of 850M3/h

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

Clarke HIGH VELOCITY FANS

FROM ONLY £36.99 EXC.VAT £44.39 INC.VAT

20" BOX FAN

18" PEDESTAL FAN

CPF18B

NEW

CBF20

*chrome #black

MODEL	SIZE/TYPE	EXC.VAT	INC.VAT
CBF20	20" Box Fan	£36.99	£44.39
CFF18C* NEW	18" Floor Fan	£39.98	£47.98
CFF18B# NEW	18" Floor Fan	£39.98	£47.98
CPF18B NEW	18" Pedestal Fan	£49.98	£59.98

Clarke AIR TOOLS

CAT165

CAT111

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

HUGE CHOICE IN-STORE/ONLINE

MODEL	DESCRIPTION	EXC. VAT	INC. VAT
CAT111	Orbital Sander	£21.99	£26.39
CAT160	6" Dual Action Random Orbital Palm Sander	£39.98	£47.98
CAT165*	10mm Air Belt Sander	£39.98	£47.98
CAT168	50mm Right Angle Orbital Sander	£34.99	£41.99

*was £59.98 inc. VAT

Clarke HARDWOOD WORKBENCH

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

CHB1500

£149.98 EXC.VAT £179.98 INC.VAT

Clarke DISC SANDER (305MM)

- Powerful, bench mounted
- 900W
- Dust extraction port

£129.98 EXC.VAT £155.98 INC.VAT

CDS300B

Clarke BELT SANDERS

- Ideal for surface removal, sanding and finishing

Makita

ABRASIVE SANDING BELTS IN STOCK

BS1

FROM ONLY £36.99 EXC.VAT £44.39 INC.VAT

MODEL	MOTOR	M/MIN	EXC.VAT	INC.VAT
Clarke BS1	900W	380	£36.99	£44.39
Clarke CBS2	1200W	480	£79.98	£95.98
Makita 9911	650W	75-270	£89.98	£107.98

Clarke DETAIL SANDERS

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

CDS-1V

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

MODEL	WATTS	EXC.VAT	INC.VAT
PS105	105W	£19.98	£23.98
CDS-1V	280W	£29.98	£35.98

ALL MODELS INC. SANDING SHEETS

Clarke SHEET SANDERS

- Ergonomic design for optimum comfort

*was £41.99 inc.VAT

CON300

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

MODEL	SHEET SIZE	MOTOR	EXC.VAT	INC.VAT
COS200	190X90mm	150W	£16.99	£20.39
CON300*	230X115mm	330W	£32.99	£39.59

Clarke RANDOM ORBITAL SANDER

- Adjustable front handle improves control
- 7000-14000rpm

£32.99 EXC.VAT £39.59 INC.VAT

CROS3

INC DUST BAG AND SELECTION OF 125MM DIAMETER SANDING DISCS

Clarke ELECTRIC POWER FILE

CPF13

- Variable belt speed
- Tilting head

*Black & Decker

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

MODEL	MOTOR	BELT SIZE (mm)	EXC.VAT	INC.VAT
CPF13	400W/230V	13x457	£49.98	£59.98
KA900E*	350W/230V	13x455	£59.98	£71.98

Clarke CIRCULAR SAWS

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

CON185

*Includes laser guide

FROM ONLY £41.99 EXC.VAT £50.39 INC.VAT

MODEL	MOTOR	MAX CUT 90/45 (mm)	EXC.VAT	INC.VAT
CCS185B	1200W	65/44	£41.99	£50.39
CCS2	1300W	60/45	£59.98	£71.98
CON185*	1600W	60/40	£62.99	£75.59

VAC KING WET & DRY VACUUM CLEANERS

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

#was £119.98 inc.VAT

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

* SS = Stainless Steel

MODEL	MOTOR	CAPACITY DRY/WET	EXC. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£49.98	£59.98
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC20PR2	1400W	16/12ltr	£64.99	£77.99
CVAC25SS*	1400W	19/17ltr	£67.99	£81.59
CVAC30SSR*#	1400W	24/21ltr	£89.98	£107.98

Clarke PORTABLE THICKNESSER

- Max thickness cap. 125mm and 250mm wide
- Planing depths adjustable from 0-2.5mm
- Powerful 1250W motor

£219.00 EXC.VAT £262.80 INC.VAT

CPT250

Clarke 18V CORDLESS DRILL/DRIVERS

Clarke CONTRACTOR

powered by Li-ion

CON18Li

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

MODEL	VOLTS	BATTS	EXC. VAT	INC.VAT
CON18Ni	18V	2 x Ni-Cd	£69.98	£83.98
CON18Li	18V	2 x Li-Ion	£89.98	£107.98

Clarke CONTRACTOR 18V BRUSHLESS COMBI DRILLS

- 2 forward and reverse gears

NEW RANGE

powered by Li-ion

CON180LI

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

MODEL	VOLTS	BATTS	EXC. VAT	INC. VAT
CON18LIC	18V	2x 2.0Ah Li-Ion	£109.98	£131.98
CON180LI	18V	2x 4.0Ah Li-Ion	£169.98	£203.98

Clarke BOLTLESS SHELVING/BENCHES

- Simple fast assembly in minutes using only a hammer

SAVE 10%

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

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

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

CHOICE OF 5 COLOURS

RED, BLUE, GREY, SILVER & GALVANISED STEEL

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

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

Clarke WHETSTONE SHARPENER (200MM)

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

CWS200B

ONLY £119.98 EXC.VAT £143.98 INC.VAT

Clarke PLANERS & THICKNESSERS

CPT800

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

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

MODEL	PLANING WIDTH	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CPT600	6"	120mm	£184.99	£221.99
CPT800	8"	120mm	£219.98	£263.98
CPT1000	10"	120mm	£299.00	£358.80

Clarke OSCILLATING BOBBIN SANDER

- Dust collection port
- Inc. 6 sanding sleeves/bobbins

COBS1

£139.98 EXC.VAT £167.98 INC.VAT

Clarke OSCILLATING BELT & BOBBIN SANDER

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

£179.98 EXC.VAT £215.98 INC.VAT

COEBS1

FAST, EASY FINANCE

- Over 12, 24 or 36 Months
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Clarke SLIDING COMPOUND MITRE SAWS

BEST SELLER

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

FROM ONLY £89.98 EXC.VAT £107.98 INC.VAT

CMS10S2

MODEL	BLADE DIA/BORE (mm)	MAX CUT DEPTH/CROSS	EXC.VAT	INC.VAT
CMS210S NEW	210/30	60/120	£89.98	£107.98
CMS10S2	254/30	78/340	£139.98	£167.98

Clarke MITRE SAWS

CMS210

FROM ONLY £59.98 EXC.VAT £71.98 INC.VAT

Laser Guide ‡ Sliding Compound

- Quality Range of Mitre saws and blades in stock

MODEL	BLADE DIA/BORE (mm)	MAX CUT DEPTH/CROSS	EXC. VAT	INC. VAT
CMS210	210/30	60/120mm	£59.98	£71.98
Einhell TC-MS 2112	210/30	55/120mm	£59.98	£71.96
Einhell TC-SM 2131#	210/30	62/310mm	£129.98	£155.98
Einhell TC-SM 2534‡	250/30	75/340mm	£159.98	£191.98

Clarke WORK TABLE SUPPORTS (PAIR) CWTS1

- Ideal if you have your own work top or want to build a steel or wood workbench • Inc. mounting holes for worktop, shelf and floor

ONLY £29.98 EXC.VAT £35.98 INC.VAT

SIMPLY ADD YOUR OWN TOP

BEST SELLER

Clarke DRILL PRESSES

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

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

CDP152B

B = Bench mounted F = Floor standing

MODEL	MOTOR (W) SPEEDS	EXC. VAT	INC. VAT
CDP5EB	350 / 5	£66.99	£80.39
CDP102B	350 / 5	£79.98	£95.98
CDP152B	450 / 12	£149.98	£179.98
CDP202B	450 / 16	£189.00	£226.80
CDP10B	370 / 12	£198.99	£238.79
CDP452B	550 / 16	£229.00	£274.80
CDP352F	550 / 16	£229.00	£274.80
CDP502F	1100 / 12	£499.00	£598.80

Clarke CONTRACTOR BOSCH JIGSAWS

BEST SELLER

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

CON750 *DIY #Professional

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EXC. VAT	INC VAT
CJS380*	420W	55/6mm	£15.99	£19.19
CON750#	750W	80/10mm	£27.99	£33.59
Bosch PST700E*	500W	70/4mm	£49.98	£59.98

Clarke BISCUIT JOINTER

- 11000rpm Operating Speed • 860W motor • 14mm Cutting Depth • Inc. dust bag, storage case and face spanner for cutter change

NEW

2 YEAR GUARANTEE

FROM ONLY £52.99 EXC.VAT £63.59 INC.VAT

TC-BJ900

Clarke SCROLL SAWS

CSS400C

BEST SELLER

FROM ONLY £82.99 EXC.VAT £99.59 INC.VAT

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

MODEL	MOTOR	SPEED RPM	EXC. VAT	INC. VAT
CSS400B	85W	1450	£82.99	£99.59
CSS16VB	90W	550-1600	£94.99	£113.99
CSS400C	90W	550-1600	£114.99	£137.99

Clarke CORDLESS STAPLE/NAIL GUN

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

ONLY £109.98 EXC.VAT £131.98 INC.VAT

CONSN18LIC

SPARE NAILS / STAPLES IN STOCK

ELECTRIC AND CORDLESS MODELS IN STOCK

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT

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

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

CMFT250

Clarke BENCH BANDSAW

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

£129.98 EXC.VAT £155.99 INC.VAT

CBS190B

Clarke MORTISING MACHINE

£174.99 EXC.VAT £209.99 INC.VAT

CBM1B

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

CHISELS AVAILABLE FROM £8.39 INC VAT

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

Clarke STATIC PHASE CONVERTERS

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

ROTARY PHASE CONVERTERS ALSO IN STOCK

PC60

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

CONVERT 230V 1PH TO 400V 3PH

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

Clarke 12" DOVETAIL JIG

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

£57.99 EXC.VAT £69.59 INC.VAT

CDTJ12

Clarke PROFESSIONAL BANDSAWS

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

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

MAGNIFIED MITRE GUIDE

QUICK RELEASE FENCE

DRIVE-BELT TENSIONING

SOLID GROUND CAST IRON TABLE

CBS300

FROM ONLY £199.00 EXC.VAT £238.80 INC.VAT

MODELS ALSO FEATURE:

MULTI-STEP DUST EXTRACTION OUTLET

FLEXIBLE LED WORKLIGHT

REMOVABLE DUST TRAY

BLADE TENSIONING CONTROL

MODEL	THROAT DEPTH	MAX CUT 90°	MAX CUT 45°	EXC. VAT	INC. VAT
CBS225	228mm/9"	90mm	50mm	£199.00	£238.80
CBS300	305mm/12"	165mm	115mm	£399.00	£478.80
CBS350	340mm/14"	225mm	160mm	£498.00	£597.60

Clarke CONTRACTOR BOSCH ROUTERS

- Powerful heavy duty machines ideal for trade and DIY use

CR2 INCLUDES 15 PIECE KIT WORTH OVER £20

FROM ONLY £46.99 EXC.VAT £56.39 INC.VAT

CR1C

*DIY

MODEL	MOTOR (W)	PLUNGE (mm)	EXC.VAT	INC.VAT
CR1C*	1200	0-50	£46.99	£56.39
Bosch POF1400ACE	1400	0-55	£89.98	£107.98
CR2	2100	0-60	£119.98	£143.98

Clarke ROUTER TABLE CRT-1

Router not included

BEST SELLER

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

£69.98 EXC.VAT £83.98 INC.VAT

Clarke GRINDERS & STANDS

- Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

STANDS FROM ONLY £47.98 INC.VAT

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

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

With sanding belt *8" whetstone & 6" drystone

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

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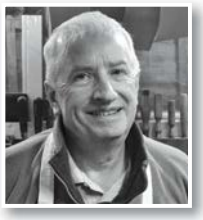

Hello everyone and welcome to the July issue of Woodworking Crafts

Al Fresco woodworking

I have a quite well equipped, if somewhat compact, workshop. It's been reasonably tidy and reorganised for some time. I'm fairly happy with it as it stands – indeed any bench or machining task is going to be done in there. All the tools are there, all the supplies, fittings, fixings, timber all stacked and stored. But, I'm at my happiest working outside. Does that make me weird? I hope not – I much prefer fresh air and sunlight, weather permitting of course. It can be using the slanted cover of the log store, which makes a good, big working and assembly surface, or it can be a couple of plastic trestles on the lawn. Wherever in the garden it may be, working in the open air with birds singing, lawns being mown, the occasional tractor in the lane nearby (we live in a village) and light planes buzzing overhead, not to mention occasional work-avoiding chat with a neighbour or breaks for tea and cake in the area I pretentiously refer to as 'the courtyard' (all right – patio…), it is more refreshing than being stuck in a workshop. That's unless the weather is really inclement and no fun to be outside. I think there is a lot to be said for working in the great outdoors. If I had a space for a permanent open shelter with a bench which could double for serving impromptu lunch for visitors, what could be better? Where do you do your woodworking? In a back room, in a shed or, like me, outside when Mother Nature is kind? Let me know what set-up you have, I'd be interested to know.

Anthony Bailey, Editor
Email: anthonyb@thegmcgroup.com

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PROJECTS

TECHNIQUES

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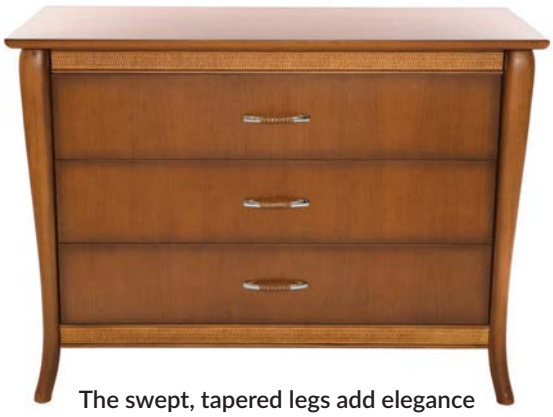


The swept, tapered legs add elegance

Arts & Crafts design works well

Posh shabby chic with some interesting detail

Design INSPIRATION

A chest of drawers is functional for storage but it can look good too

Clean-lined Regency style with a frieze and cockbeaded drawers

Retro makes a statement of its own

PHOTOGRAPHS COURTESY OF SHUTTERSTOCK

Keeper of secrets

by Duncan Lyall

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Subtle curves help alleviate the squareness usually found on modern chests of drawers

Eight months into the first year of my City & Guilds course at Kendal College, and with all digits intact, I was finally given free rein to produce my first design-and-make project.

Commissions being a bit thin on the ground, I wanted to make something for myself that was practical and, being short of space, decided on a three-drawer chest – a project that would incorporate all my recently acquired skills.

Having been impressed by the design philosophy of the Arts & Crafts movement, I hoped to produce an honest piece of simple line, while incorporating a few ideas of my own.

Timber

The design dictated the use of traditional home-grown timber – quarter-sawn English oak (*Quercus robur*) being the obvious choice for the framing, while sycamore (*Acer pseudoplatanus*) gave a pleasant contrast to the drawer sides, backs and base for the compartment under the lid. These two woods lie happily together and, if chosen carefully, the figuring on the sycamore adds interest to the drawer sides. Luckily, both these woods were available locally.

As the chest was to be used for clothes storage, the aromatic quality of cedar of Lebanon (*Cedrus libani*) seemed the logical choice for the drawer bases. It is still a delight to smell when the drawers are opened.

Skeleton frame

The framework is of straightforward mortise and tenon construction. As I had recently invested in a router I was determined to make maximum use of this versatile tool.

The mortises for the posts are marked out in pairs, front and back.

Design

Inspiration for a design may come from the most unusual of sources. In this case it came from an old treadle sewing machine that I have in my home – the skeleton framing for the chest's drawer construction and folding top owe much to the old treadle.

This skeleton frame appealed to me – as well as being reasonably economical with timber it would minimise any movement that might occur later. The exposed drawer sides also gave me the opportunity to use contrasting timbers to highlight the design.

As part of my earlier coursework I had made a small table with legs that curved gently inwards from base to top while retaining a straight inner edge. This seemed to work well, giving an appearance of stability – so that feature was incorporated into this design. Gentle curves were added to the side, back and front rails to continue the theme.

When drawing up the plans I became aware of a 'dead' space behind the top drawer rail so I took the opportunity to incorporate two 'secret' drawers.

Waney-edge timber

After being left for a couple of weeks to acclimatise to the conditions in the workshop, the waney-edge boards are planed on one side. Rods (marking sticks) are then used to make best use of the figuring available. This was my first experience of waney-edge timber and I was shocked at the wastage once defects were removed – definitely a case of buyer beware – and necessitated another trip to the sawmill. Finally, after the most economical use of the timber had been achieved, it was thicknessed and cut to size.

Inner lid up showing the dressing mirror and top compartment

'When drawing up the plans I became aware of a "dead" space behind the top front rail, so I took the opportunity to incorporate two "secret" drawers'

Economical on wood, the drawer sides are a quiet contrast to the oak frame

With one pair clamped to the bench, the router is fitted with two fences, one against each side of the work. These are then adjusted so the router slides smoothly along the two posts, cutting the four mortises needed on each face.

This works well, leaving only the rounded ends to be cut by hand using a router set in a table – cutting the tenons is equally painless. An offcut, the same thickness as the rails, is used to set the cutter height until a good fitting tenon is produced.

Each set of side, back and front rails is then cut exactly to length and, in turn, laid side by side with a piece of scrap inserted after the last rail to cope with any breakout that may occur. The rails are then clamped together and machined as a unit, so producing accurate work with virtually no need for marking out.

Next job is to cut the stopped housings in the front and back top rails and the corresponding tenons on the three cross-members that together form the sides and divider of the compartment under the hinged top. Rebates are cut into the bottom of these rails later to accept a piece of veneered plywood to form the base of the compartment. ➤

'As these rails will be used to attach the top, it is as well to drill and countersink them now, especially if a vertical drill stand is available'

As these rails will be used to attach the top, it is well to drill and countersink them now, especially if a vertical drill stand is available. The framework is now loosely assembled and checked to ensure that all is square. After assembly, the posts and rails are bandsawn to shape. The easiest method I have found to produce these long, lazy curves, is to use a metre steel rule which can be flexed until the desired curve is achieved. This line can then be easily transferred from rod to workpiece. Cleaning up the curves is done with a circular plane – a tool I find a pleasure to use, especially after the incessant whine of the router.

Next rebate the tops of the side rails – a purely decorative feature which also appears to slim down their width. Finally make the two 'ends' of the front top rail which are then tenoned into the posts.

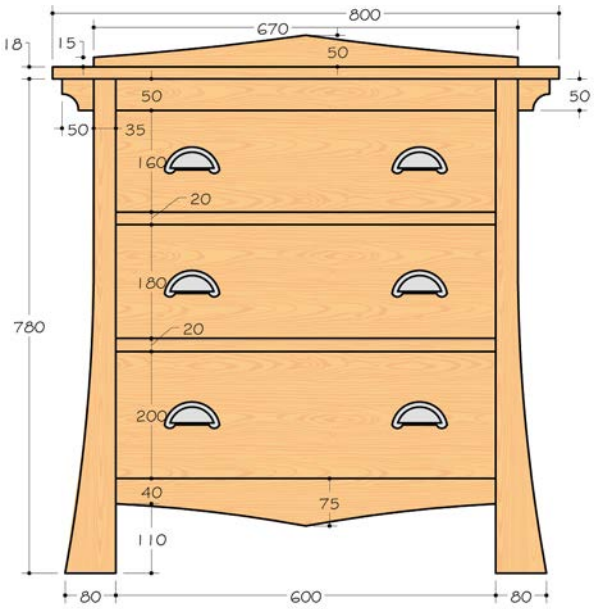
Assembly

Everything is sanded prior to gluing up. The nature of the construction means that all the work is visible and time spent now is time well spent. Clamping up is straightforward – post and side rails first. When dry, the two completed sides and front and rear rails are assembled, ensuring that everything is square. The three cross-rails for the top compartment are then glued in. To complete the job the drawer runners are fitted. The lengths are measured from the assembled framework and then glued and clamped to the side rails.

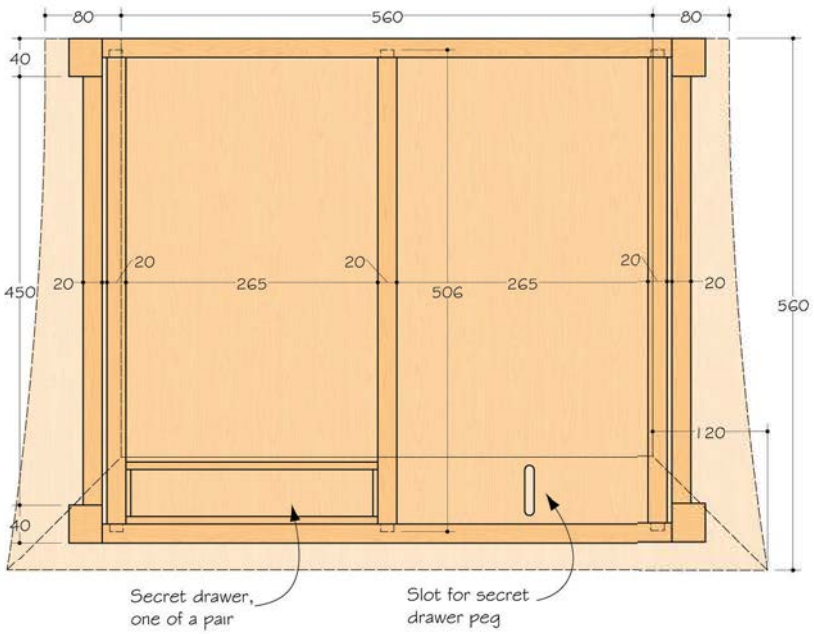
Top

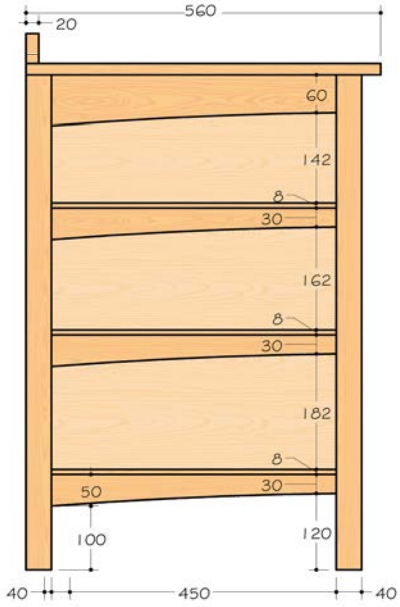
The top consists of a surround and hinged inner lid. The surround is made from a single board to ensure a continuity of grain around the sides and front. This is mitred and biscuited together. Three matching boards are selected to make the hinged lid – these are also biscuited together ensuring that the grain is reversed to minimise any movement that might occur later.

