NEW!

Woodworking CRAFTS

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

Issue 4
September 2015

FRENCH POLISHING

Learn an essential restorer's technique

SMALL SPACE WOODWORKING:
Bird boxes

HAND WOODWORKING:
Creating bridle joints

MAKE A HIGH STOOL

with Windsor chair and Arts & Crafts styling

Chip-carved spoon handle, Choosing a router, Turning on a pole-lathe

TWX7

Workcentre

TWX7 CT001

Clamping Table Module

Clamping table supplied as standard
with 120Kg working load

Optional Modules

TWX7 RT001

Router Table Module

Router Table Module (Option)
Precision router table and fence with feather boards

TWX7 CS001

Contractor Saw Module

Contractor Saw Module (Option)
Powerful and accurate table saw with full length fence

Original. Again.

In the September issue...

COMMUNITY

POWER WOODWORKING

UPCYCLING & RESTORATION

HAND WOODWORKING

Erratum: In issue 2, at the end of Peter Sefton's article on measuring and marking tools, we incorrectly stated that in this issue, 4, Peter would be looking at marking out tools, including squares and gauges. However, this article will in fact be appearing in the next issue – 5. Apologies for this error.

Welcome

to the September issue of *Woodworking Crafts*

Hello everyone and welcome to the September issue of *Woodworking Crafts*. Still a very young magazine at just the fourth issue but I think that we are already covering plenty of bases from one woodworking extreme to another, so there should be something for everyone. I find many, many things in our world inspiring and I hope we can do our bit to inspire you too.

Well, it's now September and the year is ticking on. As usual, there are various shows I'm expecting to attend, including the European Woodworking Show at Cressing Temple, Essex, from 12–13 September and the Bentley Wood Fair, in East Sussex from 18–20 September. So if you see me wandering around sporting my *Woodworking Crafts* polo shirt, do stop me for a chat, I'm happy to pass the time of day with woodworking enthusiasts and discuss technical and other matters. It's been a mad time getting this magazine off the ground but I'm hoping to get to a lot more shows next year, especially where green woodworking features large. If you get the chance to try any of these crafts for yourself, such as pole-lathe turning, spoon carving, basket making, etc. then do have a go – you never know where it may lead in the future. Right now, I'm busy honing my scything skills. OK, it's grass not wood, but it is a tricky lesson in sharpening a curved-edge tool and perfecting the scything technique – my lawn has never looked better!

Anthony Bailey, Editor
Email: anthonyb@thegmcgroup.com

Woodwork on the web
To find more great projects, tests and techniques like these, visit our fantastic website at: www.woodworkersinstitute.com

IronmongeryDirect

MASTERS OF OUR TRADE

UK'S BIGGEST RANGE

14,000 PRODUCTS IN STOCK FOR NEXT DAY DELIVERY

T-Rex Grab Adhesive 310ml

- Bonds to almost any material
- Suitable for interior and exterior use

FROM ONLY £1.60 EACH
When you buy 6+

ORDER CODE: 922986271

Gorilla Glue - 250ml

- Mega strong sticking power
- 100% waterproof and temperature resistant
- Interior and exterior use

FROM ONLY £11.30 EACH
When you buy 5+

ORDER CODE: 922731831

Ulti-Mate II 1000 Screws Tester Pack

FREE DRIVER IN EVERY BOX!

- High performance wood screws
- Suitable for softwood, hardwood and MDF
- Self-countersinking

ONLY £12.50 PACK

ORDER CODE: 922743097

touchpoint Bella Lever

- 50mm diameter
- Bolt through fixings
- Security fixing to spindle
- Satin Chrome or Polished Chrome available

ONLY £6.95 PAIR

SATIN CHROME ORDER CODE: 922634428

Solid Drawn Hinge

- Size – 50 x 28 x 1.45mm
- Manufactured from solid drawn brass pins and countersunk
- Ideal for furniture and joinery applications

FROM ONLY £1.75 PAIR
When you buy 30+

ORDER CODE: 922508259

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

Text: ZY4628Z to 80800 FOR FREE!
Followed by your name, address and email.

All prices ex VAT.

ORDER BY 8PM GET IT NEXT DAY
FREE DELIVERY OVER £45*
FREE RETURNS WITHIN 30 DAYS
MINIMUM 5 YEAR GUARANTEE
LOCKED DOWN PRICES

CHECK OUT OUR MOBILE WEBSITE

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

ONLINE Shop 24/7!
IronmongeryDirect.com

*Ex VAT

FIND US ON

ZYGOTEHAASNOBRAIN/SHUTTERSTOCK

Clean, simple design with screw together frames

A stool made from compressed offcuts

WATHANYUSOWONG/SHUTTERSTOCK

AMY JOHANSSON/SHUTTERSTOCK

A classic modern laminated wood design

Design inspiration

Before we show you how to make our four-legged high stool, here's a few other designs to get your creative juices flowing

DND-PRODUCTION.COM/SHUTTERSTOCK

No frame, but carefully tapered legs and a waney-edge board top

SHIPPEE/SHUTTERSTOCK

Plenty of gently flared curves for looks and comfort

ERIN CADIGAN/SHUTTERSTOCK

Turnery throughout with a sub-base under the top to locate the legs

BIRGIT REITZ-HOFMANN/SHUTTERSTOCK

Based on a piano stool design, this stool is height adjustable to suit users

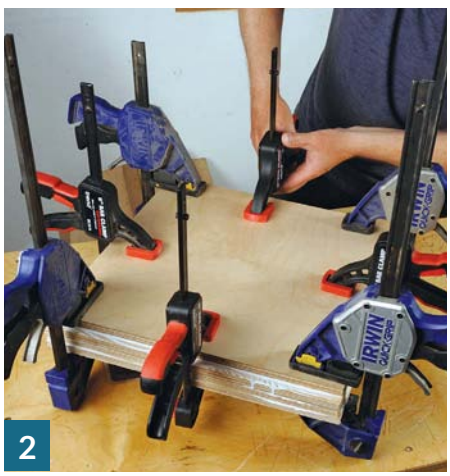
Four-legged HIGH STOOL

Mark Baker and **Anthony Bailey** make a traditional high stool that incorporates both Windsor chair and Arts & Crafts styles

Making a stool can seem quite complicated and in a sense it is. It incorporates a series of joints in legs that splay at an angle, which creates problems, and seat shaping that looks a big challenge, although it is easier than you think. All-in-all, it's a satisfying project if you can get your head around it. Once it's built, it's a very sturdy structure and the seat is comfortable too, without adding any padding, which is why the Windsor chair seat is such a winner. Mark and I thought it would be good to meld both Windsor and Arts & Crafts styles together to see what happened and we're pretty pleased with it – it's just a fight as to who gets to sit on it at tea break time!

1 The first job is to make up the top blank from four layers of 12mm birch *(Betula pendula)* ply to form a good thick top. A homemade grooved glue spreader will make even application very easy here.

2 You'll need plenty of clamps to press the ply boards together. If the width were any larger, a batten on each face packed underneath in the middle to exert extra force would be necessary, as the clamp pressure wouldn't go far enough into the middle of the seat.



PHOTOGRAPHS BY GMC/ANTHONY BAILEY

3 While that is drying, choose the oak *(Quercus robur)* section for the legs. These will be square but chamfered on all the arrises corners.

4 Rather than resorting to using a router and bevel cutter, Mark decided to use my T5 technical Jack plane with its flat-across cutting edge to do all the chamfers. Mark the position by eye at the start and finish of each leg and cut these overlength for trimming later on.

5 You should now have a set of four chamfered legs, and in our case, an experimental one where the chamfer was tapered. In the end, we decided not to pursue that idea as we weren't convinced, but it is an alternative shape.

6 24 hours later and the seat blank glue will be dry and you can then think about the shape for it. We already knew we wanted a traditional Windsor pattern top, i.e. sculpted to fit the human derrière. We used a bent steel ruler to create a curve for the rear of the seat.

7 Once that is drawn out on paper, use a tin to create the front corner curves. Draw the paper shape around and flip it to give a mirror image; this can then be used at both front corners of the blank. You now need to cut the seat blank to shape on the bandsaw close to the drawn lines and finish to the final shape using a disc sander, which is invaluable for creating crisp shaping work.

8 It was now over to Mark to create the basic seat shaping, using a couple of gouges and a carving mallet. By outlining the shape, you can then work inside these to create the familiar Windsor seat pattern.

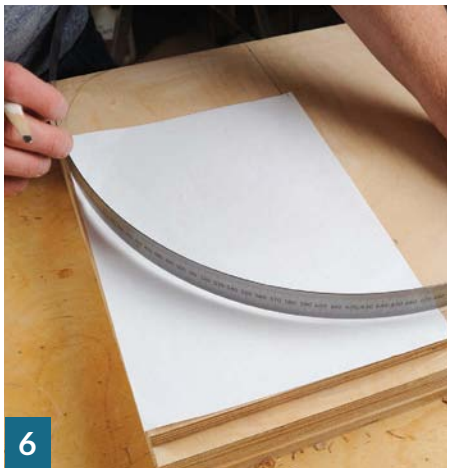
9 In our case, in order to speed up the process, Mark swapped to a powered shaper disc with its rasp-like curved face. It creates a lot of dust so proper face protection is essential. At this stage, your uneven seat should be taking on a 'watered silk' appearance. The next job is a thorough random orbital sanding.

10 Round the underside edges using a block plane followed by abrasive, which will look better and feel good too. ➤


3


4

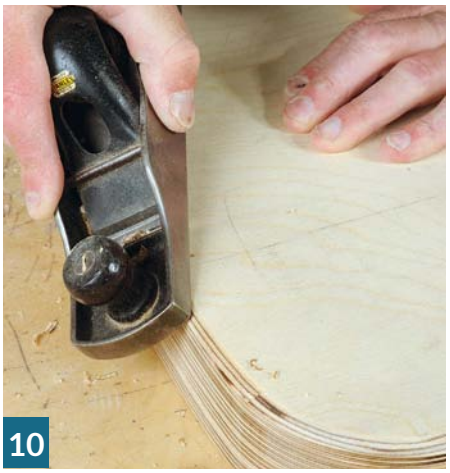

5

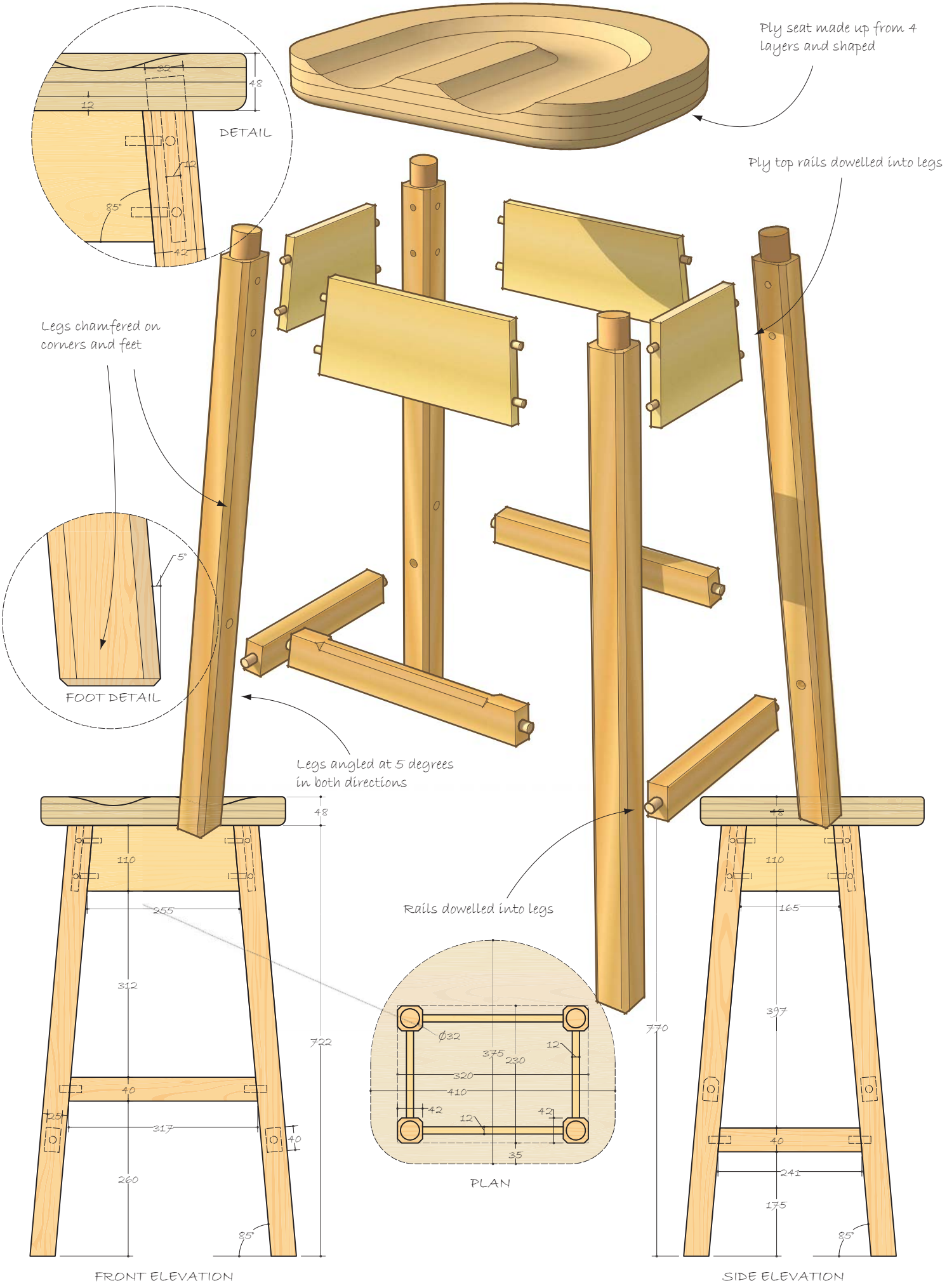

6


7


8


9


10


Ply seat made up from 4 layers and shaped
Ply top rails dowelled into legs
Legs chamfered on corners and feet
Legs angled at 5 degrees in both directions
Rails dowelled into legs
DETAIL
FOOT DETAIL
PLAN
FRONT ELEVATION
SIDE ELEVATION

11 Your finished result should look something like this before fitting it to the leg frame, which still needs to be made.


11

12 The first job is to mark the leg locations in a rectangular shape. These need to be near enough to the edge to maintain balance but far enough under to look correct.


12

13 We decided the best bet was to make a simple angle jig for drilling freehand with a Forstner bit. By aligning the drill to a sliding bevel set at an angle of 5°, you can make a hole through the jig and this in turn clamps over each leg location and stop-drills into the seat underside.


13

14 5° is the chosen angle throughout for this project, which means that each leg will splay outwards in both directions by 5° and equally, the rails will meet the legs at 5°. You should keep the sliding bevel locked at this setting.


14

15 Each leg needs to be marked as to where it is in relation to the seat front, which will help to avoid any mistakes. Next, mark the correct tenon shoulder angles on the outside faces of each. However, on our stool, we marked them incorrectly on some of the inside faces, as shown here. It was corrected but it is an example of what you might call 'mitre blindness'.


15

16 Use a sharp chisel to pare down to the already sawn tenon shoulder line. The tenon needs to be cut parallel so it will enter the socket correctly.


16

17 To avoid unclamping each leg from the vice to check the fit, use a hole cut in a scrap of MDF as a gauge. This also avoids damaging the receiving mortise by doing too many trial fits.


17

18 Now the stool needs a ply skirt between the legs. You need to mark these out according to the distances shown drawn on the seat underside. Angle the ends at 5° as used elsewhere. Next, insert the legs into their respective mortises, ensuring they are in the correct position and all splaying outwards. You can then clamp the ply skirt pieces in between and mark the dowel positions at the corners. ➤


18

19 Drill the legs and the skirt pieces to take 8mm diameter dowels, using tape on the drill to show the approximate depth. The drill angle must match in both joint halves to ensure the dowels sit straight.

19

20 Set the leg rails at two different heights, with the front and back higher so they are comfortable to rest your feet on. Clamp the oak stock in place and mark the lengths as well as the position; this will ensure they fit in the right place again.


20

21 The front rail will have a stopped chamfer added for the feet to rest on easily without damaging the rail. Complete the ends curves using a half file, then chisel along in between.


21

22 Dowel the rails in place rather than the more laborious method of setting out and cutting mortise and tenons. For strength, use standard 12mm dowel.


22

23 Next, sand everything before assembly except for the positional marks. Glue the front and back parts of the frame and clamp as sub-assemblies rather than trying to put the whole thing together, which could be problematic.

23

24 Finally, you can put the whole thing together with plenty of clamps all round, which will ensure tight joints and glue squeeze out.


24

25 In our case, because the legs were uneven in length, we upturned the stool and marked the desired length against each using the bench top as the datum. You then need to mark across each pair of legs to get the correct angle for cutting. Inevitably, when our stool was stood the right way up it wobbled slightly, so a minor cut taking advantage of the fine kerf pull-cut of a Japanese saw, corrected the problem. Use a block plane to bevel the leg ends before a final sanding and apply several coats of Danish oil, which will help to bring out the colour of the oak and seal the ply effectively.


25

26 The completed high stool with its ply top and skirt and oak legs should look something like this. It's sturdy and comfortable and yet quite stylish too. ■


26

Einhell

WELL DONE.

FOUNDED IN 1964

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

1500 W Wet & Dry Vacuum Cleaner (30 L) with Power Take Off

TE-VC 1930 SA | Art.-No. 23.421.95

VIDEO DEMO

Scan the QR code to view the video demo online now!

RRP £89.99 (INC VAT)

Dust extraction facility available on all Wet & Dry Vacuums

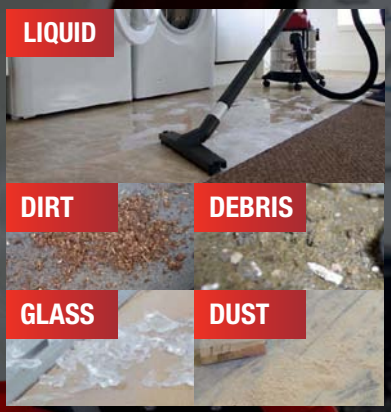
On-board power outlet for power tools – Ideal for workshops and outdoor work.

Drain screw to conveniently empty liquid from the chamber.

Robust stainless steel chamber

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

Designed and built for the effective removal of:



1250 W Wet & Dry Vacuum Cleaner (20 L)

TH-VC 1820 S | Art.-No. 23.421.67

RRP £59.99 (INC VAT)

Dust extraction facility available on all Wet & Dry Vacuums

Robust stainless steel chamber

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

1250 W Wet & Dry Vacuum Cleaner (15 L)

TH-VC 1815 | Art.-No. 23.402.90

RRP £49.99 (INC VAT)

Dust extraction facility available on all Wet & Dry Vacuums

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

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

CUSTOMER SERVICE

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

Mon - Thurs
8.45am - 5.00pm

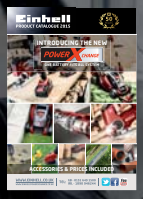
Friday
8.45am - 3.15pm

TEL: GB - 0151 649 1500
IRL - 1890 946244

NEW FOR 2015

2 YEAR GUARANTEE ON ALL PRODUCTS

24 HOUR ACCESSORIES



Scan this QR Code to download the 2015 catalogue

YouTube

AVAILABLE FROM:

amazon.co.uk

Argos

NEWS & EVENTS

All the latest events and news from the world of woodworking...

European Woodworking Show – it's back!

PHOTOGRAPH COURTESY OF WWW.EUROPEANWOODWORKINGSHOW.EU

Experienced chainsaw carver Tim Atkins will be demonstrating at this year's event

You will be pleased to hear that the European Woodworking Show will return to the show calendar next month with its usual mix of top class demonstrators and exhibitors across a wide range of woodworking disciplines.

Once again, the show will be held at the historic Cressing Temple Barns near Braintree in Essex, which is a great attraction in itself.

As you'd expect, the demonstrator list is impressive and includes woodturners Joey Richardson, Nick Agar and Mark Hancock, pyrographer extraordinaire Bob Neill, timber hewer Steve Woodley, woodcarvers Peter Berry, Tim Atkins, Dave Johnson and Gerald Adams and marionette maker Lenka Pavlickova. In addition, scrollsaw expert Fiona Kingdon will be present, as well as spoon carver Anna Casserley and Sophie Heron with her converted VW camper van, which was featured on Channel 4's *Amazing Spaces*.

You can also expect to see Japanese joint maker Brian Walsh, plus furniture makers David Charlesworth, Dylan Pym, Treeincarnated and many more besides. The British Woodcarvers Association – BWA – will be hosting their extremely popular public vote competition. There will also be many familiar tool suppliers including Turners Retreat, Trend Tools & Machinery, Lie-Nielsen Toolworks, Jet Tools & Machinery, Gransfors Bruks axes, Pfeil, Auriou and Flexcut carving tools, Classic Hand Tools, Lincolnshire Woodcraft, Chestnut Products, David Barron Furniture and a host of other retailers. The masterclasses are being presented by Simon James, author of *Working Wood 3*. For full details and to purchase advance tickets, see below.

Contact: The European Woodworking Show
When: 12–13 September, 2015
Where: Cressing Temple Barns, Witham Road, Braintree, Essex CM77 8PD
Tel: 01473 785 946
Web: www.europeanwoodworkingshow.eu

PHOTOGRAPH COURTESY OF WWW.DANIELHARRISONFURNITURE.COM

Cressing Temple Barns, the stunning setting for this event

Record Power summer & autumn shows

During the next few months, Record Power will be appearing at various dealers' premises across the UK and Ireland to answer your questions and demonstrate products. Exclusive show deals will also be available on the day.

When: 4–5 September, 2015
Where: Yandles Autumn Woodworking Show
Web: www.yandles.co.uk

When: 25 September, 2015
Where: John Davis Woodturning
Web: www.johndaviswoodturning.com

National Forest Wood Fair

Calling all bodgers, woodturners, woodcarvers and axemen! Make your way to the National Forest Wood Fair and enjoy a great day out for everyone who loves trees, timber and making beautiful things from wood.

Held on Monday 31 August in the Beacon Hill Country Park, Leicestershire, this event regularly attracts over 100 exhibitors and demonstrators, plus crowds of over 5,000 from all over the country.

Buy planks and blocks of timber, browse second-hand tool stalls and see expert demonstrations by woodturners and craftspeople. Top Windsor chair-maker Peter Wood will be on hand to talk about his work and demonstrate his world championship pole-lathe turning skills, and master craftsman Mike Painter will present a woodcarving masterclass.

Anyone aged 8-80 can try tree climbing and shimmy up into the canopy of an ancient oak tree using ropes and a harness.

The Forest Food Festival is packed with delicious locally-sourced food and drink, and once replenished, make sure you find the time to browse the tempting array of beautiful things made out of wood – perfect for gifts or treats for home and garden.

PHOTOGRAPH COURTESY OF THE NATIONAL FOREST WOOD FAIR

Tree climbing is just one of the many events for you to enjoy at the National Forest Wood Fair

When: Monday 31 August, 2015
Where: Beacon Hill Country Park, Loughborough, Leicestershire LE12 8SP
Tickets: adults – £9; concessions – £6; family – £25
Contact: The National Forest Wood Fair
Web: www.nationalforestwoodfair.co.uk

Treefest

Treefest, Westonbirt Arboretum's signature event, celebrates nature, trees and woodcraft with fun family activities, exhibitors and live music. Visitors will have the chance to meet skilled craftspeople and woodland workers, watch expert carvers in action and take part in a range of hands-on activities and crafts. There will also be displays of falconry and axe racing.

When: 29–31 August, 2015
Where: Westonbirt Arboretum, Tetbury, Gloucestershire GL8 8QS
Contact: Forestry Commission
Tel: 03000 680 400
Web: www.forestry.gov.uk/westonbirt-treefest

PHOTOGRAPH BY PAUL GROOM/WWW.COTSWOLDS.COM

See woodcarvers in action at Treefest

Celebration of Craftsmanship & Design

Celebration of Craftsmanship & Design (CCD) is the UK's largest selling exhibition of high-quality bespoke furniture, and it is back again this month. Established in 1994 by Betty Norbury, the show has evolved and grown significantly and now displays the work of around 70 designer-makers. The emphasis is on furniture, but each year this is complemented by work from several other disciplines such as jewellery, art and glass.

There are several competitions held at CCD, including The Alan Peters Award for Excellence for emerging young talent in bespoke furniture, the Woodland Heritage Award, the Best Use of British Timber, The Worshipful Company of Furniture Makers Design Prize and The Chair Competition. For more information, see below.

PHOTOGRAPH BY YOUNG & NORGATE

PHOTOGRAPH COURTESY OF IAN SMITH

When: 22–31 August, 2015
Where: Thirlestaine Long Gallery, Bath Road, Cheltenham, Gloucestershire GL53 7LD
Contact: Jason Heap
Tel: 02392 160 761
Web: www.celebrationofcraftsmanship.com

Top: The 'Animate' desk by Young & Norgate won the 2014 Best Use of British Timber Award

Above: 'Ribbon Table' in maple *(Acer campestre)*, by Ian Smith, from the 2012 event


Turned bowls by Head&Haft design

PHOTOGRAPH COURTESY OF WWW.CORNWALLDESIGNFAIR.CO.UK

Cornwall Design Fair 2015

The Cornwall Design Fair is one of The Duchy's largest design fairs, attracting designers, exhibitors and artists from all over Cornwall. This year, the event will be held in the beautiful formal gardens of the early 18th-century Trereife House, which will be transformed into a design paradise, with specialist food stalls, local musicians and huge marquees housing the best young and established designer-makers and their wares. Visitors are also offered a fascinating glimpse of the interior of the historic house, where they will find the 'curated design' section of the fair – in which selected designer-makers have been tasked with creating a harmonious mix of contemporary design within the classic historic setting. For more information, see below.

When: 14–16 August, 2015
Where: Trereife House, Newlyn, Penzance, Cornwall TR20 8TJ
Contact: Cornwall Design Fair
Tel: 01736 362 750
Web: www.cornwalldesignfair.co.uk

Stock Gaylard Oak Fair

A country fair for those interested in timber, woodcraft, the countryside and conservation, the Stock Gaylard Oak Fair is a great day out for the whole family. Held on the Stock Gaylard Estate, a traditional country estate in Dorset, the fair will include demonstrations by Adams Axemen, Heavy Horse Loggers, Mere Down Falconry and The Great Big Tree Climbing Co.

PHOTOGRAPH BY ADAMS AXEMEN/FLICKR.COM

Adams Axemen will be performing at the Stock Gaylard Oak Fair

When: 29–30 August, 2015
Where: Stock Gaylard, Sturminster Newton, Dorset DT10 2BG
Tel: 01963 23511
Web: www.stockgaylard.com

Wychwood Forest Fair

The Wychwood Forest Fair has become a popular annual event celebrating the diversity and richness of both the natural world and the working and leisure activities of local people living within the bounds of the old Royal Hunting Forest of Wychwood. The Forest Fair is a major fundraising event to support the local wildlife and landscape conservation work of the Wychwood Project. This year, the event is being held at Lodge Farm on the Ditchley Estate, two miles east of Charlbury. Ticket price is £7 and under 12s go free.

When: 6 September, 2015
Where: Lodge Farm, Ditchley Estate, Chipping Norton OX7 4EU
Contact: Wychwood Project
Tel: 01865 815 423
Web: www.wychwoodproject.org

PHOTOGRAPH COURTESY OF WWW.WYCHWOODPROJECT.ORG

A furniture carver at the 2013 Wychwood Forest Fair

PHOTOGRAPH COURTESY OF WWW.YANDLES.CO.UK

Expect to see a wide range of demonstrations and trade stands at this popular event

Yandles' Autumn Woodworking Show

Yandles of Martock will be holding their popular Autumn Woodworking Show from 4–5 September, 2015. Taking place in the historic sawmill, this event attracts around 6,000 visitors from the UK and Europe and gives members of the public and professional woodworkers a chance to see what is going on in the woodworking world with free entry and parking.

There will be in the region of 50 manufacturers attending, including well-known names such as Record Power, Charnwood, Robert Sorby and Triton, plus many others. See all their latest equipment and take advantage of special show offers.

In terms of demonstrators, the line-up includes woodturners Phil Irons, Simon Hope, Andy Rounthwaite and Andy Coates. If you're a woodcarver, then you can also expect to see Andrew Hibberd demonstrating, part sponsored by GMC Publications, who will be providing a wide variety of woodworking books.

The Hobby shop will once again be offering mini taster sessions from wet needle felting to Dorset button making and hobby demonstrations will be taking place during the day. Also, don't miss the 303 Gallery, which offers a wonderful array of work from local craftspeople.

