WIN! AN EINHELL MINI CIRCULAR SAW WORTH £70

The Woodworker & Woodturner

February 2013

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WORKSHOP

BANDSAW BASICS

TURNING

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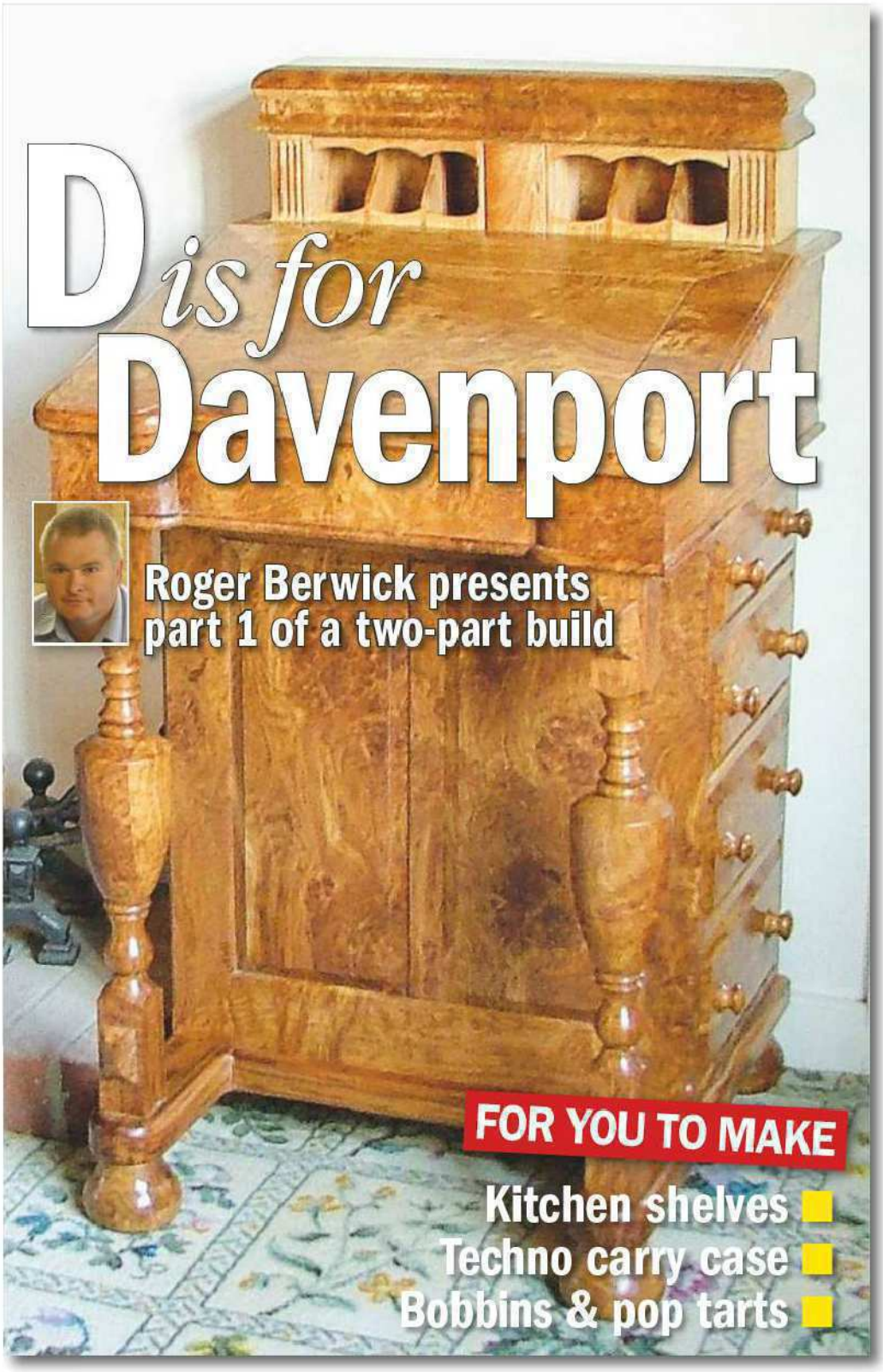

D *is for* Davenport

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welcome

So farewell then, as *Private Eye* always begins its quirky little valedictory poems. I'm sad to be leaving the editor's chair, as it's been a highly enjoyable final chapter of my life in publishing. I started it as a project officer (a sort of junior hack) on the long-defunct *Handyman Which?* magazine back in the early 1970s, before moving to IPC to work on one of the many monthly do-it-yourself magazines that once graced the newsstands. Where are they now?