At this point I placed the completed top on the framework to see how things were shaping up. I had originally designed the top rectangular, but now realised that its square edges ➤

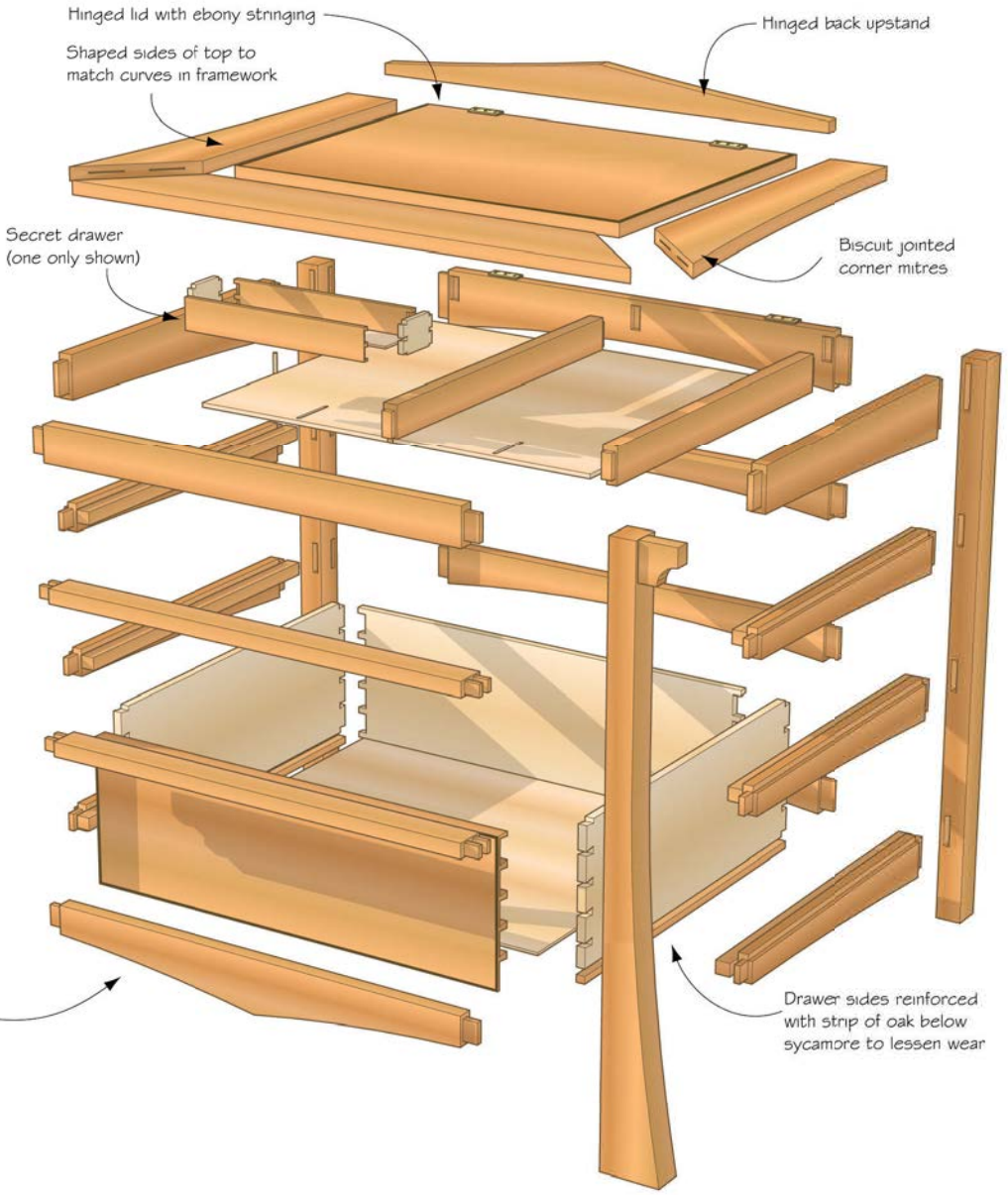


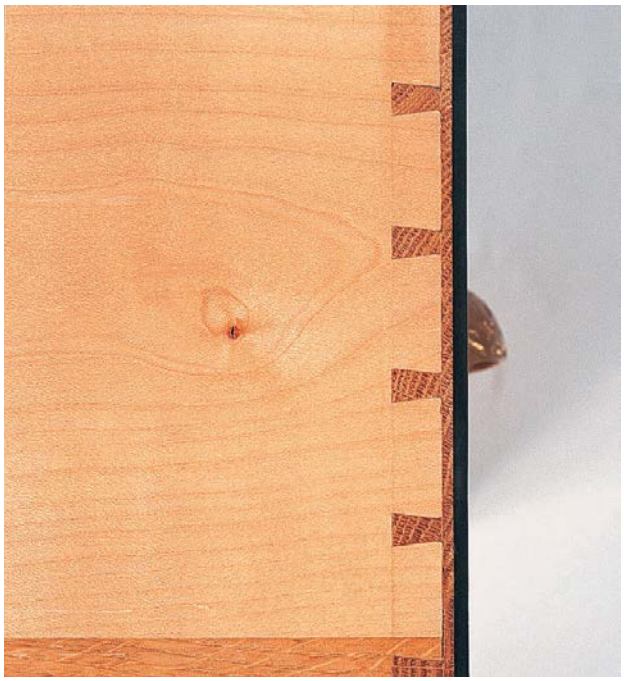
PLAN SECTION





FRONT & SIDE ELEVATIONS

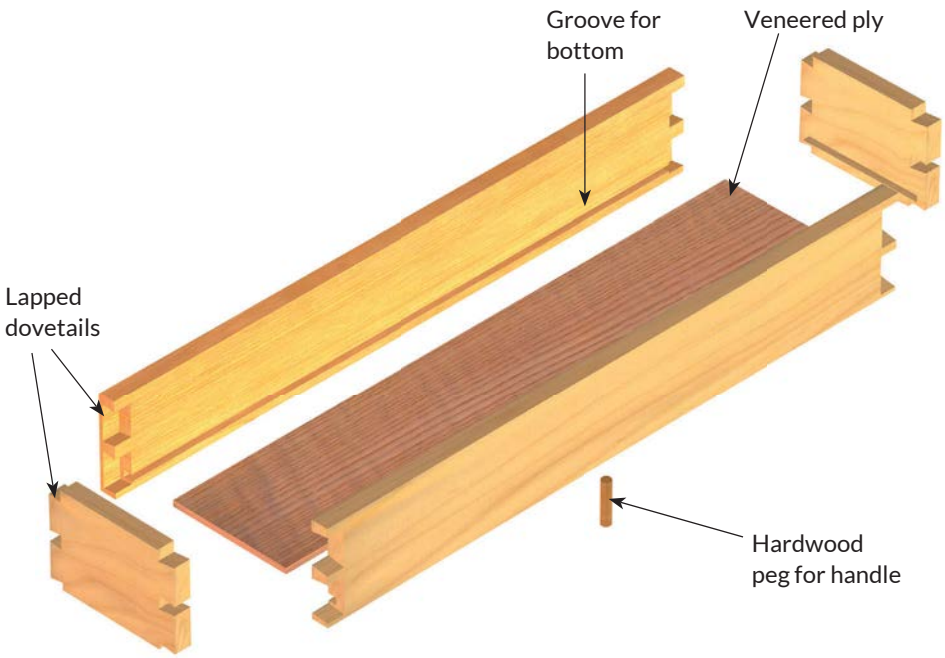




The back

Detail of underneath the top compartment showing peg handles for secret drawer

The secret drawers fit neatly between the front rail and the underneath surround of the top



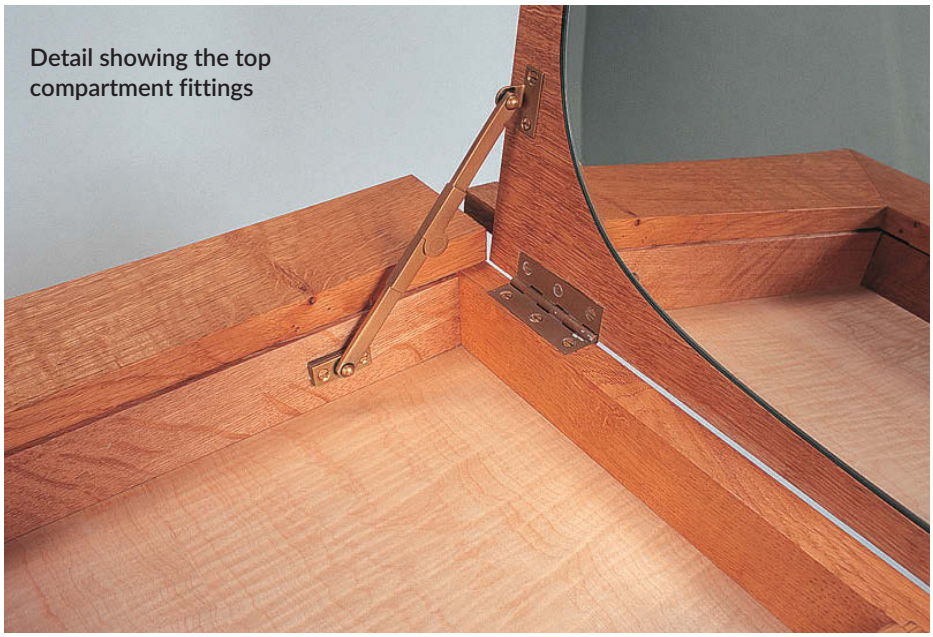
were out of keeping with the curves of the framework. Shaping the sides inwards from front to back seemed to do the trick with the added bonus of removing an unsightly knot that had appeared while thicknessing. To complete the top the only remaining job is the addition of 3mm ebony stringing around the sides and front.

Drawers

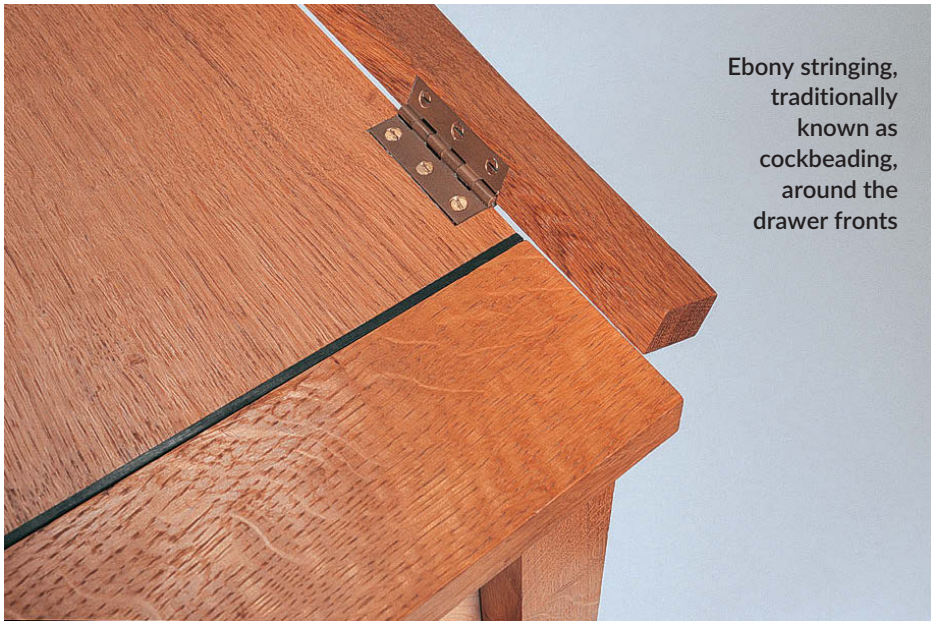
The drawer casings are made from sycamore and the fronts from oak, dovetailed back and front. The only break from tradition is the addition of a 10mm lipping to the bottom of the drawer sides which will overcome any wear problems that may occur between the soft sycamore sides and oak runners. The solid cedar of Lebanon drawer bases are made from narrow boards rub-jointed together to the

Fittings

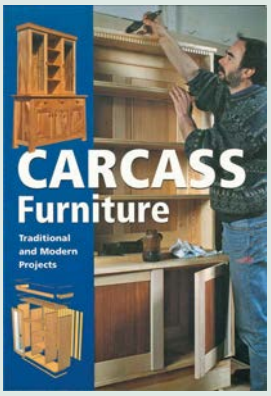
Brass fittings and screws are used throughout the construction. I feel these fittings often appear somewhat out of place on handmade furniture. As I have access to a sand/beadblaster all brassware was given the treatment – this softens the colour, and the warm bronze effect complements the colour of the oak. A particular bugbear of mine is handles that loosen or break in use, so I took care in choosing them to ensure that, as well as being aesthetically pleasing, they were of sturdy design. The ones I chose should prove indestructible in use.



Detail showing the top compartment fittings



Ebony stringing, traditionally known as cockbeading, around the drawer fronts



This project is originally from *Carcass Furniture – Traditional and Modern Projects*
Guild of Master Craftsman Publications
ISBN 1-86108-397-1

required width. As the backs of the drawers are visible, the bases are let into all four sides. Ebony stringing, as fitted to the top, is also added to the drawer fronts as a contrast to the plain oak.

The two secret drawers are of a similar construction and fit behind the top front rail underneath the top surround. To enable the drawers to be opened, short pegs, a fraction longer than the plywood to be used for the compartment bases, are fitted in holes drilled midway along the base of the drawer backs. Sycamore-veneered ply is then cut to size and temporarily fitted in the rebates of the three cross-members and front and back rails to form the compartment base. The positions of the protruding drawer pegs are then marked and slots cut into the ply to allow the drawers to be opened from underneath.

Finish

As all the parts have been sanded prior to assembly, finishing off is relatively easy. Any excess glue is removed, three coats of Tung oil are applied to the framework and drawer fronts, sanded and de-nibbed between coats. The sycamore is given two coats of sanding sealer and waxed. The drawer bottoms are left untouched.

Assembly

The two veneered plywood compartment bases can now be glued in, the two secret drawers placed in position, and the top surround glued and screwed in place from underneath. The hinged lid is then fitted with a flush ring chest fitting and the mirror glued in place with silicon mirror mastic to give a slight cushioned effect. With the lid's surround already in place, positioning the hinges is easy – once in place the two stays can be fitted to complete the chest.

Conclusion

On completion I was pleased with the result. Friends remark on its oriental look – although this was unintentional. It was my first design-and-make project and on reflection I would now do some things differently.

The oak and sycamore have now mellowed harmoniously and regular waxing has improved its overall look. ■

A woodworking glossary

The letters Q &R

QUARTERSAWN Timber cut with growth rings almost parallel to the board's edges.

QUEEN ANNE English furniture design based on the Baroque style developed during the reign of Queen Anne from 1702–1714.

QUIRK A small step between different mouldings profiles.

PHOTOGRAPHS BY GMC/ANTHONY BAILEY UNLESS OTHERWISE STATED

Quirk separating moulding profiles

RACKING The twisting action of a frame that can loosen joints.

RADIAL-ARM SAW A power tool that consists of a motor and blade suspended above the table from an arm that pivots at the rear and upon which the motor slides. Now largely defunct as compound mitre saws have replaced them.

Rasps being used for sculpture

RAIL Horizontal member of a frame on a door, window or panel.

RAIL-AND-STILE BIT A router or spindle moulder bit or matched pair of bits used to form mating edges of door rails and stiles.

RAISED GRAIN Lifting of grain on a board usually caused by the application of water or a water-based finish.

RAISED PANEL DOOR A frame-and-panel construction door of which the panel has a raised profile.

RAKER The flat-topped tooth in an alternate top bevel (ATB) circular saw blade that cleans out the material at the bottom of the cut to flatten it. Also present in a type of bandsaw blade.

RANDOM ORBITAL A sander with an eccentric, swirling pattern capable of fast finishing and largely removing its own scratch marks.

RASP A long and flat steel tool with raised teeth for shaping wood, the raising process is termed 'stitching'.

RAY FIGURE A desirable grain pattern on the surface of quarter-sawn wood.

REBATE (old English and US – rabbet) – a 'groove' cut parallel to and at the edge of a board.

A rebate and bearing-guided rebate cutter

REBATE JOINT A very basic joint for box building, it is an improvement over the butt joint for strength. It adds extra gluing surface and reduces racking (twisting).

REBATE PLANE An edge plane for producing rebates. Nowadays a router and rebate cutter is generally used instead.

PHOTOGRAPH BY JOHN BULLAR

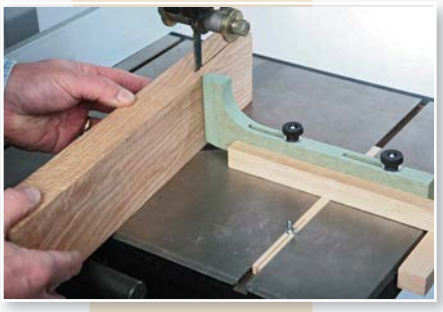
Ray figure in oak

REED A series of beads in a row together, whereas a bead is singular.

RELIEF CARVING A carving style done in a flat surface that is partially three-dimensional when viewed from the front.

RELIEVING CUT A short, straight cut made to allow a jigsaw or bandsaw blade to negotiate a tight curve without becoming trapped.

RESAW To cut a plank or baulk of timber repeatedly to create thinner boards.



PHOTOGRAPH BY ALAN HOLTHAM

Using a point fence to resaw timber

RESIN Sticky sap found in pockets in the grain of softwoods.

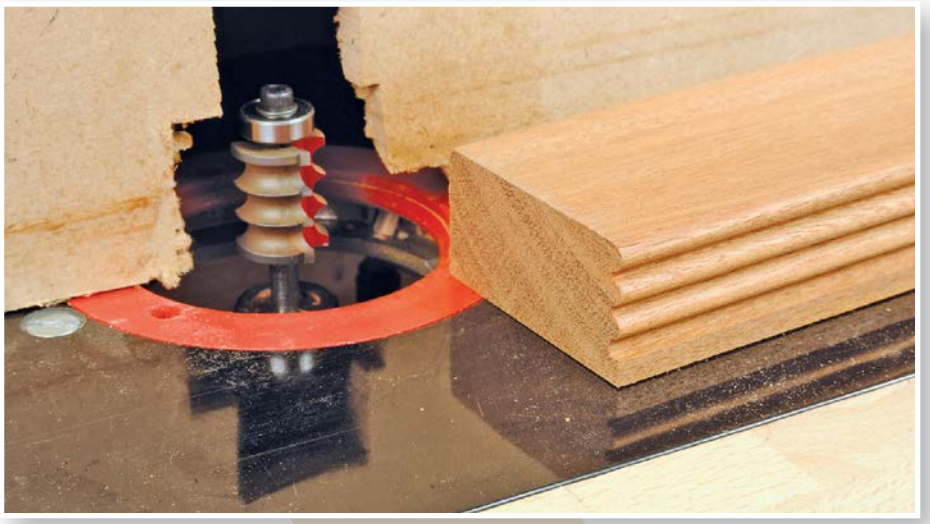
REVEAL Insides faces of a surrounding frame, such as that around a window.

RIFFLER A paddle-shaped rasp for fine shaping work.

RIP CUT Rip sawing of timber roughly parallel to the grain with a handsaw or a machine such as a tablesaw or bandsaw.

RING SHAKE A natural type of split occurring between the annual rings.

RIP FENCE The movable guide on a table saw that is parallel to the blade against which boards are referenced when making a rip cut.



A reed cutter and reed moulding

RIVING KNIFE A thin piece of steel behind a saw blade that prevents wood from closing up and touching the rear of the blade, possibly causing a kickback.

ROTARY TOOL A small hand-held electric tool that accepts a variety of cutting, grinding, sanding, polishing, and other tips for fine work.

ROTARY-CUT, ROTARY-PEELED The economical method of producing veneer from a log.

ROTTENSTONE Extremely fine abrasive powder used in French polishing.

ROUGH TURN To bring a rough blank into a balanced, round shape on the lathe.

ROUGHING GOUGE A large turning gouge used to remove a lot of material quickly.

Two-edged Ryoba saw

Rottenstone used for finishing

ROUGH-CUT Cutting to an approximate length to allow for trimming to size later.

ROUGH SAWN Timber straight off the saw and unplaned.

ROUNDOVER A bit or cutter which removes the corner off the edge of a board by rounding it.

ROUT To cut a trench or groove using an electric router or traditional hand router.

ROUTER A ubiquitous power tool for machining profiles and joints.

ROUTER TABLE A table on which a router is mounted, inverted with the bit coming up through the table surface.

RYOBA SAW A Japanese two-edged pullsaw. ■

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STC = Sliding Table Carriage. TWE = Table Width Extension. TLE = Table Length Extension.

Golden Ratio coffee table
in English tiger oak

PHOTOGRAPHS BY DAVE CLEMENTS

A example of good design where the sum is definitely greater than its parts. By **Dave Clement**

The Idea

Having not had a vast amount of experience in furniture design, this piece started off fairly basic and evolved a bit as it went along. I'd read about use of the Golden Ratio and the Fibonacci sequence in design and thought it would be interesting to see how much of this I could use for my table. I ended up deriving most of the dimensions from the Fibonacci sequence (5, 8, 13, 21, 34 etc...), and when I drew out a full-sized plan I was pleased with the results, so I stuck with it.

(If you want to discover more about the Golden Ratio and the Fibonacci sequence there are plenty of resources online.)

The highly figured boards glued-up for the top

The top

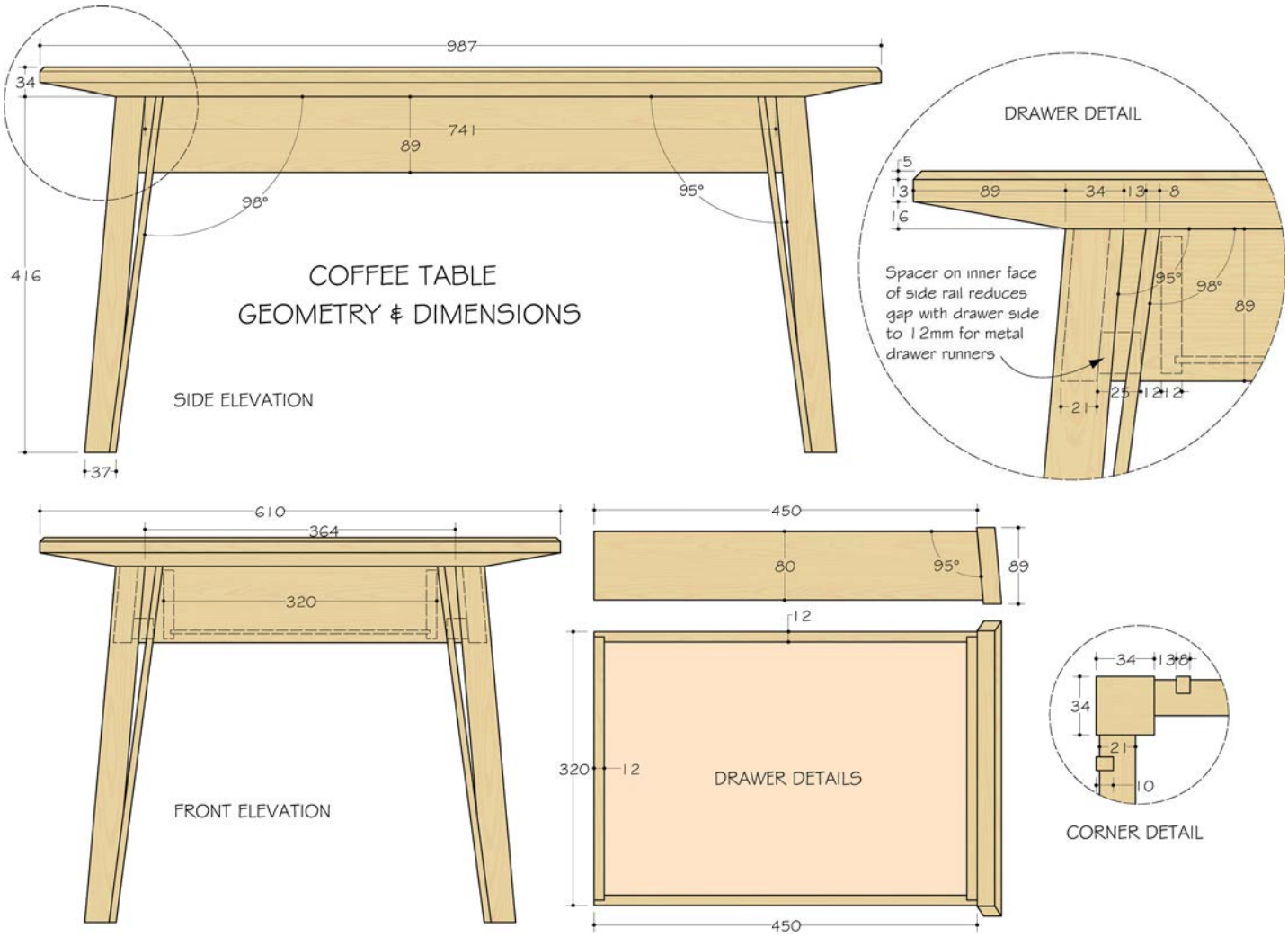
I wanted to keep the top quite thick without it looking too rustic, and decided the best way to achieve this was with quite a deep bevel on the underside. The material I had to work with was 40mm sawn, and ended up at 34mm when jointed and planed to thickness. I had some really nice-sized slabs of oak, and had to choose between using a whole one for the top, or jointing smaller pieces together. For the sake of stability I opted for the latter, and I actually think it adds something aesthetically too, as the timber had such variations in colour.

With the Fibonacci idea stuck in my head, I made the total size a 'golden rectangle' of 610mm x 987mm, compiled of smaller pieces using dimensions from the Fibonacci sequence. The pieces were cut and planed to size and biscuited together, and the breadboard ends attached with mortise and tenon joints. At this stage I had to think about placement of the biscuits and the mortise and tenon as I didn't want to uncover any when applying the bevel.

The bulk of the bevel on the underside of the top was removed on the tablesaw before being finished off with by hand with various planes. I then ran a smaller, 5mm chamfer around the top using a router.

The legs

Originally I'd wanted to make the legs of this table solid and thicker (55mm tapering to 34mm), but as the material



I had was only 40mm and too good not to use, I had two options:

1. Laminate two pieces together to achieve that thickness and try my best not to make it too obvious.

2. Make it really obvious and call it a feature.

I decided to go with option two, and this ended up being the 'split-leg' feature you see on the finished piece. The main challenge with this new design was working out what angles I needed and then figuring out how to cut them in my somewhat limited workshop. I drew up a full-sized diagram and measured the angles using a digital protractor, and the angles on the bottom of the legs were made using a sled that went through my thicknesser. It took some test pieces to set up, but the result was flat, smooth, consistent cuts on all four legs.