When: 4–5 September, 2015
Where: Yandle & Son Ltd, Hurst Works, Hurst, Martock, Somerset TA12 6JU
Contact: David Mounstephen
Tel: 01935 822 207
Web: www.yandles.co.uk

Charnwood Woodworking Open Day

This annual event is back this year featuring guest demonstrators from Coombe Abbey Woodturning Club, Trent Valley Woodturning club, Robert Sorby woodturning tools and Chestnut finishing products. Expect to see great offers across the full range of machinery and accessories, plus a free barbecue!

When: 15 August, 2015
Where: Charnwood, Cedar Court, Walker Road, Hilltop Industrial Estate Bardon Hill, Leicestershire LE67 1TU
Contact: Charnwood
Tel: 01530 516 926
Web: www.charnwood.net

PHOTOGRAPH COURTESY OF WWW.CHARNWOOD.NET

Right: Visitors at last year's Charnwood event

WOODWORKING IN THE NEWS

Gavin Munro – the man who grows trees into chairs

According to the BBC, a designer in Derbyshire says he has come up with a new and dramatically more efficient way of making furniture. Gavin Munro grows young trees directly into the shape of chairs, lamps and mirror frames.

He has been making his projects for the past nine years and this year, the first lot of trees will be harvested to be sold as the finished products. Gavin has his own business, Full Grown – see www.fullgrown.co.uk.

PHOTOGRAPH COURTESY OF WWW.FULLGROWN.CO.UK

Gavin Munro and one of his pieces

The effect of rainforest destruction

Released drone footage has shown the dramatic effect of rainforest destruction while flying over Indonesia. The forests shown were cleared by Astra Agro Lestari to make room for a palm oil plantation, according to Forest Heroes. This area is also home to the endangered Sumatran elephant which, should this level of deforestation continue, could become extinct within 30 years. Forest Heroes is calling for people to sign a petition calling on Ben Keswick, who is the commissioner of Astra Agro Lestari and also the Managing Director of Jardines Matheson, to stop clearing forests. For more information, see www.forestheroes.org.

PHOTOGRAPH COURTESY OF WWW.TREEHUGGER.COM

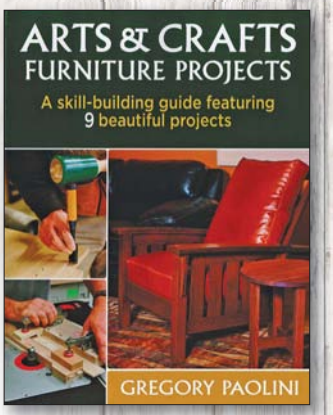
The effects of rainforest destruction in Indonesia

BOOK REVIEWS

We review three books for you to enjoy

Image: xpert/Shutterstock

Arts & Crafts Furniture Projects
by Gregory Paolini



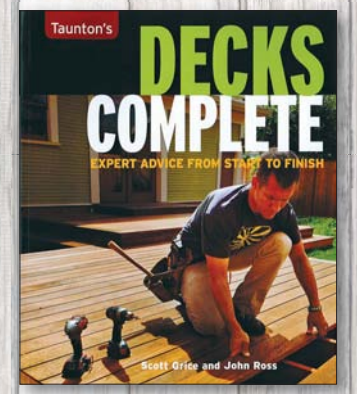
ISBN: 9781600857812
Price: £17.99 (plus P&P)
Web: www.gmcpubs.com

In *Arts & Crafts Furniture Projects*, Gregory Paolini gives you the opportunity to create nine pieces of classic furniture for your home. The book is inspired by Gustav Stickley, the Greene Brothers and other craftsmen and designers, who established Arts & Crafts in North America more than a century ago. Their pieces are highly collectable and now, the Arts & Crafts-style furniture is back in fashion and Gregory's book comes at a perfect time!

There is a lot of text, but it is split up into smaller sections throughout the book, making for an information-packed read. The introduction is well written, as is the text following and the photographs are of great quality. The illustrations throughout are fairly complex, but with all the necessary elements of the particular project highlighted. Measurements are in imperial units.

The great thing about this book is that each subsequent project builds upon the previous learnt skill, while introducing new ones. This makes the book flow brilliantly and is very easy to follow. As Gregory says: "Each project introduces a skill set or technique to be mastered." The author has also included smaller plans for useful jigs, which will help you in your project work.

Decks Complete: Expert Advice from Start to Finish
by Scott Grice and John Ross



ISBN: 9781621130116
Price: £16.99 (plus P&P)
Web: www.gmcpubs.com

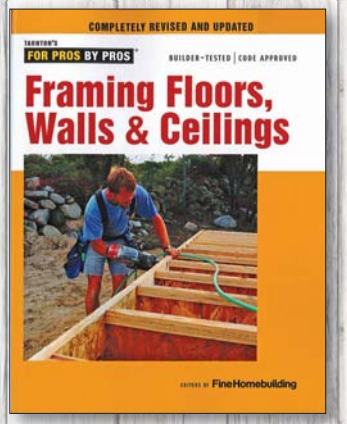
The book's table of contents only lists a small portion of what *Decks Complete: Expert Advice from Start to Finish* looks at, so don't be put off by it! Inside, a complete contents section can be found.

Scott Grice and John Ross look at designing a deck; planning and preparation; tools and materials; footings and foundations; framing a deck; installing both decking and railing; deck stairs, maintenance and much more.

The advice Scott and John give in this book is all site-tested and from a professional perspective, resulting in the most comprehensive reference book for a homeowner. Having site-tested hints, tips and advice to share also means the authors are able to give away some trade secrets.

There are over 750 photographs and drawings included, alongside detailed instructions, which will help to guide you with every step.

Framing Floors, Walls & Ceilings
by Editors of Fine Homebuilding



ISBN: 9781631860058
Price: £17.99 (plus P&P)
Web: www.gmcpubs.com

Framing Floors, Walls & Ceilings has been completely revised and updated. From the Editors of *Fine Homebuilding*, this book provides you with the best advice and information on framing, which is both builder-tested and code approved. The information given is to help you get the job done right, first time.

This guide aims to help you make the best choices in framing tools and materials; frame a strong, stable floor with I-joists; raise big gable walls safely and efficiently; plan and frame a cathedral ceiling and master energy-efficient framing techniques.

Framing Floors, Walls & Ceilings is crammed with text, photographs and diagrams, all of which are clearly captioned and referenced clearly. Although there may appear to be a large amount of text – which provides brilliant detail – it is divided into shorter sections and paragraphs, making for a smooth and easy read. The contents page will take you straight to where you want to be. All in all, a very information-packed book. ■

GREEN WOODWORKING

PHOTOGRAPHS BY LEE STOFFER

Chip carving A spoon handle

Lee Stoffer shows us how a wooden spoon can be transformed using simple applied carving

This month, I'm going to show you the techniques I use for chip carving details onto spoon handles. For the sake of continuity, I'm going to decorate the handle of the spoon that I made in the spoon carving article in *Woodworking Plans & Projects* issue 95. The spoon itself was carved when the wood was still green but the chip carving is best done when the wood has dried out but before oiling.

To see me showing my techniques in use, visit my YouTube channel: **https://youtu.be/uSsg2X7Efpo.**

Lee Stoffer

Lee Stoffer has finally decided to turn his passion for green woodworking into a full-time occupation, making, teaching and demonstrating. Lee can be found showing off his skills at many woodworking shows and events.

Web: www.covertcraft.com

Facebook: www.facebook.com/covertcraft

1 For this project, you will only need a couple of knives to get you started, a pencil and something to chip carve – it doesn't have to be a spoon handle but I intend to focus on this as I have developed my own technique for doing so. The tools pictured here are fairly generic and readily available. You will need the following: a sheep's foot – left – and detail knife with a nice finely pointed tip – right.

1

2 This particular spoon is made from sycamore *(Acer pseudoplatanus)*. Usually, I prefer to chip carve into silver birch *(Betula pendula)* as it is a bit softer and easier on the tools, but the sycamore should hold detail well. Fruit woods with a nice tight grain can also be good timbers to try – it depends what you have available. The tools pictured here are a 25mm clip point carver from Nic Westermann and three small sheep's foot-style blades I forged myself from silver steel, which are ground at various angles for use on different timbers.


2

3 To start, you need to mark out a basic outline using your finger on the edge of the spoon handle, which will act as a guide. Avoid drawing the whole design at this stage as you don't want excess pencil lines that may get smudged into the grain while carving the outline. These can be difficult to remove later.


3

4 Holding the detail knife – in my case, the clip point carver – like a pencil, cut the outside of the border. Starting on the outside edge of the pencil line with the blade tipped back at about 30° off vertical, make a shallow cut following the line. I find it helps to focus on a point about 5-10mm in front of the blade; this allows you to keep a nice fluid cut moving.


4

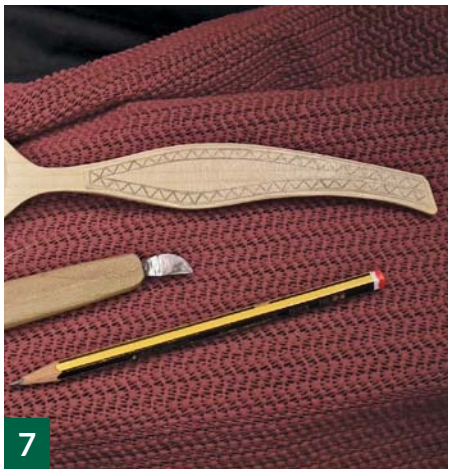
5 The next step is to make the inside cuts. Here I'm aiming to follow the same pencil line from the inside edge, effectively cutting the pencil line away by removing a tiny sliver of wood, triangular in section, again, with the blade around 30° off vertical.


5

6 With the outline completed, proceed to mark out for the chip pattern. Mark a line just inside the original cut line, then another one parallel to this 3mm inside it. The 3mm space between the lines is where the chips will be removed. ➤


6

7 The next step is to divide the space between the lines into a triangular pattern. I usually start at the narrowest point of the design and work the size of the triangles out from there. To keep the carving as simple as possible, use equilateral triangles. The sheep's foot blade here is symmetrically ground from edge to spine at around 16°.


7

8 The aim now is to remove a tiny inverted pyramid of wood from each triangle marked in three cuts. Start with the inner row and cut from the outer point towards the middle of the handle, working to complete all the cuts down one side of the handle. An approach angle somewhere between 30 and 45° off vertical should work well here. With each cut you make, it is useful to try to visualise the tip of the blade reaching the centre of the marked triangle.


8

9 Next, it's time to make the opposite cut, this time working towards the outer edge of the spoon handle. Start with the point of the blade on the point of the triangle.


9

10 Pushing towards the centre of the triangle with the tip of the blade, aim towards the opposite point with the edge. Your finishing position should look something like this and the blade should drop nicely into position as it meets the cut from the previous direction.


10

11 Where possible, I usually take the last – release – cut with the grain as, this way, I find the chips tend to come out easier and cleaner. This cut should be made with less pressure than the previous two, which were cut diagonally across the grain.


11

12 If all the cuts are made correctly, the chip should be released leaving behind a nice clean triangular void in the handle.


12

13 You can now continue up the handle until the row is complete, then repeat the process for the opposite side.


13

14 Using the same pencil lines as a reference, repeat the procedure for the outer row of chips. Care must be taken to complete but not overdo each cut. Retaining the wall between adjacent chips can be quite tricky to begin with.


14

15 When all the chips are released, use an eraser or fine abrasive to remove the residual pencil marks. With the pencil lines removed, you may find that some of the chips are slightly irregular. It's possible to tickle them up a bit with the detail knife but take care, as you may end up making the chips too big or scruffy around the edges.


15

16 You should end up with this kind of result – a nice zigzag effect created by the opposing chips.


16

17 For comparison, here are my tools – centre – versus the generic ones. I found the larger generic tools harder to use on spoons but they will get the job done when properly honed. I use a small, fine ceramic stone to keep mine in good shape.


17

18 I also find that painting the handle after chip carving can help to accentuate the design and promote a more 3D appearance. I usually use artist's acrylic but I've known other carvers to use oil, milk- and egg-based paints, depending on personal preference.


18

19 One last tip that I can offer – not used on this spoon – is to break larger chips down into three sections for removal. I remove these in six cuts. First, find the centre of the marked triangle and scribe a line out from it to each point. Then, push the tip of the blade into the centre of the large triangle following each line, holding the edge at a 30-45° angle to the face of the wood until the edge reaches the outer point. Repeat for each line, then take the three usual cuts. The initial cuts allow the wood to move slightly and offer less resistance to the blade. Three chips should be released from the one hole.

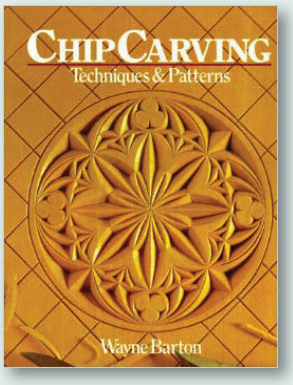

19

Here you can see a number of different designs I have completed. Your finished design should look something like this. ■

Useful resources

I found Wayne Barton's book *Chip Carving: Techniques & Patterns* to be a useful reference for visualising different layouts and designs. The techniques described are also very good for maintaining consistency but not the easiest to apply to a spoon handle, hence me developing my own tools and techniques. I generally favour holding the knife like I would a pencil, only using gentle pressure so as not to slip into or out of each cut. Whatever woodworking you do, basic chip carving would be a useful skill to develop to add detail to your work.

ISBN: 0-8069-7924-0



Creating Bridle joints

Michael T Collins takes us through creating the corner bridle joint for a door and the 'T' bridle set mid-way in a rail

The number of ways that you can join two pieces of wood together is nothing short of staggering, and the plethora of names for each method can be mind numbing. In the last issue, we looked at creating half-lap joints but here we'll look at making bridle joints.

This joint is most likely named after a horse's bridle because its appearance replicates the way a bridle fits into the horse's mouth.

Just like a traditional mortise and tenon, in a bridle joint a tenon is cut on the end of the rail and a mortise is cut into the stile to accept the tenon. The fundamental difference is that the mortise fully extends through and out the top of the stile – it is sometimes called a slip tenon. The photo here shows a well-worn bridle joint in a bathroom cabinet.

Bridle joints can be used anywhere you might use half-lap or mortise and tenon joints. They are very strong and a good choice for jointing thin stock, especially where a lap joint would not offer strength and a mortise and tenon would be too small. I have even seen double bridle joints used in the construction of chairs, joining arm and leg in one flowing piece. As a general rule, a bridle joint can be used in place of a lap joint, but a lap joint should not be used in place of a bridle joint.

As with the half-lap joint, there are many variations in the bridle joint. In this article, I will take you through the steps of creating the corner bridle joint for a door and the 'T' bridle set mid-way in a rail.

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, Adams fireplaces, book cases and reproduction furniture.

Web: www.sawdustandwoodchips.com
Twitter: @sawdustandwood

PHOTOGRAPHS BY MICHAEL T COLLINS

Bridle joint on an old medicine cabinet

MAKING A BRIDLE JOINT

Throughout this series, we have been slowly adding to your woodworking skills and at the same time, adding the necessary tools to your collection. You may be pleased to hear that your toolbox already has all the tools necessary to make this joint.

The skills and techniques learned in the previous issues are readily transferable to making a bridle joint; in fact you will see that they are the same skills with some new techniques added to the mix.

The tools needed for making a bridle joint

Preparation

1 Start with your wood cut, squared and planed to size, leaving each piece 1-2mm longer than required for waste. My stock is 22 × 63mm cherry *(Prunus serotina)*. Mark the face side and face edge on all pieces – you can also use an elongated cabinetmaker's triangle; this will help keep the parts orientated.

2 The mortise location is simply the width of the rail plus 1mm for waste. You do not need to measure – just use the rail, pencil and try square to mark the location of the mortise. I always use a pencil to mark mortises. Again, leave an extra 1mm or so at the end for waste.

3 Set the mortise gauge using the width of your chisel – in my case 10mm. The size is also dependent on the width of the stock – a good rule is that the tenons should be greater than a third, but less than half the width of the stock.

4 The tenon location is marked using the width of the stile. Gang the rails together and using the stile, try square and a marking knife, scribe the location on all sides, but don't forget to add 1mm for waste. Adjust the mortise gauge so that the tenon is in the centre of the rail. Scribe the tenon, from the face side.

5 With the same mortise gauge setting you used to mark the tenon, mark the mortise on both edge and end grain from the face side. If you look closely at the medicine cabinet joint on page 22, you will see that it is slightly offset towards the door's outside, illustrating that you should always mark from the face side. By doing this, you are almost guaranteed to produce a joint that is flush. This is another 'secret' of woodworking. ➤

1

2

3

4

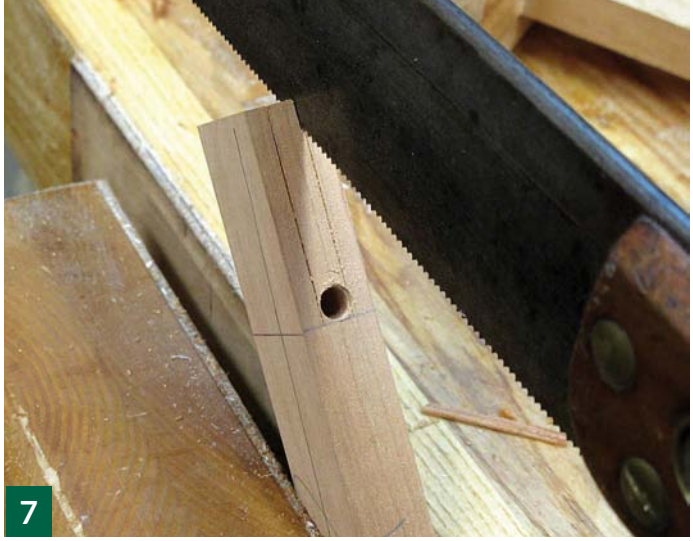
5

Which came first – the mortise or the tenon?

If all your joinery is perfect, then it will make no difference whether you cut the mortise or the tenon first. However, woodworking is not an exact science and perfection is a rare animal. So chopping the mortise first has several advantages:

a) They are easier to lay-out
b) It is easier to make a tenon fit a mortise, than vice versa.


6


7

Drill the mortise

Unlike a housed mortise that needs to be chopped out, a bridle joint is open-ended and a different method can be employed. While you can place the stile on the bench hook and drill the hole from above, I have never found this to be very accurate since you have to be able to keep the drill vertical, while seeing all directions – not an easy feat. Instead, I like to place the stile vertically in the vice so that the mortise location faces towards you and the location of the hole is about waist height. With your brace and 10mm spiral bit, drill a hole at the base of the mortise – make sure that you position the bit so that the drill bores a hole that touches the three marked lines and is perpendicular to the edge.

6 When starting out, a simple way to keep the brace and bit horizontal is to place a washer over the bit – if the drill is horizontal, while turning the brace, the washer will remain in one place. You only need to make sure the drill is perpendicular to the face – you can use a try square – as the washer makes sure it is horizontal.

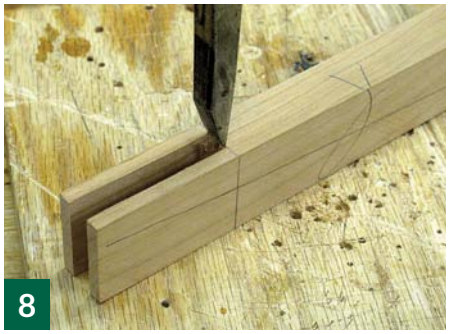
7 Drill through the bottom of the mortise until you can just see the point of the bit poking through the other side. Turn the wood round and drill from the other side; this will prevent any tear-out. Before withdrawing the bit, back it off a few turns. You can also use this method to hog out the waste in regular mortises – use tape to mark the bit to gauge the depth. Once the hole is drilled, saw the rest of the mortise in the same way as with the tenon – on the waste side.

8 Lastly, using your mortise chisel, clean up the mortise base from both sides to avoid tear-out.

Cutting the tenons

9 Cut a 'V' groove on the waste side of the shoulder line using a chisel; this will give you a place for the saw to cut and produce a very clean shoulder. Using a bench hook and a tenon saw, you now begin to cut down to the tenon marks. Place the rail in the vice at 45° and rip down on the waste side to the ends of the scribe marks using a dovetail saw. Turn the wood around and again saw at 45°, using the kerf as your guide. Lastly, saw vertically down to the shoulder and the waste should fall away.

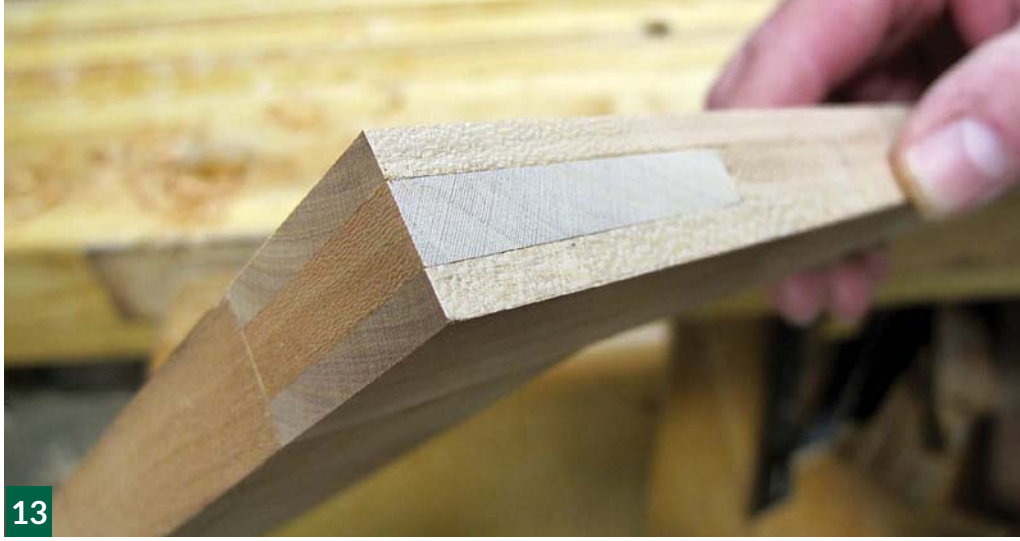
10 You need to repeat this for the other cheeks. This should be sounding familiar – repetition is good for you, so they say – but more importantly, with each repeated action, your skills will develop, be reinforced and become natural over time, thus making you a better woodworker. This joint is going to be visible on two faces so you will need to clean the mating faces with a chisel. If you look carefully at the tenon in photo 10, you can see that the scribe lines are still visible.


8


9


10


11


13


12

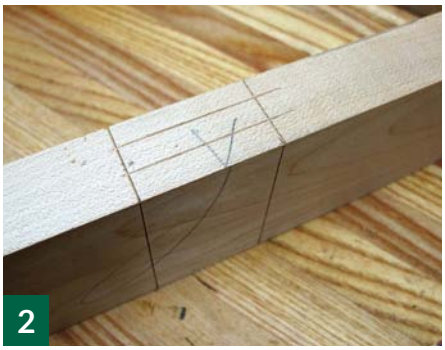
11 The secret of a good fit is crisp lines. To clean, pare from the scribe line to the tenon. The cheeks can be pared a little at a time and the fit checked often.

12 If you have trouble seating the tenon in the mortise, then you can chisel a very shallow concavity in the bottom of the mortise. Once the joint is finished, you can square, glue and clamp it. Finally, plane off the waste – note the direction and angle I am planing here; as before, using this technique will avoid tear-out.

13 Take your time and you will be able to produce crisp clean joints. You can experiment with double and angled bridle joints – you can even peg the joints.

'T' BRIDLE JOINT


1


2


3

1 Not only is the 'T' bridle joint strong, but it allows the grain of the rail to flow through the joint, giving a much nicer appearance. It is also easier to cut when the rails are curved. Photo 1 shows an inlaid side table with two 'T' bridle joints connecting the legs to the rails.

2 A 'T' bridle joint is made in much the same way that we cut the corner bridle, only this time the tenon part of the joint is moved along the rail. Mark out and cut the mortise as before. The 'tenon' should also be laid out as before, using the mortise gauge to mark the location. Use the try square and marking knife to scribe the joint.

3 Pare away from both sides, checking the fit from time to time.

4 If the stile is thicker than the rail, marking from the face side will still produce a flush joint. If you are adding a reveal, you just need to add the amount of the reveal to the distance between the movable spur and the gauge's fence.

So get the bit between your teeth and have a go at making some bridle joints!

NEXT MONTH

Michael shows how to build a simple panel door using many techniques and joints learned so far. ■


4

NEW STORE
MANCHESTER CENTRAL - NOW OPEN

Machine Mart

NOW 65 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS

Clarke 4" BELT/ 6" DISC SANDER

CS4-6D

£84.99 EX.VAT
£101.99 INC.VAT

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

Clarke 6" BELT/ 9" DISC SANDER

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

CS6-9C

£199.00 EX.VAT
£238.80 INC.VAT

Clarke TABLE SAWS

CTS10D

LEG STANDS AVAILABLE FOR CTS11 & CTS10D £22.99 EX VAT £27.59 INC VAT

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

INCLUDES LEFT & RIGHT TABLE EXTENSION

*Moulded base

MODEL	MOTOR	BLADE	EX VAT	INC VAT
CTS800B	600w	200mm	£69.98	£83.98
CTS11*	1500w	254mm	£139.98	£167.98
CTS10D	1500w	254mm	£149.98	£179.98

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT

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

£34.99 EX.VAT
£41.99 INC.VAT

CMFT250

NEW

Clarke BANDSAWS

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

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

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

ONLY £349.98 EX.VAT £419.98 INC.VAT

NEW

ONLY £449.00 EX.VAT £538.80 INC.VAT

VAC KING WET & DRY VACUUM CLEANERS

FROM ONLY £47.99 EX.VAT £57.59 INC.VAT

- A range of compact, high performance wet & dry vacuum cleaners for use around the home, workshop, garage etc.