From there I moved on to edit three do-it-yourself partworks – those collectible weekly or fortnightly magazines that promised to build up into a matchless encyclopaedia on the subject, and cost an arm and a leg in the process. Then I decided to seek fame and fortune (I wish!) as a self-employed writer, and spent the next 30 years penning books and magazine articles on all manner ot home improvement and DIY subjects. It was more by accident than design that I started doing some freelance editing work for *The Woodworker* seven years ago, and as if by magic I awoke one morning to find I was its editor! The rest, as they say, is history…

Quality counts

All that remains for me to do is to tell you what we have in store in this, my final issue. The star of the show is undoubtedly the first part of Roger Berwick's magnificent burr oak Davenport (left), which he'll be completing in the March issue of the magazine. You'll also find plenty more to craft and to turn in the following pages, along with workshop stuff from Andy Standing, Andy King and the inimitable Keith Smith. Last but not least there's a test section bursting with news of the latest tools and equipment, and there's also the chance to walk away with an Einhell mini circular saw in this month's tool giveaway. Enjoy…

Mike

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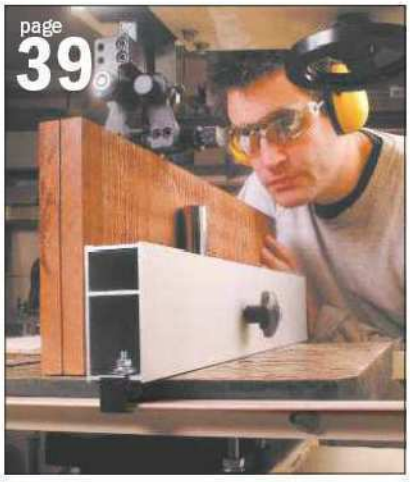
D is for DAVENPORT



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TURNING

ON TEST

The Woodworker & Woodturner

February 2013

Published by **MyTimeMedia Ltd**
Hadlow House, 9 High Street,
Green Street Green, Orpington, Kent BR6 6BG

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From outside UK: +44 (0)1689 869888
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print & digital media publishers

The Woodworker & Woodturner, ISSN 1752-3524, is published 13 times per year by MyTimeMedia Ltd. c/o USACAN Media Dist. Srv. Corp. at 26 Power Dam Way Suite S1-S3, Plattsburgh, NY 12901. Periodicals Postage paid at Plattsburgh, NY. POSTMASTER: Send address changes to The Woodworker & Woodturner c/o Express Mag, P.O. Box 2769, Plattsburgh, NY 12901-0239.

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On the desk

FORSTNER DUO

MANUFACTURER: Axminster
PRICE: from £20.28

Axminster Tool Centre has just added two new Forstner bit sets to its range. These are high-quality bits, perfect for making clean and accurate holes in both softwood and hardwood. Both sets have been heavily tested and have performed extremely well, representing excellent value for money. All the bits are the short pattern; those up to to 30mm in size have 8mm diameter shanks; larger sizes have 10mm shanks.

The seven-piece set (illustrated, code no 501942) includes 10, 12, 15, 20, 25, 30 and 35mm bits. It costs £20.28. The 16-piece set (code no 501941) includes the following bit sizes – 10, 12, 15, 16, 18, 20, 22, 25, 26, 28, 30, 35, 40, 45 and 50mm – and a depth stop, and is priced at £70.34. Both come in sturdy wooden storage cases.

SAWS FOR HEROS

MANUFACTURER: Irwin
PRICE: about £9

Irwin Tools has announced a new charity initiative that will see it commit to raising £50,000 for 'Help for Heroes' in 2013. The campaign launched with the presentation of a cheque to the charity for an initial donation of £20,000, while the next stage of activity gets underway in January 2013 with the release of a limited edition Irwin Jack 880, the company's best-selling universal handsaw. Featuring a specially designed saw sleeve with 'Help for Heroes' branding, a percentage from sales of the saw will go towards the £50,000 target.

The saw sleeve also features details of the Irwin fundraising page at www.bmycharity.com/irwintools, where customers will be encouraged to make their own donations. As the campaign progresses throughout the year, a number of other fundraising initiatives will be launched.