Having decided I wanted the legs splayed slightly to compensate for the large overhang of the top, I angled the bed of my pillar drill, in the absence of a mortiser, to 5° and cut the mortises using Forstner bits. The extra pieces to be laminated on to the legs were cut to shape and planed to thickness, and these would be glued in place when the frame was assembled.

The rails

As the legs are splayed outwards by 5°, the tenons on the rails had to be cut at the same angle. Further to this, I wanted to cut a shallow rebate to ➤

Left: The unusual leg detail

View with the drawer closed

Ensure the sash clamps joints close tightly

The centre boards are unusually figured

Working on the drawer installation

accommodate the additional pieces for the split-leg design. Again I referred back to my full-sized drawing to work out the angles of the rebates (I made it 97.5°) before carefully cutting them. The tops and bottoms of the rails were also angled by 5°, and I cut these on my tablesaw before finishing with a hand plane.

I knew one of the end rails would end up being a drawer front, and decided to assemble the frame completely before cutting the drawer front out. For this reason I made one of the end rails approximately 3mm too long, to compensate for the saw cuts. This discrepancy meant the frame was slightly out of square, but I planned to compensate for this when attaching the frame to the top.

I also cut two long strips to fix inside of the side rails, which I would ultimately screw the drawer runners into. These again needed one edge angled at 5° to ensure the runners would end up parallel. I made these pieces over length, and used offcuts as screw blocks to secure the frame to the top.

The drawer

Having assembled the underframe of the table and carefully removed what would end up as the drawer front with my most reliable Japanese saw, I made a simple drawer carcass, assembled with rebate joints. My dovetails need practice and I didn't have the spare material. I wanted to make sure the drawer front lined up with the rest of the rails, almost so you wouldn't know it was there, and for this reason I fitted the drawer carcass before attaching the front with screws from the inside. I had some drawer runners that I bought for a project years ago but never used, so I made my drawer carcass to suit these, at 450mm in length. I'm sure longer runners are available, but this seems like a sensible size for storing the usual pens, magazines, coasters, old buttons, long-forgotten bills and suchlike. The width of your carcass may also vary according to the runners you use. In my case I had to leave a 12mm gap either side to accommodate them.

The finish

I wanted to keep the colour of the timber as natural as possible, and experimented with a few different finishes on some offcuts before settling on the one I had most experience with – clear sanding sealer and wax polish. I cleaned up the surfaces with a cabinet scraper to remove any small defects or excess glue, and applied a thin coat of sanding sealer with a brush. After leaving it to dry overnight I de-nibbed it with some fine wire wool before applying the first layer of wax and buffing to a shine. I ended up applying two further coats of clear wax to achieve the final finish. I had finally made a great coffee table – by numbers. ■

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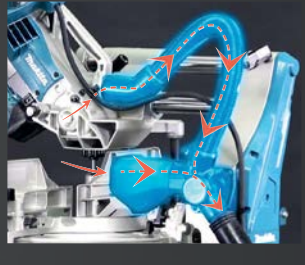

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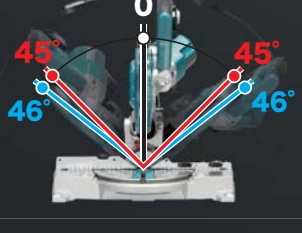

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Meet the contributors...

We put all of this month's professional and reader contributors here, so you know exactly who they are and what they do

Louise Biggs

Having completed her City & Guilds, Louise trained for a further four years at the London College of Furniture. She joined a London firm working for the top antique dealers and interior designers in London before starting her own business designing and making bespoke furniture and restoring furniture.
Web: www.anthemion-furniture.co.uk

Gareth Irwin

Gareth is a hand tool-only woodworker from Mid Wales, who uses both green and seasoned timber to make everything from Welsh stick chairs to pole lathe-turned bowls to spoons.

John Samworth

John is a relatively recent convert to carving, having only taken it up about five years ago. Like many other carvers, he describes himself as a slightly eccentric, enthusiastic amateur. He has been a member of the Cornwall Woodcarving Association for the past two years. For carving subjects his particular interests are the interaction of human figures and bonsai trees. The piece he is currently working on is a personal interpretation of A Partridge in a Pear Tree.

Simon Rodway

Simon has been an illustrator for our magazine since 'the dawn of time' itself, drawing on his experience in the field of architecture. He also runs LineMine, a website with articles and online courses on drawing software. A new course, SketchUp for Woodworkers, is proving really popular.
Web: www.linemine.com/courses

Michael T Collins

British-born Michael has been working with wood off and on for 40 years. He moved to New York in 1996 and over the years has made bespoke furniture, including clocks, inlay work, Adam fireplaces, book cases and reproduction furniture.
Web: www.sawdustandwoodchips.com

Amber Bailey

Amber is a marquetarian and surface design artist with a background in furniture restoration. She has trained in prestigious decorative art schools on both sides of the English Channel and is now based in North Wales working for a furniture company using laser-cut marquetry.
Web: www.abmarquetry.com
Email: ab.marquetry@gmail.com

Dave Clement

Dave studied hand-crafted furniture and restoration after leaving school, and recently decided to get back into woodworking after 12 years in a very different and much less satisfying role. He is now employed as a machinist for a local hardwood supplier, and makes furniture in his garage in his free time.

Gary Marshall

Gary has had a life-long interest in woodlands and the countryside. He trained in countryside management and subsequently ran a company working with the local County Councils and Unitary Authority and their Countryside and Rights of Way Teams, as well as a wide range of conservation organisations.

Your face and details could appear here in our 'rogues' gallery' if you write an article for the magazine, and you could be rewarded for your efforts too.

Editor **Anthony Bailey** Email: anthonyb@thegmcgroup.com, **Designer Jan Morgan,** Head of Woodworking Design **Oliver Prentice,** Senior Editorial Administrator **Karen Scott,** Illustrator **Simon Rodway** (www.linemine.com), **Chief Photographer Anthony Bailey,** Group Editor, Woodworking **Mark Baker,** Production Manager **Jim Bulley,** Production Controller **Amanda Allsopp** Email: repro@thegmcgroup.com, **Publisher Jonathan Grogan,** Advertising Sales Executive **Russell Higgins** Email: russellh@thegmcgroup.com,
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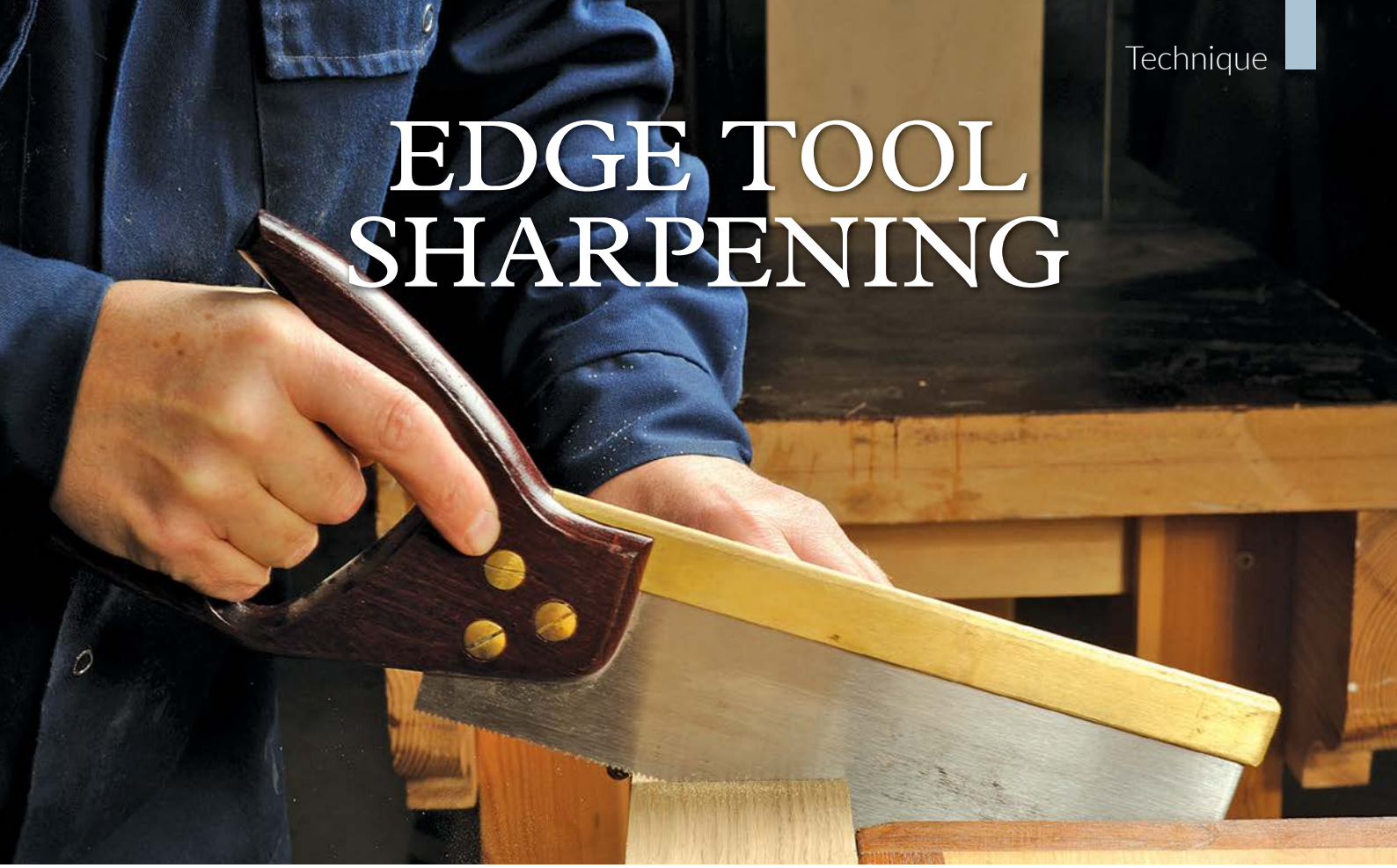


Part III – hand saws

Who ever sharpens their hand saws nowadays? Well, there are a few left who do...

The world of hand saws has changed, whereas planes with disposable blades went out of fashion, the opposite has happened with the ubiquitous hand saw.

Saws you cannot sharpen

Let me explain. For heavy cuts in solid timber or accurate cuts with a guide rail in manmade board, the circular saws wins. For general saw work, the old panel saw has been displaced by modern hardpoint saws. The best of these perform extremely well and come in different types to suit the material you are cutting, whether solid wood, manmade board or even plasterboard or building softblocks. Of course, these latter materials will wear the teeth quicker, as will hard contact with metal such as screws and nails buried in wood. You cannot sharpen these teeth as they are hardened and have different profiles to traditional saws that don't suit resharpening technique in any case. They are 'use-and-chuck' items, but very good for all that.

So what about finer, smaller, more accurate work for which the coarse, wide kerf (slot) teeth of a standard hardpoint are not suited? What does that leave us with? ➤

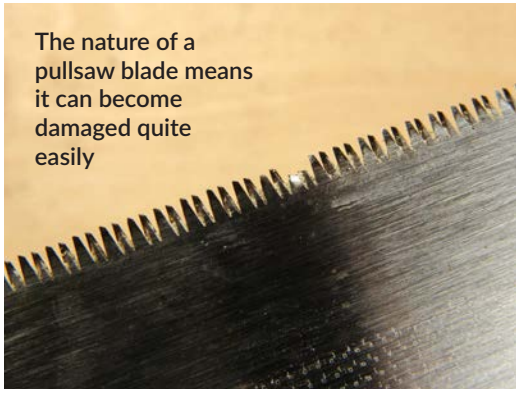
Unless it is really sharp, a traditional panel saw makes for slow work in thick material

Right: There is a big difference in tooth profile between traditional saw tooth form (top) and a hardpoint saw (bottom)

Japanese thin kerf pullsaws offer precision and control and the ability to make fine trimming cuts

The oriental alternative

Japanese pullsaws are very popular for certain work. They can make very precise cuts with a minimal kerf, are good for removing tiny amounts and for flush cutting. The manufacturers' pragmatic approach is that these thin, hardpoint blades will get buckled and the teeth broken, but you can replace the blade. Strictly non-resharpenable, but a very useful adjunct to the toolkit.



The nature of a pullsaw blade means it can become damaged quite easily

Saws you can sharpen

Secondhand traditional hand saws are susceptible to sharpening, often found in boot sales, grandpa's workshop and online. They may be brought back into use but it depends what state the blades are in – rusted, pitted, bent toothline or generally out of shape and massively blunt, all these conditions matter and are worth avoiding.

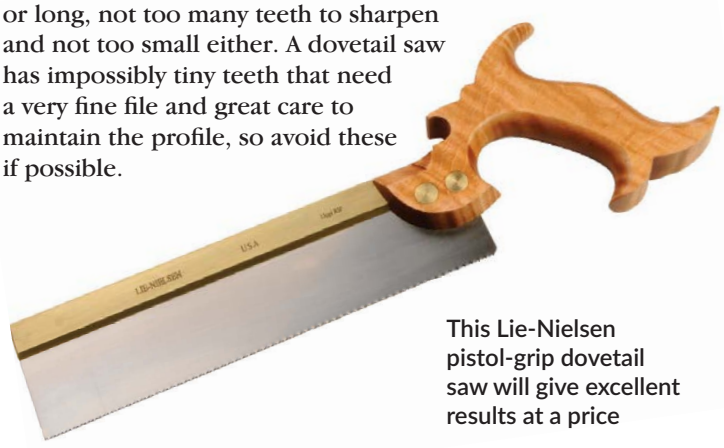
New hand saws, in the main, are now a bit of a luxury item, well worth buying but seldom cheap. Spear & Jackson still makes a basic classroom tenon saw which is fine, but everything else is finer still and with a price to match. You can expect to pay anything from £70 up to hundreds for really nice examples of tenon and dovetail or speciality saws. If you buy one of these nice bits of kit and you manage to blunt it (don't lend it out) you must return it to the manufacturer for sharpening.

The reason is simple – you will do a far worse job yourself and a 'saw doctor will simply apply a standard sharpening profile which will completely negate the one it left the factory with. Only the manufacturer will be able to exactly replicate the original tooth profile and set. The lesson here is to use fancy saws for the fine work they are intended for and nothing else.

A 'dustbin rescue' backsaw is perfectly capable of being put back into use

Old and unloved – a rip tenon, crosscut tenon and dovetail saws

Having basically suggested that saw sharpening shouldn't be attempted – yes it can, but find an old saw in reasonable condition to practise on. A tenon saw is good, not too big or long, not too many teeth to sharpen and not too small either. A dovetail saw has impossibly tiny teeth that need a very fine file and great care to maintain the profile, so avoid these if possible.



This Lie-Nielsen pistol-grip dovetail saw will give excellent results at a price

THE BASIC PROCESS

Softwood jaws made up for saw sharpening with a bevel to allow tooth filing

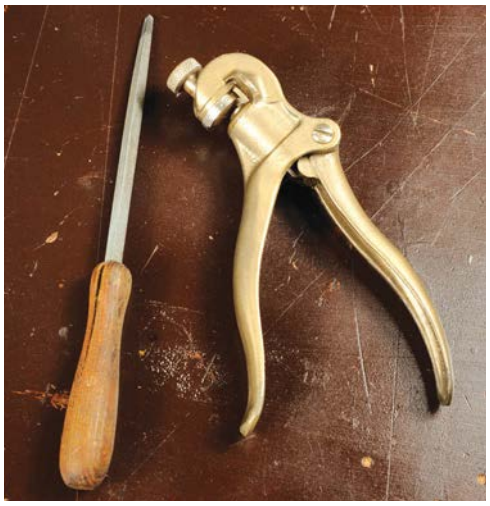
Consistency in sharpening angle and filing alternate teeth are key to success

First of all, sight along the blade to check it is truly straight. Mostly this will be the case but any bend can, in theory, be adjusted by hitting the blade with a hammer on a slightly cambered anvil. However, this treatment may not be successful and the saw will never perform well if the blade isn't straightened.

The next check is whether the teeth lie level from end to end. Some teeth may be damaged but the overall line should be level. However, previous resharpenings may have caused the teeth to curve a bit. This should be corrected first of all by using a large, flat file or sharpening stone. The saw for all operations needs to be clamped in the vice using additional wooden jaws that clamp the blade while avoiding the 'back' that sits over the top of the blade.

The next job is to file each alternate tooth from one side, then turning the saw around and repeating the same operation on the alternate teeth between the ones already done. This is confusing and needs some diligence to get the process right.

Once the teeth are recut, they need to be 'set'. This involves sawset pliers, which incorporate a small anvil and an adjustment wheel. The idea is to redo the set of the teeth so each alternate tooth is fractionally bent to one side.



A saw file with its wooden handle and a top quality Eclipse sawset

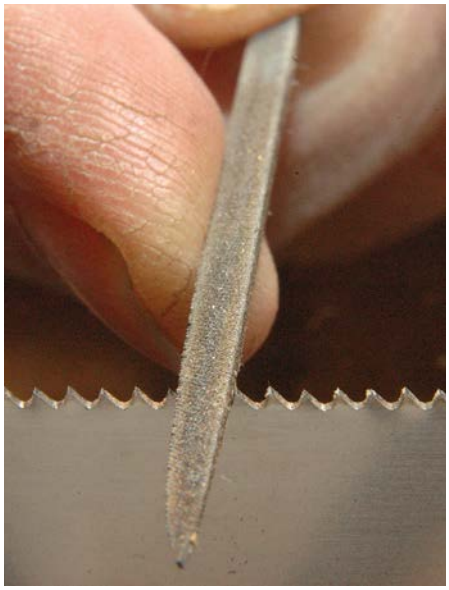
Points to note

- You must use a proper saw file. It has a very sharp triangular profile and fine teeth and is only intended for this task. The saw file should be used with a special split-wood handle for comfort and ease of use. Sit at a comfortable height for tooth filing rather than standing over the work. A large magnifier can be very useful at this point.

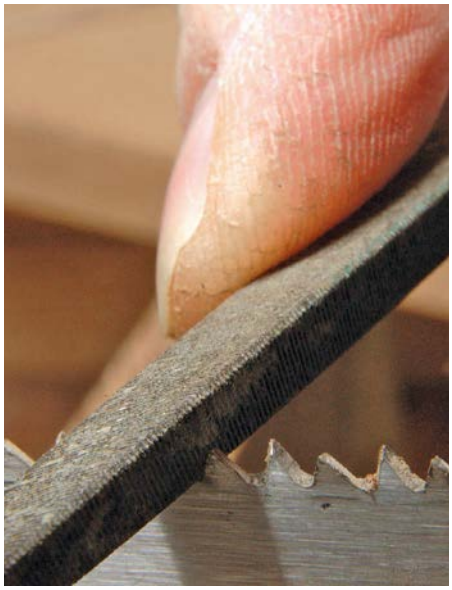
- Place the saw file in a tooth gullet so it sits at its natural angle and try to understand the relationship between the file and the profile it is going to improve.

A saw file has a much sharper triangular profile than a standard metalworking file

It can be tricky getting the file sitting at the correct angle in worn teeth



Rip tooth filing takes place perpendicular to the blade therefore it's easier to do



Crosscut tooth filing needs more care to ensure it is done correctly

A crosscut tenon saw will saw tenon cheeks but a rip tenon saw will do it quicker

- Rip saw teeth are sharpened straight across, while crosscut teeth are sharpened at an angle. This is because the rip teeth simply push the wood fibres out of the way, while crosscut teeth need to come to a bevelled tip to cut through the fibres that run perpendicular to the blade.
- A rip saw isn't suited to crosscutting and a crosscut saw will make slower work of rip cutting. A dovetail saw cuts with more precision than either type. Therefore you need different saws for different work.
- Use three strokes of the file for each tooth, unless of course the blade needed a major edge flatting at the beginning.
- When both sets of alternate teeth are done it creates the kerf, or slot which the blade runs in as you saw. The amount of set is a matter of taste, but a narrow kerf will give more accuracy so long as the blade moves freely.
- Once the blade is finished, try cutting in different materials to see if your handiwork has been successful. You could also give the handle a clean up and maybe add a bit of tallow, used by electricians, to lubricate the blade. If this sharpening exercise went well, you could have a go on a better saw. ■

One edge of each tooth has been filed, so the opposing edges now need to be done

A bit of final TLC with a rub over of tallow for lubrication

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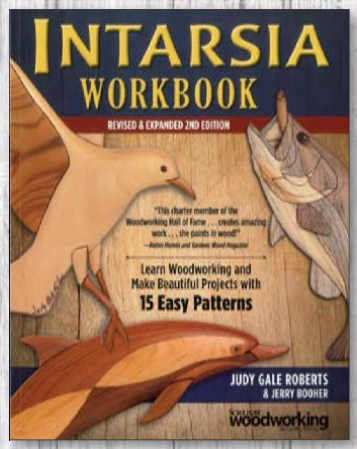
BOOK REVIEWS

The Editor's face was such a picture as we watched him reading through these two new books...

Intarsia Workbook – Revised and expanded 2nd edition

By Judy Gale Roberts & Jerry Booher

A book with 15 easy patterns is the claim and certainly they all seem very achievable and fun as well. Whether it is a bow or an apple complete with cheeky worm, a snowman, dolphin or a wren, all the projects are charming and engaging subjects. There is the usual *Getting Started* chapter, followed by six step-by-step projects and then 10 patterns, which all have a finished project to show you how they should end up once made. If your maths matches mine, then there are 16 patterns in, all not the 15 as advertised, so that's a bonus. All in all a great place to start your intarsia work journey.

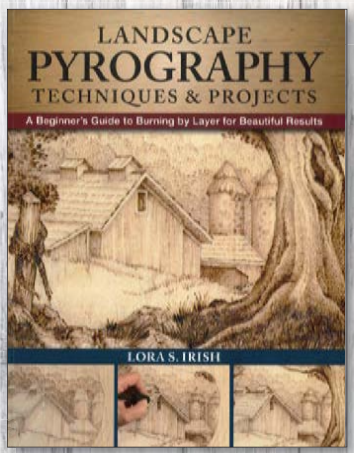


ISBN: 978-1-56523-924-1
PRICE: £10.99
Published by Fox Chapel Publishing

Landscape Pyrography Techniques & Projects – A beginner's guide to burning by layer for beautiful results

By Lora S Irish

Lora S Irish is a renowned and accomplished author of many craft books majoring on patterns to be copied by readers. This volume is a weighty tome with lots to get your teeth into. The whole of the book is, as it states, 'burning by layer', building up detail in depth and using different pyrography tips to create various effects. A key feature is getting the reader to 'read' an image, so things such as sunlight and shadow are translated into burnt-in detail to create complex and realistic images more akin to painting technique. The cover image, as an example, shows how the darker foreground framing with lighter detail in the farm buildings beyond gives the image depth. Although it can be a challenge to achieve this level of sophistication, Irish give plenty of help at the start of the book with 'all about pen tips' followed by practice boards and technique panels. Four practice projects follow, then a 'capstone project' where all your learning and burning is brought together, and finally a series of patterns based on techniques and elements outlined earlier on in the book. All revolve around the homely homestead farm theme, but all are a real challenge worth mastering.



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NEWS & EVENTS

All the latest events and news from the world of woodworking

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

Living fossils in Pakistan – protected or threatened?

By Gary Marshall

A few issues back I wrote of our three native conifers – one of them being the juniper (*Juniperus communis*) that is rare in some parts of Britain. So I was interested to read recently via the BBC, Unesco and WWF websites of an area of nearly 125 square miles in Ziarat District, Balochistan Province, Pakistan, that contains some of the largest and oldest junipers in the world.

The junipers grow at a height of 9,800-11,500ft above sea level. These wonderful trees are of the threatened *Juniperus excelsa polycarpos* species and have a very slow growth rate. Some estimates are that the older trees are anything up to 5000 years old. The forest is included in the UN's World Heritage list and has been Pakistan's second biosphere reserve since 2013. The trees can provide important information regarding climate change in the longer term as well as for other ecological research.

The forest, being so extensive, is not only home to junipers but to many other endangered and interesting species, including black bears and wolves and the streaked laughing thrush. The plant life is of significance as well – local people are well used to a variety of medicinal herbs found in the area.

The forest also contains a rich diversity of plant species of medicinal significance, with 27 of the 54 catalogued species known to have medicinal or ethno-botanic value, which local people use as indigenous treatments for a variety of diseases. Previously, people of Ziarat relied on herbal remedies as a principal means of preventing and curing illnesses.

Despite the forest's World Heritage listing and its Biosphere status, it is nevertheless under pressure from misuse – logging for fuel – as well as erosion from change in culture and insufficient support from authorities.