MODEL	MOTOR	CAPACITY WET/DRY	EX. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£47.99	£57.59
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC25SS*	1400W	19/17ltr	£64.99	£77.99
CVAC30SSR*	1400W	24/21ltr	£86.99	£104.39

* SS = Stainless Steel

Clarke 1" BELT & 5" DISC SANDER

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

£59.98 EX.VAT
£71.98 INC.VAT

Clarke ELECTRIC POWER FILE

CPF13

- Variable belt speed
- Tilting head

*Black & Decker

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

MODEL	MOTOR	EXC.VAT	INC.VAT
CPF13	400W/230V	£44.99	£53.99
KA900E*‡	350W/230V	£49.98	£59.98

‡ was £63.59 inc.VAT

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 AVAILABLE

PC60

CONVERT 230V 1PH TO 400V 3PH

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

MODEL	MAX. MOTOR HP	FUSE	EX 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 CJS380 JIGSAWS

BOSCH Power Tools

*DIY #Professional

FROM ONLY £12.99 EX.VAT £15.59 INC.VAT

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EX VAT	INC VAT
Clarke CJS380*	420W	55/6mm	£12.99	£15.59
Clarke CON750#	750W	80/10mm	£24.99	£29.99
B & D KS600*	450W	60/5mm	£29.98	£35.98
Bosch PST700*	500W	70/4mm	£49.98	£59.98

Clarke QUICK RELEASE ALUMINIUM SASH CRAMPS

LIGHTWEIGHT ALUMINIUM

FROM ONLY £6.99 EX.VAT £8.39 INC.VAT

MODEL	SIZE	EX. VAT	INC. VAT
CHT374	600mm	£6.99	£8.39
CHT375	900mm	£7.99	£9.59
CHT376	1200mm	£9.98	£11.98

Clarke CORDLESS DRILL/ DRIVERS

PSR18

BOSCH Power Tools

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

HUGE CHOICE IN-STORE & ONLINE

MODEL	VOLTS	BATTS	EXC. VAT	INC.VAT
CCD180	18V	1	£34.99	£41.99
CCD240	24V	1	£39.98	£47.98
Bosch PSR18	18V	1	£49.98	£59.98

Clarke CONTRACTOR 18V PRO CORDLESS DRILL/ DRIVERS

- 10mm chuck size
- 2 Speed, Variable control - 0-350/0-1250rpm
- 21 torque settings

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

2 Batteries

INCLUDES 12 PIECE BIT SET

MODEL	BATTERIES	EXC. VAT	INC. VAT
CON18Ni	2 x Ni-Cd	£64.99	£77.99
CON18Li	2 x Li-Ion	£84.99	£101.99

Clarke SHEET SANDERS

CON300

FROM ONLY £12.99 EX.VAT £15.59 INC.VAT

*110V in stock

MODEL	SHEET SIZE	MOTOR	EX VAT	INC VAT
COS200	190X90mm	150W	£12.99	£15.59
CON300	230X115mm	330W	£29.98	£35.98
Makita BO455*	112X102mm	200W	£54.99	£65.99

Clarke POWER PLANERS

BLACK & DECKER

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

- 82mm cutting width

CEP1

MODEL	INPUT POWER	DEPTH OF CUT	EXC.VAT	INC.VAT
Clarke CEP1	650W	2mm	£21.99	£26.39
Einhell RT - PL82 ‡	850W	3mm	£49.98	£59.98
B&D KW750K - GB	750W	2mm	£57.99	£69.59

‡ was £65.99 inc.VAT

Clarke CONTRACTOR BELT SANDERS

Makita

- Ideal for surface removal, sanding and finishing

ABRASIVE SANDING BELTS IN STOCK

BS1

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

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

Clarke DRILL BIT SHARPENER

CBS16

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

£21.99 EX.VAT £26.39 INC.VAT

Clarke DISC SANDER (305MM)

- Powerful, bench mounted disc sander • 900W
- No load disc speed: 1490rpm • 305mm Disc Diameter (1 x 60 grit sanding disc included)
- Dimensions (LWH): 440x437x386mm
- Weight: 28kg

£119.98 EX.VAT £143.98 INC.VAT

CDS300B

Clarke DRILL PRESSES

CDS3

CDF5EB

ONLY £59.98 EX.VAT £71.98 INC.VAT

DRILL STANDS

ONLY £19.98 EX.VAT £23.98 INC.VAT

Drill not included

Clarke RANDOM ORBITAL SANDER

£27.99 EX.VAT £33.59 INC.VAT

CROS1

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

INC 5 DISCS

BISCUIT JOINER

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

£49.98 EX.VAT £59.98 INC.VAT

BJ900

Clarke PORTABLE THICKNESSER

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

£179.98 EX.VAT £215.98 INC.VAT

CPT250

Clarke BOLTLESS SHELVING BENCHES

- Simple fast assembly in minutes using only a hammer

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

SAVE 10% WHEN YOU BUY ANY MIX OF 5 FROM THIS RANGE SAVE AT LEAST £17.99 INC.VAT

CHOICE OF 5 COLOURS

RED, BLUE, BLACK, SILVER & GALVANISED STEEL

ALSO EXTRA WIDE INDUSTRIAL UNITS AVAILABLE

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

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

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

Clarke PLANERS & THICKNESSERS

CPT800

- Ideal for DIY & Hobby use • Dual purpose, for both finishing & sizing of timber (CP-6 planer only)

FROM ONLY £139.98 EX.VAT £167.98 INC.VAT

MODEL	MOTOR	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CP-6	1100W	*	£139.98	£167.98
CPT600	1250W	120mm	£169.98	£203.98
CPT800	1250W	120mm	£189.98	£227.98
CPT1000 NEW	1500W	120mm	£269.98	£323.98

Clarke OSCILLATING BOBBIN SANDER

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

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

COBS1

ADDITIONAL SANDING SLEEVES IN STOCK

NEW

ONLY £114.98 EX.VAT £137.98 INC.VAT

23686LH

visit machinemart.co.uk

FOR OVER 15,000 PRODUCTS INCLUDING NEW Xtra SPECIALIST PRODUCTS

CLICK & COLLECT

FREE 500 PAGE CATALOGUE

Over 1500 PRICE CUTS & NEW PRODUCTS

GET YOUR FREE COPY NOW!

- IN-STORE
- ONLINE
- PHONE

0844 880 1265

Clarke MORTISING MACHINE CBM1B

£144.99 EXC.VAT £173.99 INC.VAT

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

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

CHISELS AVAILABLE FROM £7.99 EX VAT £9.59 INC VAT

Clarke WOODWORKING VICES

FROM ONLY £13.49 EX.VAT £16.19 INC.VAT

Record WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke CHT152	Bolted	150/152/61	£13.49	£16.19
Stanley Multi Angle	Clamped	72/60/40	£16.99	£20.39
Record V75B	Clamped	75/50/32	£18.99	£22.79
Clarke WV7	Bolted	180/205/78	£24.99	£29.99

Machine Mart Xtra

MUCH MORE WOODWORKING ONLINE

airmaster TURBO AIR COMPRESSORS

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

HUGE RANGE OF AIR TOOLS IN STOCK

CLARKE 8MM AIR HOSE FROM ONLY £5.99 EX VAT £7.19 INC VAT

FROM ONLY £79.99 EX.VAT £95.98 INC.VAT

8/250

MODEL	MOTOR	CFM	TANK	EX VAT	INC VAT
Tiger 8/250	2Hp	7.5	24ltr	£79.98	£95.98
Tiger 7/250	2 Hp	7	24ltr	£89.98	£107.98
Tiger 8/36	1.5 Hp	6.3	24ltr	£109.98	£131.98
Tiger 11/250	2.5Hp	9.5	24ltr	£119.98	£143.98
Tiger 8/510	2Hp	7.5	50ltr	£129.98	£155.98
Tiger 11/510	2.5Hp	9.5	50ltr	£149.98	£179.98
Tiger 16/510	3 Hp	14.5	50ltr	£219.98	£263.98
Tiger 16/1010	3 Hp	14.5	100ltr	£269.98	£323.98

Clarke TABLE SAW WITH EXTENSION TABLES (250mm) CTS14

- Ideal for cross cutting, ripping, angle and mitre cutting
- Easy release / locking mechanism for table extensions
- 0-45° tilting blade
- Cutting depth: 72mm at 90° / 65mm at 45°
- 230V/50Hz, Motor: 1800W, No load speed: 4700rpm

NEW

£119.98 EXC.VAT £143.98 INC.VAT

Shown with optional leg kit CLK5 £22.99 exc.VAT £27.59 inc.VAT

Clarke 10" SLIDING MITRE SAW

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

£129.98 EXC.VAT £155.98 INC.VAT

CMS10S2

Clarke MITRE SAW STAND

CFMSS1

£64.99 EXC.VAT £77.99 INC.VAT

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

Clarke DOVETAIL JIG

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

PRICE CUT £54.99 EXC.VAT £65.99 INC.VAT WAS £71.98 inc.VAT

CDTJ12 Router not included

Clarke ROUTERS

BOSCH

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

ACCESSORIES IN STOCK

CR1C

* DIY

MODEL	MOTOR (W)	PLUNGE (mm)	EX VAT	INC VAT
CR1C*	1200	0-50	£39.98	£47.98
Bosch POF1400ACE	1400	0-55	£74.99	£89.99

Clarke SCROLL SAWS

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

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

CSS16V

MODEL	MOTOR	SPEED RPM	EX VAT	INC VAT
CSS400B	85w	1450	£64.99	£77.99
CSS16V	120w	400-1700	£79.98	£95.98
CSS400C*	90w	550-1600	£99.98	£119.98

* Includes flexible drive kit for grinding/polishing/sanding

MITRE SAWS

Einhell

Makita

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

TH-SM 2534

Quality Range of Mitre saws and blades available

MODEL	BLADE DIA BORE (mm)	MAX CUT DEPTH/CROSS	EX. VAT	INC. VAT
Einhell TH-MS 2112	210/30	55/120mm	£54.99	£65.99
Fury 3	210/25.4	60/200mm	£119.98	£143.98
Einhell TH-SM2534	250/30	75/340mm	£159.98	£191.98
Makita LS1040	260/30	95/130mm	£199.98	£239.98

Clarke ROTARY TOOL KIT

CRT40

£29.99 EXC.VAT £35.98 INC.VAT

Kit includes:

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

Clarke 6" BENCH GRINDER WITH SANDING BELT

- For sanding/shaping wood, plastic & metal
- Supplied with coarse grinding wheel & sanding belt

£49.98 EX.VAT £59.98 INC.VAT

CBG6SB

Clarke CONTRACTOR CR2 ROUTER

£109.98 EX.VAT £131.98 INC.VAT

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

CR3 Router with 15 Piece Bit Set also available only £94.99 £113.99

INCLUDES 15 PIECE SET WORTH OVER £20

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)

£56.99 EX.VAT £68.39 INC.VAT

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

£119.98 EX.VAT £143.98 INC.VAT

METABO ALSO AVAILABLE

- Powerful 750w motor
- 56 litre bag capacity
- Flow rate of 850M3/h

MODEL	MOTOR	FLOW RATE	BAG CAP.	EX VAT	INC VAT
CDE35B	750w	850 M3/h	56Ltrs	£119.98	£143.98
CDE7B	750w	850 M3/h	114Ltrs	£139.98	£167.98

Clarke 5PCE FORSTNER BIT SET

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

£9.98 EX.VAT £11.98 INC.VAT

CHT365

Clarke BENCH GRINDERS & STANDS

- Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

STAND AVAILABLE FROM ONLY £41.99 EX.VAT £50.39 INC.VAT

FROM ONLY £27.99 EX.VAT £33.59 INC.VAT

CBG8W features 8" whetstone & 6"drystone.

With sanding belt

MODEL	DUTY	WHEEL DIA.	EX VAT	INC VAT
CBG6RP	DIY	150mm	£27.99	£33.59
CBG6RZ	PRO	150mm	£37.99	£45.59
CBG6RSC	HD	150mm	£47.99	£57.59
CBG6SB#	PRO	150mm	£49.98	£59.98
CBG6RWC	HD	150mm	£54.99	£65.99
CBG8W (wet)	HD	150/200mm	£55.99	£67.19

EVOLUTION 255mm MULTI-PURPOSE TABLE SAWS

FURY 5 ONLY £149.98 EX.VAT £179.98 INC.VAT WAS £191.98 inc.VAT

MODEL	MAX DEPTH CUT 45°	MAX DEPTH CUT 90°	TABLE SIZE (mm)	EXC. VAT	INC. VAT
FURY5*	54mm	73mm	625x444	£149.98	£179.98
RAGE5‡	55mm	79mm	868x444	£269.00	£322.80

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

* was £191.98 inc.VAT ‡ was £334.80 inc.VAT

Clarke QUALITY CAST IRON STOVES

20 GREAT STYLES IN STOCK

LARGE & XL MODELS IN STOCK

FLUES, COWLS & ACCESSORIES IN STOCK

POT BELLY

PRICE CUT £89.98 EXC.VAT £107.98 INC.VAT WAS £113.98 inc.VAT

11.8kW

6.9kW

BARREL £209.00 EXC.VAT £250.80 INC.VAT

Clarke CIRCULAR SAWS

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

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

CON185

*Includes laser guide

MODEL	MOTOR	MAX CUT 90/45 (mm)	EXC.VAT	INC.VAT
Clarke CCS185B	1200W	65/44	£34.99	£41.99
Clarke CC52	1300W	60/45	£59.98	£71.98
Clarke CON185*	1600W	60/40	£59.98	£71.98

Clarke HARDWOOD WORKBENCH

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

CHB1500

£129.98 EXC.VAT £155.98 INC.VAT

Clarke 13" MINI WOOD LATHE

£129.98 EX.VAT £155.98 INC.VAT

CWL325V

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

VISIT YOUR LOCAL SUPERSTORE

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

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

OPEN 7 DAYS

4 EASY WAYS TO BUY...

IN-STORE 65 SUPERSTORES

ONLINE www.machinemart.co.uk

MAIL ORDER 0115 956 5555

CLICK & COLLECT

23686RH

Minimum call charges from a BT landline are 5p/min to 0844. Calls from mobiles and other networks may vary.
For security reasons, calls may be monitored. All prices correct at time of going to press. We reserve the right to change products and prices at any time. All offers subject to availability, E&OE.

Clockwise: Clive Bell's study, Clive Bell's bedroom, dining room side table

PHOTOGRAPHS BY PENELOPE FEWSTER, UNLESS OTHERWISE STATED

CHARLESTON

An Artist's Home and Garden

We take a look at Charleston, a Sussex farmhouse which was previously owned and uniquely decorated by artists Vanessa Bell, Duncan Grant and the unconventional Bloomsbury group

Charleston, near Lewes was the home and country meeting place for writers, painters and intellectuals of the Bloomsbury group, from 1916. Charleston is now celebrating 100 years since the group moved in, changing and marking the house as theirs, in their own unique way. At the head of the Bloomsbury group were artists Vanessa Bell and Duncan Grant, who moved to the remote Sussex farmhouse with their unconventional household. The artists decorated the walls, doors and furniture with pieces inspired by Italian fresco painting and the Post-Impressionists, displaying their unique decorative style within a domestic context and representing the fruition of over 60 years of artistic creativity.

They filled the house with textiles, ceramics and works of other artists. Guests to the house would include Vanessa's sister, Virginia Woolf, Roger Fry, Lytton Strachey, T.S. Eliot and E.M. Forster and was also home to Clive Bell and Maynard Keynes. The house became a canvas for the artists to experiment on, displaying their daring and unrestrained approach to art and life. Vanessa Bell and Duncan Grant were pioneers of early 20th-century British art and created a hub of art and intellectual activity. In her own paintings Vanessa particularly liked to paint circles in different colours and combinations, cross hatching and was inspired by the incredibly beautiful garden designed by Roger Fry. Flowers and nature feature prominently in the designs. The couple painted the walls, chairs, bedsteads, tables, ceramics, designed fabrics and tapestries. When painting furniture they didn't properly prepare the surfaces; they weren't interested in longevity. If the paint wore through then another design could be painted on top. The paint style is loose and free and shows that the artists weren't afraid of the paint marks they were making. Everyone who visited Vanessa and Duncan was expected to bring an activity to do, such as painting, reading, etc. so it was a very active atmosphere where productivity and creativity was encouraged. Art was a way of life for the artists of the early 20th century, not just a career choice.

Now, Charleston is considered to be one of the best small museums in the world. The fragile collection and uniquely decorated interiors are protected through careful consideration of limiting the number of visitors each day. This also allows the groups to get the best experience possible. However, as Charleston relies on making money from visitors, these necessarily limited numbers creates a problem with funding. The home and surrounding area receives no statutary government funding, relying on the income it generates across activities, donations and grants kindly provided by supporters. Charleston is an independent charity, which is now looking to rebuild, redesign and refurbish the site to pull in more visitors and enhance the opportunity to learn in a safe and secure environment. Every penny spent at Charleston helps open up the house for more people and to preserve it for future generations. ➤

Left: Studio mirror detail. Right: Studio cabinet. Opposite page: Left, Garden room detail. Right, Dining room fireplace

The house

Charleston is cradled beneath the majestic heights of Firle Beacon. It is a ramshackle ensemble of flint, brick and oak (*Quercus robur*) barns and cowsheds, which were a continual source of artistic inspiration, hence the attraction from the Bloomsbury group. Combining barns, the house and the gardens, the site has previously run smoothly together, but since the 1970s, the modern farm has functioned apart from the house; the Granary has unfortunately been demolished and the barns damaged by fire are now derelict. The house, however, is still presented to look as it did when the family lived there.

The rooms on show form a complete example of the decorative art of the Bloomsbury artists: murals, painted furniture, ceramics, objects from the Omega Workshops, paintings and textiles. The collection includes works by Renoir, Picasso, Derain, Matthew Smith, Sickert, Tomlin and Delacroix.

Charleston was messy, creative and home to bohemians, who were experimenting with different ways of living. Vanessa Bell and Duncan Grant viewed their home as an extension of their lifestyle, so furniture wasn't purely for practical use, it was also a living experiment in creativity and the aesthetic appearance was incredibly important. Charleston shows that painted furniture can be beautiful and it surely must be one of the earliest examples of shabby chic.

The gardens

The walled gardens only add to Charleston's timeless beauty, which were created by the Bloomsbury group to Roger Fry's designs. With Vanessa Bell and Duncan Grant at the helm, together they transformed vegetable plots and hen runs into a quintessential painter's garden, mixing Mediterranean influences with cottage garden planting. In the 1920s, a grid of gravel paths gave structure to beds of plants chosen by Grant and Bell for their intense colour and silver foliage. These became the subject of many still-lifes over their long residence at Charleston.

Part of the garden's sense of luxuriance and surprise comes from the variety of sculpture it contains. Classical forms sit side-by-side with lifesize works by Quentin Bell, mosaic pavements and tile-edged pools. The orchard offers shade from the sun and the pond is a focus for tranquil contemplation. Above all, this was a summer garden for playing and painting, an enchanted retreat from London life. As Vanessa Bell wrote in 1936: "The house seems full of young people in very high spirits, laughing a great deal at their own jokes… lying about in the garden, which is simply a dithering blaze of flowers and butterflies and apples."

The walled garden was later redesigned in a style reminiscent of southern Europe, with mosaics, box hedges, gravel pathways and ponds, but with a touch of Bloomsbury humour in the placing of the statuary.

Omega Workshops

Omega Workshops was set up in 1913 by the artist and art critic Roger Fry. His idea was to create an art workshop/limited company that would employ artists part-time as artisan designers for a small wage. They would create work that would not be sold under their own name, but under the Omega brand – which was a square with the Greek omega letter inside it. The work ranged from furniture,

textiles, tapestries and ceramics inspired by contemporary art. The part-time nature of the workshop enabled artists to have time to create their own work alongside working for Omega. Vanessa Bell and Duncan Grant were friends with Fry and both produced work for the Omega Workshops. The workshop closed in 1919, but Charleston has original examples of Omega chairs designed by Fry in the dining room at Charleston House.

The Charleston Trust

In 1986, the Charleston Trust was founded to restore the house, which has been run ever since as a highly successful museum, attracting over 35,000 visitors a year. Quentin Bell was the Trust's first Chairman, describing his boyhood home as 'a kind of time capsule in which the public can examine a world which has vanished'. That time capsule remains the heart of everything the Trust stands for, but it is under threat unless Quentin Bell's inheritors grasp the necessity of advancing with the times. Charleston cannot afford inertia, either financially or culturally. Today, 27 years since the house opened to the public, the organisation has become partly a victim of its own success. The historic farm buildings are unfortunately falling down; they may be at risk from unsympathetic or unsuitable development unless Charleston takes them on. Galleries are now reluctant to lend exhibits that cannot be shown in a temperature-controlled and secure exhibition space. Portable spaces have to be hired in to meet demand for events.

Charleston has run out of storage space for shop stock, garden and events equipment. The café serving and preparation space is too small to meet the public demand for meals in an out-of-the-way destination and staff are working in cramped and – at times – unhealthy conditions.

The Charleston Centenary Project will provide a sustainable future for redundant and at risk rural agricultural buildings and will protect a section of historic landscape in the South Downs National Park. It will encourage visitors to enjoy and respect the rural environment.

Centenary Project

The Centenary Project will tackle and change the challenges that Charleston faces, creating new facilities, resources and opportunities. Plans include the restored barn and reconstructed granary, designed to make good use of energy efficient technologies. This will minimise future running costs and ensure that the Centenary Project is in keeping with Charleston's ethos of sustainable work practices. The project will be guided by a desire to find environmentally sound solutions that are sympathetic to the heritage of the site and will not alter the historic appearance of the barn or negatively impact on the surrounding countryside.

The buildings will be refurbished using traditional materials, such as green oak and, where possible, building materials will be sourced locally and their 'embedded carbon' will be considered. Although the building project will generate a short-term increase in site waste and traffic, Charleston will consider the BREEAM assessment criteria and adopt a site waste plan to minimise the negative impact of waste produced. The rural environment of the project will be taken into consideration to ensure minimum impact on the biodiversity of the area. With the new development work, new visitors are inevitable, which will increase the volume of traffic but as part of the on-going work, Charleston will continue to work in consultation with East Sussex County Council and the South Downs National Park Authority to promote 'Tourism without Traffic' with Green routes to Charleston already developed.

Charleston now runs a year-round Adult 'what's on' programme which features high quality masterclasses with experts and leading craftspeople. All the workshops include a guided tour of the house to inspire creativity, a gorgeous artisan lunch and small groups that give individuals opportunities for one to one tutor support. Upcoming workshops include gilding and painted furniture. So, if you do get the opportunity to visit Charleston House, we urge you to do so. The house is open until 1 November and there is a host of activities and events going on during this time. See below for further details. ■

Contact details

Where: Charleston, Firle, near Lewes, East Sussex BN8 6LL
Web: www.charleston.org.uk

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

BANDSAW BREAKDOWN – *part 2*

In part 2 of this series, power tool and machine expert **Bob Adsett** takes us through the techniques for setting up and using a bandsaw

SETTING UP THE MACHINE

1 As a rough guide, the larger blades can be run with the teeth nearer the front of the wheels and the narrow blades more to the centre of the wheels, but the instruction book will give the correct positions for individual machines. To put on a new blade or to change an old one, first read the manufacturer's instructions and always ensure to turn off the power or pull out the plug.

2 Release the piece that holds the two halves of the table flush. Next, release the blade guides and move them away from the rear and the sides of the blade. Release the tension on the blade so that it can be easily removed from the wheels.

3 Now slide the blade out of the machine and give the inside of the machine a good clean, making sure there is nothing stuck to the surface of the wheels.


1


2


3

4 Now you are ready to fit the new blade, so very carefully uncoil the blade – it is normally held in a coil by pieces of tape or wire. As you release them, the blade will jump open if not controlled. I usually face the blade into a corner or open space and toss the blade away from me and instantly turn my back on it until it stops twanging around. If you do this, please make sure there is no-one nearby that it can jump on.

5 The blade should now be one loop of steel with the teeth all pointing the correct way, which means that when the blade is in the machine, the teeth should be facing forward and pointing down. If they face up, the blade is inside out and needs to be flipped so that the teeth face down. This needs to be done carefully as you'll find there can be a lot of spring in the blade.

6 Slide the blade through the slot in the table and place it in the correct position on the wheels; this will be in the instructions. Some machines have the blade running to the centre of the wheels, and some with the teeth to the edge. Now adjust the tension control knob or wheel by turning it to raise the top bandwheel. The tension controller will be either at the top of the machine or on the underside of the top half of the machine body. Bring up the tension until you feel a firm resistance.

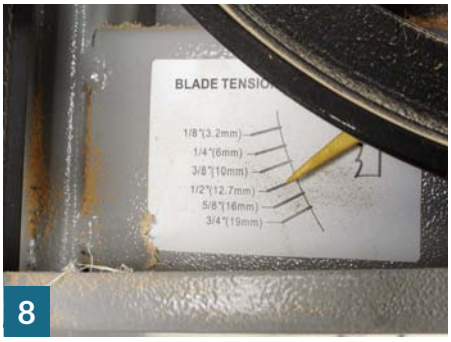
Safety

Wear safety goggles and thick construction gloves or cut-proof gloves when blade changing. Both new and worn bandsaw blades are dangerous to handle.

7 With the power off, now gently rotate the wheel by hand, in the cutting direction, and watch how the blade runs on the wheels. At all times, take care not to let the blade run off the wheels. If the blade starts to run too far to the back on the bottom wheel, then increase the tension a little. If it runs too far forwards, then decrease the tension. You must watch both wheels at all times.

8 Some machines have tension indicators on them – these are spring loaded and will give an indication of what tension to set for which size of blade, but each blade is slightly different in length and will need to be set as such.

9 When the blade runs about right or as near as possible, check the tracking on the top wheel. There is a tracking control either on the back or the top of the machine, but I've seen them on the front of the wheel itself. Unlocking the tracker and gently turning it one way or the other will pitch the wheel forwards or back and make the blade move across the top wheel. Do not make large adjustments or you could throw the blade off the wheels and have to start again. ➤




10

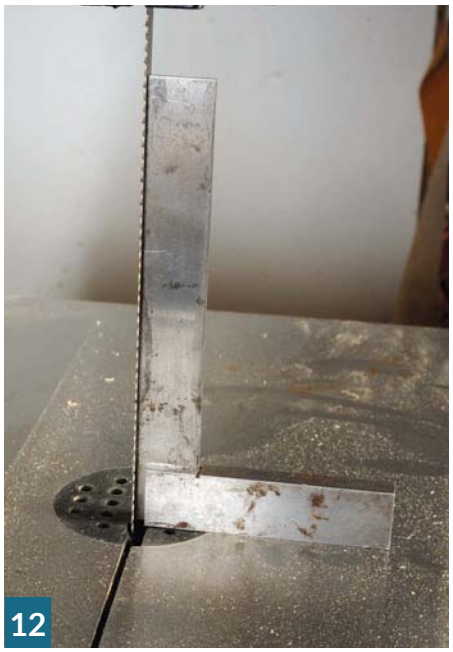
10 As you make the tracking adjustment, this will cause the blade to creep forwards or back on the bottom wheel. If this happens, then simply increase or decrease the tension; this will make the blade on the bottom wheel move to the back or front of the wheel. This process may need to be repeated two or three times to get the blade running correctly on both wheels. I have been asked a number of times over the years how I know if the blade is tensioned correctly. It is very simple: if the tension is right, the blade will run correctly on the bottom wheel and if the blade runs in the correct position on the top wheel, the tracking is correct.

11 The blade should now be dropping straight down the machine and if a square is mounted at the back of the blade, there should be virtually no 'run out' top to bottom.

12 If there is a 'run out' on the side of the blade, then the table is not set true and will need adjusting.

13 Once this is all done, the blade guides can be replaced. The rear blade support should be about 0.5mm – that is half a millimetre behind the blade, both above and below the table. The side guides should be the thickness of a sheet of paper away from the blade on both sides and adjusted so that they sit just behind the teeth. They should not touch as the blade moves back slightly under cutting load. Table locks and fence support bars can now be set in place on the machine and table inserts replaced.


11

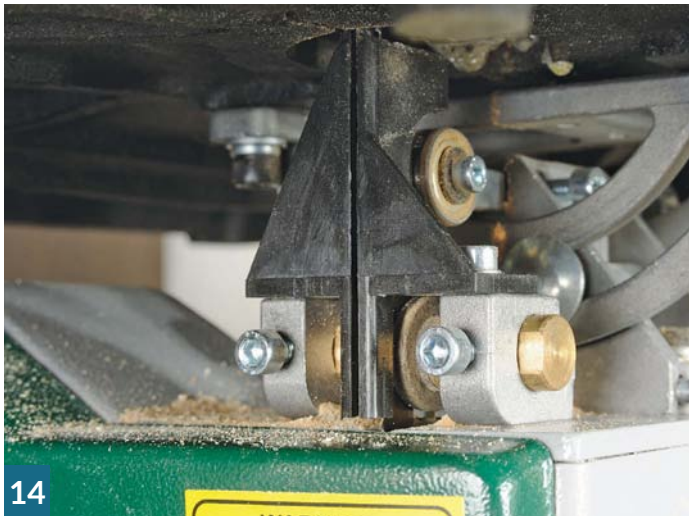

12

14 A similar or simplified arrangement exists underneath the table and needs setting up with similar clearances to the guides above the table.

Dust extraction

15 This is a must as there is a lot of fine dust generated when cutting. All modern machines have a dust outlet point to connect an extractor to and use of this is highly recommended.


13

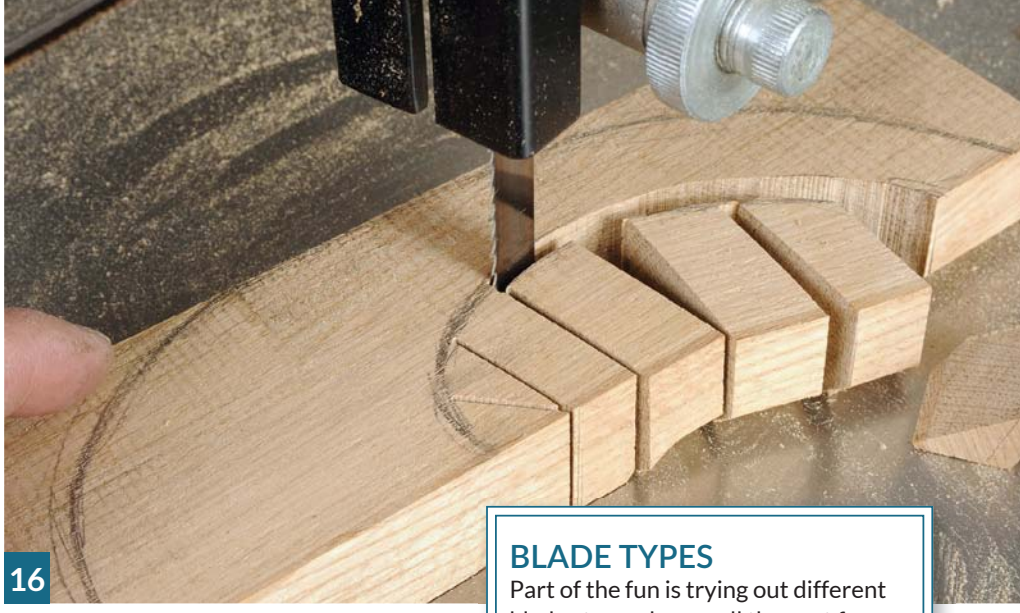

14


15

USING THE MACHINE

As with all machines, standing in a comfortable working position is of importance for both ease of working and safety. Make sure there are no obstacles under foot so that if you need to move about, you will not stumble.