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JANUARY

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26 Woodcarving: Brian Chapman
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John Boddy's demonstrations
2 Woodturning: Marsden Howitt
16 Wood carving: Peter Berry
Details as above

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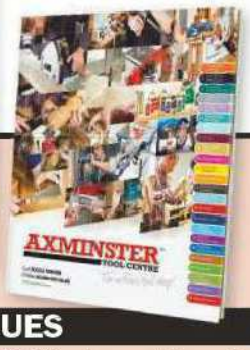

NEW CATALOGUES

AXMINSTER'S new 2013 full-colour catalogue is absolutely free, and features over 1600 new lines as well as a fantastic selection of over 11,000 products to choose from. Furthermore, there are many reductions from 2012 prices.

This year's information makes it much clearer for customers buying a new machine, ensuring that guidance is given on the one most suited to the job. There are now three categories – Hobby, Trade and Industrial – and an explanation and colour coding for each of these is given in detail in the catalogue.

IRONMONGERYDIRECT'S latest free catalogue (issue 86) is out now and is packed with the UK's biggest range of door and window hardware products at outstanding value. Orders can be placed as late as 7.30pm for next-working-day delivery as standard. Delivery is free on orders over £45, and all ironmongery products are covered by a minimum five-year guarantee, giving you the assurance that the products you buy are of high quality. In addition, all orders are covered by a 30-day money-back guarantee, with a freepost returns label included.

NEW IPHONE APP

STANLEY has unveiled an official iPhone app that gives users the benefits of a traditional, reliable spirit level in the palm of their hand. The free app needs calibrating just once, then the on-screen bubble will indicate how far from straight the phone is, with a number of degrees indicator on screen for maximum precision. The app is available to download from the iTunes App Store: https://itunes.apple.com/us/app/stanley-level/id565961826?ls=1&mt=8%E2%80%9D

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D&M PRICE: £144.95 (ASE12 with two 10.8V Li-ion batteries)
£104.95 (ASE12N body-only option)

Metabo present the only cordless sabre saw in its class with an adjustable depth guide. Its Quick saw blade change system allows it to accept both sabre and jig saw blades. This new tool has a blade stroke of 13mm and a no-load speed of 0-3100spm. It has an ergonomic handle, allowing the tool to be used comfortably with either one or two hands. The ASE12 model comes complete with two 10.8V 1.5Ah Li-ion batteries and a carry case, and it can also accept the 10.8V 3.0Ah or the new 10.8V 4.0Ah batteries (available separately). It also features a useful LED light for working in dark areas.

NEW

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SNICKERS NEW WINTER RANGE

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NEW

Snickers WORKWEAR

THREE NEW CORDED CIRCULAR SAWS

MANUFACTURER: DeWalt
D&M PRICE: £124.95 (DWE560K)
£164.95 (DWE575K)
£179.99 (DWE576K)

DeWalt have recently added three new corded circular saws to their range. The DWE560K (left) is a compact 184mm saw with a 65mm depth of cut that's light in weight and easy to use. Its high-power 1350W motor gives increased cutting performance, and the cutaway inner guard gives improved line of sight combined with the integrated dust blower and efficient dust extraction port. The 190mm DWE575K (centre) is ideal for general-purpose ripping, cross-cutting and bevelling wood and other construction materials. Its high-torque 1600W motor provides durability and power. The DWE576K (right) is the same as the DWE575K, but comes with a TRCAK base that's designed for quick and easy use with the DeWalt guide rail system. The additional handle allows safe two-handed work.

NEW

DEWALT

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

BY ROGER BERWICK

D is for Davenport

Most of my cabinetwork is relatively straightforward, but every now and then I get a dream commission – something that I really want to make. Feeding the soul in this way compensates for all the boring repetitive jobs I do, and this was one that ticked all the boxes

Several years ago I bought a large quantity of assorted hardwood from a company making reproduction antique furniture. A lot of the timber was bought unseen so it was a bit of a gamble, but luckily one that paid off.

When the consignment arrived at my workshop I examined the (very dirty) boards and, to my amazement, found a large quantity of some of the best brown oak I have ever seen. Better still, most of the boards were nearly all solid burr!

Brown oak is the result of the parasitic beefsteak fungus growing on the tree. This provokes the over-production of tannins, turning the heartwood a fantastic rich brown colour. I knew that whatever I made with it would have to do it justice.