To quote from UNESCO's web pages on Ziarat: 'Globally the juniper species are under pressure and... are actually declining. This highlights the OUV (Outstanding Universal Value) of Ziarat Juniper Forest as a laboratory and focal area for preservation of the juniper ecosystem in line with the World Heritage Forest Programme to further forest conservation on a global scale. The values which make up the OUV of the Ziarat Juniper Forest are wholly based on its qualities as a forest according to the IUCN (International Union for the Conservation of Nature) definition... World Heritage status.... would allow the World Heritage Convention to be used to promote its conservation and, by extension, the preservation of juniper forests globally.'

Let's hope that adequate protection leads to long-term preservation of such an invaluable global asset.

EVENTS

#TOOLMake18

The #TOOLMake18 challenge, Have fun and win a great prize, making a tool.

Mitch Peacock is once again running the annual #TOOLMake challenge on YouTube.

Video the building or adapting of a tool and upload to YouTube between 1 June 2018 and 31 July 2018.

The challenge is open to all, although professional tool companies will not be eligible for prizes.
www.womadeod.com

Woodfest Country Show, 28-29 July 2018, Pen-y-cefn, Caerwys, North Wales CH7 5BP
www.woodfestcountryshow.co.uk

South Downs Show, 18-19 August 2018, Queen Elizabeth Country Park, nr Petersfield, Hants PO8 0QE
www.southdownsshow.co.uk

Biddenden TractorFest and Country Fair, 18-19 August 2018, Woolpack Corner, Tenterden Road, Biddenden, Kent TN27
www.tractorfest.co.uk

PHOTOGRAPH BY GAVIN PHILLIPS

Sheffield saw festival is a cut above

A new three-day festival, Sawfest, based at the Bamford Quaker Community on 27-29 July, will celebrate everything to do with traditional hand saws at the birthplace of the industry.

Organiser Gavin Phillips claims the event is a first and promises 'three days of saw joy' for woodworking and traditional tool enthusiasts.

'All human-powered saws of any length are welcome – especially the rusty, the bent and the blunt, because they are cheap and teach you a lot.'

Details and prices:

Bamford Quaker Community is 14 miles from Sheffield, set in 11 acres of wooded grounds. Book & pay for a room direct with the community, or you can camp at no charge. Bamford Rail Station is 11 minutes' walk from the community. Full board available Sat & Sun for £26.
Friday 27 July, 1pm-Sunday 29 July, 2pm: Bamford Quaker Community, Water Ln, Hope Valley S33 0DA.
Cost £80 per person.

Special activities

Friday 27 July, 9am-12 noon:
Sawsmithing workshop – Atkinson Walker Saw Factory, 1 Cotton Mill Row, Sheffield S3 8RU. Limited to four people from 9am-10.30am and four people from 10.30am-12 noon.
Cost £20 (pre-booking necessary).

Friday 27 July, 9am-1pm:
Saw grinding – Brian Alcock at Beehive Works, Milton St, Sheffield S3 7WH
Cost £5.

Sunday 29 July, 2.30pm-4.30pm:
View and handle Simon Barley's hundreds of saws and tools at Ken Hawley Tool Collection at the Kelham Island Museum, Alma St, Sheffield S3 8RY.
Cost £6 for museum admission, saw-tour free.

For more information contact: **gavin@shedtherapy.com** M: 0788 410 6398
Web: **www.sawfest.co.uk**
#sawfestsheffield #sheffieldsawfest

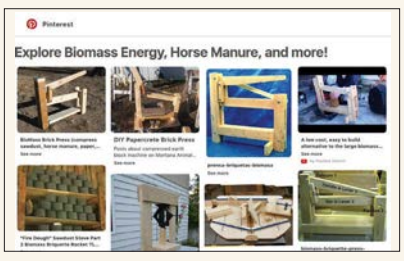
Web links for you

Vimeo

ICD Sewn Timber Shell 2017
A demonstration of the possibilities of Cad/Cam design and manufacturing, producing an amazing sewn-together ply structure.

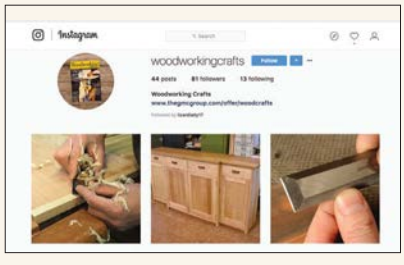
Pinterest

www.pinterest.co.uk/pin/722827808912955185/
Some very nifty woodworking ideas, jigs, gadgets etc.



Instagram

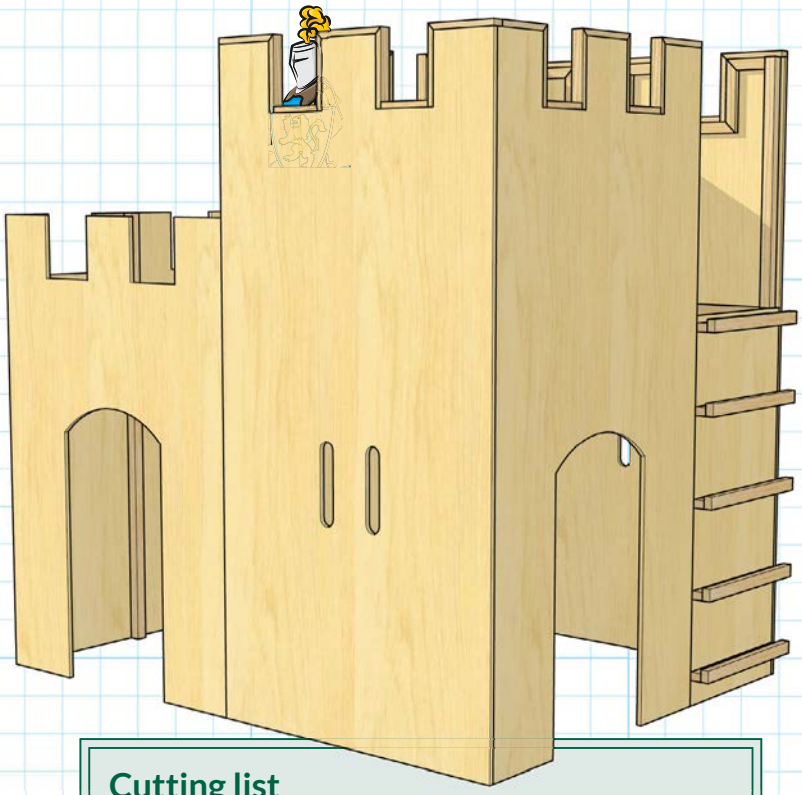
@woodworkingcrafts
Another callout for our very own Instagram – check out our regular postings.



PLANS 4 YOU

Play castle

'Sir' Simon Rodway has created his very own back-garden battlements



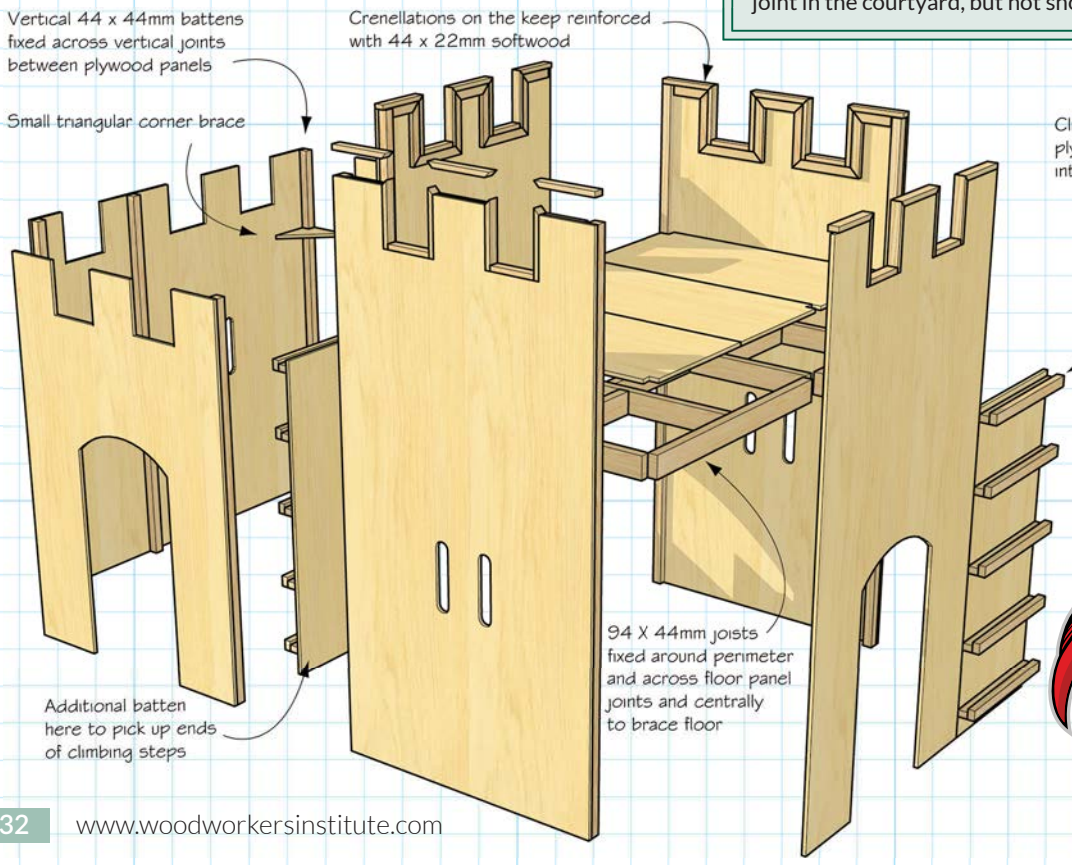
Most design is an attempt to harmonise the way something works, its function, and the way it looks and feels, and this play castle is no exception. In part, it is an activity centre, a climbing frame with a theme, but it is also somewhere children can let their imaginations roam. With that in mind, although I have kept the medieval stuff fairly low-key, it is also one of those projects where you as the builder could use your imagination too, changing doorway shapes, adding windows and flagpoles, that sort of thing.

The basic building block of the castle is 18mm external-grade plywood sheet, and to minimise waste and your cutting time, I've tried wherever possible to use full sheets. These are joined for the most part by 44mm square battens. I've found this always works well on corner joints, but where there is a butt joint you may want to double the battens up rather than screwing along the edges of two sheets into a single upright. I have done this in any case in the 'keep' part of the castle, which is higher than the open section and has a floor which can be climbed up to, also creating an interior

Cutting list

Plywood sheet	10	@	2440 x 1220 x 18
Joists	4	@	1096 x 94 x 44
Joists	2	@	1132 x 94 x 44
Joists	2	@	544 x 94 x 44
Joists	2	@	522 x 94 x 44
Joists	1	@	566 x 94 x 44
Vertical battens	6	@	2440 x 44 x 44
Vertical battens	6	@	1830 x 44 x 44
Vertical battens	3	@	1452 x 44 x 44
Climbing steps	20	@	610 x 44 x 32
Corner braces	4	@	250 x 250 x 18
Crenellation edging	8	@	2100 x 44 x 22

Edging to crenellations given as overall lengths, and is generous. An additional 1830mm batten is shown here for the wall butt joint in the courtyard, but not shown on the drawings.



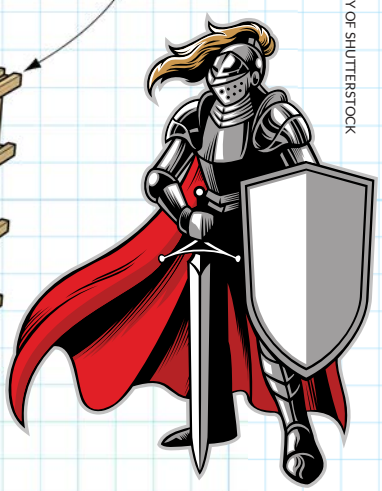


IMAGE COURTESY OF SHUTTERSTOCK

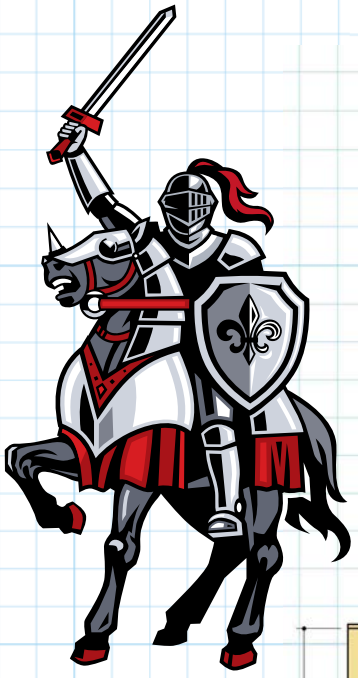
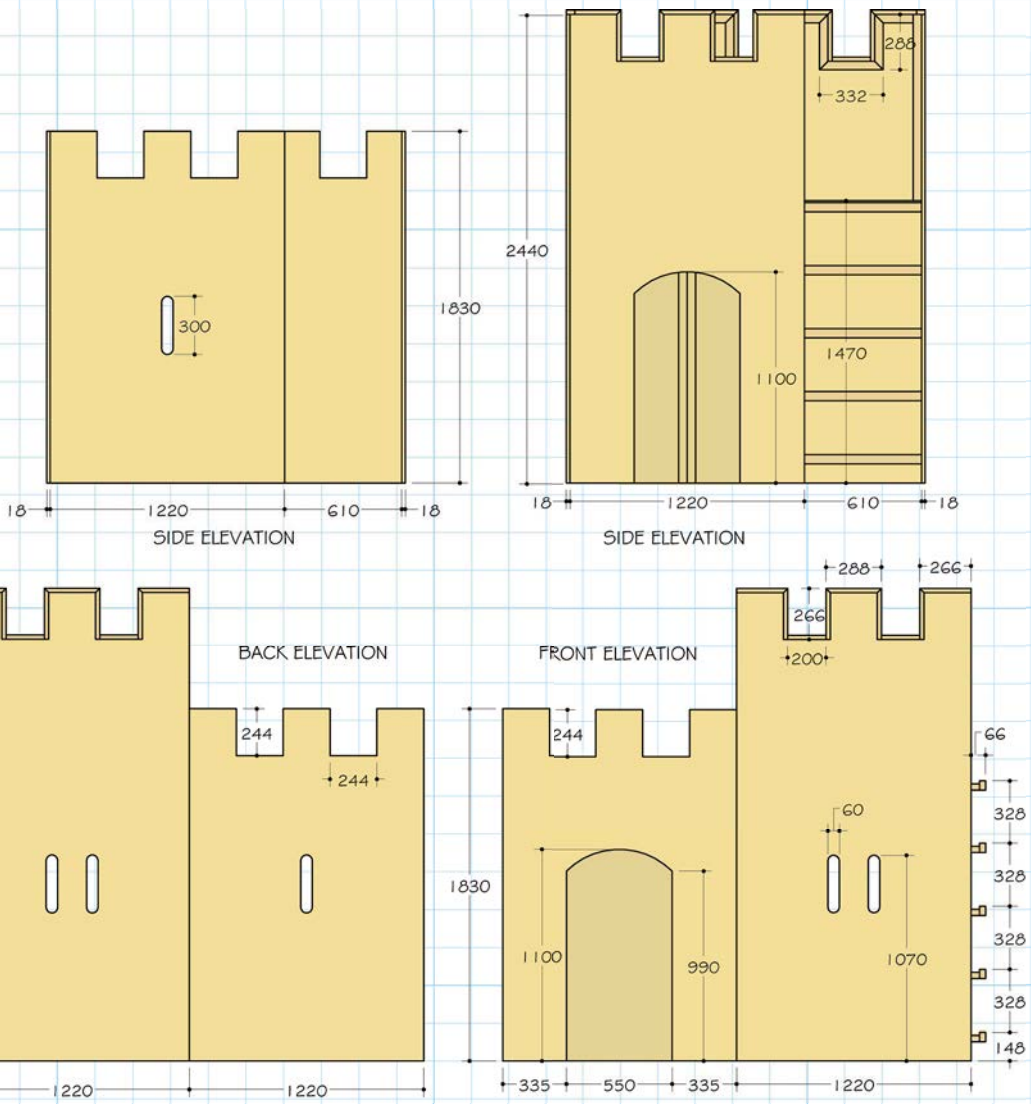


IMAGE COURTESY OF SHUTTERSTOCK

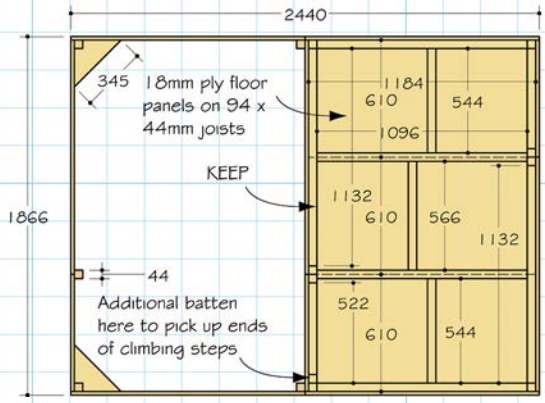


space below with archways into and out of the building.

The keep itself is braced laterally by the floor, made from plywood sheet screwed down to 94 x 44mm joists, which in turn are fixed to the upright battens. An additional noggin under the end of each joist, screwed into the batten, makes a really good impromptu joist hanger, although this isn't possible where they are trimmed into other joists in a couple of places. The open or courtyard area needs a few triangular corner braces, a couple on each outer corner, to help strengthen its walls against wind and sudden siege attacks.

The climbing steps are made from two sections of 44 x 32mm timber screwed and glued together in an L-shape, which forms both a foot and hand hold. These obviously need to be firmly secured to the plywood sheet behind, and the ends should be screwed through on to vertical battens as well. Depending on the age of the children using the castle, these fixings could be further strengthened by mounting additional horizontal battens on the inner face of the plywood.

Safety is obviously a big consideration when building a play structure for children, and avoiding sharp edges as much as possible has to be part of the brief. The crenellations in the keep – those up and down bits we see at the tops of castle walls – have been edged and reinforced here by 44 x 22mm timber screwed to the inside face then edged with the same stuff. This makes for a much more child-friendly interaction between small hands and the



ends of 18mm plywood, but is not really so much of a consideration along the tops of the courtyard area where much less leaning is likely to occur.

Another consideration is the height and positioning of things, as again this might vary a bit with ages of children. The doorways will be low for bigger children, but it would be nice for smaller ones to be able to get a view through the windows at the army camped outside.

I haven't shown the castle painted in any way, but this can potentially add to its lifespan as well as giving a bit of colour, and hopefully you can have as much fun building this as the inhabitants will have when they come to use it. ■

Triton spindle sanders

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Triton Tools brings us its latest spin on bobbin sanders, so the **Editor** thought he'd give them a whirl himself

Some of Triton's orange kit is predictable, especially where it feels there isn't a lot of improvement to make on a standard design, but then, it is capable of thinking differently where there is scope for something original. That is the case with both these power tools. One is a static bench bobbin and belt sander and the other a lighter-weight hand model which can double up as a bench-mounted machine. Each has different possibilities and one doesn't really substitute for the other, so we need to consider the advantages and disadvantages of each separately.

450W OSCILLATING SPINDLE AND BELT SANDER

Triton already has two bench-top models in its range – a fixed table model and a lower-powered slimline tilt table model – so this version has to offer something different, which it does. Although quite substantial-looking, it isn't heavy to move on to the bench, thanks to the plastic casing. It looks impressive and it comes well equipped to do whatever it can handle.

Bobbin

There are five sizes of sanding sleeve and four bobbins, the smallest size of sleeve using the spindle itself to fit on. There are plastic insert rings to fit neatly around each of the bobbins.

Belt

Then there is the belt sander attachment. This ordinarily sits in a special recess behind the machine and, indeed all accessories have special recesses moulded into the plastic casing. The belt assembly is fitted into a special opening in the top of the machine once a long plastic insert is lifted out. The four-cog spindle drive needs to be engaged with the motor drive connection, there is a removable fence on the table for belt sanding. The belts are fitted by pulling a sprung tensioning lever on the top of the belt unit and a knob for tracking the belt.

Locking

It should be noted there are nuts and washers to fasten the bobbins in place using the supplied cranked spanner, but a separate knob and washer for the belt assembly, even though both lock on the spindle. This is because the knob doesn't apply enough force for tightening the rubber bobbins, which need to expand under pressure to hold the sanding sleeves in place.

Tilt table

Because this machine has a belt sander option, the table cannot tilt completely as it would clash with the belt, so only the section at the front tilts. This is a compromise which may not suit everyone's needs. You can offer workpieces up to the belt for angle sanding after unlocking the table knobs and selecting the desired angle using the sprung lever that sits in the detents on one side of the machine. That is fine for belt work but fit a spindle bobbin instead and, unless you are just sanding one end of a workpiece, the back section will be unsupported as the rear table section is fixed perpendicular to the spindle.

On test

This machine worked well both as a spindle sander, which is most likely

Using masking tape as a guide for chamfering

Both belt sander and bobbin insert are stowed in a special recess

The click-stop detents allow quick repeatable angle setting

to be used with the front table level, and both flat and tilted in belt sanding mode. No complaints about speed of 'attack' with 80 grit abrasives or noise, ear defenders as always being a sensible move. I wanted to try sanding a chamfer on a piece of oak and found the way to make it consistent across the width of an end-grain piece was to apply masking tape on the tilt table perpendicular to the belt, and lining up the workpiece parallel with the belt to get consistent results. Extraction, as with all sanding operations, is essential and I had this machine plugged into an auto-switching extractor.

Sanding internal curves is quick and accurate

THE NUMBERS

TSPST450 Benchtop Oscillating Spindle and Belt Sander
Motor input: 450watts
No load speed: Spindle 2,000rpm/Belt 480rpm
Oscillations: 50opm
Dimensions: 450mmH x 390mmL x 330mmW
Weight: 12.9kg
Supplied : Four sanding drums, five sanding sleeves, belt sander and 80 grit belt, spanner, insert rings
RRP: £210.90 inc VAT

TSPSP650 Portable Oscillating Spindle Sander
Motor input: 650watts
No load speed: 1,800-3,200rpm
Oscillations: 50-90opm
Stroke length: 6.5mm
Dimensions: 261mmH x 262mmL x 84mmW
Weight: 2.2kg
Supplied: Three sanding drums, four sanding sleeves 13, 19, 26, 38mm, edge guide, two bench-mounting clamps, mounting mat, port adaptor
RRP: £98.35 inc VAT

650W PORTABLE OSCILLATING SPINDLE SANDER

This portable tool is a bit different too. It looks like something you can move around a job, which indeed you can if the screw-on edge fence is in place. But it more naturally works in an inverted mode held to the bench-top using special clamps and sitting on a supplied rubber pad. It's an odd concept but one which is worth bearing with. The tool accepts four sizes of sanding sleeve using three rubber bobbins and the spindle itself, tightened in place with an end-locking knob, and you are ready to go. Like the bench-top model this tool has an extraction outlet. Extraction is necessary.

The small, inverted base is easy to work on

Care is needed to get a consistent flat edge

Freehand

If the fence is fitted you can run the tool along a sawn or planed edge to clean it up, but you don't have vision of what it is doing, although it only removes a limited amount of wood. The fence needs to be set so only a minimum of abrasive projects.

Static

Inverting the tool and clamping it on the bench means you have clear vision of the spindle and its relationship to the workpiece you are sanding. The base is not large so it is only suitable for smaller items. The motor power input is higher than the static machine on test but that relates to the way each machine's motor and drive need to function. Portable tools generally have faster rpm than static machines.

On test

I tried freehand mode first and it seemed to confirm my suspicions that this wasn't its best feature. Not only do you need a minimum abrasive projection – top speed is best. The result is adequate but needs care for an even finish. Two or three strokes of a sharp jack plane on a flat edge would do a better job.

Used in inverted mode, clamped down, this machine set on a slower speed was absolutely fine for sanding internal curves. It felt safe and it was easy to use. The noise level was acceptable, the worst of it being a kind of whistling sound from the extraction inside the tool, not the motor.

Verdict

Both machines have pluses and minuses but overall, used for their best operating features, can be useful workshop allies. I would suggest that you check out all the Triton spindle sanders before you make a final choice. I particularly liked the small machine in inverted mode because it is so compact in a typical-sized workshop where space can be at a premium. ■

Fretwork prayer panel

Louise Biggs earns a crust by doing some really intricate fretwork

PHOTOGRAPHS BY LOUISE BIGGS

The broken panel as it came into the workshop with its existing inner frame

A visit from a new customer who came to my colleague, a bespoke picture framer, quickly resulted in a complex job for me. Although the finished framing was completed by Barry, the repair of this interesting fretwork panel of *The Lord's Prayer*, cut out in 11 different fonts, was solely in my department as the top centre/right-hand corner had been broken into pieces. The panel was very fragile, as I found as the work progressed. Trying to cut any joints in the veneers caused further pieces to separate, lift and shatter.