16 Never pull back on the wood as you are cutting; this can pull the blade off the wheels. Make relieving cuts on curved work instead or insert a slim wedge at the start of a straight cut if binding occurs.


16

17 The guides above the table should be set just above the thickness of the workpiece with enough clearance to allow for any variation in the thickness of the wood as it is fed into the saw. If cutting straight, the fence needs to be set to the width required and locked firmly in place.

18 While cutting, all pressure should be on the wood and towards the fence, low down and in front of the blade teeth. This will help to keep the cutting line as true as possible. If pressure is placed too high, it can cause the wood to try and tilt against the fence and if the pressure is past the cutting line of the teeth, the wood can be twisted away from the fence in front of the blade, either of which will result in a bad cut. Maintain a steady forward and slightly diagonal pressure, i.e. from the top right-hand corner to the bottom left-hand corner, if the fence is to the left of the blade, and the opposite if the fence is to the right of the blade. Use a pushstick to protect the hands from accidentally coming into contact with the blade.


17

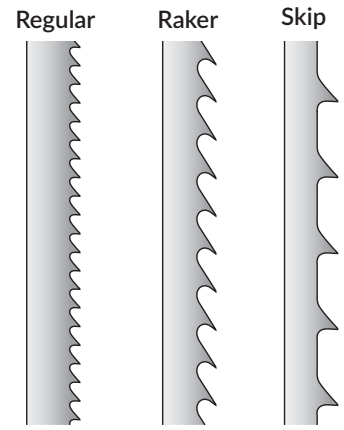
19 Cutting curves needs a different approach as now the work is done freehand to a line or maybe a template. Again, get into a comfortable position so that you can move around if needed. As before, the top guides should be just above the work. At times, you will need to be prepared to move slightly to the side of the machine as you work, but at all times, keep the wood moving forwards as you turn to follow the line. Make sure that the hands are kept well clear of the blade and never in line with the cut. Sometimes, on complex curves, it will be better to be working with the hands to the side or behind the blade. Even complex 3D jigsaw puzzles can be made with the right type of narrow, fine-tooth blade. ■

NEXT MONTH...

Bob Adsett discusses the ins-and-outs of planer/thicknessers

BLADE TYPES

Part of the fun is trying out different blades to see how well they cut for particular tasks. Regular teeth are suitable for thin sheet material so, for instance, a narrow fine-tooth regular blade will cut tight curves, while a wide skip coarse tooth blade will tackle deep ripping – two very different tasks. A good standard is 9-12mm wide skip-tooth with 6TPI – Teeth Per Inch – for tackling most tasks. Bandsaws will cut hands as well as wood if care is not taken – in fact, there are special frozen meat and fish blades available for the food industry and I have used them very successfully on wood over the years. They have a thin kerf and work very well, but the machine must have a stable body frame and be set up perfectly.




18


19

Bob Adsett

Bob started his woodworking career in 1967 in furniture manufacturing before moving into the construction industry. He has worked as a demonstrator and trainer for Kity Machines, helped to market CMT cutters and also helped launch Lamello products.

Ask the *Experts*

This is your chance to challenge our Editors and for them to answer your comments and queries

ANTHONY BAILEY
Editor, *Woodworking Crafts Magazine*

MARK BAKER
Group Editor, GMC woodworking magazines

DEREK JONES
Editor, *Furniture & Cabinetmaking Magazine*

STAR QUESTION

END GRAIN HOLLOWING

I am having trouble when hollowing out end grain. I am making things such as eggcups, goblets and boxes and struggle to remove the timber in the first place let alone getting a nice even shape and finishing it off properly. I mainly use ash (Fraxinus excelsior) *and oak* (Quercus robur) *but occasionally use sycamore* (Acer pseudoplatanus) *and yew* (Taxus baccata). *Any help in trying to solve this would be greatly appreciated.* **Darren Stuart – by email**

Mark replies:

There are a few things I can offer that may well help. In terms of timber, hardwoods are great for such projects, but using close-grained hardwoods like sycamore, maple *(Acer campestre)* and fruitwoods are much easier and less likely to cause problems, such as grain breakout, which is often encountered when using open-grained varieties like ash and oak. The latter are more prone to chipping or breaking out along the open grain structure. Sometimes, yew cuts beautifully and other times it cuts like oak or ash. Yew often has twisted interlocking grain in it, which would make it difficult to cut cleanly. Bear this in mind when using highly figured timbers. Since you are using end grain, you work from the deepest part out to the widest to ensure there is always a longer fibre behind the one being cut to give it support. So if you just push in from the front to the lower part, you are likely to end up with torn grain.

There are two ways to remove the bulk of the waste:

Drill chuck method

One is to use a drill chuck fitted into the tailstock quill loaded with a relevant sized bit. These might be large sawtooth/Forstner bits or smaller drill bits as required. You can then hold the wood being worked in your chuck and drill into the end grain. Remember to remove the bit regularly to clear shavings and dust, and extraction must not be used due to any hot shavings inadvertently getting taken into the collection bags. Ambient extraction is close by but if you can see dust, smoke and steam, then the wood in the very centre is not as dry as the outer section, hence the steam.

Spindle gouge & scraper method

Now, with the toolrest set at a height that allows you to have the spindle gouge horizontal and the tip dead on centre, have the flute pointing at the 10 o'clock position. Push the gouge dead into the centre of the cup, effectively drill in about 10mm, then extract the blade.

Next, with the gouge nose placed in the centre hole 5mm – using the same flute presentation angle as before – pull/ arc the blade across and cut on the lower wing until you reach just shy of the required inner width.

Left: A drill chuck fitted into the tailstock quill loaded with a relevant sized bit

Ensure the spindle gouge is horizontal and the tip dead on centre

Using a scraper to open up and finish the hollow shape

PHOTOGRAPHS BY GMC/ANTHONY BAILEY, UNLESS OTHERWISE STATED

Repeat the previous two processes working ever deeper until you get to almost the required depth. Then, use a suitable shaped scraper for your work to refine the inner section to the shape needed. Remember to start at the lowest section of the internal shape and sweep out to the widest. To minimise catches, set the toolrest higher so the cutting edge is always lower than the handle. After using the scraper, sand to a fine finish.

BILLHOOKS

"I've been reading the July issue of the magazine and found the diverse content very interesting. Gary Marshall's article about billhooks was fascinating but short on detail about sharpening, which I imagine would also apply to other tools, such as axes, froes, mauls, etc. I've got various old tools of this ilk and wondered if it is worth taking some trouble to bring them back to a usable condition?"

Garry Roskoff – by email

Left: A maul, Right: An axe

Anthony replies: Sharpening woodcraft and forestry tools is a wide subject. To get one thing out of the way, a maul is used for splitting wood unlike an axe, which chops. A maul is thick and blunt, as a sharp edge would quickly get demolished, whereas an axe head is designed to cut into wood, not part it by splitting. The billhook with its thin blade needs a sharp edge. New billhooks, which are seldom really well made, can have either two bevels or a one-sided bevel to the right or left hand or you can alter it to single-sided towards the ferrule, for trimming stakes. Old, rather better made billhooks come with whatever bevel has been ground on them. They would have been sharpened on a large, slow turning water bath wheel. A belt sander is a slightly better option but still runs hot, so care is needed. After that a traditional 'cigar' hand stone or an oval one is the best option to hone, but keep it wetted. Aim for sharp rather than polished and remove any burr as you go. Just mind that edge!

DIY – USING PU GLUE

"Having read various things about PU glue, I recently tried some but it was messy and I'm not sure it was right for the job, but it does fill gaps alright! I wanted to fix dado mouldings to an uneven wall and I had to hold it in place with a couple of battens until it set."

Rosemary Weatherley – by email

PU glue is an expansion adhesive and does get quite messy

Anthony replies: PU – polyurethane – is similar to builder's foam in that it is an expansion adhesive and does get quite messy. Disposable gloves are essential as it is very sticky and hard to remove. Any spillage should be protected against and if it does occur, leave it to set and then pick the rigid foam off. As you found out, you need to 'spring' or clamp components into place until expansion has ceased. It isn't the strongest of adhesives but it is good for getting out of trouble when other solutions won't work. Dado mouldings are best fixed using drilled, plugged and screwed holes. If that isn't quite enough then builder's mastic adhesives are a good way to help hold things in place. After that, use decorator's caulking to fill any visible gaps. Much less messy than PU, which is still handy in certain tricky situations.

Things to do in September

Planters

How about making some planters for your spring collection of bulbs? We showed you a useful square design in issue 2. If you want spring colour, then bulbs are typically planted between October and December.

PHOTOGRAPH COURTESY OF WWW.PASTELLANE.CO.UK

Rustic grey washed wooden planters

Turn a dibber

Or how about turning some dibbers to help with the planting out in your planters and the garden ready for a spring display? See Peter Wood's pole-lathe article on page 41. Or you can of course turn 'dry' on a modern woodturning lathe if you prefer to turn with power!

PHOTOGRAPH COURTESY OF WWW.NATURALSIMPLICITY.CO.UK

Hand turned wooden garden dibber

Bird feeder table

These can be made any time of year and food shortages for birds can happen at any time, but winter is particularly hard for them. Designs are numerous and now is a good time to get them ready for the harsher weather. It's possibly also your last chance to make sure exterior woodwork is properly protected before the weather breaks for winter, so protect your garden furniture before it's too late!

PHOTOGRAPH COURTESY OF WWW.COOLWOODWORKINGPLANS.COM

A different design for a bird feeder

Learn To Carve Like A Pro

Flexcut's Beginner Craft Carver Sets have everything you need to get started – carving tools, wood, step-by-step instructions and a how-to DVD. Our 2-blade set features an attractive leaf pattern, while our 3-blade set has a fun cowboy boot project. Each project takes less than two hours to complete. The carving tools in each set are professional grade and made in the USA. The blades are factory-sharpened and ready to use right out of the pack. Interchangeable handles let you change blades easily and quickly.

This Beginner Palm & Knife Set is great for projects such as walking sticks, tableware and small figurines. The set includes our popular Cutting Knife, Detail Knife and top two Palm Tools.

BriMarc TOOLS & MACHINERY

Find out about Flexcut carving tools **www.brimarc.com/flexcut**
Find prices or your nearest stockist **www.brimarc.com/stockists**
or call **0333 240 69 67**

Flexcut® CARVING TOOLS

PLANET

COLT DRILLS

Available from Planet

www.planetplusltd.com

rotur™ specialist woodturning products

UK Distributor

MAXI-CUT FORSTNER CUTTER

M2-HSS LIP & SPUR PROFFESSIONAL DRILLS

HSS-M2 PEN BLANK DRILL DETAIL 5 POINT CUTTING SYSTEM

M2-HSS PEN BLANK DRILL

TWINLAND DRILLS

SOLD THROUGH STOCKIST NETWORK

LONG SERIES BEAM DRILLS

PLANET PLUS LTD - UNIT 3 SPEEDWELL CLOSE, CHANDLER'S FORD, EASTLEIGH, HAMPSHIRE SO53 4BT
TEL: +44(0)23 8026 6444 FAX: +44(0)23 8026 6446 EMAIL: sales@planetplusltd.com

Green Woodworking

PHOTOGRAPHS BY PETER WOOD

Make a garden dibber using a pole-lathe

Green woodworking expert **Peter Wood** shows us just how easy it really is to fashion a garden dibber on the pole-lathe

In this issue, I'd like to take you through, step-by-step, the process of turning a simple item on a pole-lathe. I've chosen a garden dibber as I use this as a starting point for my courses, partly because I've turned literally thousands but also because it's a fun way to familiarise yourself with how the lathe works. In the process, you'll have a chance to master each of the four basic turning tools, a little cleaving and some drawknife work.

Forgive me if I get a little technical in this article but as the pole-lathe is only powered by your energy, correct technique saves a lot of work and makes the process a good experience rather than a struggle.

I like to have everything to hand when working, with a good height chopping block that doubles up as somewhere to put your turning tools within easy reach, a shavehorse and your lathe. Here I'm using a bungee powered lathe. While I prefer to use a springy ash *(Fraxinus excelsior)* sapling, the bungee allows for an easy setup both inside a garage or outside in a garden. ➤

A good garden setup: bungee lathe, high chopping block and simple shavehorse, all within easy reach

What you will need:

- Pole-lathe
- Axe
- Shavehorse
- Vice
- Oil
- Rouging gouge
- Spindle gouge
- Skew chisel
- Cleaver
- Drawknife

1 The first stage is to get your billet onto the lathe. I'll cover cleaving in more detail in a later article but for now, select a straight piece of freshly felled ash, quickly grown, free of knots and relatively straight. As there's no machinery to help the process, choosing an easily worked piece of wood saves time and energy. Save the character wood for later!


1

2 The next step is to place an axe where you want to split the wood to get the right size billet; this may involve cleaving in quarters, sixths or more depending on log size. Always cleave to the size you want – it's tempting to leave yourself extra size in case of mistakes, but this exponentially adds to your workload!


2

3 Once you've split to size, axe the corners away leaving a rough hexagonal shape along the length. Be careful when axing: always cut below your fingers, and if your wrists are hurting or you're getting tired, move onto a different process.


3

4 I like to make small cuts working from the bottom upwards. Once I reach just over halfway up, I'll then trim off these small cuts. Finish one half, then turn the billet over always keeping your fingers above the axe cuts. It doesn't have to be too fine but the closer to size you get with the axe, the less work with the drawknife.


4

5 Once you're happy with your axe work, it's time for the drawknife.


5

6 Sit astride your shavehorse, or if you've no horse, hold the axed billet in a vice. I find the drawknife is the key to speeding the turning on the lathe. If you're accurate in shaping the billet, it's a simple process to centre and rough out your work.


6

7 As you're cutting, pay attention to the overall shape otherwise you could either end up following the potentially curved grain of the wood, resulting in a banana shape, which means more work roughing out. If you favour only part of the billet, it's easy to end up with an oval cylinder, which again adds to the work roughing out.


7

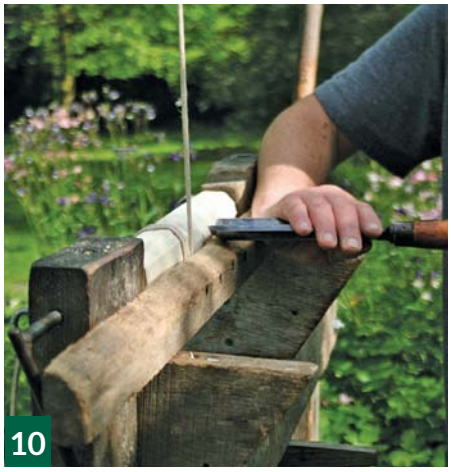
8 Once you're happy with the billet, centre it on the lathe – don't forget to wrap the string around the work – one wrap tends to slip and you lose


8

power so add an extra wrap of string. A little oil on the centres reduces friction and you're ready to go! Here are a couple of common mistakes when starting. The lathe needs to be tight enough to prevent the piece of wood flying off and, more importantly, to stop it rattling as you're turning, but you don't want it so tight that you can't turn the wood, so there needs to be a balance between the two. You need to find a happy medium. Make sure your string is on the right way round – this sounds simple, but wrap it on the wrong way and when you push down, the workpiece turns away from you and therefore generates no power. When you're treadling, make sure you push your foot all the way down and allow it to come all the way back up. If you don't lift your foot up, then you can easily reduce the lathe's efficiency by half or more.


9

9 The hardest part of turning on the lathe is to rough out the wood – removing all the corners created by the axe and drawknife until you're left with a smoothish cylinder. Remember that when you push down on the treadle, the work will turn towards you, enabling you to cut. Then, lift up your foot and the workpiece revolves in the opposite direction. As the workpiece is revolving away from you, take your chisel off the workpiece so it doesn't rub – 12mm will do.


10


11

10 Rest your roughing gouge against the toolrest, one hand holding the very end of the handle for maximum leverage. Your other hand rests on the toolrest while holding the tool near the edge. Make sure you are taking the finest of cuts, with the chisel held so the cutting edge just skims over the top of your workpiece. The chisel should cut, not scrape, and if you take a light cut, it's easy to control. If you try to take too much wood off in one go, the chisel will bounce and dig into the work, thus creating more work. Once you're producing long shavings, start to increase the pushing power from your foot and push harder with the chisel – you'll be amazed how much wood you can remove but wait until you are cutting all around the workpiece before you start increasing the gouge's pressure. You can now use this gouge to create all the shapes you want.

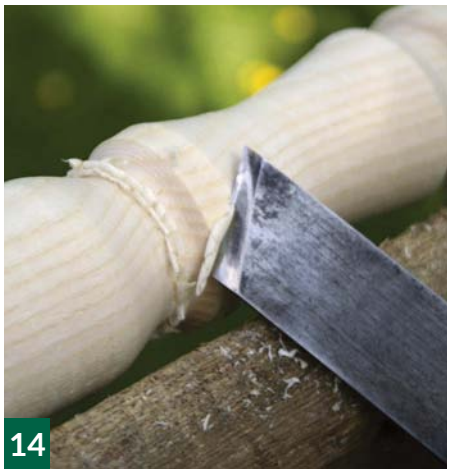

12


13

11 Start by turning the handle, a nice wide and deep curve and round over the end. Remember though: always cut from large to small – that is, work your way down into the hollow. If you cut from large to small – downhill – you get a smooth finish. If you try to cut from small to large – uphill – you rough up the wood. The analogy is stroking fur: one way smoothes and the other roughs up.

12 If you want to make deep narrow grooves or round the end to a better shape, you'll need to use a spindle gouge. The process and theory is the same as the larger gouge but it is easy to catch the corners of the chisel, so angle the corners away from where you are cutting.

13 The next rule is always keep your bevel in contact with the wood. As soon as you lose contact with the bevel, your chisel will dig in so roll the cutting edge as you move through your cut. Think of the spindle gouge as another roughing tool, creating shapes ready to be smoothed by the skew chisel. While you can use the skew chisel to initially shape things, I tend to use the skew to smooth after the shape has been defined by the spindle gouge. Keep the skew at a very low angle. ➤


14


15


16

When starting, it's best to rest the tool on the work without it cutting and slowly raise your 'back' hand until the tool starts cutting. You want the finest of cuts so that you keep control.

14 Use the middle of the blade, avoiding the heel and the toe and smoothing the curves created by the gouge. As you twist the skew, ensure you keep the bevel in contact with the work otherwise the skew will spiral across your work.

15-16 To get a nice crisp bottom of your curve, use either the tip or heel of the skew – be careful, though!

17 That's one end finished, now either turn the workpiece around so the string runs around the handle you've finished, or simply move the string over so you can use the large gouge to taper the pointy end.

Work from large to small and soon you'll have a taper. Use the tip of the skew to make some lines on the dibber – that'll tell you how deep you're planting.

18 Run a wide flat chisel along the taper, which will give you a silky smooth finish. Just make sure your cutting keeps well away from the corners of your chisel. The problem with the flat chisel is that the narrower the cut – hold the chisel at more of an angle for this – the easier it is to control but gives a poor finish. The flatter the chisel is to the work, the wider the cut, the quicker you can work and the finish is improved, but there's a much greater chance of 'digging in'. Some bodgers used flat chisels up to 75mm-wide for greater efficiency, but I'm happy up to 50mm.


17


18


19

19 Hold a handful of shavings on to the wood while turning; this will burnish the dibber giving an almost polished finish. Don't part the waste end off at the moment – leave it on for a few days; this will reduce the chance of splitting when drying. When dry, cut the end off with a saw and pare the end smooth with a sharp chisel.

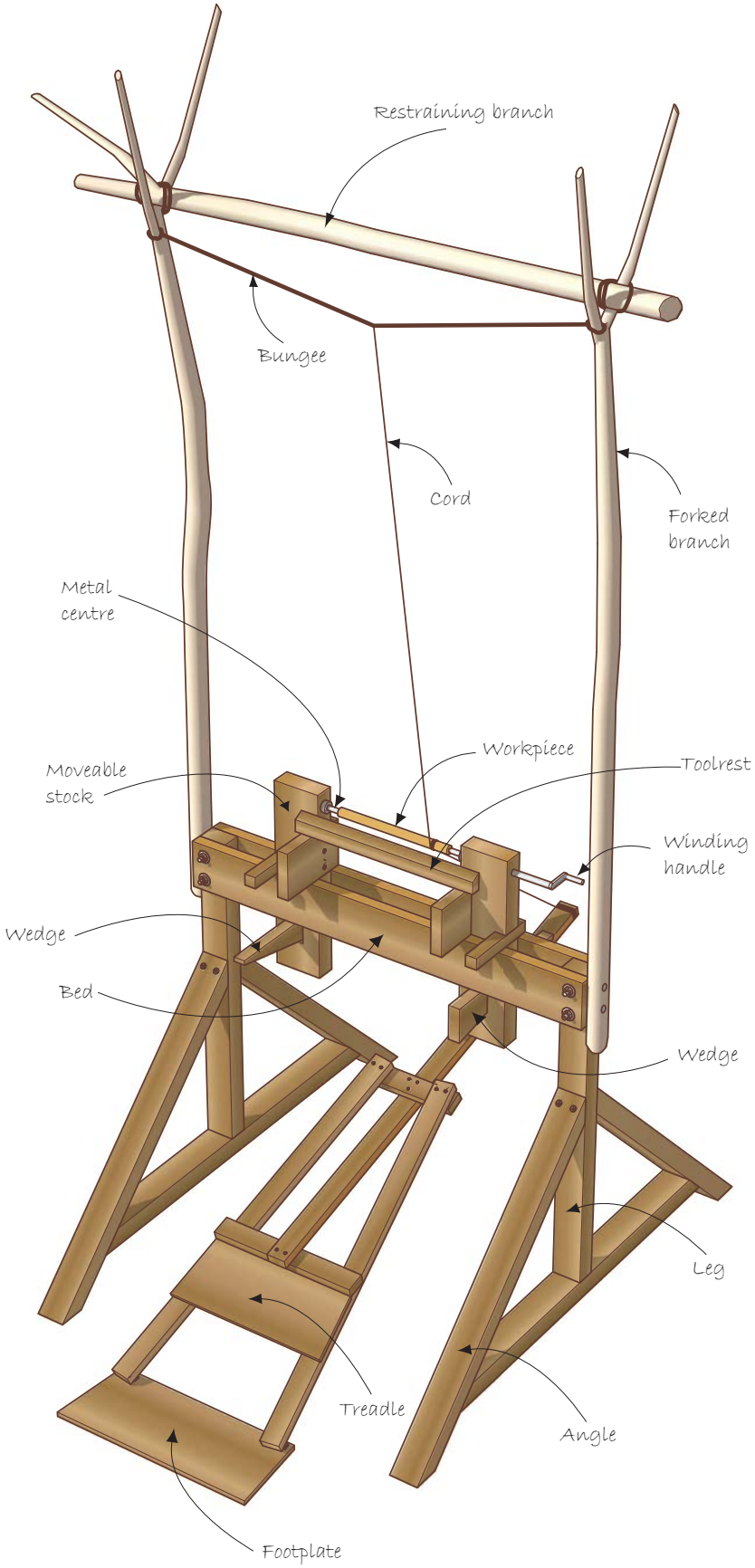
Congratulations! Hopefully you've turned a successful dibber and learnt a lot along the way. Now practise to increase your speed – the average speed for turning a dibber is about three minutes. ■

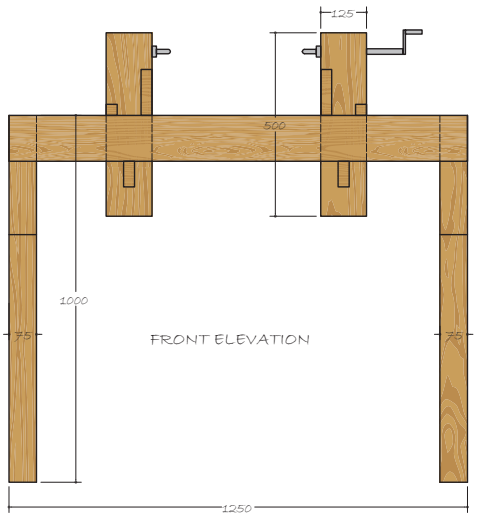
Peter Wood

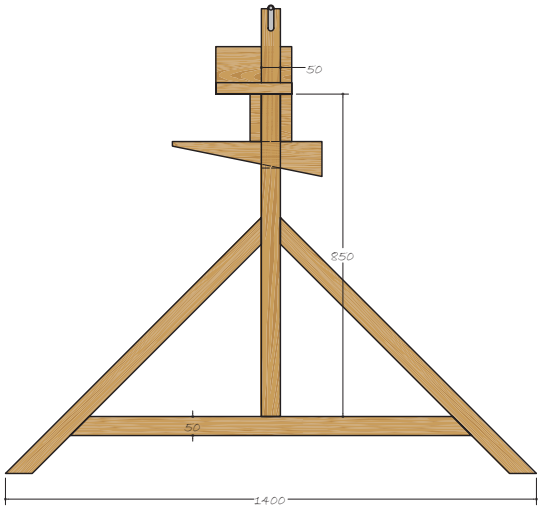
Peter has been a skilled green wood craftsperson making Windsor chairs and other creations for over 25 years. He set up Greenwood Days in the National Forest as a centre to teach a range of traditional and contemporary crafts. He is also the current world champion pole-lathe turner!

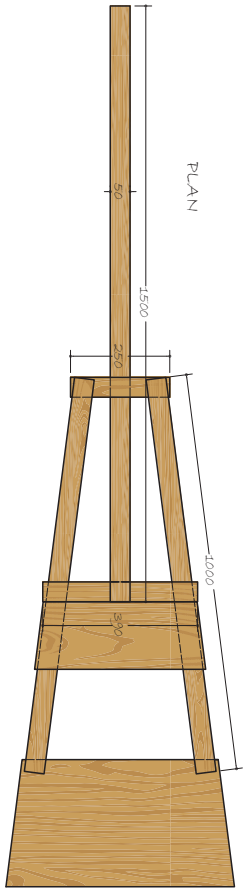
Web: www.greenwooddays.co.uk
Facebook: www.facebook.com/GreenwoodDays

The lathe shown in this article is a version of the pole lathe, which comes in several types. This one is technically a bungee pole lathe as it uses two branches attached to the ends of the lathe with a bungee fixed to them and then by cord down to the treadle mechanism. The treadle is hinged to a board which you place one foot on and the other on the treadle plate. With the cord wrapped around the workpiece on the lathe several times you then press down firmly on the treadle to rotate the workpiece in one direction, when you lift your foot the bungee pulls the cord up and thus rotates the workpiece in the other direction. You can only cut when the workpiece is rotating towards you.









PHOTOGRAPHS COURTESY OF KEVIN LEY

Simple and essential corner storage

Curvaceous cabinet

Kevin Ley makes an oak corner cupboard with curved doors

As more display space was required for my wife's china collection, we decided on a tall cupboard with curved shelves and doors for a corner of the dining room. The top two-thirds were to be display shelving; the bottom third – with doors – for storage.