An idea is born

A local couple called me recently as they were looking to commission a feature piece to stand in their dining room. They didn't know exactly what they wanted, so we discussed various options and the idea of a Davenport was born. In all the years I've been making furniture, I've made desks of every shape and size… but never a Davenport. It seemed a worthy use for my secret stock of burr oak.

We talked over the dimensions and agreed the price. Now it was down to me to turn their dreams into reality. The worst thing was knowing that I had several other commissions to complete before I could get my teeth into it. A few months later D-day arrived, and I moved the best of the burr oak boards across from my wood store, **photo 1**, so I could start work.

Four-part harmony

A davenport is a small ornamental desk consisting of a lift-up writing slope mounted on a carcase that contains drawers at one side and a shallow cupboard at the other. I decided to tackle the construction process in four separate stages, as outlined in **fig 1** on page 15. These were:

- the top box and the writing slope;
- the main carcase;
- the foot plate and the turned columns;
- the internal components, which would include an ingenious rise-and-fall gallery.

The side, front and back elevations in **figs 2** and **3** show the four drawers in the right-hand side and a single cupboard on the left. The front and rear of the carcase

1 The burr oak arrived as a mass of unsorted boards and random offcuts

2 I started work on the top box, cutting rebates to join the back corners

3 The front of the top box has a recessed centre, formed from three overlapping parts

4

I tested the fit of the components, then cut housings in the sides for the rear divider

5

I glued and cramped up the box, taking care not to strain the joints in the front section

6

The divider forms the compartment within which the rising gallery will be fitted

DAVENPORT 1 CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
Front (cut over-long)	1	750	70	20
Side	2	560	175	20
Back	1	550	175	20
Divider	1	560	165	16
Base (plywood)	1	530	540	9
GALLERY TOP				
Top	1	510	110	20
Front/rear	2	540	45	20
Sides	2	110	45	20
GALLERY FRAME				
Front/rear rail	2	550	35	20
Side rail	2	160	35	20
WRITING SLOPE				
Top/bottom rail	2	550	80	20
Side rail	2	430	80	20
Panel	1	410	290	20
FOOT PLATE				
Front/back rail	2	440	75	45
Side rail	2	600	75	45
TURNED COLUMNS				
Main column	2	600	45	45
Wide packing	4	150	85	20
Narrow packing	4	150	45	20
PANELLED FRAMES				
Top rail	2	530	55	20
Bottom rail	2	530	75	20
Stile	4	540	75	20
Muntin	2	540	35	20
Panel	4	500	185	20
MAIN CARCASE FRAMES				
Side rail	4	550	50	16
End rail	4	320	50	16
DRAWER SUPPORT FRAMES				
Side rail	6	300	40	16
End rail	6	320	40	16

7 The solid top of the gallery consists of a simple mitred box 45mm deep

8 Its 20mm thick top section overlaps the box sides slightly all round

9 Once the glue had dried, I removed the overlap from the top with a four-flute flush cutter

are panelled, and the turned columns support the front corners of the top box.

Plane amazement

I started work by passing the oak boards through the thicknesser to take off the rough surface so I could see what I had. I knew the boards were good from a small piece I'd machined several years earlier, but just how good they were was now becoming all too apparent.

After machining a reasonable quantity, I was able to start choosing the sections from each board to make the relevant components for each part of the Davenport.

From the top down

I decided to begin with the top box, **fig 4**, and cut the sides, back and front to size. I formed a simple half-lap to join the back to the sides, cutting the rebates on the back edges of the side sections using my radial arm saw, **photo 2**.

The front of the top box was to be recessed in the centre, so after preparing the component over-long I cut it into three sections before reassembling the parts with the saw cuts overlapping.

Before gluing this up, I rounded the ends of each piece on my oscillating belt sander; I knew it would be easier to do this before rather than after assembly. Once the glue was dry I mitred the ends where they would join the fronts of the two side sections, **photo 3**.

Building the box

With the back, sides and front all jointed I tested their fit on the bench, **photo 4**. After cutting a housing in each side to accept a divider, I glued and cramped up the top box carefully using a pair of strap cramps to apply even pressure to the corner joints, **photo 5**. I had to be careful not to stress and break the stepped joints in the front, or to damage the corners, as the burr oak has no distinct grain orientation and some pieces were actually quite brittle. The divider towards the rear of the top section, visible in **photo 6**, forms the compartment where the rising gallery will be concealed.