Restoration of the panel

1 It was evident that a lot of the broken pieces had slipped down between the fretwork and the fabric. The larger pieces were lifted out before a board was placed over the panel in order to turn it over without losing any of the smaller pieces. Once turned, the backing paper was carefully removed and checked for any writing which might indicate the panel's age.

2 Carefully removing the nails, the backing board and fabric were removed and all the smaller fragments collected before the panel was removed from the inner frame. Having collected all the pieces it became apparent just how much of the top centre/right-hand corner had been damaged. The grain of the central core timber ran from left to right, the veneers back and front ran from top to bottom. ➤

History of the panel

The existing inner frame which housed the panel was decorated with gold leaf, the glass would have been between this frame and the missing outer frame. The straw board behind the panel and fabric dated the framing at least, to between the World Wars.

Speaking to the owner and thinking it was a family piece, we were surprised to discover that they had purchased it for a few pounds from a local bric-a-brac shop.

Try as we might we could find no other indications as to its age or who had made it or had we?

First clue on reading the prayer was the wording of one line;

'*And forgive us our debts, as we forgive our debtors*'

A quick search on the internet found this version of the prayer to be from the King James Bible – Matthew 6:9-13 which dated from 1611 and was mainly used by Protestants and the many churches which fall under this heading.

Detail of the text that differed and the possible initials hidden within 'THIS'

The second clue was the change of two letters in the line;

'GIVE US THIS DAY OUR DAILY BREAD'

In the word THIS, the T appears to be a G as in GIVE, the H appears to be a lower case b. We can only surmise, but are these the initials of the person who painstakingly made the panel? I for one cannot believe that after all the work put in to creating the panel that a mistake was made on two of the letters smack bang in the centre of the panel, but I guess we will never know.

Detail of the broken area

3 Silicone release paper was dry-mounted to the board and the panel was held flat on the board by pinning in the corners and some centre points. This prevented the panel from moving around. I dry-fitted several larger pieces to establish in which order they would need to be replaced. The first section was glued into place and the different sections lined up.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4 Leaving each piece to dry before gluing the next, the smaller piece on the centre fan decoration was glued, followed by the other pieces. Each piece connected at several different points. Once glued, each connection point was lined up and held in place until dry.


4

5 Any loose pieces of veneer on the front side were carefully lifted and re-glued, the smaller pieces collected when the panel came in were searched through to find which bit went where. Once their position was located they were glued into place and held with veneer tape until dry. The same procedure was followed on the back of the panel.


5

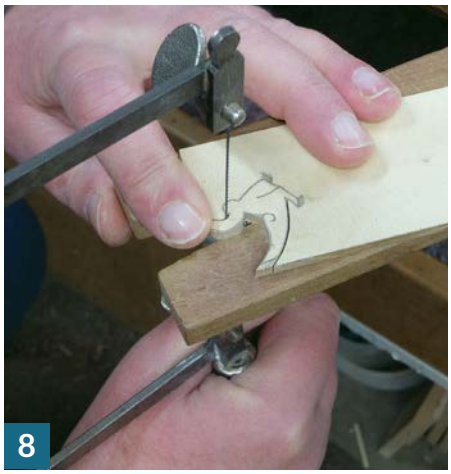
6 With the larger pieces reinstated, I could now see which pieces were missing. Thankfully, apart from the actual prayer, the panel was a mirror image. Although the pattern differed in size somewhat the general shapes of the missing pieces could be established as in this missing section of one of the leaves.


6

7 A tracing was taken from the leaf on the other side. This was then overlaid on the damaged leaf so that the area to be replaced could be marked and joint lines indicated. As the leaves differed in size the shape had to be adjusted slightly so that all the connection points lined up.


7

8 Having planed some straight-grained sycamore to the correct thickness, which allowed for a veneer back and front, the tracing of the leaf shape was transferred to the timber and the shape cut out using a jeweller's piercing saw supported on a V block clamped to the bench.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9 The leaf shape and the other missing pieces were cut out and adjusted to a tight fit using needle files and rasps. Slowly the central core timber pieces were fitted and glued in


9

position allowing for a veneer to be fitted back and front. As some of the pieces were very fine they were fitted oversize and, once glued and dried, they were reduced to the correct size by either re-cutting with the piercing saw and/or with the use of needle files and rasps.

10 Working on the back of the panel, the veneers that were missing over the broken and replaced areas were cut in so that they covered the joints. The veneers were cut in larger pieces and set in over the areas. Once the shapes were established the joint lines were cut between the new and existing veneers.

11 The grain direction of some of these pieces was changed in order to make the repairs stronger. This was especially necessary on the narrow sections that formed the fan shape around the bird, where the veneers were oriented to the line of the narrow sections.

12 With all the veneers glued in place and dry the panel was released from the support board. Then, working from the front side and using a long-arm piercing saw, the shapes were cut out of the back veneers following the lines of the pattern from the front, while supporting the panel as much as possible.

13 Once the back was completed the veneers on the front side of the panel were replaced in the same way, except that the grain for all of the veneers ran in the right direction, top to bottom. Each piece was cut to fit before being re-cut with the piercing saw from the back of the panel to follow the design.

14 The edges of the design were carefully filed with various shaped needle files to make sure that no pieces of veneer extended past the solid core of timber. The surface of the veneers was then gently abraded with the panel completely supported before being stained to match.

15 Barry took over with making the frame and laying the material over a new piece of board. The panel was carefully laid into position and fixed into its new frame and finally, with a great feeling of relief, it was ready to go home. ■


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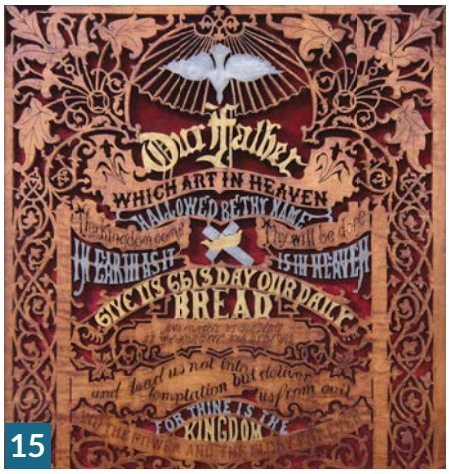

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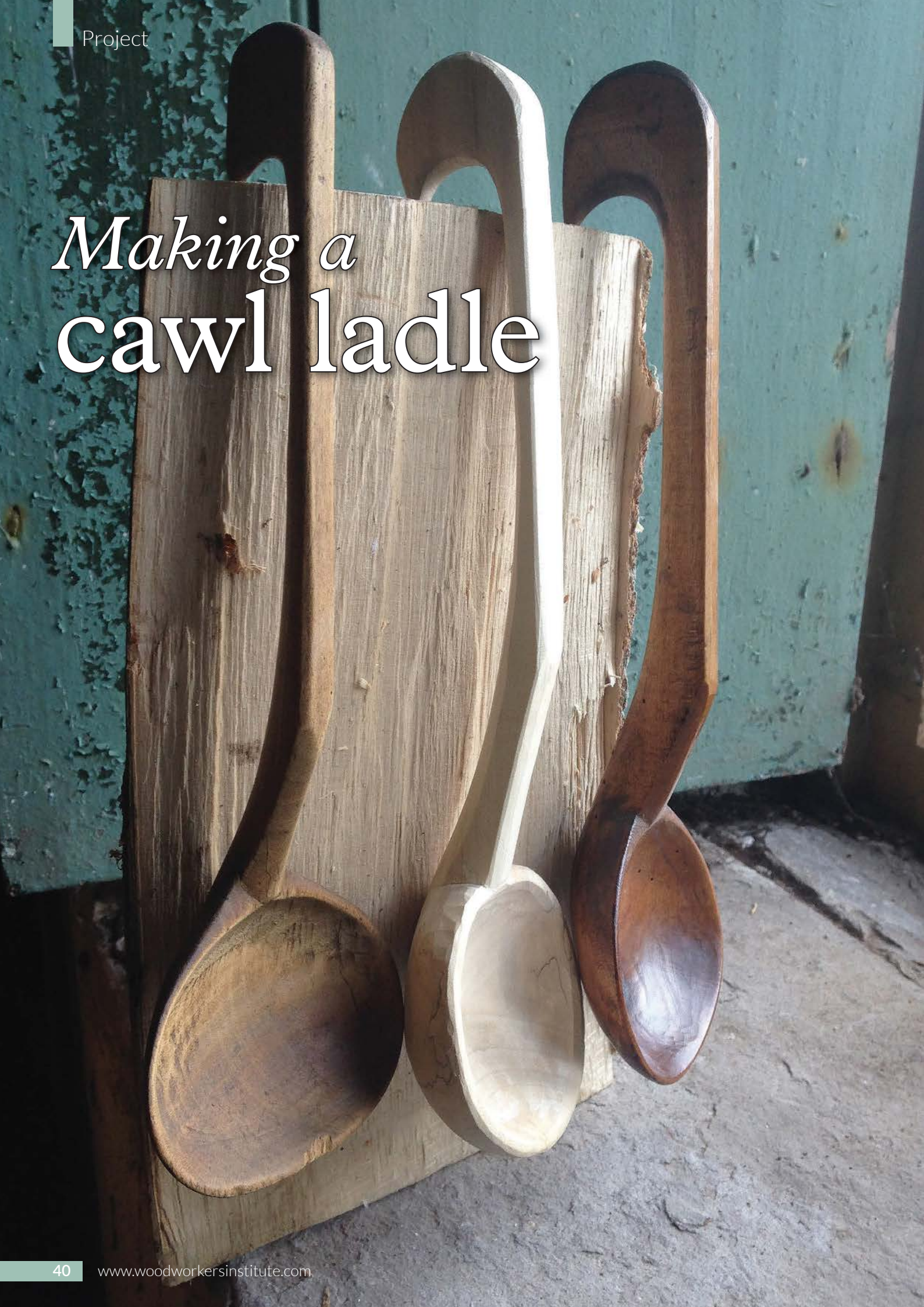
Tool list

- Scalpel
- Utility knife
- Needle files
- Needle rasps
- Jeweller's piercing saw
- Long-arm piercing saw
- Tracing paper
- Tweezers

- For the benefit of your eyes: Magnifying glass of some sort
- Good light source

Making a cawl ladle



Try your hand at making a soup spoon with a very long history. By Gareth Irwin

Spoons and ladles have been carved from wood for thousands of years. Many different tree species can and have been used for this but, traditionally, in Wales the abundant sycamore was used. Its tasteless, white, close-grained timber which cuts cleanly across the grain also made it the timber of choice to make the carved and turned woodware of the dairy industry.

Wood is softer and easier to carve when green, so fresh clean logs of around 250-300mm are required. The width of these logs can either be around 75-100mm in diameter, which when split in half will yield two round-backed ladle blanks, or a log of 200mm diameter or more, which can be split in halves, quarters or eighths (see previous article) to yield several wedge-shaped blanks. I have seen old spoons and ladles which show grain characteristics indicative of both these methods. If starting with a wedge-shaped blank, the first thing I do is trim this with an axe to create a round-backed blank.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1 The tools required for the traditional way of making a cawl ladle are a small, sharp axe and chopping block, a sharp whittling knife and a sharp crook or hook knife (for scooping out the ladle's bowl), known in Wales as a 'twca cam'. Although not essential, Welsh spoonmakers traditionally also used a spoke shave to smooth the outer surface of the bowl and handle, speeding up the process considerably.

Axe work

2-3 Starting with the blank, which now has a flat inner face and a rounded outer, the first task is to select the best end for the bowl and chop the sides off what will become the handle at the other end. Holding the bowl end and leaning the blank over to the side (with fingers out of the way), I make a series of axe chops just over 1cm apart, starting at the bottom and working up to the bowl. I trim these cuts off then repeat on both sides until most of the waste is removed from the sides of the handle. To make the right-angle where the bowl and handle meet, some people make two opposing saw cuts in towards the handle. My preferred method is to 'hang' the bowl of the spoon on the edge of the chopping block and chop in to the same point with an axe (this method takes practice and care near the end). Again with the axe, I roughly shape the circular outline of the bowl. Viewed from the front I now have a lollipop shape.

4 The next part to shape is the cranked angle where the bowl meets the handle when viewed from the side. First, I chop down the front of the handle towards the bowl then lay the blank on its side and chop across the flat face of the bowl, creating the cranked angle (see pic). At this point, I auger a 19mm hole through the side of the handle to form the inside curve of the distinctive hook at the end of the handle.

5 The final piece of axe work is to remove the waste wood from the back of the handle. Holding the bowl with the end of the handle on the chopping block, I trim from the back of the bowl down to the inside of the hook created by the auger, being careful not to chop right through the hook. The axe work does 90% of the shaping, leaving as little material as possible to remove with the knife. ➤

As mentioned earlier, at this point I like to sit at the shave horse and smooth all the outer surfaces of the bowl and handle with a spoke shave.

Knife work

6 Using a sharp whittling knife, I refine the corners where the bowl and handle meet and both the inside and outside of the handle hook. The final job of the whittling knife is to create a chamfer around the outer edge of the bowl. This is easier to achieve at this stage than after the bowl has been formed.

7-8 The final part is to remove the waste from the bowl with the crook knife. Crook knives come in various shapes and sizes, my personal preference being a knife with a blade coming from the handle at quite an angle. I find this helps with the deeper bowls found on cawl spoons and ladles. The hook knife should be used with a turning of the wrist action when starting, removing small chips rather than cutting from one side to the other. As the bowl starts to develop, I start to define the inner edges at about 6mm thickness and, as it gets deeper, I keep stopping to gauge the depth, feeling for thickness, and start cutting around the inside of the bowl, taking care to observe grain direction. The finished ladle will have a smooth finish from the tools and be left to dry before oiling. ■


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PHOTOGRAPHS BY RICHARD JOHNSTONE-BRYDEN

The Wherry Yacht Charter Charitable Trust

By Richard Johnstone-Bryden

The sheltered waters of the Norfolk and Suffolk Broads are home to more than 1,000 indigenous traditional sailing craft, ranging in size from the 14ft varnished mahogany Norfolk dinghies to the eight surviving wherries. The majority of these boats were either built or inspired by designs that were drafted in the first half of the 20th century, including the five Norfolk wherries operated by the Wroxham-based Wherry Yacht Charter Charitable Trust.

Seagoing origins

The origins of the Norfolk wherry date back to the early 17th century, when the Broadland landscape was still dominated by the black sails of the Norfolk keel, which evolved from the seagoing Saxon Ceol.

Main image (left): *Hathor* heading down the River Bure towards St Benet's Abbey. Above left: The elaborate oil lamp in *Hathor*'s saloon. Above right: The sycamore panels in *Hathor*'s saloon are adorned with Egyptian hieroglyphics formed by inlaid teak

These wooden commercial sailing craft had been used for centuries to move a wide selection of cargoes, including bundles of reeds, timber and even soldiers during the Civil War. Despite their longevity, the fate of the Norfolk keel was sealed by the inability of its square rig to sail as close to the wind as the fore and aft rig of the wherry. By 1798 only 36 keels remained in trade compared to 130 wherries, which reached their peak during the 19th century when hundreds were used to move cargoes around the Broadland network. As the 19th century drew to a close, the trading wherries were joined by two new derivatives that had been developed to carry parties of wealthy Victorians for sailing trips, thereby laying the foundations of the Broadland hire fleet industry. Converted trading wherries were initially used for this role on a temporary basis during the summer months, before purpose-built pleasure wherries were constructed for both hire fleet operators and private owners.

Discerning Victorians triggered the development of the final and most luxurious incarnation of the wherry. Although many of the purpose-built pleasure wherries boasted beautiful interiors that were finished to the highest standards of craftsmanship, they still possessed an external profile that bore a relatively close resemblance to their working predecessors. Local boatbuilders responded to these views by creating the wherry yacht, which combined the elegance of the finest cruising yachts with the internal volume and single gaff rigged main sail of their predecessors. In contrast to the previous two versions, only a handful of wherry yachts were completed.

Wherry Yacht Charter

The number of wherries steadily declined after WWI and by the 1970s only a handful remained on their native waters in the care of dedicated enthusiasts including Peter Bower and the late Barney Matthews. This intrepid duo individually owned the wherry yachts *Olive* and *Norada* respectively before joining forces in 1984 to establish the not-for-profit organisation Wherry Yacht Charter (WYC). Shortly afterwards, they seized the opportunity to expand their fleet by acquiring the Edwardian pleasure wherry *Hathor* when she came up for auction. However, by the turn of the 21st century, Peter and Barney's attention was increasingly turning towards securing the long-term future of their three wherries. These concerns led to the foundation of WYCCT in 2002 under the leadership of the late Professor Aitken Clark, who had been the Broads Authority's first chief executive. Two years later, the Trust acquired WYC's fleet, having secured its first grant from the Heritage Lottery Fund (HLF), and embarked on an ambitious £1.4 million project to restore the three wherries and build a base that has subsequently proved capable of accommodating up to five wherries. Despite this progress, *Olive*, *Norada* and *Hathor* were increasingly showing their age, which resulted ➤

The view from *Norada*'s counter stern

Preparing to lower *Norada*'s sail on Ranworth Broad

The trust's craftsmen fit a metal keel to *White Moth* in April 2013

Stripping *Olive*'s hull back to bare wood during her restoration

The new stem fitted during *Olive*'s restoration can be clearly seen

Slipping *Norada* at WYCCT's Wroxham base in October 2015

The Bishop of Norwich, The Rt Revd Graham James, aboard *Hathor*

in the temporary retirement of all three by 2009. However, before any of the wherries could be restored, the trust's volunteers, together with its contractor, John Grimwood, had to refurbish its Wroxham base, which included the construction of a new covered slipway and workshops.

The completion of this task in 2011 enabled the trust to once more turn its attention to the revival of its wherries, starting with the 53ft *Norada*. The extensive package of work conducted by the trust's craftsmen and volunteers included rebuilding the counter stern along with the replacement of the tabernacle, several planks, frames and linoleum on the decks as well as the cabin roof. Her relaunch in 2012 enabled the trust to begin the £65,000 nine-month restoration of the 56ft *Olive*. This work included renewing 10% of her planking, fitting a new stem, installing a Lynch electric motor, replacing the lino on the decks and cabin roof as well as stripping all of the timber back to bare wood. The last of the trust's projects began in the autumn of 2013 when the 56ft *Hathor* was slipped for the replacement of approximately 100ft of oak planking, along with several frames in the forepeak and cuddy, as well as stripping all of the varnished woodwork back to bare wood. The Bishop of Norwich, The Rt Revd Graham James, led a rededication service at How Hill to mark the completion of this project on 30 May 2015. The ceremony was preceded by the first sail-past of the five wherries that are operated under the auspices of WYCCT, including the 59ft wherry yacht *White Moth* and the 65ft pleasure wherry *Ardea*, which have joined the trust's fleet on long-term loan.

The event represented a significant turning point for the trust, which had to make the transition from being a restoration-focused organisation to one that concentrates on education, entertainment and skippered charter holidays. WYCCT's ability to charter the wherries has the potential to

generate up to £25,000 a year, while the friends organisation and other sources usually contribute a further £10,000. However, this still leaves the trust with a potential shortfall of approximately £40,000 to cover its entire annual running costs, which will have to be found from other sources now that the HLF funding has come to an end. Recruiting more members of the friends could help dramatically close this gap and hopefully lead to the involvement of more volunteers across all of the trust's activities, including the various woodworking projects.

The importance of this latter point can not be underestimated, because WYCCT is potentially facing a ticking time bomb in the form of its loyal band of ageing supporters who have stuck by these craft for decades. In 2012, the record-breaking yachtsman Sir Timothy Colman, in his role as president of the trust which owns the Norfolk trading wherry *Albion*, highlighted the issue during an event on Wroxham Broad to mark the centenary of the last trading wherry's launch. In his speech Sir Timothy issued a plea for all of the wherry owners to pool their collective knowledge of maintaining these impressive craft and to start actively involving young people in maintaining/sailing them to ensure their long-term survival. Otherwise, he predicted, there is a real danger the surviving craft could be lost when the current generation of enthusiasts are no longer able to shoulder the burden. For its part, WYCCT had already started to address the issue by employing Dean Howard as an apprentice in March 2012. The value of this particular initiative was underlined by Dean's appointment in August 2013 as the trust's operations manager, for which he had to compete against a number of external candidates.

Ardea's forward cabin (top) and saloon

Ardea under sail on Wroxham Broad

Education

WYCCT is also developing a series of mutually beneficial working relationships with other organisations to fulfil some of its objectives more effectively. The most notable example of this started in 2015 when *Hathor* spent six weeks at How Hill for the delivery of WYCCT's education programme in conjunction with the How Hill Trust (HHT), which owns the former home of Edward and Florence Boardman. Since 1984, the HHT has operated the site as an environmental study centre for the Broads, which offers a programme of courses that cater separately for adults and schoolchildren. The presence of a wherry adds a further dimension to HHT's courses for schoolchildren alongside its thatching presentation and the tour of its preserved marshman's cottage.

Such developments, combined with the hard work of WYCCT supporters, are helping to build a strong future for the trust's fleet of five wherries, which looks very promising providing WYCCT can continue to maintain its momentum by identifying new sources of income and volunteers. ■

Further Information

Wherry Yacht Charter Charitable Trust
Tel 01603 781475
Email: bookings@wherryyachtcharter.org
Website: www.wherryyachtcharter.org

The five wherries operated by WYCCT are seen together for the first time in public on 30 May 2015 on the River Ant

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Ebonised walnut vanity top

Vintage Pennsylvanian black walnut timber gets the ebonising treatment from **Michael T Collins**

PHOTOGRAPHS BY MICHAEL T COLLINS

1 The revamp of our bathroom has been a long time coming. The tiling, bath and hardware have been installed, together with the new flooring, so now it's time to start on the vanity top. The bathroom is white with contrasting dark, full-grained wood flooring, so we wanted a matching dark vanity top.

Home-grown timber

I am fortunate to have several woodworking friends who have a supply of nice woods – one in particular has a well picked-over stack of locally grown black walnut that he harvested some 40 years ago in the forests of Pennsylvania.

The first step for building the counter-top was to sort through the stack and find boards that had great grain and would work well together. When the boards were initially cut, they were stacked in easy-to-manoeuvre flitches, but those have long since gone as the piles have been sifted through. Rummaging for treasure in a workshop is every woodworker's favourite pastime.


1


2

Dimensioning the boards

2 Having found three boards that would suit the project I proceeded to skip plane them on both sides. This removes some of the weathered surface and allows the boards to acclimatise. They were then stickered and left for a few days to 'relax', after which they were planed to within 1-3mm of the final thickness. This might sound like a lot of time, but what results is material that is very stable.

3 Once I had the lengths prepared and ready to work with, the best side was marked as the face side. ➤


3

4 One edge was planed at 90° to the face side to build a good square angle to work with – I was fortunate that these boards were very straight and required only a little planing.

5 Once the face edge was planed, the other face edge could be ripped on the table saw. At this stage, I didn't concern myself with getting the width of the boards to the correct dimension – all I needed to focus on was getting the boards planed and parallel.

The boards were cut to more manageable lengths. The final step was to plane a slight hollow in the centre of each mating piece – this creates a spring joint that makes gluing easier and stronger.

Glue-up

In this glue-up I opted to use dominoes, but dowels or biscuits would have worked equally well, or just a simple rubbed joint. The use of a mechanical element is more for alignment than added strength and allows more boards to be glued in one go.

6 The location of the dominoes were marked.

7 No matter the method you use, always reference off the face side.

8 I clamped the board and set it aside to dry. Boards of this width, when clamping pressure is applied, will have a tendency to bow, so I always alternate clamps.

9 Once dry, any glue-out was removed with a scraper (I always wear eye protection). I went over the whole surface with the card scraper to give it that hand-finished look and feel.

10 I then filled any holes with a mix of epoxy resin and dye.

Edge treatment

The wood I had was only 25mm thick and I wanted to give the illusion that it was 35-40mm thick to give it a more hardwearing, rustic slab feel. There are a few ways this can be done. The easiest, of course, was to glue a strip that wide on show edges.

11 A more aesthetic, i.e. invisible, jointing method is to rip a piece off the front at 45°. Using a magnetic digital angle measure is the best way to go. I zeroed it on the table bed first


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and then attached it to the saw blade to get the angle.

12 Next the piece was ripped off and the saw marks planed out. The offcut piece was then ripped to the correct depth and turned upside down to match the long grain.

13 The board was too unwieldy to safely rip the end grain on the table saw. A safer method was to use a circular saw with a makeshift fence.

14 I glued the edges back on in two sittings. First the long-grain edge was glued using a rubbed joint, the same mix of epoxy and dye, using masking tape and clamps. I had to be careful applying equal pressure on this joint. This was set aside for at 24 hour to cure.