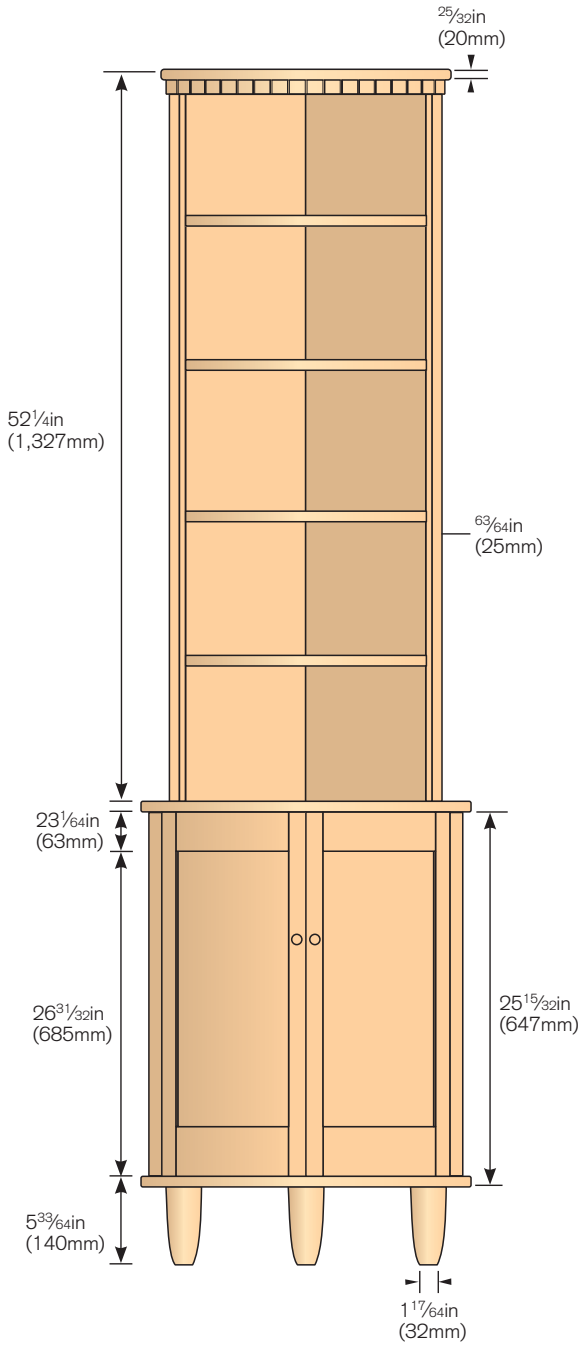
Design

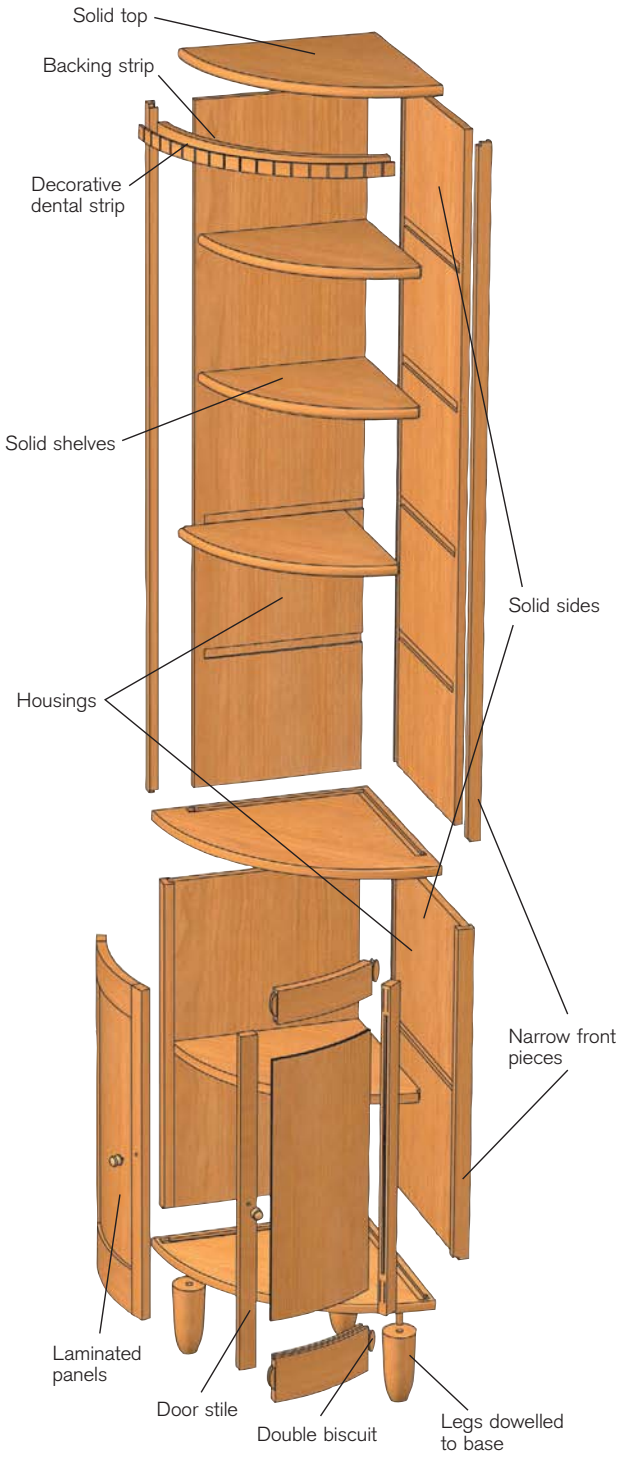
The available space for the cupboard was measured and the display items arranged on areas marked out to represent the shelves; we then worked out the shelf number and spacing. From this basic information we designed a tall, slim, open-top unit on a chunkier bottom unit with doors. The fronts are very narrow to give as large a display as possible; the bottom unit a little deeper and wider than the top unit, giving the unit extra stability. Together with the doors, this also gives sufficient visual weight to balance the height of the top unit. The legs lighten its look and lift the unit to clear the skirting board. The whole unit fully utilises the space available.

Timber

I had some nicely figured brown oak *(Quercus robur)*, with interesting colour variations and most suitable for this piece. It had been in the workshop for some time, stored flat with sticks between the boards. As I keep the workshop as close to end-use conditions as possible, it was well conditioned.

The original cabinet, before the extra height was added





CONSTRUCTION

Cutting out

The sides and fronts would be housed directly into the top allowing a 12mm overhang; the sides fitted into the fronts in 6 × 16mm housings and the left-hand sides fitted to the right-hand sides, at the back, in a further 6 × 16mm housing. The shelves are let in to the sides and fronts also in 6 × 19mm housings. I drew the tops, base and shelves to size on hardboard and cut templates to make the marking and cutting out easier. Next, all four sides and top unit fronts were faced and thicknessed to 16mm, then jointed to width. The tops, base, shelves and bottom unit fronts were faced and thicknessed to 19mm and also jointed to width. Biscuits were used to strengthen the joins and prevent slippage when clamping up. The hardboard templates were also used to mark out the triangular pieces economically, with the grain direction parallel to the line of the front; this would allow for movement across the grain when jointed into the sides. I made sure the best faces of the timber would be on view in the final piece.

Carcass

The sides and shelves were cut to size; the front edges of the shelves are rounded over and the shoulders cut in where they fit into the fronts. The inside edge of the fronts of the top unit were finished nice and squarely and at the base unit to an angle to accept the doors; the tops and bottoms were then shouldered.

The 16 × 6mm housings were cut in the fronts to take the sides and in the right-hand side at the back, to take the left-hand side. The 19 × 6mm housings were then cut in the sides and fronts to take the shelves. All these pieces were sanded to a finish at this point before assembly. Next, the tops and base were cut to size and shape and the housings ➤

for the fronts and sides cut 12mm in from the edge. The top of the base unit also has the housing cut in its top face, to take the top unit sides. The front edges were then rounded over and finished.

Top unit

The top unit is dry-assembled to check the fit of all joints and adjustments made. PVA glue was applied to the housings in the fronts and sides and the fronts, sides and shelves fitted together. To help keep the whole thing true, I dry fitted the top and the top of the base unit, into which it would fit. Clamps were applied from front to back, all was checked for square and then left to set.

After the glue had set, I applied PVA to the top housings, fitted it to the sides and fronts and clamped from top to base. Again, I checked all was square and left it to set. When set, I released the clamps and removed the dry fitted top of the base unit. The same sequence and procedure was used to assemble the base unit, fitting the base at the same time as the top.

Top unit showing the brown oak figure

Legs

The shape of the leg was inspired by a Clarice Cliff coffee mug. The gentle curve reflected the curves on the shelves and doors and lifted the whole piece, physically and visually. They were turned from some 75mm oak, which matched the colour of the oak I was using. A 25mm dowel was formed on the top of the legs and glued into corresponding holes in the base.

Close-up of the base unit

Veneer laminates clamped into position on the former

Decorative strip

A backing strip was fitted to support the decorative strip under the top unit's top. This was marked from the template, cut out on the bandsaw, glued and clamped to the top.

A saw cut 3mm deep was cut every 25mm in a strip of oak 25 × 6mm to leave a series of small raised panels, forming the decorative strip. I marked the first cut and, using a register pencil mark on the fence of the radial arm saw, made the remaining cuts. A similar result could be achieved by hand using a tenon saw with a depth-stop clamped

Door panels

The door panels are laminated from 2mm veneers cut on the bandsaw from 25mm stock and the outside faces of this stock were sanded to a finish. The bandsaw is carefully set up with a 25mm wide, sharp blade and all guides and clearances checked. A supplementary deep fence was screwed to the bandsaw's existing fence and set parallel to the blade. With the finished face against the deep fence, a 2.5mm sheet was cut from each side.

The freshly sawed outside faces of the thick stock were planed and sanded to a finish and two more 2.5mm sheets cut. This process is repeated so I ended up with 6 × 2.5mm sheets, all finished on one side and rough cut on the other all with the grain running longways.

All the veneers were fixed to a 12mm sheet of ply with double-sided tape on the good face and put through the thicknesser, set to 'fine', to thickness and finish the rough-cut face. My original intention had been to make each panel from a three-sheet sandwich with the grain running vertically on the front and back faces and horizontally in the middle. This did not work – the middle sheet would not follow the curve as well as the two outside ones; so I substituted a piece of model maker's 2mm, birch *(Betula pendula)* faced, three-ply – which had been lying around the workshop for years – as the centre sheet. The grain on the two outside faces of this ply ran horizontally but it followed the curve much better, which just proves you should never throw anything away.

To shape the panels, I cut 'formers' from some scrap 38mm chipboard. I selected the four best veneer sheets, bookmatching the two front faces. Together with the ply centre sheet, they were cut 6mm oversize to allow for trimming. The inside faces were liberally coated with Cascamite and the sandwich clamped between the formers. Once set, they were trimmed to size and finished.

Right: Top and bottom formers, used to shape the door panels

to the blade, or a router fitted with a 3mm straight cutter.

The strip was sanded, finished and cut to size, then glued into position. The kerf cuts forming the raised panels allowed the strip to follow the curve of the top.

Door frames

I chose a double biscuit joint for the frames, thus saving an awkward mortise and tenon. The laminated curved panels were glued into the frame all round to give plenty of extra strength.

The stiles were cut to 32 × 22mm – narrow enough to avoid curving them. When in position, the side stiles were hinged to the cabinet fronts and the centre stiles sit together, thus visually doubling their width to 63mm. The top rail was cut to the same depth; the bottom rail to 90mm.

A template was cut for the curve and measurements between the cupboard fronts – effectively the plan view of the doors. From this, the rails were shaped on the bandsaw from the same oak used for the legs. They were cut too thick to allow final shaping and too long, so the ends can be trimmed to the correct angle. The end angle is taken from the template; the ends trimmed to the correct length and finally adjusted with a block plane. I ensured each door is 6mm too wide to allow the edges to be planed to the correct angle, to fit the angled fronts inside edges. The fronts of the frames were then finished with belt and hand sanders. The biscuit slots were cut, referencing from the front of the rails and stiles, to size 10 for the top and size 20 for the bottom. The frames were dry assembled and the size of the panels measured, allowing 6mm to be let in to a slot in the frames.

Base unit showing interior set up

Door frame assembly showing biscuit joints

Assembly

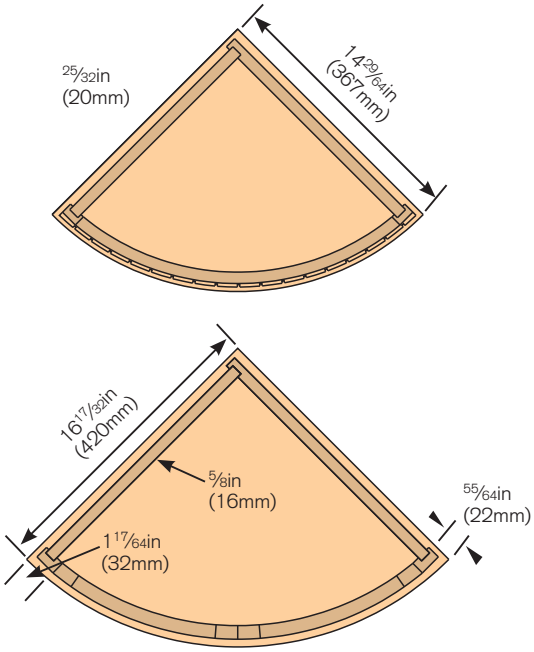
The panels ended up slightly short of 6mm thick, so I cut a 6 × 6mm slot on the inside edges of the frames to accept them. Glue was applied to the slot and all the biscuit joints and the doors are clamped up. Once set, the inside faces of the door frames can be finished.

Fitting

I expected the fitting of the doors to be difficult but once I'd measured the angle on the hinge and opening edge and planed it to fit, all went well. A tribute, I think, to accurate templates. The door pulls were turned on the lathe and dowelled to the door frames. I used full-length piano hinges so there was as little break to the line between the door and the front as possible. Brass double-ball catches were fitted on the tops of the doors; I use them top and bottom when I can, but felt there might be a risk to the china from the internal fitting on the bottom shelf – and I'm not that fond of hospital food!

Finish

Everything was hand-sanded down to 240 grit, checked carefully for marks, glue ooze, etc. and wiped over with white spirit and checked again. The old oiling adage of 'once an hour for a day, once a day for a week, once a week for a month and once a year thereafter' is not far off. The oil was warmed, to aid penetration, and the first coat liberally applied; left to soak in and refreshed hourly until it would take no more. It was then wiped off with a soft cloth – no oil must build up on the surface – and left to harden for 24 hours in my warm workshop.



The surface was cut back with a Scotchbrite grey pad and further light coats applied every 24 hours and cut back with the Scotchbrite pad until the desired effect was achieved. Then a final coat of Danish oil was applied to speed up the hardening process. After a few days, this last coat was cut back and buffed with a soft cloth to a sheen.

Conclusion

The end result was quite different from my original concept. Under the pressure of other work, I resisted the complication of the curved doors but was finally won over. We all need to be jolted out of a rut occasionally – and in this case I'm very pleased I was!

Furniture & Cabinetmaking magazine

This is an extract from *Furniture & Cabinetmaking* magazine. If you're interested in exploring and refining your cabinetry skills further, see our website: www.thegmcgroup.com. ■

Kevin Ley

Commissioned in the RAF Regiment, aged 18, in 1961, Kevin Ley lost an eye and seriously damaged his face in an accident two years later. He retired in 1987 and turned his passion for making in wood into a successful bespoke furniture business.
Web: www.freewebs.com/kevinley

mafell

NEW cordless drills

A10M • A18M - Drill Drivers
ASB18M - Combi Drill with Hammer Action

A lot of punch in a small package – the clever functions make the new Mafell cordless drills versatile all- purpose machines for the internal finishing trade and other applications. Premium battery technology enables you to drill and drive for extremely long periods without interruption. A10M and A18M are Drill Drivers, whereas the ASB18M is a Combi Drill with Hammer Action.

A range of accessories available to maximize the drilling capabilities

Quick-release system for changing bits, chucks and heads in seconds

Battery charge indicator permanently displays its charge.

Outstanding torque range for a wide array of applications

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

NMA AGENCIES LTD

NMATOOLS.CO.UK

Email: info@nmauk.com Tel: 01484 400488

Birds Royd Lane
Brighouse
West Yorkshire
HD6 1LQ

Add a touch of ORANGE to your Systainer collection

Reduced vibration : More powerful : Less operating noise.
The FEIN MultiMaster Systainer Edition - for a limited time only

The all new MultiMaster 350Q has been designed and engineered by FEIN with more than 45 years of experience and know-how.

With 35% more power, 50% less operating noise and the vibration reduced by a staggering 70%.

The new FMM 350Q is truly the best in class and from April, for a limited time only, is available in the popular systainer case with 41 accessories. Check your local FEIN stockists for details.

www.multimaster.info

Technical Features	MultiMaster (FMM 350Q)
Input (W)	350
Oscillations (rpm)	10,000-19,500
Weight according to EPTA (kg)	1,4
Sanding Pad Width (mm)	80
Tool Holder	QuickIN
Amplitude (Degrees)	2 x 1,7

MADE IN GERMANY

3 YEAR FEIN PLUS WARRANTY
INC. LI-ION BATTERIES

Also available in the FEIN Systainer:

FEIN SuperCut Wood Edition

Technical Features	SuperCut 2.0 (FSC2.0Q)	Cordless SuperCut (AFSC)
Power Input (w)	400	-
Power Output (w)	220	-
Voltage (v)	-	18
Battery Capacity (Ah)	-	4Ah
Oscillations (rpm)	11,000 - 18,500	11,000 - 18,500
Amplitude (degree)	4.0	3.4
Cable with Plug (m)	5	-
Gear Box Head Height (mm)	80	80
Weight (kg)	1.45	2.0 (with battery)
Tool Holder	QuickIN	QuickIN

FEIN. Unverwüstliche Elektrowerkzeuge.

www.fein-uk.co.uk FEIN.UnitedKingdom FEIN_UK

French polishing

Louise Biggs take us step-by-step through an essential restorer's technique that is still applicable to furniture finishing today

The origin of French polishing dates back to 17th- and 18th-century France and became a widespread way of finishing from around 1720/1750, more commonly known as the Georgian period. It is not generally used on open grain timbers such as oak *(Quercus robur)*, but is very well suited to close grain timbers such as walnut *(Juglans regia)* and mahogany *(Khaya ivorensis)*. Providing the surface is sound, French polish will create a sealed barrier against moisture and dirt that is pretty resilient if treated with respect. That said, moisture trapped within the wood will cause problems, cold and damp conditions will create a bloom on the polished surface and dust, of course, the greatest enemy, will quickly ruin a surface that's being polished.

One of the greatest benefits is that you do not require any very expensive equipment for French polishing, unlike spray finishes. With the exception of some good quality polishing mops and artist/pencil brushes, once you have the products, most of the equipment consists of wadding and cloths.

What you will need:

- Oil stain
- Shellac sanding sealer
- Plaster of Paris
- Boiled linseed oil
- Pale polish
- Red and black polish
- Earth pigment
- Methylated spirits
- Tinted wax
- Polishing mops
- Fine artist brushes
- Grey skin wadding
- Fine cloth
- Muslin
- Glass containers
- '0000' wire wool
- Soft towelling rag

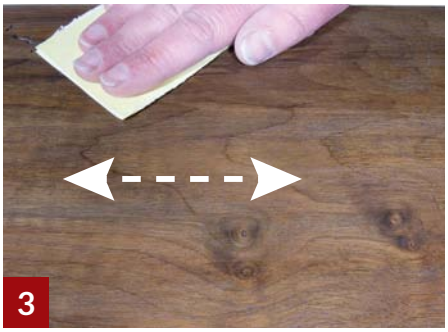
Materials and equipment for French polishing

As with any form of finishing 'practice makes perfect' and there is more than one way of polishing. The best way to improve French polishing skills is to take a prepared piece of timber or even a veneered board offcut and go through the stages. Test pieces give you the opportunity to try the variety of polishes available and to see the different tones they create on alternative timbers.

I learnt many years ago, while still at college, that this quickly highlighted the flaws in my technique but it has also, over the years, given me the chance to try out different techniques and tips from polishers I have met along the way. It is still something I try to do, time permitting, especially when I have read something new as I can go for long periods without polishing, depending on what type of work comes through my workshop. The terminology and stages that follow are the best way I can describe the methods I was taught to French polish but hopefully they will help you on your way.

1 Prepare your timber for polishing down to 240 grit. Using a piece of grey skin wadding, stain the timber with oil stain – you can also mix the stain colours. The wadding, available from polishing suppliers, tends to hold the stain without soaking it up and drying, which allows the stain to be applied easily with an even coverage. Suitable protective gloves should be worn and allow 24 hours to dry.

2 Decant some shellac sealer into a jar and once the stain is dry, apply two coats of sealer using a polishing mop. You don't need to denib before applying either coat of sealer but you need to allow the first coat to dry thoroughly before applying the second.



3 Next, you need to denib the surface using 320 grit abrasive, going across the surface with the grain direction at all times. You also need to be careful and aware of any corners and edges, so as not to cut through the sealer and stain. ➤

Making a French polishing rubber

1. Fold a square of white wadding over to form a triangle sandwich

2. By pulling the sides in to form wings you can see the shape needed

3. Unfold, wrap the cotton over it, refold as in step 2, twist the spare material to tighten the rubber and grip firmly

PHOTOGRAPHS BY LOUISE BIGGS

Denibbing

Between coats, the surface can be denibbed if required using 320 or finer grit paper, which will also flatten the surfaces. Extreme care must be taken not to cut back too heavily or to overwork any single area. Where edges and mouldings are present, be very careful not to cut back aggressively on these edges as you can very quickly cut through the layers of polish.


4


5


6


7


8


9


10

4 To fill the grain, proprietary grain fillers are available but the traditional method is to use plaster of Paris and this is the way I grain fill restoration pieces. Put some plaster of Paris in a suitable container and, using some wet muslin cloth dipped into the plaster, apply into the grain in a tight circular motion until you achieve an even coverage.

5 Leave the plaster of Paris to dry for 24 hours before carefully cutting back with 320 grit abrasive in the direction of the grain; this will allow for the excess plaster to be removed without cutting into the sealed surface and creating a patchy surface.

6 Remove any remaining dust from the plaster with a tack-cloth; this will leave a clean surface with the flecks of plaster within the grain. Tack-cloths are effective as being impregnated with a resin means they collect all the dust without depositing it back onto the surface you're working on.

7 To colour the plaster, wipe over the surface in a circular motion, with a pad of muslin soaked in boiled linseed oil. This is used in preference to raw linseed oil as it has a drier additive, which helps to speed up the drying process.

8 After leaving it for a few moments, remove the excess oil using a piece of cotton cloth wiped with the grain direction. You can then leave the work to dry.

9 Brush the first coat of polish on using a polishing mop.

In this instance, I used pale polish but different coloured polishes can be used to obtain different results, depending on whether the timber is light or dark.

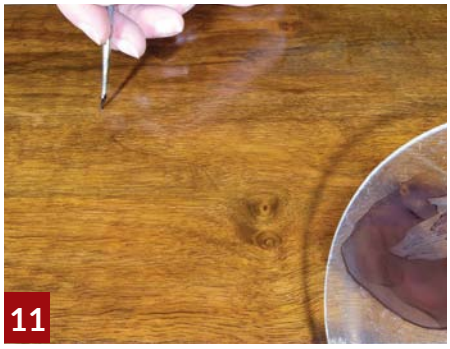
10 The surface I was working on had a small amount of worm damage that had been filled when the surfaces were prepared for polishing. To deal with this, use localised colouring out, which is also referred to as 'picking out', using a fine-tipped artist brush with a blend of red and black polish and a small amount of earth pigment; this will give the mix the yellow tone required.

Suppliers

Liberon
Web: www.liberon.co.uk

Rest Express
Web: www.restexpress.co.uk

W.S. Jenkins Wood Finishes
Web: www.wsjenkins.co.uk



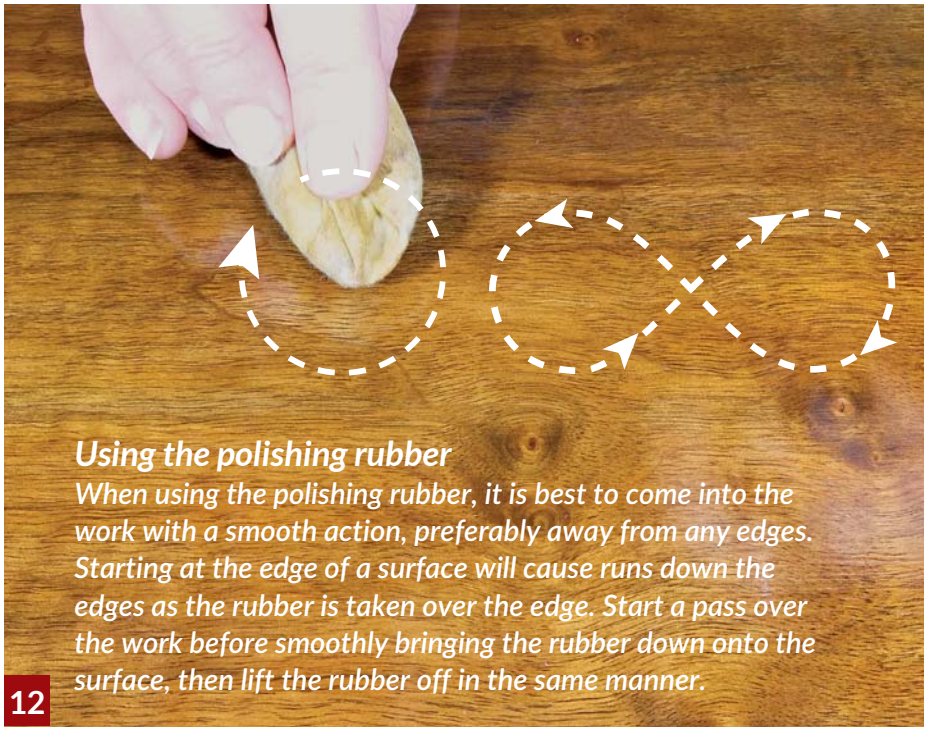
11 Areas where the stain has not taken quite so deeply will also need to be toned into the surrounding areas in the same way. The colour can be mixed on a piece of glass as shown or in a small glass container, depending on how much is required.

12 Once the colouring out has thoroughly dried, body up the surfaces using a polishing rubber – a fine cloth over grey skin wadding – and pale polish. Work the surfaces in a circular motion, although a figure of eight motion can also be used. As the layers of polish are built up, gradually move the rubber round to run in the same direction of the grain until you achieve your desired depth of shine. If desired, white mineral oil can be used at this stage to aid the smooth flow of the rubber and increase the depth of shine a little quicker.

13 Once you have achieved the desired depth of shine, it's time to carry out the 'stiffing' stage. This involves mixing 50% pale polish with 50% methylated spirits, making several passes over the surface with straight strokes in the grain direction. The aim of this stage and the next is to slowly lift any white mineral oil from the surface if you used any.

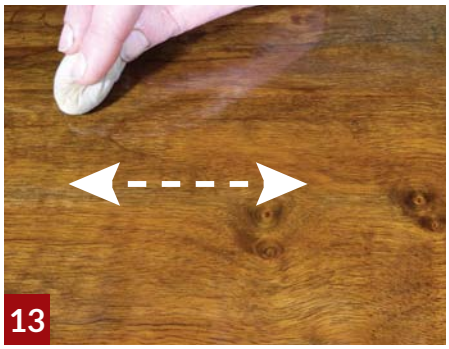
14 You need to carry out the 'spiriting off' stage in the same way with a cleaned-out old polishing rubber, but this time it will be charged with 100% methylated spirits. You must ensure to take care not to cause any lines on the surfaces where the pass across the surface overlaps with the previous one or to have the rubber too wet, as this will lead to burning the polish off the surface. This stage should also lift any remaining oil from the surface.

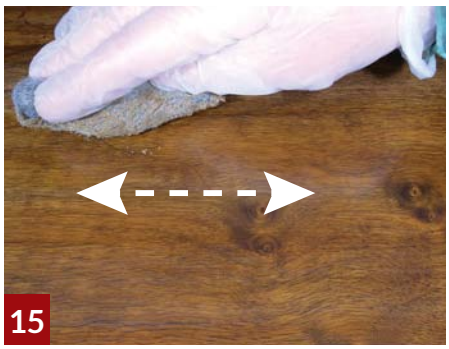
If mineral oil has not been used on the surface, then the stiffing and spiriting off stages are not so critical. I tend to follow through the stages completely regardless of whether I've used oil or not.



Using the polishing rubber

When using the polishing rubber, it is best to come into the work with a smooth action, preferably away from any edges. Starting at the edge of a surface will cause runs down the edges as the rubber is taken over the edge. Start a pass over the work before smoothly bringing the rubber down onto the surface, then lift the rubber off in the same manner.

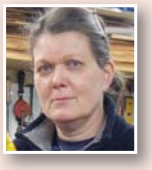




15 Once the surface has hardened off, it must be wired and waxed. I used a tinted wax on a pad of '0000' wire wool, which was taken over the surfaces in straight strokes with the grain with an amount of pressure to slightly cut back the shine.

16 When the wax has dried for 20 minutes or so, you can buff the surfaces up using some soft cotton towelling, still working with the grain.

Louise Biggs



Having completed her City and 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.

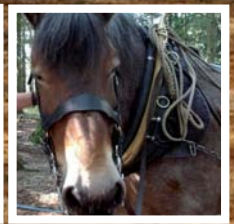
Web: www.anthemion-furniture.co.uk

BENTLEY WOODFAIR

Friday 18th to Sunday 20th September 2015

9.30am — 5pm

- Traditional woodland crafts
- Specialist tools and equipment
- Working horses
- Lumberjack display team
- Archery
- Chainsaw sculpture
- Forestry machinery & equipment
- Falconry
- Wood turning
- Oak timber framing
- Local food and refreshments



www.bentley.org.uk

Bentley Estate Halland East Sussex BN8 5AF

Stock Gaylard

OAK FAIR

Main sponsor
Dike and Son, Stalbridge

SATURDAY & SUNDAY

29th & 30th AUGUST 2015

10am—5pm

Near Sturminster Newton

A great day out for the whole family!

BOOK NOW FOR 10% Discount:
http://www.bradsons.co.uk

www.stockgaylard.com

Write for Us

Writing books about Woodworking

Have you ever thought of writing, or have you written, a book about your passion for woodworking? Do you long to fill the gaps of your existing library?