Making the gallery top

I decided to tackle the shaped top section of the gallery next. I made a simple mitred frame 510mm long by 110mm wide and standing 45mm tall, **photo 7**. Onto this I glued a 20mm thick board, **photo 8**, allowing the edges to overlap the frame slightly. Once the glue had cured I removed the overhang using a Radian four-flute bearing-guided flush cutter mounted in the router table, **photo 9**.

I particularly like my set of Radian cutters. Despite having done a considerable amount of work, this cutter is still producing very fine shavings, **photo 10**, and despite the interlocking grain there was no tearing in the cut whatsoever, **photo 11**.

With the top squared off I then made a cut round the lower part of the top using a handrail cutter in the router table, **photo 12**. This left an attractive curved recess all the way round the base.

To finish the top I fitted a large ovolo cutter into the router table and rounded over its top edges, **photo 13**. I then placed it on the box to confirm the dimensions of the frame on which it would be mounted in due course, **photo 14**.

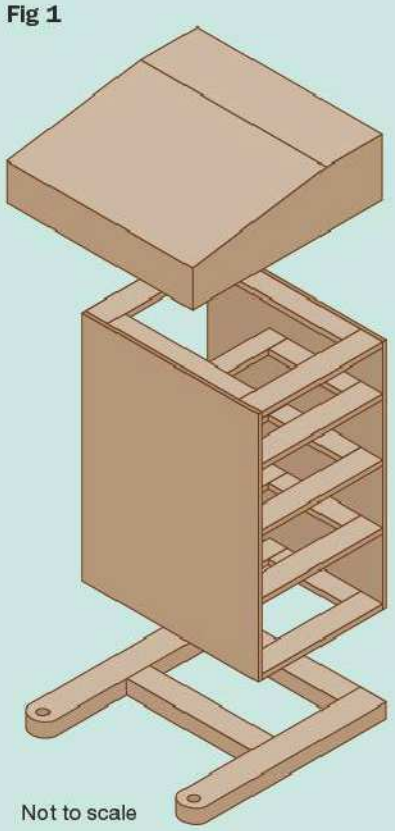
Making the top frame

The rectangular frame that surrounds the gallery is 550mm long, 155mm wide and 20mm thick, as shown in **fig 4** on page 17 The corners are mitred for appearance, **photo 15**. This frame was then dowel-jointed to the top of the rear of the box section and glued into position, **photo 16**.

This Radian cutter is still producing very fine shavings after several months of use...