15 The end-grain piece was mitred to fit the corner.

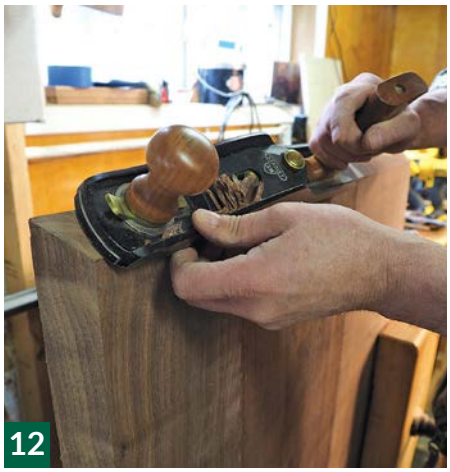
16 It was attached with dominoes. In this image I was getting the correct location on some scraps of the same dimension – when attaching mitred joints in this manner, it is important that the biscuits or dominoes go into the thickest part of the joint.

17 The parts were glued and clamped together.

18 Once the glue had set it was time to clean it all up. Again I used a card scraper.

19 A block plane was used to ease the edges.

20 I always use a sharp iron and plane away from the corner to avoid tear-out. ➤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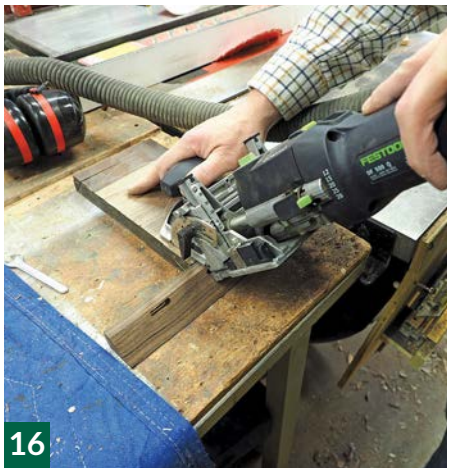
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20

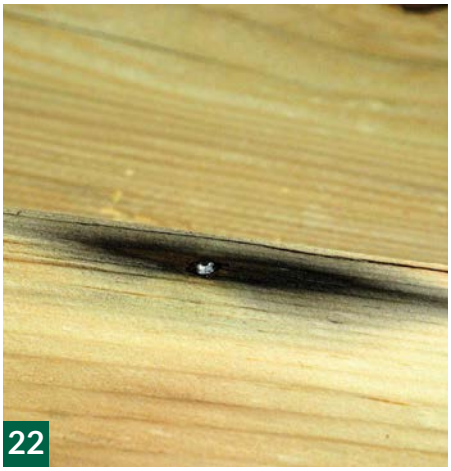
Time for a brew-up

I wanted the wood to have a rich, dark chocolate colour to match the flooring. I have always wanted to try my hand at ebonising wood. This project seemed the perfect opportunity to try some alchemy.

21 First, I mixed a solution of apple cider vinegar and 0000 wire wool in a jar, put a hole in the top, and set aside for a few days to dissolve, stirring occasionally. Walnut, like oak, contains a lot of tannin, and the iron solution reacts with the tannins in the wood to turn it black.


21

22 You can see this natural reaction where iron nails have been weathered in wood. If you're using wood with a low tannin content, brew some tea and coat the wood in tea first.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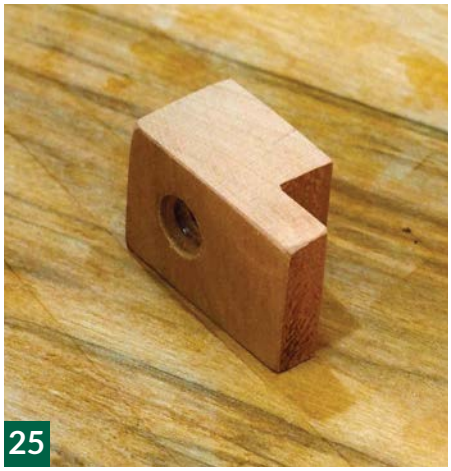
23 After testing the brew with one, two and three coats on an offcut of walnut, I settled on a single coat to give the desired ebony colour and the whole counter-top was given a single coat. Finally, the surface was given a coat of hand-rubbed satin polyurethane and allowed to dry. Once dry, the surface was lightly sanded with 220 grit and a further three coats applied, lightly sanding between coats.


23

24 I gave the back side of the unit a couple of coats of varnish. I like to seal wood on all sides to prevent moisture getting in. The original counter-top was 25mm thick ply and was very stable, but walnut is going to move with the seasons and certainly the humidity in a bathroom, so I wanted to support the top with a couple of hardwood batons from front to back. The battens are held in place at each end with a U-shaped support and a slotted hole made at the middle and front of each batten. A screw goes through the batten, into the top. The back of the counter-top was screwed to the base with pocket screws.


24

25 Buttons were used at the front and sides (for a fuller description of using buttons see issue 18, page 49).This arrangement will allow the counter-top to expand and contract with the humidity, but at the same time it is held firmly to the base.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26 Finally, the counter-top was secured in place, and the sink and hardware installed. ■


26

Coming next month in
Woodworking CRAFTS

ISSUE 42 ON SALE 05 JULY

PHOTOGRAPH BY GMC/ANTHONY BAILEY

Restoring an ex-workshop chest of drawers

PHOTOGRAPH BY AMBER BAILEY

- Quick-make leather tool roll
- James Hatter's hall table
- Birch bark containers

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Woodland ways

Old woodland versus new

The pros and cons of new woodland versus ancient woodland. By Gary Marshall

A great swathe of 50 million trees is being planted from Liverpool in the west to Hull in the east and from the plains of Cheshire in the south to the North York Moors in the north. This will become the new Northern Forest, a huge collaborative project lead by the Woodland Trust. It will link isolated habitats, woodland and other areas and provide invaluable 'corridors' in which wildlife can thrive and people can enjoy the benefits of a tree-canopied landscape. Not to mention the possibilities of short, medium and long-term employment in a semi-natural environment, so different to the towns and cities that dominate much of the area. It's all wonderful and visionary – in an area where 'only 7.9%' is tree canopy (far less than the national average). This is a big, bold, linked-up scheme – and I applaud it. There have been similar schemes in which I was involved – the Great Western Forest around Swindon being one.

However, there can be no doubt, from a biodiversity and preservation point of view that ancient woodland – i.e. all that woodland that was in existence some 400 years ago and still exists today – cannot be 'created' in the short term.

I'm going to take just a few examples of new woods versus old – so I (or the photos) can indicate some of the key points.

New plantings

Anyone as old or older than me will no doubt remember the old style of forestry, where serried ranks of conifers were planted unsympathetically across varying landscapes. Sometimes even broadleaved ancient woodland was cleared in the process. This style was easy for planting, thinning and clear felling but was unimaginative, intense and, as with any intensive monoculture, species can be prone to epidemics. The whole 'medium-term plant/replant and clear fell' forestry culture suffered from lack of viability, the whims of future markets, economic squeezes and changes in timber/pulp usage.

Western hemlock monoculture

Unsympathetic coniferous forestry

Planted broadleaves in tree guard tubes

Oaks in rows

Birch-suppressed new plantings

Even with broadleaf planting, old habits die hard and young trees are often planted as single species and in rows. Sometimes neglected new planting schemes become suppressed by pioneering species such as birch.

To illustrate different broadleaf plantings and more 'evolved' woodland see **figs 1-4.**

Secondary woodland

This is woodland that has succeeded from another habitat – often neglected agricultural land, brown field sites, or even along disused railways and the like. While it can be lacking in understorey, old trees and woodland ground flora, it is often better than no woods at all. Even when planted in rows in a cleared area of established woodland a dense understorey often soon develops. I was delighted to find that Kennal Vale, a nature reserve in Cornwall, is secondary woodland – just look at how wonderful it can be.

Ancient woodland just can't be beaten. Well that's my view and the view of many others too. Just look at this selection (right). ■

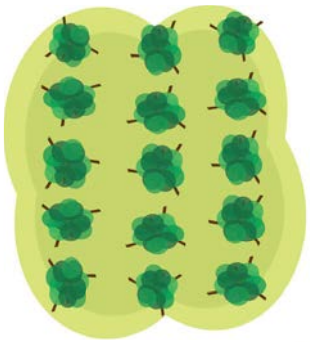

Fig.1 Single species planted in rows

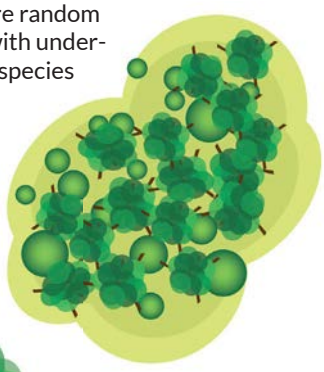

Fig.2 More random planting with under-storey species

Fig.3 Even-spaced trees all of one age and type

Fig.4 Multi-aged and multi-layered woodland with dead and fallen trees

Secondary woodland on an old railway

Unbelievably, this is secondary woodland

Multi-aged sunlit ancient woods, ancient bluebell wood and nature taking over

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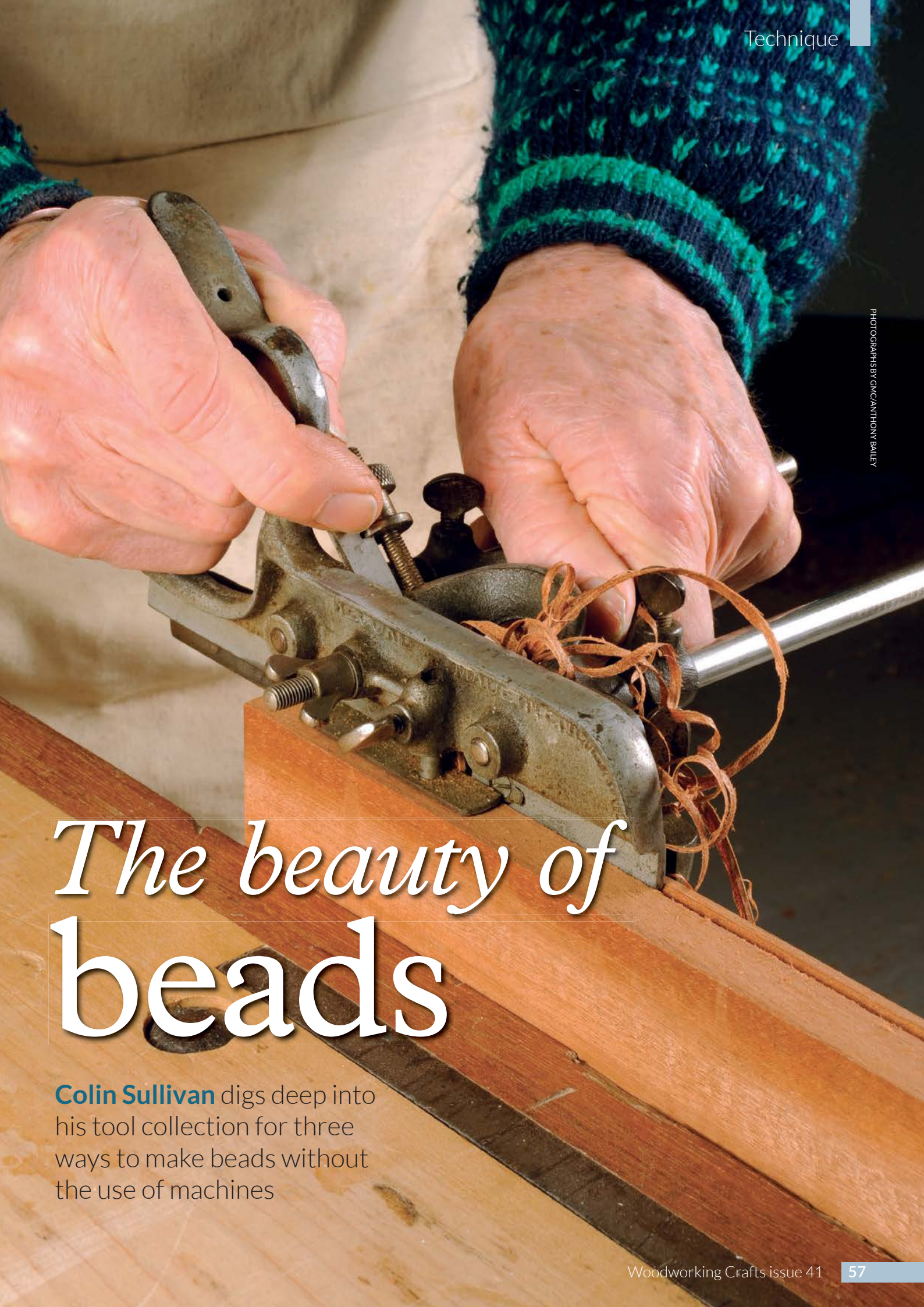
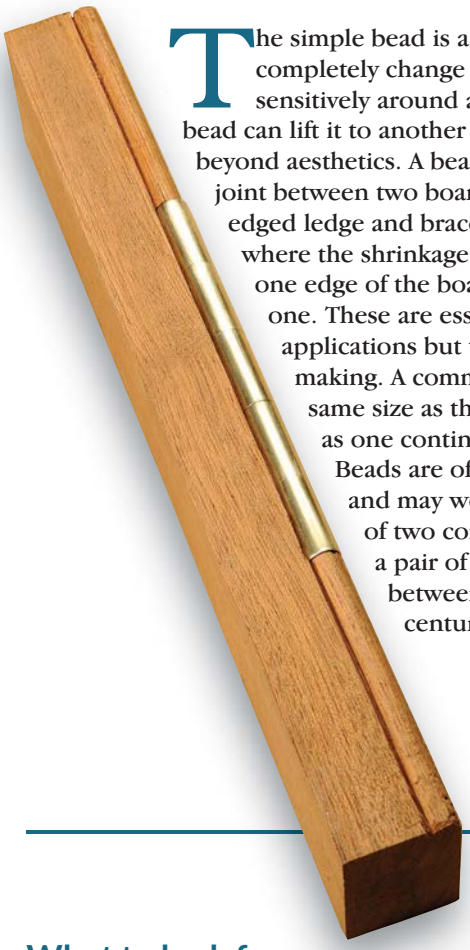


PHOTOGRAPHS BY GMC/ANTHONY BAILEY

The beauty of beads

Colin Sullivan digs deep into his tool collection for three ways to make beads without the use of machines



The simple bead is a very seductive detail with the ability to completely change the look of a piece of furniture. Used sensitively around a drawer front, for instance, a fine cocked bead can lift it to another level. This feature, however, has a use beyond aesthetics. A bead was used in the past to help disguise the joint between two boards that were not glued together. Beaded edged ledge and braced boarded doors are another good example where the shrinkage of the joint is balanced by a bead on one edge of the boards – a case of two joints are better than one. These are essentially references to their use in joinery applications but the same principles apply to furniture making. A common example would be to make the bead the same size as the knuckle on a hinge and incorporate them as one continuous detail.

Beads are often incorporated into much larger mouldings and may well be used to soften the coming together of two components – meeting stiles, for example, on a pair of cupboard doors and on the dividing rails between drawers, a common feature on early 18th-century furniture.

The knuckle of a hinge can be lost in the bead detail. Over time the patination of brass fittings and polish can make them practically invisible

Moulding planes

The router and spindle moulder can be used to make beads easily, but this article will focus on some of the tools and techniques you can use to create them by hand. I began by digging deep into my old toolbox for a beech beading plane. They were made in several sizes from 1/8in diameter up to 3/4in diameter. Planes such as these can be very useful for certain jobs, because once you've set and sharpened them properly they're ready for use without the need to do any setting up. What a pleasure it is to be able to just pick the size of bead you want and get straight on with the job. For once the tedium of setting up the router or spindle can be given a miss.

What to look for

If you are thinking about buying the odd moulding plane, look for ones that haven't had too much use. Commonly linseed oil was used on them for protection and to stop them drying out and cracking so they are very attractive to woodworm. Beech makes a good meal for them so steer away from any that are really worm eaten. Check that the mouth is sound and the cutter is not too rusty to sharpen properly.

In the Hall of Tools at Amberley Museum and Heritage Centre in West Sussex there is a large collection of moulding planes with by far the most for beads than for any other shape.

Wooden plane-making was done by hand using matching planes of the opposite profile. The work was carried out by highly skilled craftsmen, often specialising in this type of work. A full set of 10 bead planes from 1/8in diameter to 1in diameter was offered by Marples in 1909 for 21s/6d, and you could have the skew-bladed version for another 3d per plane. The history of wooden plane-making is well worth studying. Most towns of a decent size had a few plane makers in the 1800 and 1900s. A number of technological advancements heralded the demise of this unique craft and it finally ceased in the 1950s.

The mouth of this beech moulding plane is still crisp and has plenty of life left in it

Incredible works of art in their own right. Note the dovetailed boxwood inset on the sole of this fine bead plane

No less complicated than the other example, boxwood insets are preferable

THE 45

One such development was the increasing profligacy of the metal plane. Stanley's answer was to design a plane where just the cutter could be changed to make almost any shape of moulding. By 1884 the famous 45 was in use in America, a seven-purpose tool, making it possible to cut rebates and beads with the same plane. I find these are not as easy to use as a wooden plane, but with careful adjustment they can be quite successful. The 45 soon became an established part of the joiner and cabinetmaker's tool kit, and even now they're still easy to obtain on the second-hand market. At the time of writing this article I spotted three for sale on a popular auction website for between £75 and £95. Clifton produces sets of replacement blades available from regular stockists of their tools.

This Record 45S first appeared in the 1938 catalogue and is the same as the Stanley 45 with the addition of a simple screw adjustment to the cutter blade

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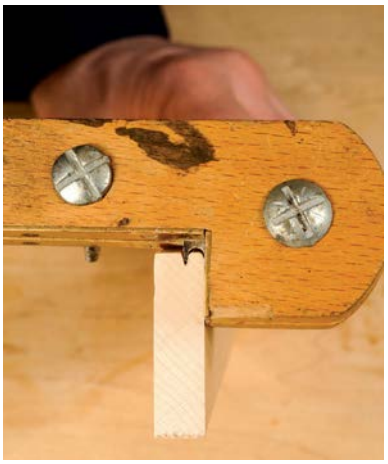


These two homemade scratch stocks are perfectly serviceable and won't cost the earth to make

A far cheaper way to make a bead is with a scratch stock. This simple tool can be made quickly from an old marking gauge. By slitting the end of the stock and inserting a cutter made from an old hacksaw blade filed to shape and then carefully scratching along the wood, the bead can be slowly formed. This technique is particularly useful should the need arise to match an existing detail.

Although good quality timber is not impossible to find these days it's not as prevalent as perhaps it was when these tools and techniques were considered cutting edge. The secret to success with making mouldings by hand is to have clean, straight-grained wood to work with from the outset. Even then, inspect the line you intend to follow by looking for any deviation in grain direction that could cause problems.

This Stanley No.66 requires a little investment

The blades are interchangeable and can be set against a choice of two fences

Even a pip like this can throw you off course when running beads by hand

Reference

Furniture Mouldings by EJ Warne ISBN 0-904638-08-1

Replacement blades for Stanley No.45
www.classichandtools.com
www.workshopheaven.com

Trees for life
Scots pine

Not all conifers are the same and one species stands out – the Scots Pine

The Scots pine (*Pinus sylvestris*) is an evergreen conifer of the Pinaceae family, native to Northern Europe and one of only three conifers, along with yew and common juniper, which are native in the UK having re-colonised Britain after the last ice age. It thrives in heathland and is widely planted for timber, but is also found in abundance in the Caledonian Forest in the Scottish Highlands. However, a global distribution map shows it mostly grows on the continent despite its common name. Indeed, the name stirs images of strength, size and quality of timber, which aren't misplaced. Its distinctive looks and the timber it produces make it a tree of note. Unsurprisingly, therefore, a survey to choose a national tree for Scotland attracted the most votes for this species.

Male flowers

Mature trees grow up to 35m tall and can live for up to 700 years. The bark is a scaly orange-brown and develops plates and fissures with age. The twigs are green-brown and hairless, while the needle-like leaves are blue-green and slightly twisted, growing in pairs on short side shoots. The Scots pine is monoecious, meaning male and female flowers grow on the same tree. Male flowers comprise clusters of yellow anthers at the base of shoots. Female flowers are small, red-purple and globular, and grow at the tips of new shoots.

After pollination by wind, the female flowers turn green and develop into cones. These mature the following season, so there are always cones of different ages found on the one tree. The mature cones are grey-brown with a raised, circular bump at the centre of each scale. The pine needles are twisted. When broken they have a fine white fringe of hairs.

Mature cones

Scots pine bark

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

Pine wood

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

Left: Global distribution map showing Scots pine growing mostly on the continent

Did you know?

In England, Scots pines were planted around farmsteads as windbreaks, and clusters of pines growing along old droveways helped prevent travellers from getting lost in bad weather.

Freshly harvested Scots pine

Uses

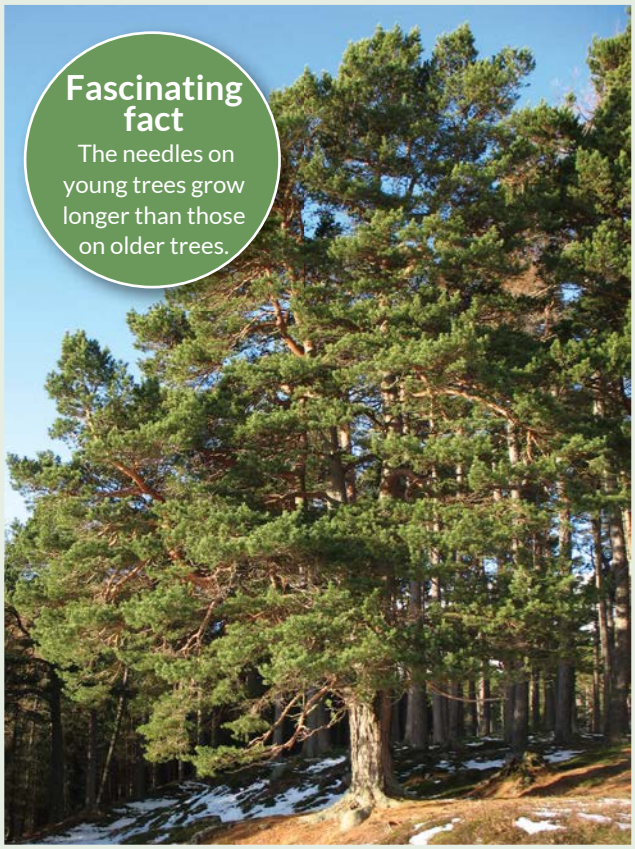
PHOTOGRAPH BY GMC/ANTHONY BAILEY

Splitting a Scots pine log

Scots pine timber is one of the strongest softwoods available and is widely used in the construction industry and in joinery. It is used in the manufacture of telephone poles, pit props, gate posts and fencing. The tree can also be tapped for resin to make turpentine. Further uses include rope made from the inner bark, tar from the roots and a dye from the cones. Dry cones can be used as kindling for log fires.

Disease and pests

Scots pine is susceptible to root and butt rot, red band needle blight, pine stem rust and needle cast disease, which leads to cankers and distorted branches. The pine tree lappet moth can cause serious defoliation of Scots pine and may threaten pine forests in Scotland.



Fascinating fact

The needles on young trees grow longer than those on older trees.

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

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The unique Scots pine

The Scots pine forests in Scotland are unique and distinct from those elsewhere because of the absence of any other native conifers and it has a natural range confined to the Highlands, with the native pinewoods covering approximately 17,000ha in a number of separate, isolated remnants – just over 1% of the estimated 1,500,000ha original area. There is considerable biochemical variation in the Scots pine, and this has led to the recognition of seven different groupings of native pine woods in Scotland. The Scots pine is the most widely distributed conifer in the world, with a natural range that stretches from beyond the Arctic Circle in Scandinavia to southern Spain, and from western Scotland to the Okhotsk Sea in eastern Siberia. It grows at elevations from sea level to 2,400m (8,000ft), with the elevation generally increasing from north to south.

Ecology

The Caledonian Forest is a priority habitat under the UK Biodiversity Action Plan and is home to rare species – the creeping lady's tresses and lesser twayblade orchids, the Scottish wood ant and Rannoch looper, and the capercaillie, crested tit and Scottish crossbill. Mammals include the red squirrel, pine marten and Scottish wildcat.

The red squirrel is making a comeback

Palace of Westminster

After the Palace of Westminster burnt down in the mid 19th century, Augustus Pugin was commissioned to design the interior of the Houses of Parliament. It was fitting that he chose the Scots pine for much of the structural woodwork because of its strength and straightness from the tree.