Then why not contact us with your original idea or fresh approach to your specialist subject? New and inexperienced writers will be given expert advice and guidance by our friendly and professional team.

Write to:
Emma Foster, Publishing Coordinator,
The Guild of Master Craftsman Publications Ltd,
86 High Street, Lewes, East Sussex, UK, BN7 1XN

Telephone: **+44 (0) 1273 477374**
Email: **emmaf@thegmcgroup.com**
Website: **www.thegmcgroup.com**
@GMCbooks

Small space woodworking

The wren *(Troglodytes troglodytes)*, a tiny brown bird with a wonderful song

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Nesting boxes

The Editor told us he had a project that definitely had wings – we just told him to stop flapping about and box clever instead...

Every self-respecting garden needs a bird box and you can make your own quite easily with a few tools. The important thing is to make sure it is right for the birds you want to attract to your garden. The place to go for that information is the RSPB – Royal Society for the Protection of Birds – website – www.rspb.org.uk.

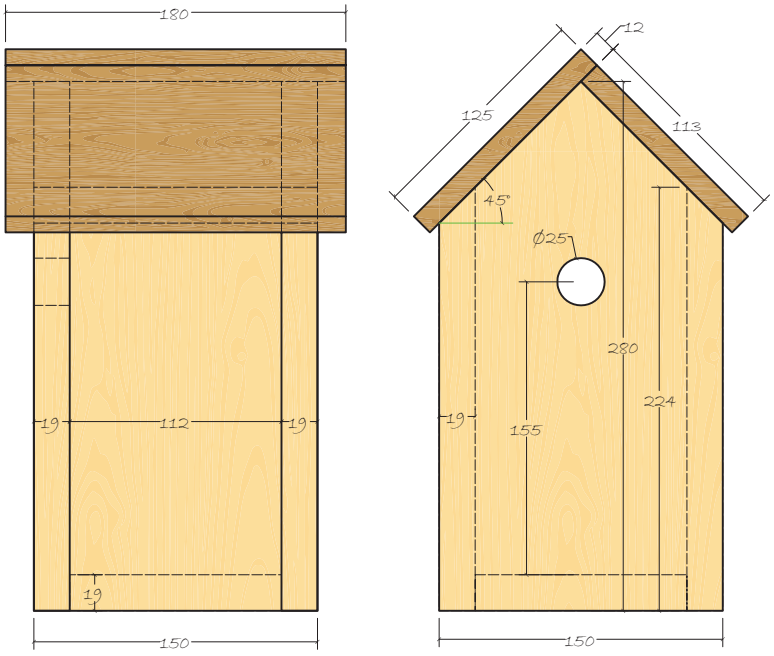
I decided to make two nesting boxes: one for blue, coal or marsh tits with a 25mm diameter hole and a slightly smaller box with an open front for wrens, as we do see them briefly each year flitting through our garden. There are certain specifics you need to observe: the correct hole size, no peg on the front as predators will use it to get at the nest and the hole high enough above the bottom for the same reason. On the RSPB's website, search for 'making a nestbox' for more information.

1 The first step is to mark out the front of the box on some sawn, untreated softwood. The RSPB recommend 15mm-thick board but I used 19mm, which I think is acceptable. I used a ring shape measuring 25mm in diameter to mark the entrance hole. This had to be 125mm minimum above floor level for the safety of the eggs or chicks.

2 Use a sliding bevel to mark out the roof angle, which is about 45°. Use a quick clamp to hold the board on the bench top while hand sawing the roof profile.

1

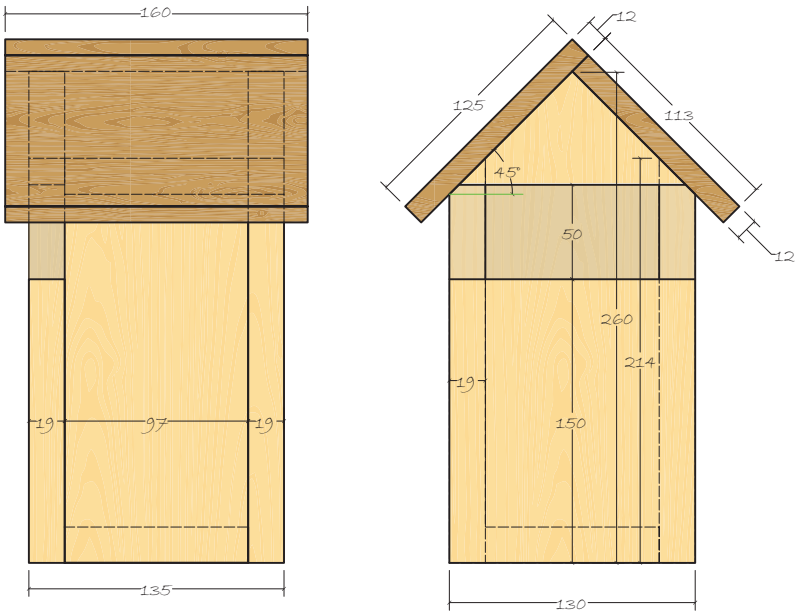
2



SIDE ELEVATION
Scale 1 to 4

FRONT ELEVATION
Scale 1 to 4

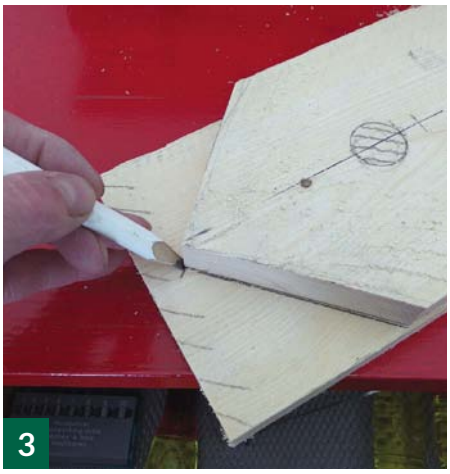
STANDARD BIRD BOX
Roof covering not shown for clarity



SIDE ELEVATION
Scale 1 to 4

FRONT ELEVATION
Scale 1 to 4

WREN BOX
Roof covering not shown for clarity


3


4


5


6

3 Having cut one piece, you can now mark out the back piece using the front one to get it the same size and shape. After that, cut it out in order to give you a matching pair.

4 The entrance hole needs to be drilled using a 'sacrificial board' underneath for the flatbit tip to go into as it breaks through. This also helps to limit the breakout in the back of the board.

5 On the reverse of the front board a series of very shallow saw cuts or kerfs will give fledgling birds something to grip on to when they try to make their first effort at flying.

6 The boards on the sides need to be sawn a bit narrower by the width of the front and back board combined. Clamp the boards to the workbench top for rip sawing 'with the grain' to a marked pencil line. ➤

7 The wren nestbox needs to be a bit smaller – wrens are tiny and they need a ledge to fly from. You don't want the opening to be very big as predators could potentially attack the nest.

8 The boards for the sides have their roof angle marked directly off the front board. Next, mark a line with a set square along the face so there is a complete line to saw along.

9 The front and back boards need to be drilled, countersunk and screwed to the sides. Even setting the screws in from the end won't prevent splitting – as you can see here, the screw head has started to part the wood fibres.

10 Because softwood has a tendency to bow after it has been machined, it may be necessary to pull the last side outwards slightly before screwing it in place.

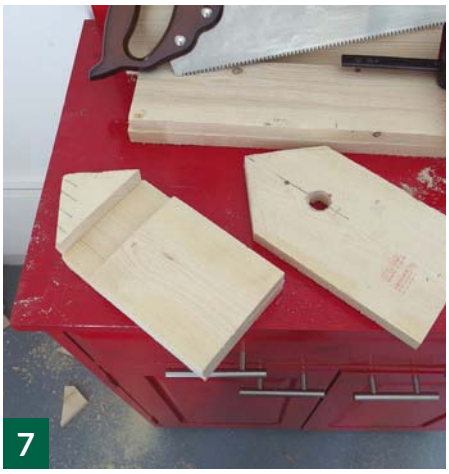
11 The bottom needs to be cut for a nice neat fit; this can only be really accurately done once the basic nest box shape has been put together.

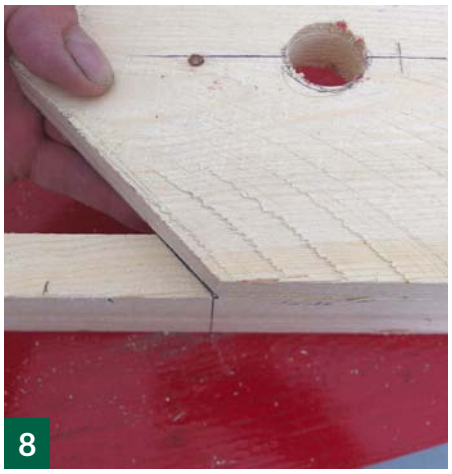
12 If the box is slightly out of square, clamping across the opposing corners will pull it gently back into shape so the bottom can be tapped into place and screwed through the middle of each side.

13 Next, draw lines from corner to corner to position where the drain holes need to be so the nest can stay dry. Since screws are in the middle of each side, they don't conflict with the drilled holes.

14 An alternative is to use galvanised nails to assemble your bird box. I used screws for the wren box and nails for the larger one. To avoid splitting, don't place the nails near the end of the board.

House sparrow (*Passer domesticus*)


7


8


9


10


11


12


13


14

15 The exterior finish must be 'bird safe', i.e. a low VOC – Volatile Organic Compound – water-based finish that can't harm birds or other wildlife.

16 I decided to fix one half of each roof and hinge the other part. For this, standard FE – Far Eastern – ply is tough enough to resist the elements. Once sawn, the edges need planing to smooth them.

17 The wren box may present problems as the triangle piece under the roof front is hard to fix. I used long panel pins and clamped the triangle under the roof before pinning.

18 The simplest hinge is a strip of fabric cut and glued with contact adhesive over the apex of the roof. Next, make a roof covering out of flashing roll, which is used for roof repairs. It is easy to cut and is self-adhesive.

19 The completed bird nesting boxes should look something like these. ■

15


16


17


18


19

Eurasian blue tit *(Cyanistes caeruleus)*

Wren *(Troglodytes troglodytes)*

For the most part, insects and spiders are its food, but in winter, large pupae are taken and some seeds. When this bird is annoyed or excited, its call runs into an emphatic churr, not unlike clockwork running down. Its song is a gushing burst of sweet music, loud and emphatic. It has an enormous voice for its size, 10 times louder, weight for weight, than a cockerel.

Eurasian blue tit *(Cyanistes caeruleus)*

It is estimated by the RSPB that there are 3,535,000 breeding pairs in the UK. The Eurasian blue tit prefers insects and spiders for its diet, but outside the breeding season, they also eat seeds and other vegetable-based foods.

House sparrow *(Passer domesticus)*

The house sparrow is extensively, and usually unsuccessfully, persecuted as an agricultural pest, but they have also been known to have been kept as pets. It feeds mostly on the seeds of grains and weeds, but it is an opportunistic eater and commonly eats insects and many other foods.

Sharpening

1. When you use a chisel or plane for the first time, it needs to be made really sharp. I use a diamond honing plate, which is a really good investment. The back of the blade is flatted on the very 1,000 mesh side of the plate using lapping fluid as the lubricant.

2. Now it is turned over and the honing guide it is fitted in guarantees the correct sharpening angle, which is shown on the side of the guide. A few back and forth strokes should give a good sharp edge to plane with.


1


2

TEXT & BIRD PHOTOGRAPHS COURTESY OF WIKIPEDIA COMMONS

Bespoke handles for chisels

Iain Whittington works on chisel handles for budget tools

PHOTOGRAPHS BY IAIN WHITTINGTON

What you will need:

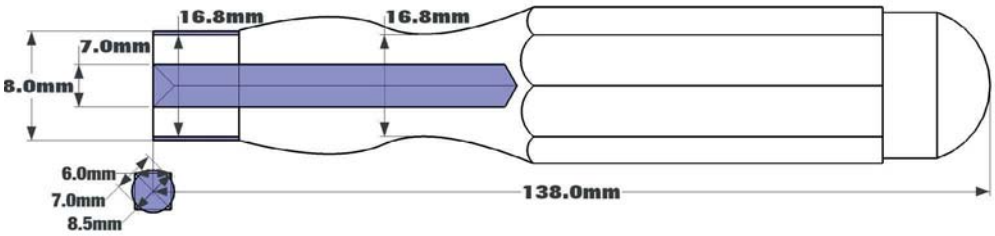
- *Two-part epoxy*
- *Sharp file*
- *Clear French polish*
- *Diamond stones or abrasive paper stuck to a granite tile*
- *7mm drill bit & drill*

I am a great fan of value tools and I am quite happy to try the hand tools in the 'special offers' from the likes of the German budget supermarket chains. Their hand tools tend to be of good quality as the German marketplace is still subjected to more formal quality control than we have become used to in the UK.

As a result, it came as no surprise that the 'Chrom Vanadium-Stahl' chisel sets, a recent seasonal offering, have received very positive reviews on the internet. However, I am less of a fan of middle-Europe's traditional chisel handles. While the FSC wooden handles – complete with steel ferrule and hooped end – make for a sturdy general purpose carpenter's chisel – a better alternative than the ubiquitous plastic handle found in the UK – I would prefer a more refined handle for use at the workbench. To change these very practical handles counts as cosmetic at best, my choice of a rosewood *(Dalbergia latifolia)* handle in the London pattern – one of the ultimate developments of the chisel handle – promotes the project to one of pure vanity. Making a replacement tool handle is not difficult and can be achieved without even a lathe, but having had a look round the internet, I would be hard pressed to source rosewood and shape such a complex handle for the sort of money at which they retail – of course, nothing to do with my own idleness. I was surprised to find that the handles from Dictum Tools in Germany worked out at less than those from the UK even after carriage, so a set of four 18 × 130mm London pattern rosewood handles turned up shortly afterwards in the post. First impressions were good – a high quality, beautifully finished product with a solid chrome-on-brass ferrule, complete with a central guide hole for starting the tang. ➤

Chrom Vanadium-Stahl

German budget supermarkets are offering chisels made from 'Chrom Vanadium- Stahl' – 'CV'. There is a greater use of alloy steels for cutlery and edge tools in 'middle-Europe' than has been the tradition in the UK, where 'high carbon' steel dominated traditional Sheffield production. However, alloy steels such as Chrome-Vanadium – CV – and Chrome Manganese – Cr-Mn – are quite widely used for making chisels in central Europe. These alloys reduce the grain size of the steel and increase tensile strength, but the quality of the end product is mostly down to the heat treatment. In the Far East, there is widespread domestic use of mass-produced laminated steel for edge tools – now nearly extinct outside of a few Scandinavian knife makers. Assuming that German engineering has gone into tool production, then the location of the producing factory perhaps becomes irrelevant?



Dimensions shown are approximate and may vary

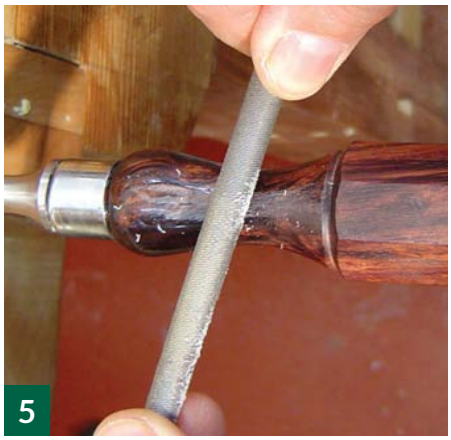
Drilling: *The best way to drill handles is with a tailstock drill on a lathe. Alternatively, clamp an electric drill to the bench and set it to run as slowly as it can and hand-feed the handles.*


1

2

3


4


5


6

1 The original handles were easily knocked free from the unused chisels and recycled to a more appropriate purpose – and the square 6mm tangs exposed.

2 With the convention that you take the average measurement of the tang side and diagonal, but with a fixed set of drill bit, I opted for drilling a 7mm hole, in 0.5mm steps – as I was guiding the handle by hand using the guide hole to keep it true.

3 Unfortunately, the very pretty burl-pattern in one of the handles did not take kindly to having a chisel inserted and opened up slightly along the curly grain.

4 As this was only cosmetic, it was filled with two-part epoxy and left to cure over-night.

5 Epoxy, when cured, can be worked carefully with a sharp file as it files off as a white residue, so you can easily spot when you're back through to the rosewood.

6 Once fine sanded then re-finished with clear French polish, the crack – never structural – was now also invisible.


7


8


9


10

7 As you would expect at this price, the blade finish was rough, but turned out to be flat where it mattered.

8 A set of diamond stones – or abrasive paper stuck to a granite tile – plus a bit of elbow-grease, and a flat polished back edge is possible.

9 The set of chisels costs £7.99 from Lidl/Aldi.

10 The four handles cost £50 making the end product £58 – £14.50 each – for a set of 8, 13, 18 and 24mm with rosewood handles. Now a similar selection of four Narex chisels is only £50.25, so this is clearly only a vanity project, not a carefully costed practical project. However, should you have the 'need' for the style and beauty of a set of London pattern handles in rosewood, this offering from Dictum GmbH ticks all the boxes. They're well-made, beautifully finished and well priced. I did not consider the split in the one handle to be a defect in manufacturing, rather an occupational hazard of using an exotic hardwood.

Having dealt with Dictum GmbH in the past, I am sure that a replacement would have been offered. However, that would have unnecessarily eaten into their profit margins, for a 'fault' that was beyond their control. ■

Waste-not want-not

When I was a lad – in the last century – the fore-runner to modern recycling and the mantra of the older generation was 'waste-not want-not' – a close cousin to 'make-do and mend'. Either way, having given my very durable set of Chinese high-speed-steel chisels a bit of a bashing cutting the joints in the 4 × 4s on the fruit cage last year, the plain oak *(Quercus variabilis)* handles were a lot the worse for wear. Now the very reason that I didn't like the German supermarket chisel handles – their over-engineered construction – actually made them better suited to the purpose of the big Chinese chisels than their native oak handles. After the ferrules had been removed and a bit of conical shaping to the ends had been achieved to match the massive sockets of the big brutes, I have achieved both proverbs at once.

Resources:

1. **Distributor:** www.meister-werkzeuge.de/magento/handwerkzeug/oberflachenbearbeitung/hobel-stechbeitel/4004847722008.html
2. **Review:** www.holzundleim.de/2014/12/erste-gehversuche-mit-chinesischen-stemmeisen/
3. **Tempering explained:** www.narexchisels.com/Narex_Chisels/Narex_Cr-Mn_Steel.html
4. **Dictum GmbH:** www.mehr-als-werkzeug.de/product/701617/Rosewood-Handles-Octagonal-shaped-Design.htm
5. **Tool Nut Ltd:** www.toolnut.co.uk/products/chisels/chisel_handles
6. **Workshop Heaven:** www.workshopheaven.com/tools/Narex_chisels.html

Iain Whittington

Iain Whittington is a retired army engineer who started woodworking as a lifelong hobby under his father's guidance in the family's garage. Retirement was marked by taking on the restoration of a 17th-century Devon longhouse, with associated fittings and furniture, which has provided many opportunities to use his woodworking and restoration skills.

The cordless electric DUC302Z twin 18V chainsaw

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Makita chainsaws

AT A GLANCE

- High spec
- Advanced features
- Wide range
- Service support

PROS AND CONS

Pros:

- Built to last
- Reliable
- Service programme
- Fuel saving

Cons:

- Not cheap

5 STAR RATING

Versatility ★★★★★
Performance ★★★★★
Ease of use ★★★★★

CONTACT DETAILS

Contact: Makita
Tel: 01908 211678
Web: www.makitauk.com

Gearing up for some serious chainsaw work? Then look no further than the Makita range

Makita currently has three corded and two cordless electric models and 15 petrol models, plus a pole chainsaw for branch lopping. Let's take a look at several in the current extensive range.

Cordless electric DUC302Z twin 18V chainsaw

This 36V – twin 18V battery – is shockingly good. Its rate of attack and instant switch/brake action makes it a great site companion where firing up a bigger machine or working at height is a weight and size issue. The innovation of incorporating two 18V batteries with their universal Makita tool compatibility coupled with the extra power so derived makes it a handy adjunct to an existing setup. Its working time on charge is determined by the battery holding the least charge to protect the cells. Like the other electric models, it features automatic chain oiling and tool-less blade changing.

Petrol models

The impressive petrol range comes with various features depending on the model, such as M2M vibration damping, Easy Start – does exactly what it says – catalytic converter, Scavenging Loss Rejection (SLR) or Stratified Air Scavenging and all models are two stroke from 22cc right up to 90cc, while the pole chainsaw has a 25.4cc four stroke engine. Bar lengths vary according to model with several accepting an alternative length of chain bar.

The three petrol models tested

Verdict

We looked at three comparable machines in the range but there are plenty more to choose from. These chainsaws are as good as the 'known' best on the market; they give reliable performance and the superior engineering and fuel economy features on certain models mean lower running costs over the machine's lifetime, backed up by a heavily bolstered service programme to support users. ■

TECH SPEC EA5000P45D 50cc chainsaw

Engine type: two-stroke
Displacement: 50cc
Horsepower: 3.75hp
Bar length: 45cm
Chain pitch: 0.325in, 0.058in
Fuel tank capacity: 0.47 litres
Weight: 5.4kg
RRP inc VAT: £637.20

EA6100P45D 61cc chainsaw

Engine type: two-stroke
Displacement: 61cc
Horsepower: 4.5hp
Bar length: 45cm
Chain pitch: 0.325in, 0.058in
Fuel tank capacity: 0.8 litres
Oil tank capacity: 0.48 litres
Weight: 6kg
RRP inc VAT: £622.80

EA7900P45E 79cc chainsaw

Engine type: two-stroke
Displacement: 78.5cc
Horsepower: 5.7hp
Bar length: 45cm
Chain pitch: 3/8in, 0.058in
Fuel tank capacity: 0.75 litres
Weight: 6.6kg
RRP inc VAT: £754.80

DUC302Z twin 18V chainsaw

Max output: 800W
Bar length: 300mm sprocket type
Chain pitch: 3/8in, 0.043in gauge
Chain speed: 8.3m/sec
Weight: 4.7kg
RRP inc VAT: £246

Triton 20V drills & impact driver

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

According to the Editor, the future's orange and here's his chance to prove it!

A few years ago, I suspect along with plenty of other people, I wasn't convinced that Triton was a true professional brand, but with the additional powerful tools, that has changed. One of the recent additions is the muscular looking 20V li-ion range, which includes the three shown here: T20CH combi hammer, T20ID impact driver and T20DD drill driver.

The range

These additions have the latest Triton styling with rubber overmould on grip surfaces, including the back ends. They share a commonality of components and cover the range of applications most wanted by professionals. Each one has a snap-on, snap-off battery fitment and a belt clip. The speed range of both is identical where the impact driver has its own impact rate. All come with LED worklights and are supplied with two batteries, charger and come in a workbag with hook-and-loop fitments to secure the kit in the bags, which have extra pockets too.

Verdict

Does it have to be 20V? I think this is more of a marketing ploy but the tools by themselves are seductively macho kit anyway. The motors are brush not brushless, as evidenced by the sparking and slight graphite smell when you let go of the switch trigger. The torque setting rings turn with enough click-stopped resistance. The drill chucks, in common with most other makes of cordless chuck, don't centrate perfectly when rotating. The 4Ah batteries aren't touted as having special cool running unlike some brands, but one must assume they should perform decently under normal working conditions. In the short time I've had to try them out, I liked the look and feel of them and there certainly is plenty of power on tap. Price-wise, they are 'OK' but not giveaway prices as Triton is obviously convinced they have serious kit on their hands that deserves respect, and price per volt, it quite reasonably reflects that. There is also a twin-pack, which is worth considering. ■

PROS & CONS

Pros:
- Powerful
- Robust
- Good quality
- Li-ion batteries

Cons:
- Heavy

5 STAR RATING

Versatility ★★★★
Performance ★★★★
Ease of use ★★★★

CONTACT DETAILS

Contact: Triton Tools
Web: www.tritontools.com

TECH SPEC

T20DD drill driver

No load speed: 0-450/0-1,600rpm two-speed gear
Torque settings: 19+ Drilling
Max torque: 30Nm
Chuck capacity: 1.5-13mm keyless
Drilling capacity: 26mm wood; 13mm steel
Weight: 1.5kg
Standard accessories: charger – 1hr for 4AH battery/30mins for 2Ah battery – spare battery and workbag
RRP inc VAT: £218.03

T20CH combi hammer

No load speed: 0-450/0-1,600rpm two-speed gear
Torque settings:16+ Drilling and hammer drilling
Impact frequency: 7,200-25,600ipm
Max torque: 48Nm
Chuck capacity: 1.5-13mm keyless
Drilling capacity: 26mm wood;13mm steel;10mm masonry
Weight: 1.9kg
Standard accessories: charger – 1hr for 4AH battery/30mins for 2Ah battery – spare battery and workbag
RRP inc VAT: £223.98

T20ID impact driver

No load speed: 0-2,400rpm
Impact frequency: 3,300ipm
Max torque: 1 60Nm
Drive capacity: 1/4in/6.35mm
Weight: 1.59kg
Standard accessories: charger – 1hr for 4AH battery/30mins for 2Ah battery – spare battery and workbag
RRP inc VAT: £229.62

Twin-packs

Combi hammer & impact driver twin-pack T20TP01 – with 2.0Ah batteries: RRP inc VAT: £235.72
Combi hammer & impact driver T20TP02 – with 4.0Ah batteries: RRP inc VAT: £297.94

The three main tools in the range

Precisa 6.0 / 6.0 VR / 4.0 - Professional Precision Sawbenches

Designed in Germany - Manufactured in Germany - Proven in Germany

No other classic circular sawbench comes close when compared to the Scheppach Precisa 6.0. This ultimate circular sawbench boasts a massive solid cast iron table: accuracy to within 1/10th mm: 110 mm depth of cut on solid timbers: up to 1100 mm cutting width and 1400 mm length of cutting stroke with appropriate optional attachments. An adjustable 8-15 mm grooving cutterhead and pre-scoring with integral motor unit is also available on request. Scheppach Precisa Series circular sawbenches are simply the best investment you can make in a classic circular sawbench if quality, precision and performance are included in your priority list. Why would you even consider compromising?

Precisa 6.0
c/w optional Sliding Table Carriage
& Table Width Extension
Professional Series

Deutsche Qualitätsprodukte seit 1927

Optional 8-15mm adjustable grooving cutter. (PRO-DUO twin guard assa required for grooving. Part no. 5460 1100).

2 separate hand wheels for precise height & angle settings.

Micro fence setting scale to within 1/10th mm calibrations.

Optional pre-scoring unit with integral motor. Precisa 6.0 VR model only. Cannot be retro-fitted.

Upgrade to sliding table carriage with articulated arm. Add £295.00 if ordered with the machine.

What they say:

"I looked at a number of other machines & seriously considered a ** which was £1000.00 cheaper but which is made in China. After considering all the quality & performance issues I chose the Precisa 6.0 & can assure you it is one of the best decisions I have ever made. It is worth every extra penny - and I mean that!"

Mr AC. Wilts.

***** Well known respected British brand name quoted but withheld by NMA.***

Precisa 4.0 - P-2
Professional Series

Precisa 3.0 - P-1
Workshop Series

Model	Product Group Series	Specification includes (as per quoted price)	HP 240v / 415v	Depth of cut & Length of stroke	Price Exc VAT Plus Carriage	Price Inc VAT Plus Carriage
Precisa 3.0 P-1	Workshop	Inc STC + TWE + TLE (see below for explanation)	3.5 / N/A	90 mm x 1400 mm	£1207.50	£1449.00
Precisa 4.0 P-1	Professional	Inc 1.4m STC + TLE (ditto)	3.5 / 5.2	87 mm x 800 mm	£1775.00	£2130.00
Precisa 4.0 P-2	Professional	Inc 1.4m STC + TWE + TLE (ditto)	3.5 / 5.2	87 mm x 800 mm	£1980.00	£2376.00
Precisa 6.0 P-1	Professional	Inc 2m STC + TLE (ditto)	4.0 / 6.5	110 mm x 1400 mm	£2416.67	£2900.00
Precisa 6.0 P-2	Professional	Inc 2m STC + TWE + TLE (ditto)	4.0 / 6.5	110 mm x 1400 mm	£2590.00	£3108.00
Precisa 6.0 VR P-1	Professional	Inc 2m STC + TWE + TLE + scrorer (ditto)	4.0 / 6.5 + HP scorer	110 mm x 1400 mm	£2890.00	£3468.00

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

Scheppach Precisa 3.0 is designed by scheppach in Germany but made in China where scheppach resident engineers oversee manufacturing quality control. Precisa 3.0 has the same warranty as Professional Series. Scheppach machines have been sold and serviced in the UK by NMA since 1972. Go to nmatools.co.uk and see what users say about NMA unprecedented service.