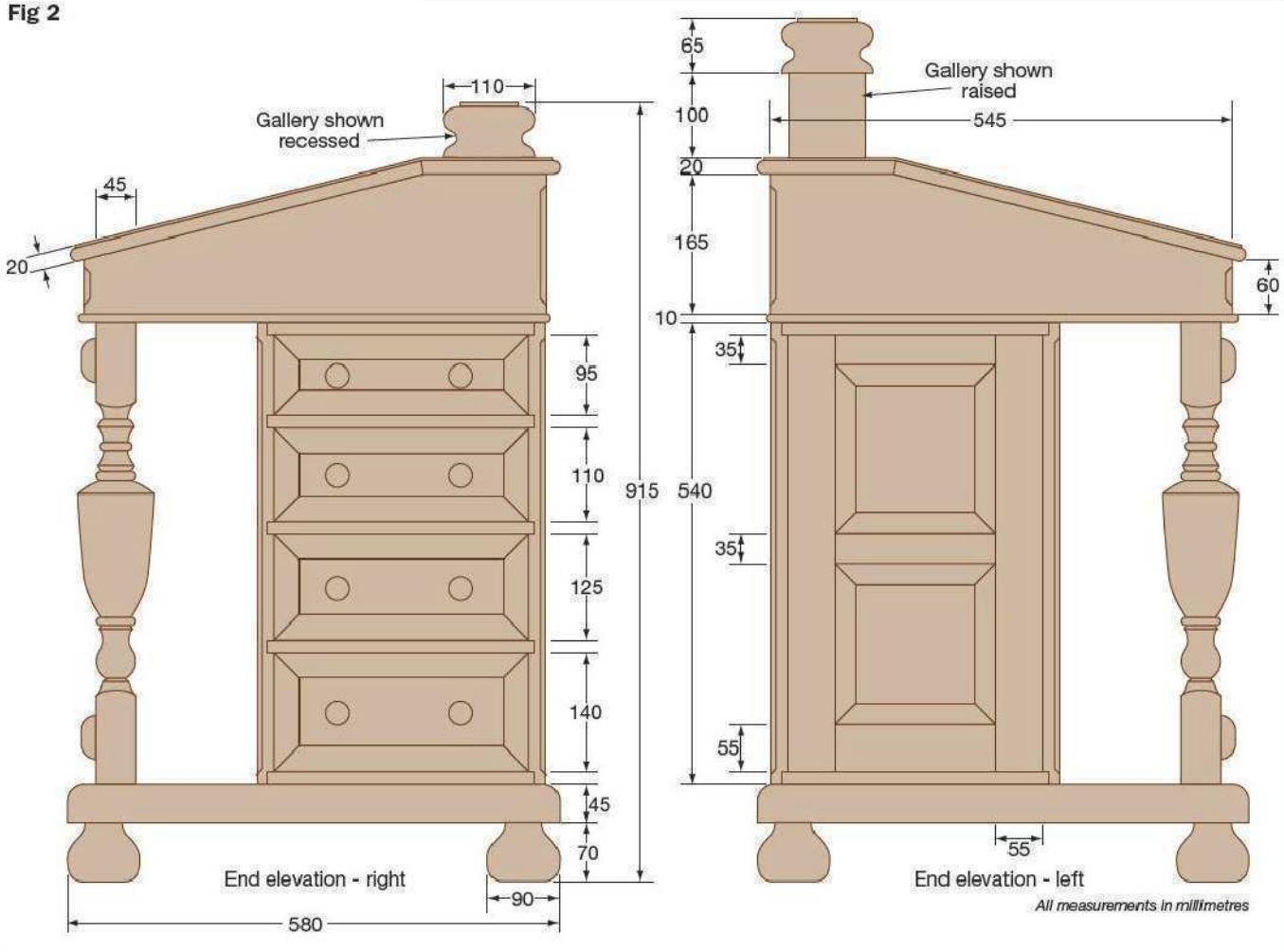
...and the resulting edge cut showed no signs of tearing in the difficult-to-work oak burr