Ask the experts

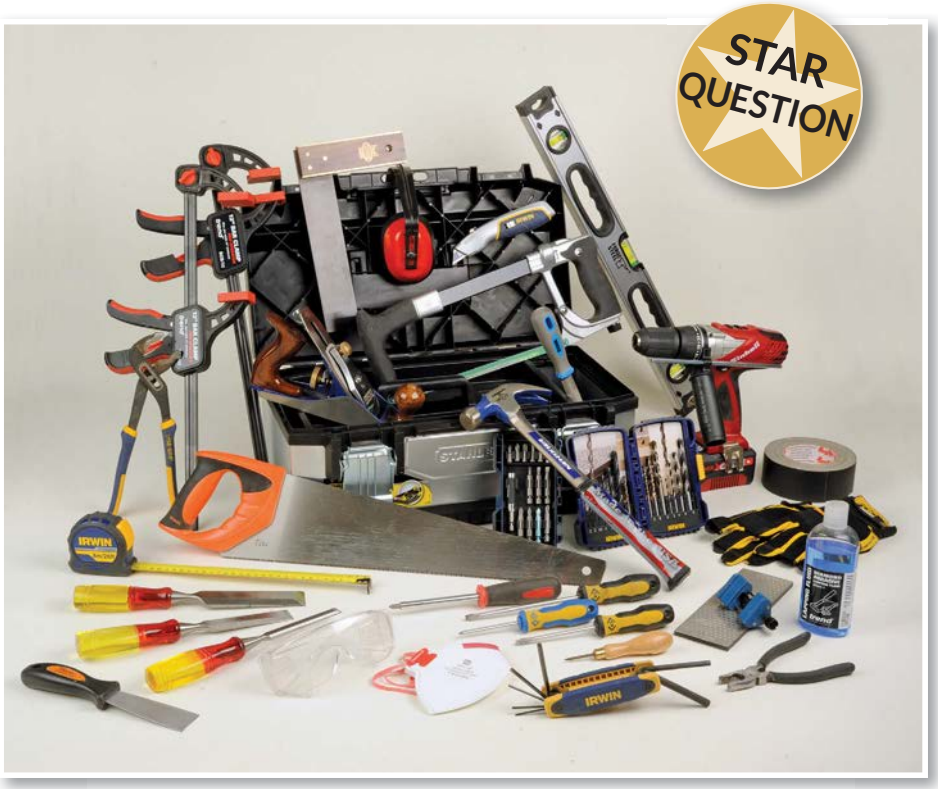
ANTHONY BAILEY
Editor,
Woodworking Crafts magazine

Another selection of awkward questions for our experts to answer

KIT ME OUT

Every time I go in a DIY superstore there are racks of tools, of course, and I need to put a proper tool kit together. But there are also ready-made kits of tools in plastic cases. Are these kits worth buying or should I buy more expensive individual tools? A ready-made outfit seems like an easy answer but I'm not sure really…

Sam Reynolds

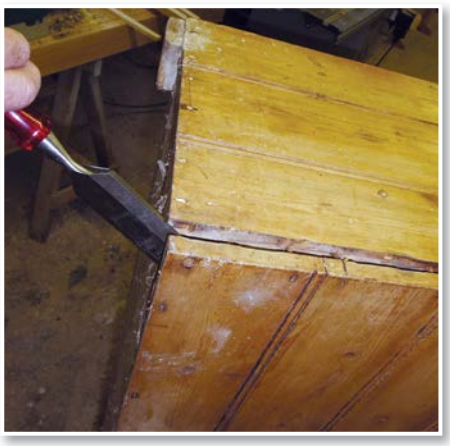


PHOTOGRAPH BY GMC/ANTHONY BAILEY UNLESS OTHERWISE STATED

You may not need all these tools, but do buy good quality ones for your tool kit

Anthony replies: I sense you really aren't that keen to buy an already put-together kit of tools and I think on the whole you are right. The sets of tools you refer to are meant for general repair and maintenance, seldom intended for woodworking but still necessary if you have practical aims and intentions. These kits vary in quality and scope but, although the majority of the tools may be perfectly fine, there will be some 'let-down' items. I'm thinking of what should be larger items such as a junior hacksaw instead of a full-size hacksaw with its extra capacity and ease of use, a baby claw or pin hammer instead of a full-size one with real clout and a small trimming saw instead of a full-size tenon saw, as examples.

I think the best advice is to buy a decent-size toolbox with a metal protected top and a profile for holding wood when sawing is quite useful. Then go round the shelves in the store and pick the largest practical items that will go in your toolbox, because larger tools are easier to use and have more heft – it is a lot easier cutting through a steel bolt with a big hacksaw than a little one, for example. Buy sets of screwdrivers, allen keys and spanners, they are always needed, but if you want woodworking tools buy good quality ones. You may need to look online for the better stuff unless you have a specialist tool dealer nearby. Basically don't rush at this. Take your time building up a really satisfactory kit that will last you a long time rather than discover that small tools can't handle big tasks.



Old pine takes a shine quite well, like this cabinet about to be recycled

PINING FOR A FINISH

I've stripped off an old pine chest that was covered in paint and gunk. Now I want to apply some sort of new finish that is in keeping with it – old, slightly grungy – patina? Anyway I don't want it looking too new.

Mo Gilderson

Anthony replies: If it is genuinely old, rather battered-looking pine then it should need nothing more than a suitable hardening wax. Modern pine doesn't generally take a shine from wax alone – usually you need a sanding sealer first, but this should be unnecessary on your particular piece. What you can do and what it probably needs is a coloured hardening wax; I generally use Liberon Black Bison in an antique pine colour, which is enough to make it look richer in colour. I would experiment on a small area first though. Use mutton cloth to apply it and a second piece to rub it off again, the wax fills cracks and holes quite nicely too.

NOT ON THE LEVEL

I know this is a bit of an unusual question, but I moved into an old terraced cottage on a hill in a North Wales village some time ago. It is a 'character' cottage, you might say, with some unusual features, one of which is an uneven stone floor in the kitchen. I don't want to change the floor and I imagine it might be difficult in any case – it is part of what attracted me to the property in the first place. The previous owners had sort of bodged-up units that need to come out and be replaced. I would like to install new kitchen units which will probably have 'country style' or maybe 'shaker' fronts so they don't look out of place. I have asked several installers and they either don't get back to me or want silly money, presumably it is the floor that 'floors them'?

Arwen Hughes

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

These kitchen units are sitting on softwood bases which were laid on the floor first

Anthony replies: So I guess what you want is a neat answer to a tricky problem? I completely understand why you like a cottage with character and if you like your stone floor why not work around it somehow? Without seeing any photos I think the answer is very simple. Rather than using standard kitchen unit assembly, you could adopt the approach of making a softwood frame initially with supports at each corner checking with a spirit level so it is correct in all planes. Then fix intermediate supports so the frame has plenty of support and use wooden blocks and anchor bolts at the back to fix it to the wall, leaving a gap for service pipes and wires. Once you have a frame as a level foundation, cut and fit a plinth board, scribing it over the uneven floor to get a close fit. Now the kitchen units can simply sit straight on top of the frame and be screwed to it. Making up fixed base frames is a lot easier than fiddling about with adjustable plastic legs and clip-on plinth panels in any case.

HIT THE DECK

We have patio decking in our garden which has been in place for some years and tends to collect water in winter and go very green and slippery. It then needs a good pressure washing and scraping once the weather improves before we can use it and it looks unsightly too. Is there a better solution that won't need such a clean up?

Andy Summers

Anthony replies: Typically in the UK we use timber decking which comes with a machined grip pattern in the form of V-grooves or bead shapes. The timber is treated and tough but, like any wood, it will tend to succumb to nature and get wet and green and slippery. Even pressure washing can fail to clean it off properly. There are other factors – trees nearby can send down showers of dead autumn leaves during wet, blustery weather, which then lie around on the decking and if the surface is slightly uneven or doesn't have 'fall' in one direction the rainwater can congregate in a pool if you aren't careful.

If you are prepared to make the effort of replacing it and spending some money on new decking then consider plastic or composite instead of wood. It may cost more but lasts indefinitely, it comes with various colours and grip patterns, including a coarse woodgrain effect. It may incorporate wood fibres but, best of all, it uses recycled plastic and is non-toxic.

PHOTOGRAPH COURTESY OF SHUTTERSTOCK

Plastic and wood composite decking being fixed using decking screws

You will also find it much easier to clean off, but while you are at it, check you have plenty of supporting joists in good condition underneath. If there are any large overhanging trees nearby consider whether they can be trimmed at all to reduce leaf litter.

STAR QUESTION PRIZE

The Tool Marketing Company, or TOMACO, as it is known, which sells a variety of tool brands, including COLT, Sharp Edge and Narex Tools, is pleased to be sponsoring the Ask the Experts section in collaboration with GMC Publications. Each issue's Star Question prize-winner will receive a Narex six-piece chisel set worth £79.95 and all other published questions will receive a 20mm half-round fine cut Narex rasp worth £20.95. For more information see **www.tomaco.co.uk**

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N.B. If you do need help or advice you can email me: anthonyb@thegmcgroup.com or visit: www.woodworkersinstitute.com where there are lots of useful articles, either way the service is free!

Guided machining

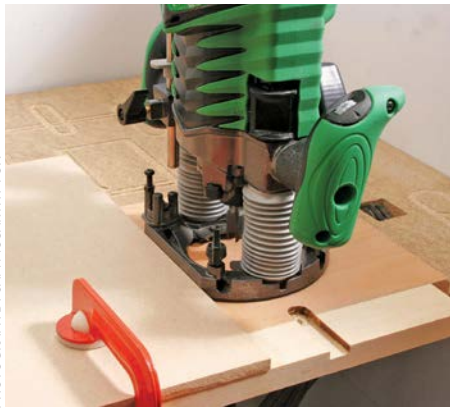
If you need to stay on the straight and narrow we can show you how

All machines need an element of control or they do the opposite and go dangerously out of control. A lack of good control causes inaccuracies and can ruin a job and dent your pride. Some machines need it more than others – the portable circular saw and router particularly. If you are relatively new to woodworking and machines then it may not be obvious that you can take back control and get quite accurate cuts from such portable machines. Nowadays, all professional brands of power tool have some form of guide rail system which works with machines designed to fit straight on to the guide rail or by means of special adaptors. In addition, Trend Machinery has its own adaptable system to go with existing machines, or if you have your own non-guided tools you can still use a simple but less slick form of guidance without spending a lot of money.

Here one cut board is acting as a fence for trimming the second board. Quick clamps make setting easy

Use solid, equal height work supports when you are doing any large or awkward-size work

PHOTOGRAPHS BY GMC/ANTHONY BAILEY UNLESS OTHERWISE STATED



PHOTOGRAPH BY SAM MCCARTHY-FOX

This trial cut shows the amount of cutter to fence offset. This can be marked on the T-square as well as the exact cutter size

Extraction is a must, but the outlet and hose need to avoid catching on the work surface

PHOTOGRAPH BY ALAN HOLTHAM

A large cut made using a giant T-square, however it needs to be very accurate before starting the cut

● Rip cutting involves long board so you need the correct supports. You can buy plastic fold-up trestles quite cheaply as a pair. If you are going to do a lot of work or need extra support, especially if you want to kneel on a panel, for example, then do buy metal foldable supports instead, or make up wooden sawhorses.

● The simplest means of guidance is a good, straight piece of board – the wider the better to prevent flexing. An offcut from the very straight manufacturer's edge of a manmade board is reliably straight. However, it is the edge that can arrive with damage so it may need trimming later so allow for this. A quick clamp at each end is the fast, easy way to set the correct position for the board.

● Using this method you need to account for the offset between the edge of the cutter or blade and the edge of the machine base. You can mark specific offsets on your straightedge for each machine/cutter combination and pick the one you need for each job.

● Extraction when cutting into a board surface is always an issue. Make sure you have a power tool extractor coupled up and wear a face mask, safety glasses or goggles and ear defenders.

● Crosscutting a large board usually requires the cut to be exactly perpendicular. An uncut 2440 x 1220mm board is already cut dead square so you can mark off an end without problems. Otherwise use a tape measure both ways across the diagonal to get exact perpendicularity.

● You can make up a T-square jig for crosscutting or routing. Be careful the T piece is deep enough and the cutter or blade only just through the material thickness or it will accidentally trim off one arm of the T.

● When you are considering upgrading your power tools go for a brand with its own guide rail system. In the case of a circular saw the blade runs along the flexible rubber edge which you mark the position against, this means there is zero cut offset, needed which makes things very simple.

Accurate crosscutting is easy with a homemade guide but the first cut will probably trim off the end of the T-piece

If you can afford it, a guide rail saw is ideal. The first blade trims the rubber edge which you can then mark from ■

KITTED OUT

Take a look at the tools, gadgets and gizmos that we think you will enjoy using in your workshop

BOSCH PROFESSIONAL 18V DRILL DRIVER WITH FLEXICLICK

Bosch has equipped its latest 18V cordless drill driver with the FlexiClick attachment system to create the ultimate do-it-all tool. Using a range of adapters, the versatile Bosch GSR 18V-60 FCC professional drill driver with FlexiClick can be turned into anything from a screwdriver to a powerful rotary hammer drill.

At just 140mm in length, this drill driver's compact tool dimensions are suited to operation in tight spaces. With the addition of flexible adapters, it reaches even further. Its exceptional application versatility enables drilling in wood, metal and even concrete, as well as screwdriving.

FlexiClick adapters

GFA 18-M Professional drill 13mm capacity chuck adapter, GFA 18-W Professional angle screw adapter with hex socket, GFA 18-E Professional off-set angle screw adapter, GFA 18-H Professional SDS rotary hammer adapter, other adaptors are also available. Simply place the adapter on the FlexiClick interface, turn it clockwise, and repeated clicking will indicate a secure connection. They can be adjusted without removal from the tool through 360°, with 16 different locking positions.

Inbuilt user protection

The risk of kickback-related injury when a drill bit becomes jammed in the work material is minimised by Bosch KickBack Control. If this system's sensors detect a sudden blockage, the motor switches off within a fraction of a second. Thanks to the latest brushless EC technology, users can expect a long motor lifetime and maximum battery runtime. In addition, Electronic Motor Protection(EMP) uses an integrated temperature sensor management system to safeguard against overloads.

Bosch connectivity

A Bosch connectivity module, slotted into the tool, establishes Bluetooth wireless communication between the drill driver, the user's smartphone and the free Bosch Toolbox app. This connection can be used, for example, to configure the KickBack Control, Precision Clutch and other settings according to individual needs and preferences.

Bosch GSR 18V-60 FCC Professional FlexiClick system including all attachments, 2×5.0Ah batteries, charger and L-BOXX
RRP £609.31 inc VAT (subject to change)
www.bosch-professional.com/gb/en/

Trend adhesive-backed non-slip mats

A self adhesive-backed rubber sheet, size 300mm x 300mm, it can be cut to size to suit application. Useful to refurbish pushblocks or for lining the drawers of workshop tool chests etc.
RRP £7.66

For those users who do not want adhesive-backing, Trend also sells a 610 x 1220mm non-slip mat for £13.08.

Trend has a wide range of useful workshop fittings, fixings and work aids to suit every need. Request a catalogue or visit the website for more information.

Contact: **Trend Machinery and Cutting Tools**
Web: **www.trend-uk.com**

LOGOSOL 4-SIDED PLANER & MOULDING MACHINES

Axminster has recently introduced three Logosol four-sided planer-moulding machines to its range. These compact, multi-head machines enable you to plane and mould timber on all four sides in one swift manoeuvre. Logosol design machines to suit a large majority of woodworking projects whether you are a joiner, door maker or furniture manufacturer. From day one you will be able to produce up to 720 linear metres of wood per hour.

All three models are compact and will take up little space in the workshop. Plus, each machine is fitted with planing and moulding mills to enable you to produce superb, finished products in just one operation.

PH360

Purpose built for professional production in joinery or the construction workshop, the PH360 is robust and offers impressive performance and quality. Capable of planing widths up to 510mm, the PH360 will manage production from picture moulding to house timbers.

PH260 PRO

Ideal for the home workshop or joinery and construction trade. Making your own mouldings saves time and you can plane widths up to 410mm with everything you need to start production.

PH260 ECO

A more economically priced version of the smaller model. The main differences are the PRO version has three 3kW motors and a 4kW motor, whereas the ECO version is powered by four 3kW motors. Also, there are no internal dust extraction hoses on the ECO.

Prices start from £8,157.60
To learn about Logosol unique starter packages contact the Business Services team on **0800 321822** or visit **axminster.co.uk**

The Solid Gear VENT safety shoe – precision, safety and comfort

Combining a lightweight athletic look with maximum breathability and superb safety features, the new VENT safety shoe is ideal for workers who are constantly on the move. VENT's upper is made from lightweight mesh combined with Cordura and a TPU reinforcement to ensure cool comfort, breathability and enhanced durability. The shoe's two midsoles deliver stability, flexibility and optimal energy return for enhanced comfort on your feet, the rubber outsole provides a high level of anti-slip protection.

For added protection, the shoe's NANO toe cap is 40% stronger than fibreglass and has a more athletic look than conventional metallic ones. What's more, the BOA fastening system provides flexibility and high precision adjustment of the shoe.

So get to know more about the quality and innovation plus the top-class safety functionality in Solid Gear's products – your feet will notice the difference.
£214.80 inc VAT
www.solidgearfootwear.com

Liberon Home ColourCare

Liberon has recently launched the innovative Home ColourCare range. In a market first, this new collection combines traditional woodcare properties with a choice of contemporary colours to provide a uniquely decorative solution to conventional woodcare. Comprising a durable Floor Varnish, multi-surface Furniture Varnish and a Decorative Furniture Wax, the Home ColourCare range offers the same level of protection and nourishment as Liberon's neutrally coloured wax and varnish products. Available in a selection of bright shades, as well as contemporary metallic and pearlised finishes, this cutting-edge range provides a two-in-one approach to protection and colour. Requiring minimal surface preparation, the range can be used across most bare and treated wood surfaces alike, making it an obvious choice for professional tradespeople, as well as an accessible woodcare option for novice users.

Prices from £10.73
www.liberon.co.uk

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Jamie Smith. Test Report. Good Woodworking. February 2018.

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A rose forever

'Waste not, want not' is **John Samworth's** mantra, as his latest carving shows

PHOTOGRAPHS BY JOHN SAMWORTH

1 Have you a piece of timber left over from a previous project? I had such a piece of lime no more than 6 x 6 x 8cm including the bark. The grain direction here is running vertically. The key for this piece is to carve into the end grain and use the natural strength of the grain to form the petals. Start by drawing with a soft pencil on the end grain, but later for clarity in the pictures, I shall use a blue pen. ➤

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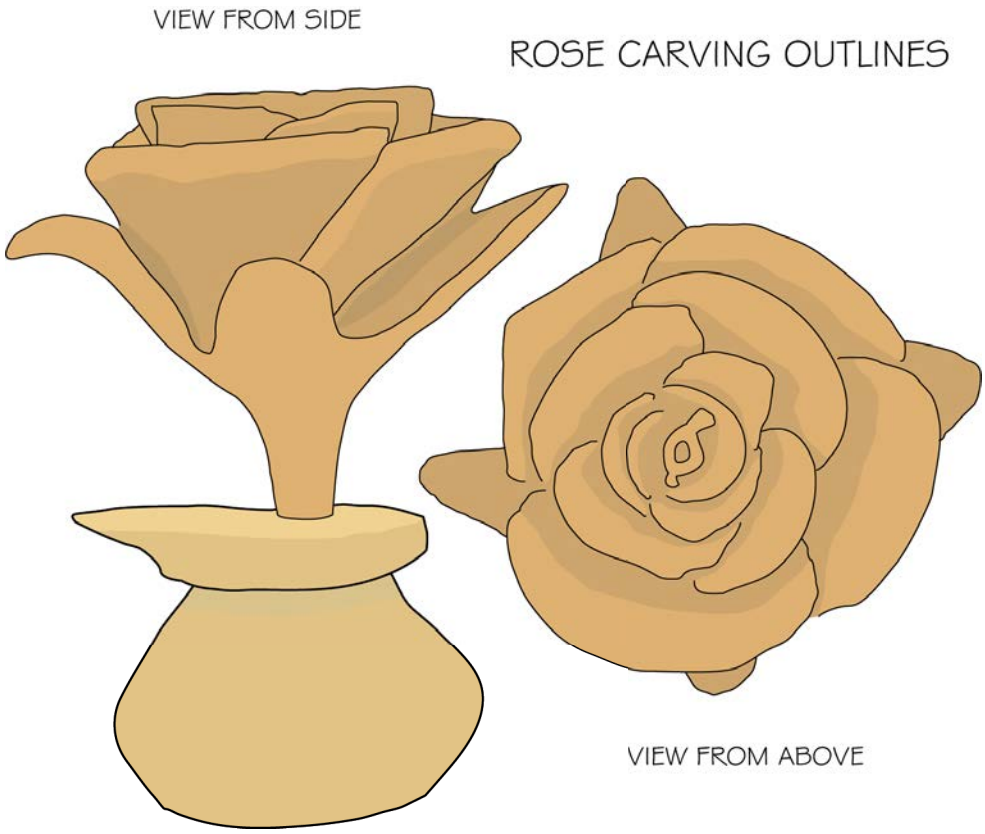
2 In the centre, draw a small shape of a number nine. Use a small flute to drill out the centre. Here I used a 3mm No.9 flute, and pushed it into the grain while twisting it around. When I withdrew the flute, it extracted a core of wood for a depth of 15mm. Because we are carving into the grain, unlike normal carving this will not split the fibres. We shall exploit this property repeatedly. Draw the first ring of petal guidelines no more than 10mm from the centre. Three small arcs are all that are required such that the end of one overlaps the start of the next. This way, the three new petals and the tail from the figure nine look like a fourth petal unfolding from the centre.

3 Here I used a small 5mm No.8 gouge to cut down vertically for about 2mm just to the outside of the drawn guideline of the nine. Next, with the same gouge, cut into this groove at a steep angle so the two cuts meet up at the bottom of the groove. The gouge will now lift out a sliver of wood to start the formation of the gaps between petals. It is crucial to use the same gouge to make both the vertical cuts. If different gouges are used to make each cut separately then, when the cuts meet, they will not match up and will either insufficiently undercut the piece to be extracted, making the extraction difficult and leaving a messy finish, or they will overcut, leaving unwanted gouge marks and weaker petals. Repeat this process to form each petal and pass over each groove to make them between 4mm and 5mm deep.

4 Draw the next ring of guidelines no more than 15mm from the centre. Draw four arcs so the end of one overlaps the start of the next. The ring of petals should continue to form a spiral, following the direction of the figure nine in the centre. Continue with the vertical and angled cuts to form the basic outlines of the petal pattern. Each groove should be about 4mm or 5mm deep. Draw the next ring of four petals. You will need to swap your gouge for a wider and shallower sweep. Here I have moved on to a 10mm No.6 sweep, even using a No.3 sweep on the apex of the petals. This breaks up the line, giving a less geometric feel to the finished rose. Remove all the waste wood on the outside down to a depth of 10mm, leaving the outline of the rose intact. This outer ring of petals is lower than the inner rings. To the viewer's eye, it should be believable that these outer petals could fold back and embrace the flower, as in the bud stage. It is important that the viewer can see the outer petals are long enough to accomplish this, but not too long – that would look ridiculous. Draw the final four petals continuing the spiral pattern. Cut the outer petals back to a depth of 5mm using a large, No.3 gouge. Keep your edges vertical. Return to the centre petals, cut down deeper into the grooves and begin separating the petals by cutting between the arcs.

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5 Each petal is defined separately, the overlap of the final four petals has been marked out with small stop-cuts and you can still see the original guidelines on top of the petals. These guidelines indicate that the central petals are all exactly the same height and the petal edges are still square. For added interest, carve the outer petals differently. To the top left of picture five this petal will arch up and out but the edge will roll back under itself. Mark the high point. To the top right this petal was drawn as a V shape to allow each edge to roll back under itself. The two bottom petals are kept simple with the high point at the outside edge. Begin to carve from the outside edge down into the centre. You need to achieve an inner groove to a depth of 10mm below the adjacent petal. Keep each petal separate by observing the stop-cuts between each.

6 Invert a flat gouge and start to form the petal rolls. Make your first cut along the petal's edge, parallel to the height marking and at a 45° angle. The second and third cuts are also along the petal edge, parallel to the height markings but at 20° and 70° respectively, rounding the petal's edge. This will create space to work in for the next stage. At this stage leave the high point mark on the wood.

7 Undercut the rose. Here I find a flute is easiest, cutting circular around the base. I want to keep the base clean of gouge marks because the sepals still have to be formed. Keep the base round. In the picture, I have cut a cardboard gauge about 32mm in diameter to check that the base is round. The final piece will be about 25mm but this leaves enough wood into which you can still carve the delicate petal curves and sepals.

8 The sepals are carved, attached to the underside of the outer petals. They may also be carved as separate parts, floating on their own. The first option is simpler, producing a stronger piece. I shall demonstrate the attached sepals but use heavy undercuts to define them. Draw the outline of the sepal on the underside of the petal and use stop-cuts to protect their shape.