NMA AGENCIES LTD
www.nmatools.co.uk
Birds Royd Lane, Brighouse, West Yorkshire, HD6 1LQ
Phone: 01484 400 488
Email: sales@nmauk.com

Lisa's rippled sycamore chair back

PHOTOGRAPHS BY PETER SEFTON

Assembly of the two matched curves on Kevan's leg frames

Insight

Laminating

Peter Sefton takes us through the lamination processes used for three of his students' projects

The wavy shelves ready for holding wine bottles

When most people think about curved work in furniture making, their first thoughts are of steam-bent components – the practice widely used by the chair bodgers of the Chilterns and still the best way of bending green timbers for Windsor chair making. But in most furniture-making workshops, including my own, laminating to form curves is the preferred method – engineering with wood.

The method involves gluing together sheets of veneer, thin strips of solid timber, flexible plywood or thin MDF, or a combination of the above.

MDF formers to produce Oscar's shelves

Three of this year's full-time students have used veneer laminating within their masterpiece projects. Lisa has used 1mm-thick ripple sycamore *(Acer pseudoplatanus)* to form a bookmatched pair of back slats for a brown oak *(Quercus robur)* chair – 15 layers, all glued together on a single former used in the vacuum bag – see main photo, top left.

Credenza formers

Oscar is making a wine storage credenza and we decided to form the curved shelves between a pair of matched male and female formers to go in our Platen veneer press. The shelves were made up of 14 leaves of 0.6mm consecutive veneer to produce shelves finishing 200mm wide and 390mm long – see photo below left.

Crossover under framing

The third project was a crossover under framing for Kevan's dining table. This was made from quartersawn American black walnut *(Juglans nigra)*, 1.5mm thick constructional veneers, producing two interlocking curves shaped to match each other's internal and external radii, to later form a flowing leg construction. The shapes were glued with sash cramps, so although three different cramping methods were used in these projects, we also had some commonality. MDF cores were used to produce the formers and Urea Formaldehyde – Cascamite – glues were used as the adhesive. MDF is cheap and easy to shape and UF glues hold their shape when cured. PVA glues tend to creep and epoxy glues, although very good, are expensive and possibly overkill for internal furniture work. ■

Peter Sefton

Peter Sefton is a well-known furniture maker who runs courses in fine woodworking, teaching and mentoring students at the Peter Sefton Furniture School. He also owns Wood Workers Workshop and he is a Liveryman of the Worshipful Company of Furniture Makers.
Web: www.peterseftonfurnitureschool.com

Hints, Tips & Jigs

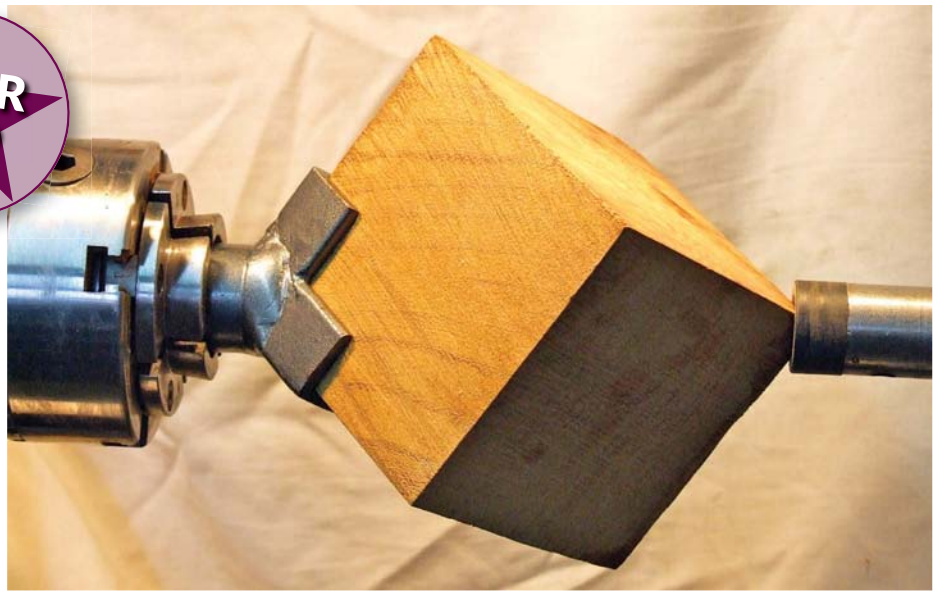
Your chance to pass on all your crafty hints, tips and jigs to the readers and maybe even win a prize!

DRIVING DOG

STAR TIP

About two years ago, we had a demonstrator come to our club to show us how to turn a three-cornered bowl. He cut the point off the cube of wood, then had to find the centre again to put his steb centre in. I thought this was a bit harder than it looked, so I decided to make a 'driving dog' to enable me to do this. Being an engineer and having my own metal turning lathe and welding set, I took a piece of round bar measuring 35mm diameter × 30mm long and drilled a hole through it to take a piece of 11mm square bar 80mm long, then welded it in. Next, I put it in the metal lathe and bored a 54.7° tapered hole into the bar, which is the angle of the wood to the chuck jaws when placed between centres. I then took my cube of wood and put it into the tapered hole and brought up the tailstock with a hollow revolving centre in to hold the cube in the correct position. I then cut three pieces of 20mm angle iron measuring 70mm long and drilled a hole through the centre of the angle iron 20mm from the end and placed it on one corner of the cube. I marked the angle iron to match the bored angle and then did the same with the other two pieces. I could then screw them to the cube to hold them in the correct position, before welding them in place. Next, I removed the cube and let them cool down before cutting them down to 50mm long, which helped me to remove the screw holes. I just had to apply a quick coat of paint and it was then ready to use.

Phillip Jakeman



PHOTOGRAPH BY PHILLIP JAKEMAN

Phillip's driving dog allows him to grip a cube of wood between centres

Scarf joints

I wanted to repair some rotted fence posts but I had one or two spares, so I tried cutting scarf joints to replace the bottom of the rotted posts. Using a sliding bevel and a try square, it was relatively easy to get a good fit using a hard-point handsaw to make the cuts. However, the mating surfaces weren't a perfect fit and I didn't think screws were going to be enough on their own. I tried PU – polyurethane – glue, which expands and sticks most things together, even if they are damp. It worked really well and it's dead easy chiselling the hardened foam off later. It also saves money and wasting new wood!

Roger Phillimore

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Above: Marking out the scarf
Below: Drilled, glued and screwed

Sharpening gouges

There have been many articles submitted by esteemed woodcarvers over the years about sharpening chisels. Unless you are good at maintaining a hand-held angle or can afford one of the many expensive sharpening systems, what do we do? That was a question many of the newer members of our guild asked me, along with the odd one or two older members, so I set my mind to it. Some purists may recoil, but here is a solution I came up with for sharpening gouges. The main problem is how to maintain a consistent angle and not end up with many angles and a rolled over back to the chisel.

As usual, the answer came to me in the early hours of the morning; this also gave me a chance to use my trigonometry skills that we all learnt in school but couldn't see a use for. To get an angle of 20°, you would need to hold the chisel at a point 58mm along the blade at a height of 20mm. Using this information, I set about making up a simple sharpening system. Using two pieces of hardwood, a base and the upright, which needs to stand 20mm about the level of the base, they were screwed and glued together, before I rounded over the top edge.

I then needed to find a way to hold the chisel at the right length other than by hand. I found a carving tool jig made by Triton that suited my purposes, but I am sure there may be others available. For the more practically minded, you could make one yourself out of aluminium or brass bar.

My first attempt at sharpening didn't go quite right. After measuring up again, I realised that I needed to add on half the thickness of the upright. With this in mind, I made two cutouts on the edge of the baseboard so that I could set up the blade length. I then used four furniture stops for feet and two large bulldog clips to hold the strips of wet and dry used in the sharpening operation. With a large range of grit sizes available, up to 2,000, it does the job well.

Holding the chisel with the stop against the upright then allows you to roll the chisel at a consistent angle along the wet and dry. When a burr is formed on the inner edge, use a rounded strop to remove it. This system could be easily adapted to accommodate a stone or diamond plate as long as you maintain the height of the upright to the base to 20mm.

I have demonstrated the system to other members of the guild and after they tried it out, I made a number of them for our members. The total cost including the jig is less than £20.

George Palmer

PHOTOGRAPHS BY GEORGE PALMER

The completed sharpening jig with angle setting recess

The all important clamp

This jig presents an easy, predictable way to sharpen your gouges

New Magic Gripper Door Clamp

Pro Version With Dial Adjustment

Pro-Fit Innovations

This patented but simple effective British invention as proven to be a real second pair of hands, it uses gravity and the weight of the product to clamp securely.
This brand new version with its new body shape the Magic Gripper Pro is stronger and more stable, and with its anti rock square feet makes them easier to control.
Once the Magic Gripper Pro is adjusted to fit the product with no slop its ready to work the jaws will be in the open position until the the door or product is placed into the jaws. The jaws will automatically close to grip the product tight, more the weight more they grip. To remove your door or product simply lift and the jaws will automatically open and will stay in the open position until you place the product back into the jaws.

Magic Gripper

Specification

- Dial adjustable to approximately 15-54 mm.
- New bigger, stronger body shape.
- New square feet for more stability.
- Gives excellent support for easy door preparation.
- Automatic release for ease of use by lifting out material used.
- Strong steel/stainless steel material. Black composite material.

Quick Uses

- Plaining doors.
- Easily insert hinges, latches etc.
- Creating static benches and mobile benches.
- Use to display product such as door samples.
- Many more uses.

Pro-fit Pro Lock Essentials Range

The multi use concealed locking system

ProLock

ProLock Compact

FillerLock

The Pro Lock essentials range is a multi use concealed locking system for panels, plinths and fillers that creates a professional, expert finish to every kitchen, Bathroom, Bedroom and flat pack installations.

- Quick and easy to install.
- Concealed fixing system no unsightly screws.
- Multi use applications.
- Strong construction.
- Can be removable or fixed.

The essentials range can be used on a wide range of applications.

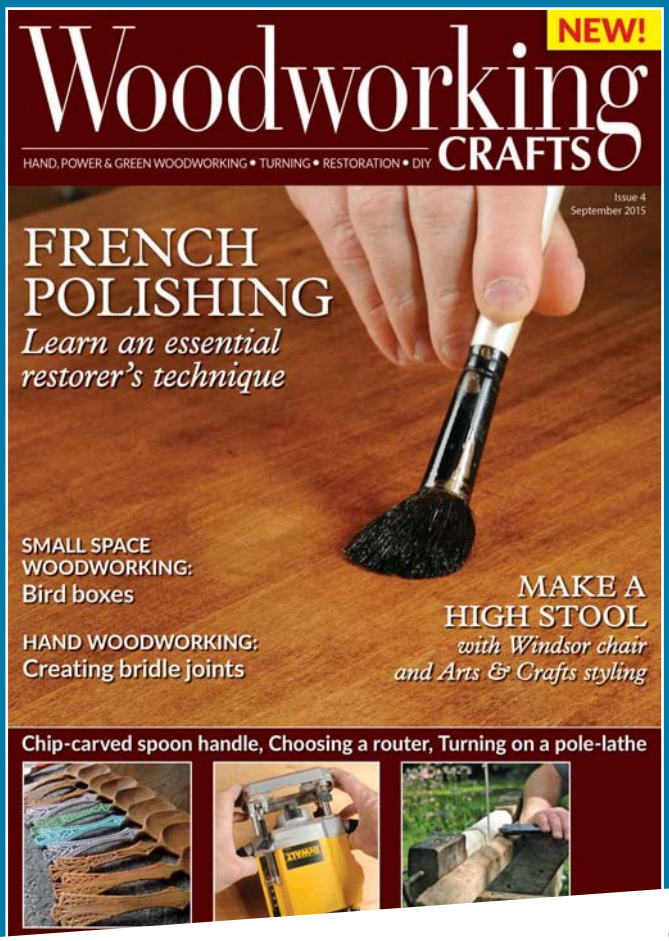
- Fillers.
- Pipe boxing.
- Corner posts.
- Back panels.
- Dummy draw frontals.
- Bridging details.
- Spacer Panels.
- Under oven fillers.
- Tall oven housing.
- Return plinths.
- Infill panels.
- Hundreds of uses.

FOR PRICES & SPECIAL OFFERS

Visit www.pro-fitinnovations.co.uk
For further information

Pro-Fit Innovations

Pro-fit Innovations Ltd, 63 Station Road, Oakworth, Keighley, West Yorkshire, BD22 0DZ
Tel: 01535 647403
www.pro-fitinnovations.co.uk



SAVE UP TO 30% WHEN YOU SUBSCRIBE

FREE EARLY DELIVERY + projects techniques kit&tools features regulars hotstuff plans book reviews craftsman's corner DIY furniture noticeboard events&news + **DIRECT TO YOUR DOOR**

You pay less than £3 an issue!
by Direct Debit

3 EASY WAYS TO SUBSCRIBE

Please quote order code A4807

☎ +44 (0) 1273 488005

www.thegmcgroup.com

FREEPOST RTHA -TGLU -CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU (please affix a stamp if posting from overseas)

YES! I would like to subscribe to Woodworking Crafts

Subscriber details

Title | Initial | Surname

Address

Postcode | Country

Telephone | Email

Subscription options (please tick the appropriate price)

Pay by cheque/card	12 issues SAVE 10%	24 issues SAVE 20%
UK	£45.90	£81.60
Europe	£57.38	£102.00
Rest of World	£64.26	£114.24
Pay by Direct Debit (UK only) SAVE 30%		
UK only	£17.85 every 6 issues	£35.70 every 12 issues

The Direct Debit Guarantee: This guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society. Please see your receipt for details. Guild of Master Craftsman Publications will ensure that you are kept up to date on other products which will be of interest to you. If you would prefer to not be informed of future offers, please tick this box ☐
Offer expires 31/12/2015 Plus free gift with some issues; sorry not available overseas

Payment methods (please tick and fill in chosen option)

☐ I enclose a cheque made payable to GMC Publications Ltd, or ☐ Please debit my credit/debit card

Card No.

Start date | Expires | Security code

Signature | Date

☐ Direct Debit

Instructions to your Banks or Building Society

DIRECT Debit

Name of account holder

Bank or Building Society account no.

Bank or Building Society sort code

Originator's identification number 6 5 9 9 5 7

Reference number (office use only)

Name and full postal address of your Bank or Building Society

Name

Address

Postcode

Instruction to your Bank or Building Society:
Please pay GMC Publications Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Banks and building societies may not accept direct debits for some types of accounts.

Signature | Date

A4807

Woodland ways

Natural replenishment: *how woodland trees spread*

PHOTOGRAPHS BY GARY MARSHALL UNLESS OTHERWISE STATED

Veteran beech with fallen limbs

Can't see the wood for the trees? In a dynamic living wood there's a reason for that, as **Gary Marshall** shows us here

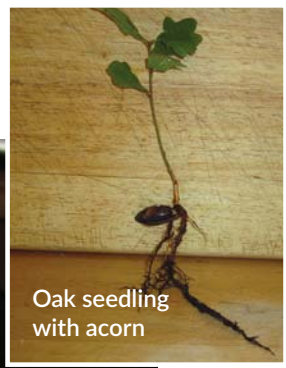
A self-sustaining wood is always in the process of decay and renewal. Tree roots take up nutrients and trace elements aided by complex bacteriological and microrhizomic soils. These are provided by a host of bacteria, micro beasties, plants and fungi. Ancient woodland soils have built up over many centuries and contain all the ingredients to sustain woodland life for centuries to come. The same can be true of some newer woods too if conditions for regeneration are suitable. Leave a field uncultivated in the Weald, for instance, for 50 years and it will tumble down to woodland!

Seeds

Trees produce seeds – but not all. Some, like holly *(Ilex aquifolium)* and poplar *(Populus spp.)*, have separate male or female trees, the male trees only producing pollen. Others have male and female flowers and so can be self fertilising, although many trees are believed to be 'self-sterile' and don't self-fertilise. This ensures natural genetic variation increasing resistance to disease.

Willow *(Salix spp.)*, alder *(Alnus glutinosa)* and birch *(Betula pendula)* have very small seeds and rely on ideal moisture, heat and light conditions to keep them growing, once germinated. Browsing animals kill such seedlings. Other seeds, such as acorns, have long-term food reserves within them, once germinated they put down strong roots. Even if their leading shoots are grazed by herbivores they can grow more stems.

Birch seed on finger



Oak seedling with acorn

Our common woodland trees can be prolific seed producers. Pioneer species, such as birch, scatter millions of seeds on the wind each year. Relatively few have to survive to cover a bare area – particularly on sandy soils. Birch is short-lived, though; such 'invasions' are often succeeded by other species, such as oak *(Quercus robur)* or Scots pine *(Pinus sylvestris)*.

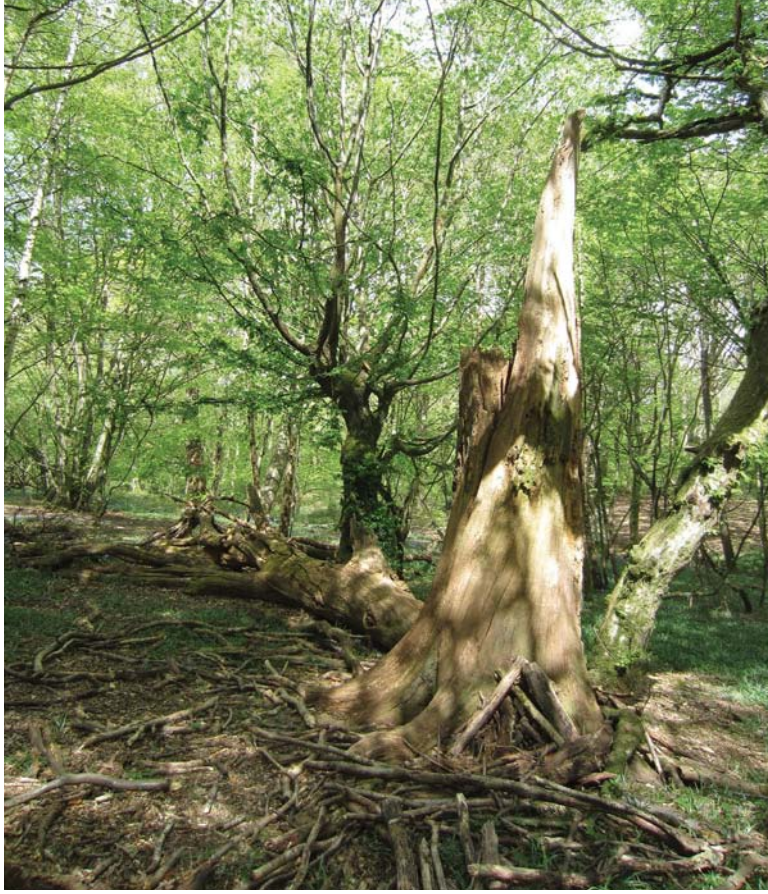
Oaks can be reluctant to establish from seed in ancient woodlands. However, there are many examples of neglected fields adjoining oak woods, where squirrels and particularly jays become inadvertent sylviculturalists – planting thousands of acorns over decades, effectively extending our oak woods.

Seeds are produced in such profusion to allow for the many trials trees have to go through from germination to maturity.

SEED DISTRIBUTION

Wind

Trees like sycamore *(Acer pseudoplatanus)*, field maple *(Acer campestre)*, ash *(Fraxinus excelsior)*, birch, willow and most conifers rely on the wind to spread. In strong winds, of course, even heavier seeds can be blown tens of metres from their parent.



Water
Riverside trees spread in this way – look out for willow, alder and black poplar *(Populus nigra)* by your local stream. During floods, seeds often spread miles from their parents and will wash into areas where germination leads to new strands.

Gravity
Think of Newton's apple, full of pips – all potential trees!

Animals
Many seeds, especially if nutty or with fruity casings, are food for birds, insects and mammals. Gathered stores, when forgotten, can become clumps of seedlings. There's also the benefit of a seed passing through the gut of an animal – the seed comes with its own supply of manure!

Fire
In some parts of the world, the tallest trees release their seeds only when fire sweeps away competition beneath.

OTHER METHODS
Trees don't just regenerate by seed, though. Other methods include:

Suckering
This is where trees grow from existing root systems – even where parent trees are in decline or long gone. For trees like the English elm *(Ulmus procera)*, suckering is the principal method of regeneration. Although elm trees are vulnerable to Dutch elm disease, younger trees can often be seen having suckered up in old hedgerows where mature trees once stood.

Coppicing
Even before man's influence, trees would be browsed or otherwise damaged back to their stumps, only to grow vigorously again from dormant buds in subsequent seasons.

Clockwise from above: Birch invasion, Natural pollarded hornbeam, Wild cherry suckering, Regenerated storm damaged tree

Pollarding
Pictured above is a natural pollard with vigorous regrowth following accidental beheading.

Layering
This is where branches touch or are forced to the ground and take root. Layering can also occur following landslips or rockfalls.

'Cuttings'
In high winds, trees naturally shed twigs and branches. If they stick into the ground with broken stems downwards they can 'take', sending out fresh roots becoming new saplings.

Man
Man knows all about propagation. We plant, tweak, use and abuse our woods for our own devices.

Mother Nature
But beware: the big storm that hit England in 1987 gave rise to tens of thousands of split, decapitated, severely knocked about and uprooted trees. Seeds shed in this upheaval have gone on to form dense understoreys. Many of the fallen and damaged trees have now regenerated vigorously. Those that did not are slowly rotting to enrich our woodland soils. Where woods were cleared and replanted, growth has often been much slower. Apparently Mother Nature still has much to teach us about sustainable woodlands. ■

Gary Marshall


Gary has had a lifelong 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.

KIT & TOOLS

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

Leigh RTJ400 Jig

This new jig is designed specifically for router table use and will make nine sizes of through dovetails, three sizes of half-blind dovetails and four sizes of box joints on your router table. Supplied with a quick user guide DVD, five instruction strips that sit on the jig, blanking plates, stop rod, depth gauge, ½in shank dovetail bits: straight bits 160 and 143-500, four cam speed clamps, hex key and adjustable side stop. Price valid until 31 December, 2015.

Contact: **Axminster Tools & Machinery**
Tel: **03332 406 406**
Web: **www.axminster.co.uk**

Proxxon GE20 engraving device

This small engraving pantograph is suitable for nameplates, jewellery and other valuable objects. It can also be used with self-made stencils or commercially made templates, such as plants, animals or coats of arms. The engraver is supplied with two sets of letters from A to Z, hyphen, full stop and dash – a total of 52 pieces – three Allen keys – 1.5, 3.0 and 5.0mm – as well as a 2.5mm HEX – ball-head – screwdriver. A detailed instruction manual is also included. Price valid until 31 December, 2015.
Contact: **BriMarc Tools & Machinery**
Tel: **03332 406 967**
Web: **www.brimarc.com**

Makita's new L class dust extractor range

The L class dust extractors exceed the performance required by health and safety standards for wet and dry cleaning applications as well as the legal dust extraction requirements when working with non-hazardous materials. All models have a maximum airflow of 3.6m³/minute and a maximum sealed suction rating of 21.0kPa. The 3.5m suction hose connects to an aluminium extension piece, which couples to either of the three nozzles supplied, including a floor nozzle with rubber lip and brushes.
Contact: **Makita**
Tel: **01908 211 678**
Web: **www.makitauk.com**

UJK Technology Pocket Hole Jig

Small and neat, this portable jig allows you to make pocket hole joints easily, on site or in situations where a standard jig is too large. A magnetic insert helps hold it in place while clamping and a dovetail recess allows you to securely link two or more jigs together. It combines speed and simplicity. The joints are strong, accurate and hidden, and it will join material from 13mm to 100mm thick. Price valid until 31 December, 2015.

Contact: **Axminster**
Web:**www.axminster.co.uk**

Bosch FlexiClick 5-in-1 cordless system

FlexiClick from Bosch helps professionals master virtually any task. The system comprises the new GSR 18 V-EC FC2 Professional cordless drill/driver with drill chuck, offset angle and angle adaptors. In addition, Bosch is the first manufacturer to offer a rotary hammer adaptor, making the FlexiClick the most versatile cordless system on the market. The applications that are achievable with the FlexiClick system range from standard screwdriving through to drilling wood, metal and even concrete. This enables professional tradespeople to work precisely, even in hard-to-reach areas. Perfect for kitchen fitters, cabinetmakers and other tradesmen working in confined conditions.
Contact: **Bosch** Tel: **03447 360 109** Web: **www.bosch-pt.com**

The Rocking Horse Shop Ltd

www.rockinghorse.co.uk Tel: +44 (0)1759 368737

We are please to introduced our **New Revised Chair Horse Plan 124r** with 5 interchangeable heads.
Plan available at **Fangfest 5th & 6th September 2015**

The LITTLE ROCKY Chair Horse completely revised and improved.
New rocker design with enhanced rocking action and safety stops. New slatted platform for added safety.
Choice of five interchangeable heads.
Horse's head can be made with extremely simple shaping or carved, a great introduction to woodcarving.
Plus Kangaroo, Elephant or P-rex Dinosaur Head with opening mouth.
Special Pre-Order Offer Only £10* plus £2.50 UK postage & packing
Timber and accessories also available

* offer ends September 30th 2015, pre ordered plan will be sent out W/C 7th Sept normal price £14.99

Fangfest

A Celebration Of Traditional Crafts
Fangfoss, Nr York
5th & 6th Sept 2015 9am to 4pm

The Rocking Horse Shop invites you to watch our experienced staff demonstrate Rocking Horse making.
Special offers on Plans, Timber & Accessories.

A Great Day Out For All The Family
FREE Entry & Parking
Come & Join In The Fun

**Woodturning with Sue Harker,
Pottery Demonstrations, Classic Car Show,
Spinning & weaving, Crafts, Carving Tools,
Art Gallery, Archery, Traditional Fun Fair,
pole lathe, Flower Festival, Cream Teas,
Ice-cream, Live Music & much more!**

www.facebook.com/fangfest

Also see us at The European Woodworking Show, Cressing Temple Barns, Near Braintree 12th & 13th September 2015

DIY SAFETY WEAR

We look at the essentials to keep you safe while working as well as some basic safety advice

Unfortunately, most of us tackle DIY jobs without properly considering the risks to ourselves and to those around us and to the integrity of the work area itself. All these need to be thought about, indeed just like business we ought to carry out a risk assessment but you can bet that won't happen! Certain things are a no-no. No jewellery and no loose long hair – it should be tied back or in a hat or net. It's OK to listen to an MP3 player if you are emulsioning a wall, but for many DIY activities, it's better to have your hearing 'available', although a radio or sound system that isn't blaringly loud is OK.

Workwear

So let's look at clothing. Legs are better covered for safety to protect against cuts and grazes. There is plenty of good workwear available so there is no need to have torn jeans on. An advantage of the right clothing is having wear patches and plenty of pockets, they are also loose fitting which is more comfortable and permits kneeling, etc. You can buy knee pads and some workpants have openings to fit them into. I prefer a garden type foam kneeling pad, although I have to move it around – the choice is yours. For painting, you can buy a cheap, lightweight zip-up suit that gives reasonable protection against paint splatters.

Head protection

A baseball cap or similar is a simple way to keep hair free of paint, dust and dirt and takes the sting out of banging your head on frames and other things. If you have overhead hazards, such as beams, etc., then it is worth investing in a hard hat – these only cost a few pounds but give vital protection.

If in doubt about safety, always wear a hard hat

Close fitting goggles are essential when using an angle grinder

Always wear ear defenders when using noisy machines, or ear plugs as an alternative

A lightweight zip-up suit is ideal for painting

The correct safety gear to wear while splitting logs

When using toxic substances, such as gases or solvents, always use them outside

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

Eye safety

The eyes are the most sensitive and vital organs, but we give them the least thought apart from glasses for optical correction. If you need them, wear reading glasses for clear, close vision as many tasks are done close up. You can buy safety glasses with in-built dioptric correction. For many tasks you can wear wraparound safety glasses that will also accommodate standard correction glasses. However, if you are using an angle grinder, then close fitting goggles are needed so metal sparks cannot fly up and into your eye.

Ear defence

It is very easy to inflict damage to your hearing without realising it. Play safe and wear ear defenders during noisy operations using power tools and machines. An alternative is to use ear plugs, although it is suggested that these can push dirt and dust back into the ears. As stated earlier, be wary of using an MP3 player as, with ear defence in place, you will be in your own little world and not aware of what is going on around you in the same way as normal.

Dust protection

Dust is more insidious than we care to appreciate. The worst particles are smaller than one micron in size, which is minute and impossible to see with the naked eye. Such particles penetrate skin and lung tissue so we need effective filtration to exclude them. Standard cheap 'nuisance masks' will not do. You need to buy dust masks that meet the European Standard ED149 and the Efficiency Class FFP1 (low), FFP2 (medium), FFP3 (high) and should be marked as such. It is worth visiting the HSE website – www.hse.gov.uk – to understand more about dust hazards. Dust masks do not offer protection against toxic substances, such as gases or solvents. Just using an aerosol spray can generally be done outdoors so that the fresh air can carry away the harmful atmosphere, although a carbon filter mask will offer some protection. If you intend working with substances that are hazardous to human health, such as woodworm killer, removing asbestos of any type or spraying lacquers over a large area, then think again because these are all jobs for specialists qualified and equipped to carry out these tasks.

Hand protection

Work gloves come in a variety of types. Standard thin garden gloves offer little protection even against brambles, so are unsuitable for heavier tasks. Thick armoured builder's gloves are the order of the day. For carrying sheet material, rubberised sticky gloves are good although they won't protect against splinters. Working with chemicals requires the use of goggles and special rubberised gloves made to EN374 standard. They are normally long to protect the lower arms. Standard latex inspection gloves are hopeless and should not be used as they fall apart easily when attacked by chemical compounds.

Footwear

There is a wide variety of safety boots available, which have steel toecaps and insteps. I prefer the pull-on type but there are also lace-up variants. Never wear sandals or open toe shoes when doing DIY. Proper foot protection avoids injuries like dropping a sharp chisel or a brick on your foot or treading on a big nail sticking out of a length of wood – I've done that one as a youth, not very nice.

It doesn't cost a fortune to stay protected but it could be the difference between sustaining an injury or suffering the effects of dust inhalation. Stay safe! ■

Ensure that the dust masks you buy are made to the relevant European Standards

There is a wide range of work gloves available

Safety boots should always have steel toecaps and insteps

hand tools and wood chisels specialist

Ashley Iles - Henry Taylor - Robert Sorby - Joseph Marples
Veritas - Clifton - Thomas Flinn - Mora - Morris...

All items in stock, ready for dispatch..
*unless marked otherwise

all prices inclusive of VAT

Tool Nut .co.uk

Henry Taylor 6-Piece Starters Carving Tool Set

for only **£79.99**

Japanese Waterstone Sharpening Kit

for only **£77.50**

Mora Hook Knives

was £20.95
currently on offer **£18.95**

Henry Taylor Chisel Set

for only **£120.00**

Henry Taylor Supersharp Carving Tool Set

for only **£47.00**

Henry Taylor Adze

straight **£49.00**
gouge **£64.00**

Morris Billhooks

from only **£24.00**

Natural Leather Chisel Rolls

from only **£17.50**

cabinet fittings

tool sharpening

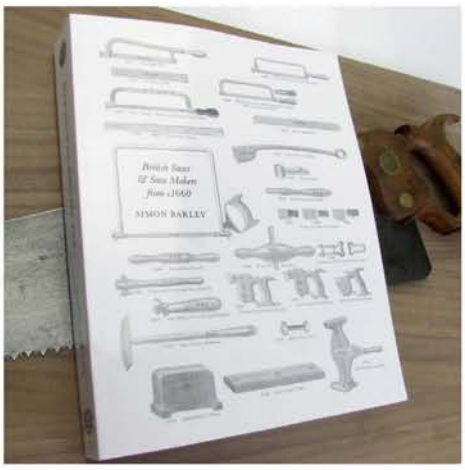
measuring and marking

knives

punches (£7.50 each)

Order online today at
www.toolnut.co.uk
or call to order on 01424 224269

Order online today at www.toolnut.co.uk



British Saws and Saw Makers from c1660 | Simon Barley

The book is billed as the most comprehensive saw directory to date, listing makers, makers marks and manufacturing dates since 1660. There is a whole host of additional information on the history of saw making, how to date a saw, in depth details on each of the large makers and much, much more, making for the most interesting read and a must have reference book.

£51.00 + £3.50 Postage

cheques payable to 'Old Tools Ltd' and sent to:
Old Tools Ltd, Unit 8, Beeching Close, Bexhill On Sea, East Sussex, TN39 3YF

or order through the website: www.oldtools.co.uk

PHOTOGRAPHS BY GMC/ANTHONY BAILEY

WHAT ROUTER?

Ask **the Editor** which router to choose and he is bound to get in a bit of a spin. It all revolves around the tasks you want to undertake, apparently ...

In issue 1, I described my own somewhat eccentric cutter selection. Now it only seems right that we should look at what you need to put them in, i.e. a router. These come in many makes, models, sizes and types, which is very confusing. The obvious answer is to buy what is on the shelves at your local tool dealer – often swayed by price or a better deal, such as a set of free cutters for example. Let's go through what you should actually be looking out for.

Cheap versus expensive

It is often said that cheap routers are worse than known branded models. That depends what and where you buy. The quality of Far Eastern imported routers has got better and some of the well-known brands get their machines built in the same place – so take your pick. More expensive better specified trade brands, such as Festool are at least built in Europe, but for many purposes, the cheaper machines will do perfectly well. However, there are critical things to look out for.

Router sizes

The first thing is to decide on the size and power of a router. Routers come in small, medium and large sizes. Medium is a bit of a compromise; small is fine for most jobs and big is great for heavy-duty operations with big cutters. In the olden days when I was a long-haired teenager, a small router didn't have a lot of power – 600W or 750W – with ➤

Most of us can't afford a Festool router, but it is a good example of design and build quality

Routers come in three main sizes. For beginners, the small ½in collet machines are best. There is also a small size laminate trimmer, but this is for specialised uses

Routers and drills both have motors and drive shafts that take tooling, but that is where comparison ends. Router motors work at high rotational speeds with special bearings, collets and cutters

electronic control in an ELU router was plenty. Now it seems 1,300W is nearer the norm despite more efficient motors and controls and cutters not getting a lot bigger – sales hype maybe?

Router safety

Routers can be very noisy and vibrate a lot and seem potentially dangerous. A router can only machine properly running at high speed, at up to 25,000rpm compared to 3,200rpm for a mains drill and less for a cordless model. With a cutter correctly installed and not over-strained by deep cuts it should not vibrate much as the motor is balanced during manufacture. Common-sense applies when using a router, just like any other tool. Work safely and you will be fine.

Collets

The collet, which is a split steel sleeve the cutter is held tightly in, should be able to do so without the cutter vibrating or coming loose during use. To be honest, there is no way to know how good this vital little component is until you start machining. European machines usually have shiny multi-slit collets compared to Far Eastern ones, which can be smaller and with less slits on cheaper router collets. They seem to work OK but the extra engineering on the multi-slit types gives more confidence.

Plunging

Assuming the motor is well balanced and runs smoothly and the collet grips the cutter firmly, the next thing is plunging and locking the motor body. Most routers are still plunge models – that is you unlock the body and push down so the spinning cutter enters the workpiece so you can machine the wood. The plunge action must be smooth downwards and retract upwards easily. Sometimes the plunge columns need lubrication – I use a thin coat of hardening wax, which seems to work well.

The motor body

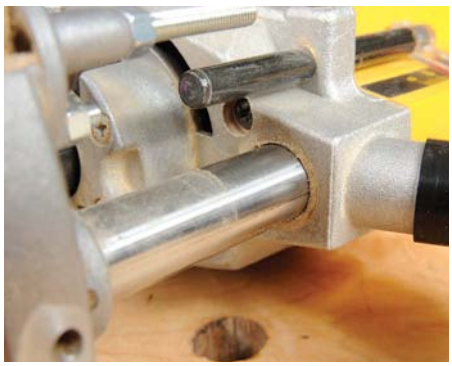
The motor body should not waggle with the plunge unlocked or locked. Some routers are better or worse on this score so try a test with the machine switched off to see how it behaves. For accuracy you need it to be waggle-free, especially when plunged for machining. If this doesn't happen, then it can affect the accuracy and smoothness of the cuts.

The on-off switch

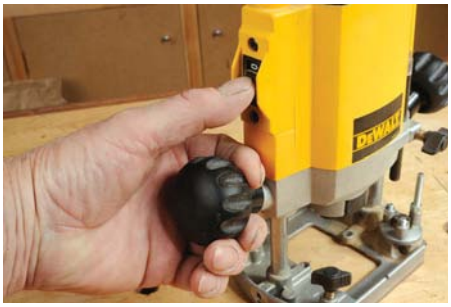
Not only should the grip knobs or handles be comfortable to use but the essential plunge lock knob or lever should also fall easily to hand. The on-off switch also needs to be easily thumb-flicked without letting go of

The collet is the vital tool-holding device. Unlike a drill chuck, which is made of several components, a collet is just one piece of steel with slits, so when the collet nut tightens, it will clamp around the cutter shank

The plunge action on a router should be smooth. If it isn't, some light lubrication may be necessary



Good quality routers have a phosphor bronze insert or inserts around the plunge columns – these should be a good sliding fit



Although this is an older model, the on-off switch falls easily to the thumb while gripping the side knobs

This machine has a sliding depth rod that can be set against a scale and used to ensure the cutter stops at the desired depth in the workpiece. The three-stage turret allows multiple passes to avoid straining the cutter

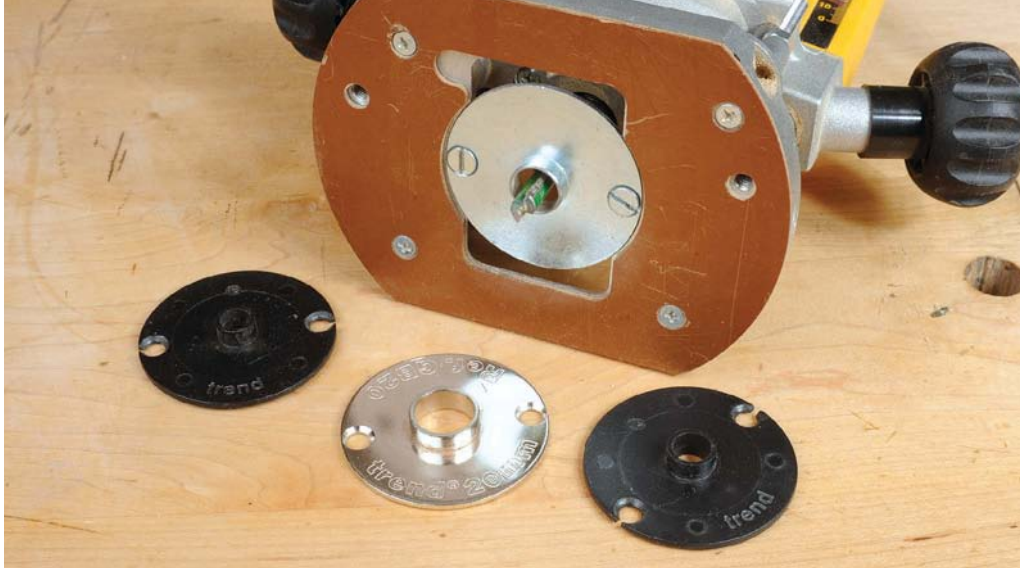
the grips. Most routers now have electronic speed control, which allows you to select a speed most appropriate to the cutter diameter. The larger the diameter, the slower the speed because it is the peripheral cutting edge speed that matters.

Setting cut depth

There has to be a means of setting cut depth. This varies between models but typically will be a geared or smooth rod that can be locked and presses on a depth-setting turret on the base of the router.

Guidebushes

Routers do not work safely or accurately without some means of guidance. Normally it will be a straight fence that fits in special holes in the router base and can be locked in the desired position. There are other ways too, such as the router base itself, which can run against a batten clamped on the workpiece. One of the most useful is a guidebush and your router will almost certainly be supplied with one. This apparently worthless, cheap item can potentially improve routing accuracy tremendously. However, you need to ensure that it is



Guidebushes are a great way to bring a router under control using jigs to create very precise results – anything from hinge recesses to dolls' houses or staircases are possible

interchangeable with other sizes in order to suit each job.

What can you make?

Those are all the basic requirements for an acceptable machine but that is only the starting point for working with this amazing piece of kit, which is far more versatile than it may at first appear to be.

Router tables

Make sure when you choose a router that it has some means of mounting inverted in a router table. This will usually be some threaded holes in the base that enable you to do awkward moulding and joint work safely, once the router is sitting underneath the table.

Next time we'll explore the straight cutter to find out what you can do with it and why they are the 'must have' cutters in your collection. ■

This beautiful backgammon board was made using a router and a special jig to create the slots for the contrasting V-shapes on the board as well as the hinge recesses

A router table, in this case homemade, gives the ultimate control for many operations, such as moulding profiles and joint machining


DOWNLOAD
Woodworking
CRAFTS
TODAY FOR JUST £1.99
AND GET 1 FREE ISSUE
Subscribe and get individual issues wherever you are
+ save money!
6-month subscription £14.99
12-month subscription £26.99
Single issues £2.99
pocketmags.com
kobo
nook
by Barnes & Noble
BlackBerry
Oak Slide Bolt
Rocking Ply Recliner
Upcycled Washstand
Shed Workshop – part 1
Kitchen Cabinet Fronts
Isometric Technical
NEW!
Woodworking
CRAFTS
HAND, POWER & GREEN WOODWORKING • TURNING • RESTORATION • DIY
FRENCH POLISHING
Learn an essential restorer's technique
MAKE A HIGH STOOL
with Windsor chair and Arts & Crafts styling
SMALL SPACE WOODWORKING:
Bird boxes
HAND WOODWORKING:
Creating bridle joints
Choosing a router, Turning on a pole-lathe
SAMSUNG
Woodw
BRAND NE
For all your woodwork needs
Introductio
green woo
Projects, techni
9:41 AM
100%
Woodworki
CREATING JOINTS
Using basic hand tool techniques
BANDSAW BREAKDOWN
Part 1
GREEN WOODWORKING:
Gypsy flowers
Small space woodworking, Candle
WOODWORKING
Plans & Projects
Make a
FEATURE
Karl Smith –
Sculptural Woodworker
ON TEST
Shapton Ceramic Stones
Logosol Joinery Machines

WIN TICKETS
TO THE RUGBY WORLD CUP

To celebrate our 60th Anniversary, anyone who purchases a Trend product can enter into this special prize draw.
Visit: www.trend-uk.com

trend®
routing technology

60 YEARS

Follow us on:

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

AD/15/08

Coming next month in Woodworking CRAFTS

PHOTOGRAPH BY MICHAEL T COLLINS

Create a simple panel door with basic hand tools

ISSUE 5 ON SALE 3 SEPT

- How to get the best out of your planer/thicknesser
- Router cutter technique
- Carve a spoon with Amy Grigg
- Men's Sheds Association UK
- Pyrography for beginners
- Marking out tools
- Woodland Ways

PHOTOGRAPH BY AMBER BAILEY

PHOTOGRAPH BY LOUISE BIGGS

PHOTOGRAPH BY BOB ADSETT

PROJECT:
Fan display case

PLUS: Green woodworking, woodturning, chip carving, kit & tools and more

Editor Anthony Bailey Email: anthonyb@thegmcgroup.com, **Deputy Editors** Tegan Foley & Briony Darnley, **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 Controllers** Rebecca Howard & Amanda Allsopp Email: repro@thegmcgroup.com, **Publisher** Jonathan Grogan, **Advertising Sales Executive** Russell Higgins Email: russellh@thegmcgroup.com , **Circulation Manager** Tony Loveridge, **Marketing** Anne Guillot, **Subscriptions** Helen Chrystie Tel: 01273 402 873 Fax: 01273 478 606 Email: helenc@thegmcgroup.com **Printed in the Uk By** Stephens and George Print Group, **Distributed by** Seymour Distribution Ltd Tel: 020 7429 4000 **WOODWORKING CRAFTS (ISSN 2057-3456) is published every four weeks by GMC Publications Ltd, 86 High Street, Lewes, East Sussex, BN7 1XN**

SUBSCRIPTION RATES (includes postage & packing)

	UK	Europe	Rest of World
12 issues:	£51.00	£63.75	£71.40
24 issues:	£102.00	£127.50	£142.80

US customers should call the Subscription Department for subscription rates in USD ($).

Cheques made payable to: GMC Publications Ltd.
Current subscribers will automatically receive a renewal notice (excludes direct debit subscribers). Post your order to: The Subscription Department, GMC Publications Ltd, 166 High Street, Lewes, East Sussex, BN7 1XU, UK. Tel: +44 (0)1273 488 005 Fax: +44 (0) 1273 402866 Email: pubs@thegmcgroup.com Web: www.thegmcgroup.com

Makita®

1915-2015

GIVING YOU EVEN MORE

LS1016 **260mm**
LS1016L **260mm** with Laser
LS1216 **305mm**
LS1216L **305mm** with Laser

DXT

Deep and Exact Cutting Technology

The double sliding mechanism
Vibration-free, precise and exact cutting. Compact design with massive cut capacity. 6 linear ball bearings are used to support the 4 poles for a smooth and precise sliding cut.

Horizontal handle with rubberised soft grip for better control

Laser marker (LS1016L and LS1216L only)

The upper and the lower sections slide independently for greater flexibility with different sized workpieces.

Mitre range of 60 degrees right and 52 degrees left.

Quick vertical vice

WATCH THE VIDEO ONLINE

Adjustable Wheeled Stand DEAWST06

- For LS0714, LS0815, LS1016, LS1018, LS1216, LS1040, DLS713 and MLS100
- Lightweight aluminium only 16kg
- Dimensions: 1,150 (L) x 750 (W) x 850mm (H)

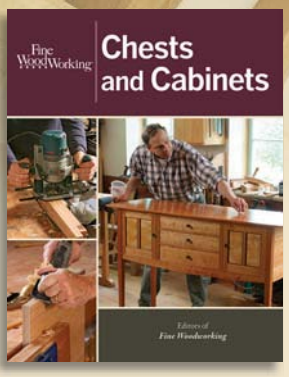
Makita DXT Saws
Scan the QR code or visit www.makitauk.com

3 YEAR WARRANTY

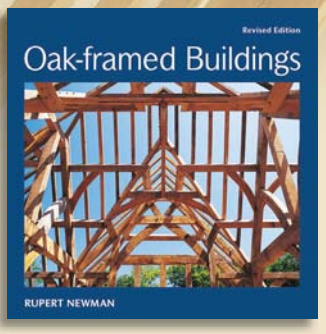
Visit www.makitauk.com to register for your Makita 3 Year Warranty.
Terms and conditions apply.

Follow Makita UK

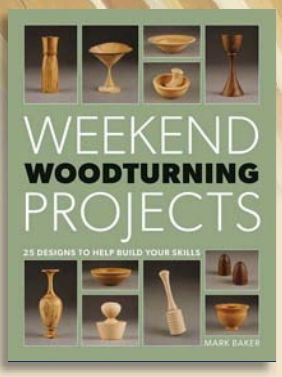
NEW WOODWORKING BOOKS



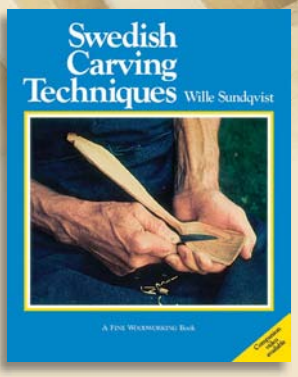
Quick Find Code: 24243
Chests and Cabinets
£14.99



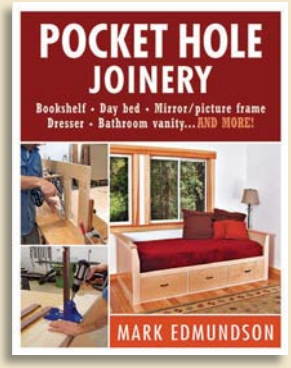
Quick Find Code: 23865
Oak-Framed Buildings
£24.99



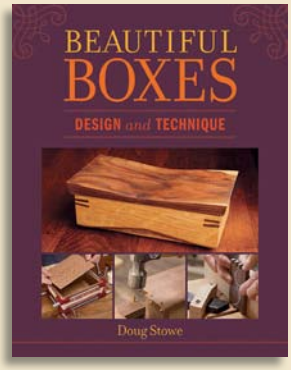
Quick Find Code: 22214
Weekend Woodturning Projects
£16.99



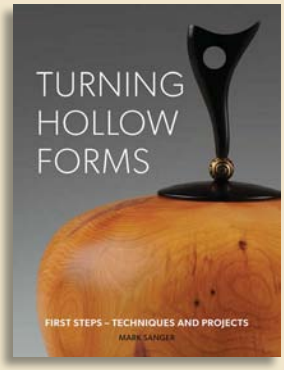
Quick Find Code: 23586
Swedish Carving Techniques
£16.99



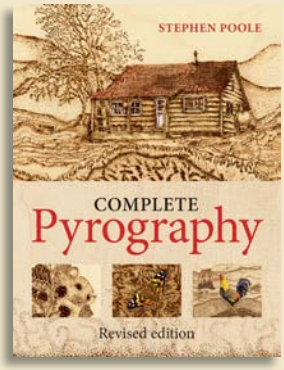
Quick Find Code: 24246
Pocket Hole Joinery
£16.99



Quick Find Code: 24404
Beautiful Boxes
£16.99

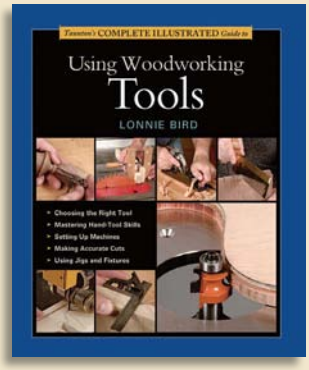


Quick Find Code: 19395
Turning Hollow Forms
£16.99

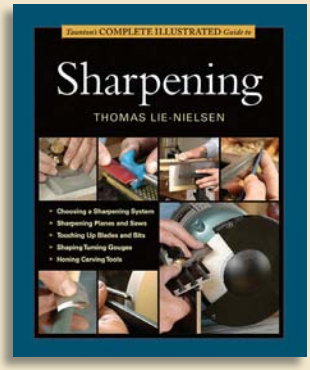


Quick Find Code: 23314
Complete Pyrography
£16.99

Quick Find Code: 25214
Art & Crafts Furniture Projects
£17.99



Quick Find Code: 24939
Taunton's Complete Illustrated Guide to Using Woodworking Tools
£19.99



Quick Find Code: 24938
Taunton's Complete Illustrated Guide to Sharpening
£19.99

Quick Find Code: 24937
Taunton's Complete Illustrated Guide to Jigs & Fixtures
£19.99

Please don't forget, as well as our massive range of power carving machines and pyrography equipment we also have a large range of other wooden craft items.

Including: -

Birch & Oak Dowel

Birch & Oak Shaker Pegs

Balls, Cubes, Eggs

Wooden Beads

Wheels for Toys

Boxes

and a lot, lot more

Fantastic prices and FREE DELIVERY

on orders over £20.00

woodworks

A Family business, giving family service and family values

www.woodworkscraftsupplies.co.uk

or phone on

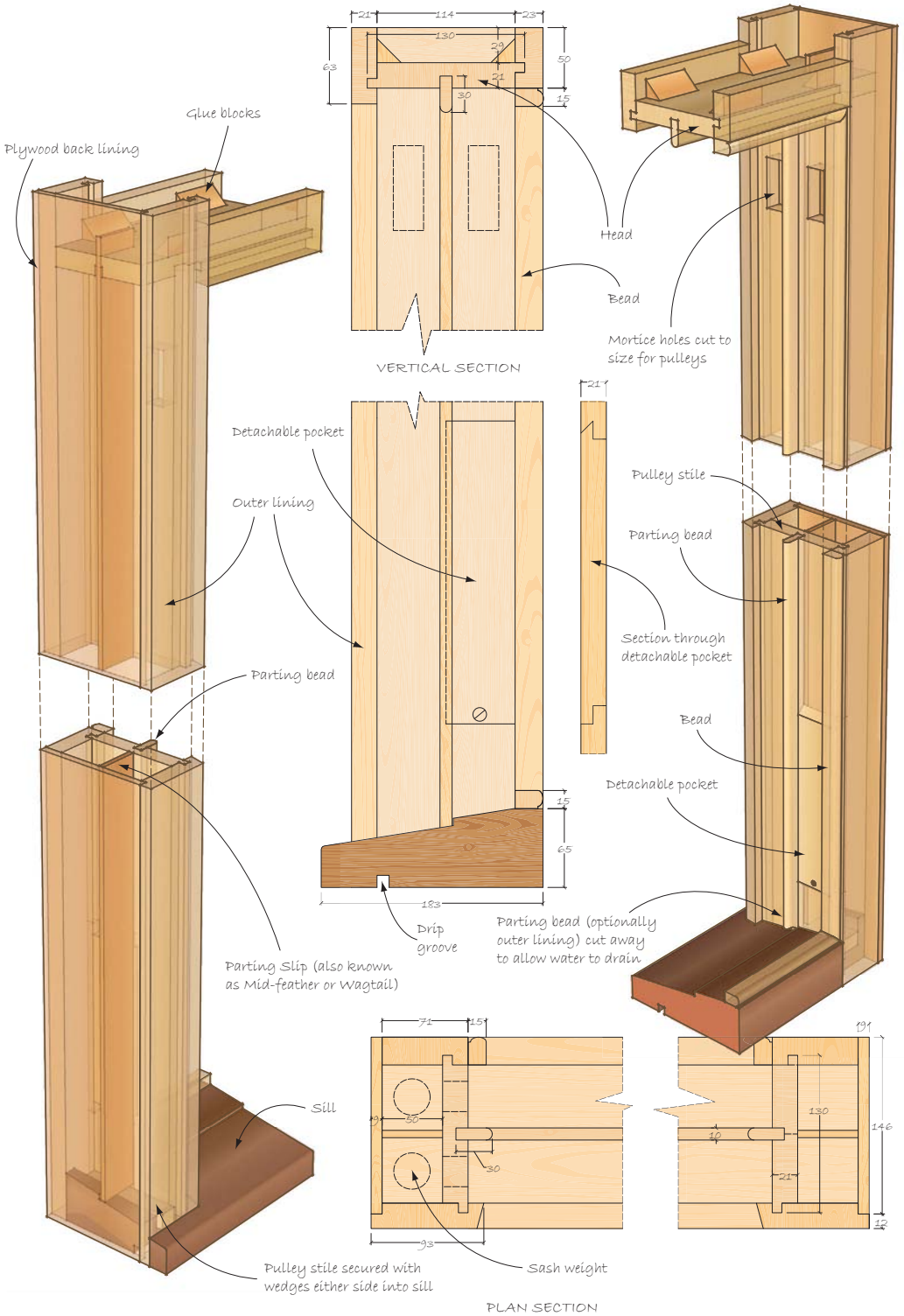
01633 400847

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

WOODWORKING GEOMETRY

A brand-new series showing you the design and construction of complex wooden structures

THE BOX SASH, a traditional method of making vertical sliding windows, first used in the 17th century and very popular in Georgian and Victorian properties, is still in use today. What we have shown here is the quite complex construction of a typical box sash. The actual sliding windows are referred to as 'sashes' and joiners frequently refer to hinged windows as sashes too, even though that particular type is in fact a casement window. What isn't shown here are the two sliding sash windows which run in the slots created by the two outer beads and the parting bead in the middle. The sashes are hung on special sash cord nailed to the sides of each sash in a slot which then run over pulleys near the head of the frame and attached to cast iron weights that run in the boxes behind the pulley stile. Sash windows work well until a cord breaks or many coats of paint jam the recesses the sashes run in. There are modern uPVC versions available with proper draught sealing built in.



In the next isssue we show you how the sliding sash windows actually work

MORE BITS FOR MORE IMPACT

INSERT BITS

BIT HOLDERS

EXTENSIONS

POWER BITS

DOUBLE-ENDED POWER BITS

ANGLED DRILL DRIVE

MAGNETIC SCREW COLLAR

DOUBLE-ENDED BITS

DOUBLE-ENDED VERSATILITY

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

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

irwin.co.uk

IRWIN® TOOLS

Keep a **clean** sheet

Never has clean been so small.

You´ll never work alone.

SERVICE
all-inclusive

Compact, lightweight, mobile. The new CLEANTEC CTL SYS combines all the benefits of Festool SYSTAINERS and mobile dust extractors. Perfectly integrated into the Festool system, the mobile CTL SYS offers a large number of functions and is both easy to use and quiet (67 dB) – ensures maximum cleanliness in dust extraction and final cleaning. It thus not only contributes to high customer satisfaction, but also to keeping you healthy. Never has clean been so mobile. The new CLEANTEC CTL SYS in SYSTAINER format.

Discover it now! Visit your specialist dealer or **www.festool.co.uk/CTLSYS**

FESTOOL
Tools for the toughest demands

www.**festool**.co.uk