9 When defining the separation between petals, use a skew chisel with a sharp angled point to get into the corners.

10 *Top Tip:* On the side of the rose we are no longer carving into the end grain, thus if a gouge is driven too deep straight into the wood, this will split the fibres, causing weak edges to snap off later. A vertical cut is made in the first picture with a 5mm No.3 gouge. This is the type of cut that will split the fibres and is a slow technique if you have to keep swapping gouges to match the sweep of the outline. In the second picture, the corner of the gouge is being used like a knife to form a shallow stop-cut with a second angled sweep to form a V groove as the stop-cut. In the third picture a V-gouge is used to form the stop-cut. I prefer the second technique as, simply for me, it is quicker because I can use one gouge and I shall continue to use this gouge in the next stage to trim away the waste to a depth of at least 2mm. ➤

11 Before carving the definition between petals, mark which petal folds under which to keep the spiral pattern consistent with the top view. Cut stop-cuts and remove the waste wood.

12 Use a No.3 gouge to remove waste wood, undercutting the top of the petal but leaving sufficient wood to form a lip. Undercut the sepals and the overlap between petals.

13 Use an inverted shallow gouge to tidy the petal lip, creating a graceful, natural sweep in the petal. Now is the time to make a final pass around each petal, to ensure the depth between each petal casts a deep shadow and the lips are brought to a clean edge.

14 Tidy up as much as you can at this stage while the rose is still attached to its base. Use what you are more comfortable using – gouge, abrasive, rotary bit or scraper. Separate the rose from the base and tidy up the saw cut. At this stage holding the rose is difficult. Mechanical fixing is too harsh and can fracture the petals. I find holding the piece in hand and using a knife is the best option.

15 Drill a hole in the base, 6mm in diameter and about 10mm in depth. Form a simple stem from any offcut and insert into the base of the rose. A finish is essential to keep the wood clean. This is a matter of preference, but I recommend using oils, either Danish or a wax oil blend. Being liquid, the oil will penetrate into all the depths of the rose and any excess will slowly be absorbed, emphasising the shadows which define the petals. ■


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A beautiful bouquet featuring finished carved roses

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

DIY kitchen sink drama

This kitchen worktop has been replaced and repaired – is it now a case of third time lucky?

By Anthony Bailey

I fitted an ash sink worktop about nine years ago. Five years on, the water had done its worst and the edges around the big ceramic sink were in a state, becoming blackened and threatening to rot from constant wetness. So I lifted the worktop and machined a large rebate so an ash overhang with a drip groove could be fitted all round. The whole thing was sanded and heavily coated with marine varnish – but four years on, water had overcome the polyurethane (PU) glue holding the additions in place, causing dampness inside the cabinet and blackening the ash edges.

In fact, ash discolours rather like oak does on contact with water due to tannin in the wood. So it was a nice idea, but finally we had to give in and revert to a stainless steel sink and drainer. Relatively cheap but it would enclose water splashes and, best of all, it wouldn't rot. The existing ash top would be retained as it was otherwise in really good condition, but that would cause problems of its own. Read on.

Strip out – day 1

1 The first job was to isolate the water supply. Fortunately I had installed

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inline isolating valves in the hot and cold tap supply. If they hadn't been present, the whole system would have had to be shut off for a while and, since we have a combi boiler with no tankage remaining, we always keep several large bottled waters against supply failures to the property. ➤

2 Disconnecting the supply pipes and waste created a small amount of fluid to be caught using cloths. Once that was done, the ash edges around the sink were levered out of place. They came away with a bit of force as there was still some adhesive bonding despite water penetration.

3 The sink could now be removed. The problem was that it was bonded to the melamine-faced MDF board underneath. It wasn't a struggle I could win, so it was a case of cut my losses and belt it repeatedly with a hammer until the ceramic started to weaken and fail. This was a goggles and gloves job, although the thick material proved not to be as sharp or vicious as some ceramic material.

4 Gradually the sink gave up and the pieces became easier to remove, bringing the sink waste with it. The board underneath was no longer needed for the new sink – this was handy as it had got damp, helping create the musty smell. For security I had biscuited and screwed it in place so I had to saw it into four sections and then use a hammer and chisel to encourage these trapped sections to separate and come away.

5 Remaining biscuits were dug out and screws were hit and bent until they snapped off. The side supports for the sink board were temporarily removed then refixed properly and the cupboard cleared of demolition waste – it was the end of day one.

Sink fitting – day 2

6 Gutting or stripping out is always the messy part of an operation but with a clear working area things get a lot more positive. However, I wasn't going to fit the new sink in the usual way. The existing worktop would be kept almost in its entirety, save for trimming back the left-hand draining edge to accommodate the new sink so the edge would fit neatly over the blackened ash. At the back where it was blackened around the original tap set, it would be trimmed back in a similar fashion. This meant the sink would be set back slightly from the front of the ash worktop, so it would need a section of ash edge let-in, which had the advantage of supporting the front edge of the new sink.


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7 Ordinarily a stainless steel sink just plops into a large opening, sized according to the manufacturer's instructions. Then some special clips hold the sink in place, tightened from underneath by turning screws in the clips. That wasn't my plan at all. I really didn't want to cut back a large amount of worktop – it meant effort and removing support for the new sink. My motto is 'if it doesn't need doing – leave it', so that is what I did.

8 Instead, I put the sink in place and used masking tape and felt tip pen to mark the positions of the very sharp guillotine-cut edges underneath where the clips are normally attached. I checked the dimensions against the manufacturer's diagram and turned the sink upside down to measure the 'downstand' all round and compare against my felt tip markings. I didn't want any mistakes for the next operation.

9 I was going to use my trusty Bosch biscuit jointer with the blade set on 'max' to create a slot for the downstand to drop into all round. A batten was screwed into the worktop where the holes wouldn't show for all three cuts – side, back, side. A 10mm offset was allowed for between the base of the machine and the centre of the blade tooth thickness. For the rear edge cut the hand grip had to be removed as it was close to the tiling.


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10 It didn't matter that the kerf was curved at the start and finish of each cut as the downstand didn't extend that far. Each kerf was cleared of any compacted chippings and the sink gratifyingly dropped neatly into place, no slot adjustments required. However, it didn't sit down evenly – around the sink itself it was double thickness stainless steel.

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11 To overcome this a router and straight cutter removed surplus ash along the left and rear edges, allowing the sink to drop down fully. The tap position, which aligned to the right rear, required a bit of jigsaw work to give clearance for it and the flexible supply 'tails' to fit. The tap and tails, the waste and the tap hole blanking plug were all fitted to the sink in preparation for installation. The inside of the carcass was rubbed down and coated with oil-based brilliant white cupboard paint.

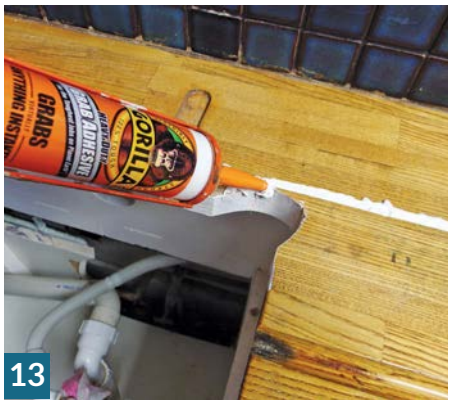
12 This was the bit that was causing me a bit of stress. My decision to not open up the whole worktop and use clips was now coming home to roost. The sink had a rubber water seal underneath all round, so whatever method of fixing I used had to compress the seal enough to do its job. In addition, it transpired that the sink had a slight upward bow in the middle that could be dealt with by a bit of downward pressure, and the ash worktop had a slight dip, no doubt caused by the old heavy sink pressing the cabinet down slightly.

13 My solution was to reach for a tube of Gorilla mastic. I hadn't used this particular product before, but it made some powerful claims to its adhesive strength. A line of it was pumped into the worktop groove all round. It was very sticky so I didn't want it going where it wasn't welcome, although I discovered that Liberon wax cleaner did clean off any minor transgressions.

14 The sink top was pressed into place and clamped down at the front and some wooden struts pressed under the shelf at the back to hold the sink top down. After checking it was evenly pressed down, all I could do was to wait and leave it overnight. I wasn't disappointed – an attempt to pull the sink edge upwards failed dismally, it was stuck tight as advertised. Phew.

Re-plumbing and finishing – day 3

15 The sink was done, the plumbing could now be reconnected. This should be straightforward but the runs of copper pipe and waste pipe meant some unnecessarily complicated joints or bends might be needed. In the end a bit of persuasion brought the pipework into alignment, although one attempt at a pipe bend without using my pipe bending spring to prevent the bore collapsing meant I ended up soldering several short sections together rather than buying a new length of pipe. ➤



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16 A thorough test of the supply and waste revealed a couple of leaks around the appliance trap attached to the sink waste outlet. In my experience of plumbing, high-pressure supply pipes seldom leak if they have been done correctly, but low-pressure sink waste fittings often give trouble and need a touch of sealant. In this case the slightly rubbery but hard Gorilla mastic proved excellent for the job, I was impressed with this stuff as you can tell. I shaped an offcut of white uPVC to cover the pipework at the back of the cabinet.

17 The lippings applied to the sink carcass, which where shaped to fit around the old sink, were now trimmed back square using a cutting gauge to mark a parallel line and the bottom edge trimmed with a Japanese pullsaw, chiselled to the cut line.

18 The next job was to make and fit a new ash edge at the front of the sink and an infill panel beneath it. The ash was cut and thicknessed to size and the front edges given a roundover. The ends were shaped on the bandsaw to fit into step shape in the existing worktop.

19 Plenty of Gorilla mastic bonded both the ends and the back edge where it touched the stainless steel. The sink front edge was clamped down just to be sure and the mastic allowed to cure.

20 I didn't have ash for the panel but I did have a vintage oak table leaf which I ran through the thicknesser to clean up the surface and glued together for the right width. It was then cut to width on the tablesaw and checked against the opening and hand planed until it fitted neatly.

21 Then one end was cut to fit, setting the compound mitre saw fractionally off 0° to give the right fit and the mark and cut the right-hand end until it slipped in nicely. The panel was bonded in place in the same way as before since no mechanical fixings were necessary.
The carcass front seemed slightly twisted so impromptu clamping held the panel to match.

22 Where the drainer flutes ran under the new sink there was a possibility of water being trapped.


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After deliberating about the best choice of infill, I decided on using plumber's putty. Unlike window putty, it never sets and it sticks brilliantly for a watertight seal. A round-ended dinner knife proved perfect for pressing it into place and trimming it off neatly. It could be coloured in later.

23 A preliminary coat of marine varnish had been applied to the new woodwork at installation, but now the inevitable gaps between existing and new components had to be filled, sanded and recoated several times with varnish. The top ash edge had a coat of antique pine Sadolin between varnish layers to try to give a reasonable colour match to the rest of the worktop.

So – third time lucky, I reckon… ■

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TOOL RESTORATION

Treadle fretsaw

Amber Bailey breathes new life into a once-loved 1920s treadle fretsaw

Few people can claim that their house is full of fretsaws, but I have developed something of a love for them after requiring the long arm of a treadle fretsaw to complete a marquetry panel for my university final major project. Not only are they a joy to work with, but aesthetically rather beautiful and nostalgic. My latest acquisition belonged to my grandfather; having owned one many years ago he was inspired by mine to purchase one again.

On my grandfather's passing at the beginning of the year his treadle fretsaw was handed down to me. The years hadn't been particularly kind to it, suffering general wear and tear. I decided it deserved a restoration makeover to reflect the man my grandfather had been.

The treadle in working order but looking somewhat shabby

PHOTOGRAPHS BY AMBER BAILEY

EQUIPMENT USED

Tools

- Scouring pad/wire wool
- Various sized paint brushes

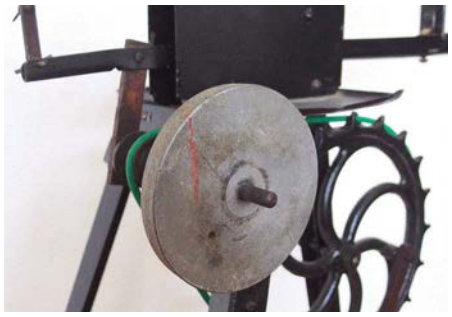
Materials

- Hammerite paint in black and silver
- Hammerite brush cleaner
- Enamel paint in a selection of colours

Suppliers

All tools and equipment should be available from any well-stocked DIY and modelling shop

The metal support plate had suffered the most damage, as this is where you would rest your work whilst sawing



The starting wheel was lacking in any sort of finish and scuffed with marks

1 Begin by washing and scrubbing down the treadle frame to remove any dust and dirt. Once clean and dry it is easier to see where the paintwork needs touching up. Particularly stubborn areas of dirt may require a scouring pad or wire wool to dislodge them. If the paintwork is too damaged them it is advisable to re-paint the entire frame. If simply touching up the paintwork, ensure the paint is matching and try to subtly blend in the new patches, following the original brush strokes.

2 Some of the metalwork may be too damaged to simply be painted over – there may be high levels of corrosion or plating that is lifting.

There are a several methods to remove rust, including chemical baths. Arguably the most efficient means is through shot or abrasive blasting. Shot blasting is a process that involves firing a stream of abrasive material at the metal surface to dislodge any damage. It is not a technique that an average workshop will be set up for but there are a number of commercial outfits that provide a shot-blasting service.

The rusty metalwork on my treadle was sent to Martin Staples, a Sheffield-based metalworker and plater who deals primarily with aviation technology.

3-4 With the metalwork returned as clean as new, the surface can now be protected from future corrosion with a coating of Hammerite paint. The support plate needs to be completely flat for moving your work across smoothly. Spray-paint Hammerite will provide a more even finish than brushing it on.

5-6 Traditionally, a treadle fretsaw is kept rather plain in colour, occasionally the lettering of the model is highlighted in gold. Decorative detail is down to a matter of taste. I chose to adorn my fretsaw with poppies and my grandfather's name, as he was an ex-soldier. I had also presented him a poppy marquetry panel several years ago. For painting flowers in enamel paint, start by creating block shapes of the stem and petals in a background colour. Build up in stages of colour, leaving to dry between layers.

7 As well as flower motifs, why not consider accentuating areas of the saw with complementary block colours? ■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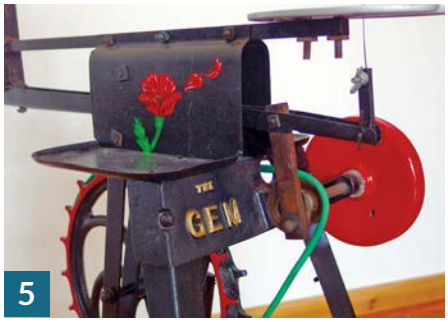

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Top tips

• The driving belt did not need replacing, as this was a project I helped my grandfather with when he first bought the treadle. This was made from a length of polyurethane, cut to size and melted at the ends with a match to bond together to form a band. The band should be nice and taut – if at all slack it will not pull around the wheel correctly.

• Hammerite and enamel are both slow-drying paints. Leave at least 24 hours before touching. Wash paintbrushes and any stains with thinners, as water will have no effect.

• For those who struggle with freehand painting, paper or card stencils are a convenient means of painting, particularly if you intend to duplicate the image several times.

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Tricks *of the* trade...

...wedges

PHOTOGRAPH BY GMC/ANTHONY BAILEY

Using a flush-cut saw to trim off exposed tenons and wedges

No one likes loose, sloppy joints, but there is one way of making them fit and look quite deliberate at the same time

Wedges have a long history in woodworking from 'loose' ones holding refectory table legs and stretcher rails together, to lifting doors up in the form of 'folding wedges' when hinging, to creating permanent lock-together joints. In the latter form they can be made and used in various ways. A through mortise and tenon needs to be really neat and tight fitting, so a wedge or two can ensure it really is a good fit, but by using contrasting wood for the wedges you can create a visual feature of a plain joint. If you are making an item of joinery such as a gate or a door, traditionally the wedges are fitted on the outside of the tenon once dovetail slopes have been cut in the mortises. This avoids stressing and breaking the tenon by kerfing and wedging in the tenon as you would with cabinetwork. A more advanced joint is the 'fox-wedged' mortise and tenon, which is completely hidden from view, but the carefully sized wedges lock the joint permanently as it is tapped together, not even needing glue to add strength. You can, of course, add quite slim wedges discreetly to any slightly loose through mortise and tenon in the same wood and probably no one will notice... ■

PHOTOGRAPH BY JOHN BULLAR

A finely set hand plane used to do the final cleaning up of an exposed joint

PHOTOGRAPH BY GMC/ANTHONY BAILEY

A joiner's wedge technique where they are fitted outside the tenon

PHOTOGRAPH BY JOHN BULLAR

A fox-wedged joint cut through to show the joint construction

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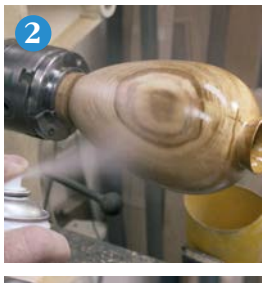
Applying an Aerosol Lacquer.

1 Aerosol lacquers such as Acrylic Gloss Lacquer, Acrylic Satin Lacquer and Melamine Gloss Lacquer are designed to be easy to use and to give a tough, hardwearing finish.



2 Always shake the can well before use, and spray from a distance of 6-12 inches, 15-30cm. Vary the distance depending on the size of the item and the ambient temperature; this will avoid the lacquer drying before it hits the surface and leaving a pebbledash effect. Apply with the lathe running or stopped depending on your preference.

3 If you want to apply more than one coat, which is usually recommended, allow the lacquer to dry and gently cut back using a fine abrasive.

4 Apply a second coat as before, which will result in a brighter finish (unless using satin lacquer of course!).

5 Lacquer finishes are ideal for items that could be subject to a a lot of handling or occasional water contact. Perfect on carving, texture or a natural edge. Gloss lacquers can be enhanced further by using Burnishing Cream without losing any of the hardwearing properties.

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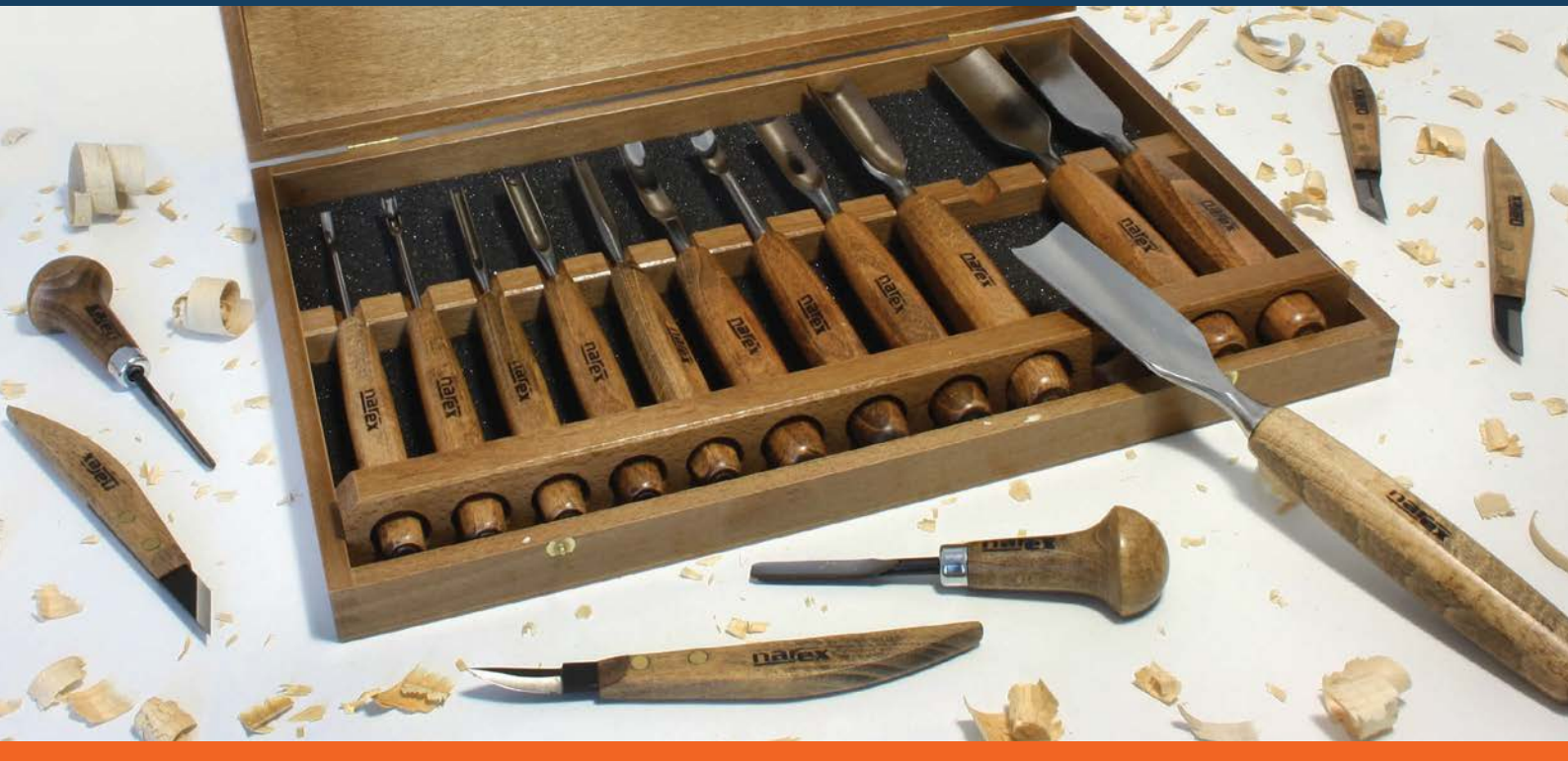

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Focus on…

Old Stavanger

The city of oil, herrings and timber houses – Stavanger, Norway

There are many places in the world where timber buildings can be found but perhaps none more ancient, complex and enduring than the city of Stavanger. In fact, it is a municipality that is due to expand and absorb more surrounding urban areas by 2020, all to be called Stavanger. Bishop Reinald, who is thought to have come from Winchester, England started the construction of Stavanger Cathedral around 1100AD. The city regards its foundation as 1125AD when the building was completed. It lost its importance as a religious centre with the Protestant Reformation in 1536. In the 19th century the rich herring fisheries gave the city a new lease of life and it gradually merged with the smaller municipality of Hetland. Considering it is one of Norway's oldest cities, Stavanger has survived being heavily bombed and then overrun during the German occupation of World War II to become the centre of Norway's North Sea oil industry today. It has, as you might expect, a university and an airport and also the Norwegian Petroleum Museum, dedicated to the development of the oil industry and its impact on the country. It had the joint honour with Liverpool of being European Capital of Culture 2008.

Old Stavanger

It is a city of immense contrasts – starkly beautiful fjords and mountains, parks, museums and theatres, a stunning waterfront and a thriving city nightlife. But the prettiest part near the heart of the city is the area of Gamle Stavanger, also known as Old Stavanger. It is an area of winding cobbled streets filled with many white-painted clapboard, well-kept houses with vintage lamp posts and hanging baskets aplenty. The nearby waterfront where cruise liners and sail boats berth is a great place to mingle and admire the scenery. It is a testament to survival considering the ravages of time and war this fascinating, lively city has been subjected to. If you want to find out more and fancy a cruise or flight to Norway visit: www.visitnorway.com for more information ■

From top: The white painted clapboard houses of Old Stavanger; the waterfront; The Norwegian Petroleum Museum; the city of Stavanger

PHOTOGRAPHS COURTESY OF SHUTTERSTOCK

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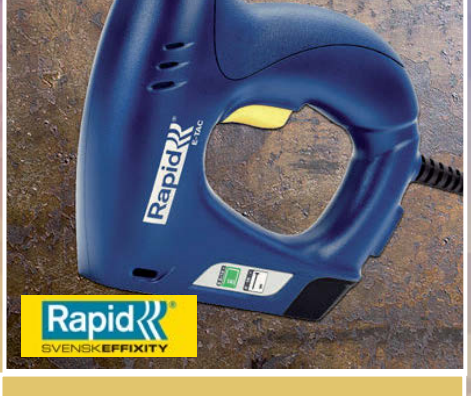

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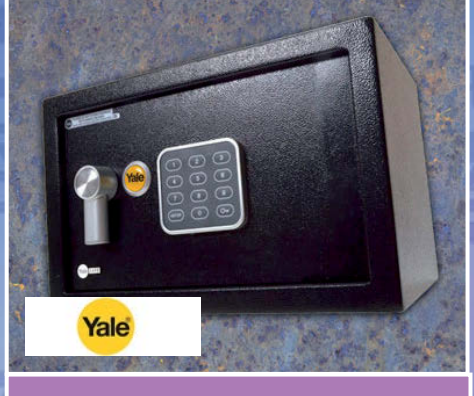

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