Fig 1



Not to scale

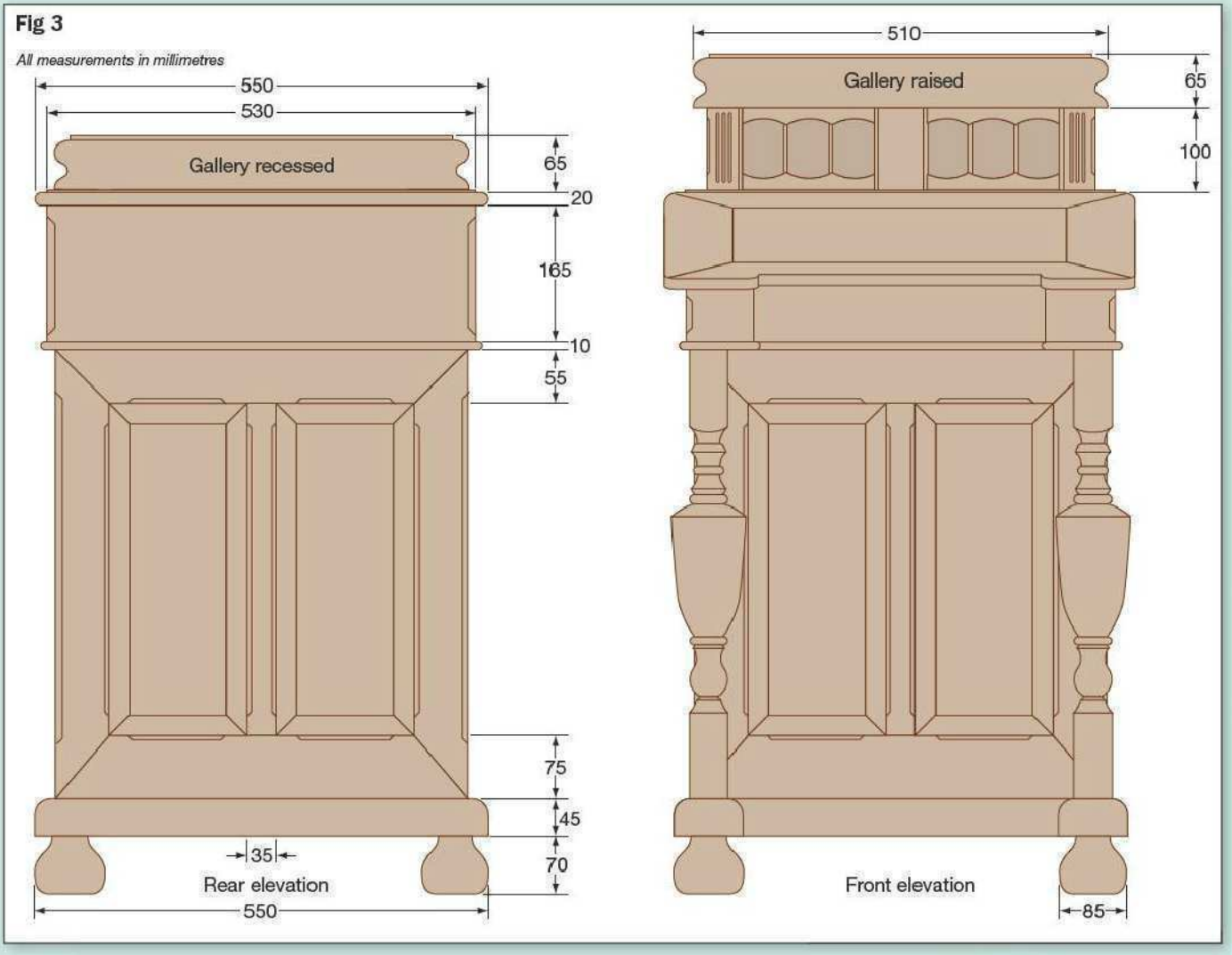
Fig 2



All measurements in millimetres

Fig 3

All measurements in millimetres



12 I made this curved cut round the base of the gallery top block with a handrail cutter

13 I then used a large ovolo cutter in the router to round over its top edges

14 Placing the gallery top in position confirmed the size of its surrounding frame

15 The rectangular frame has its corners mitred neatly, and is simply glued together

16 It is then dowel-jointed into place over the rear section of the top box

17 I chose a particularly well-figured piece of burr oak for the centre of the lifting flap

At this stage I also rebated the underside of the top box and fixed its 9mm thick birch-faced plywood base in place. This was glued as well as being secured with a few countersunk brass screws.

Making the writing slope

With the top box set aside to allow the glue holding the frame to cure, I turned my attention to making the lifting flap that forms the writing slope. I chose a particularly well-figured piece of burr oak for the centre panel, **photo 17**, as this would be the part that really caught the eye on the finished desk.

I made the frame to surround the panel from 80mm wide rails with the corner joints mitred. I decided to reinforce these mitres with biscuits, and instead of using my biscuit jointer I used a slot cutter in the router table, **photo 18**. I cut the slots the right size to receive a No 20 biscuit – the largest that would fit the joint, **photo 19**.

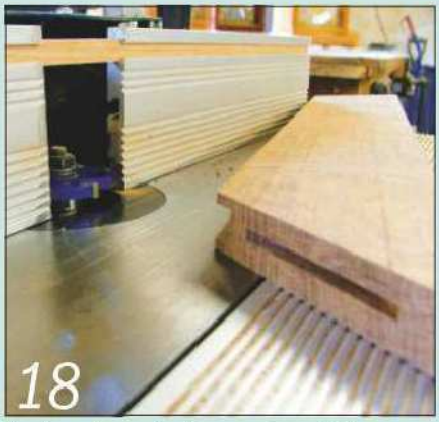
I rebated each edge of the board that formed the central panel to create a tongue, and bevelled the edges lightly with a block plane to make a feature of them when the framed panel was assembled, **photo 20**. I then cut grooves on the inside edges of the rails, **photo 21**, to take the edges of the panel, and glued and cramped up the frame with a strap cramp to pull the mitres together evenly, **photo 22**.

When the glued joints were dry, I used a cabinet scraper to remove any excess glue. I never wipe off squeeze-out with a damp rag, as I find this actually dissolves the glue and pushes it into the pores of the wood in the surrounding area, only to reappear when the piece is subsequently polished and leave ghostly shadows on the surface.

Stepping the lip

The leading edge of the lid was to be stepped in the same manner as the front of the top box itself, so having marked it up I made the initial curved cuts with a jigsaw, **photo 23**, before removing the rest of the waste using a router with a straight cutter fitted. As the initial cut was only about 6mm deep I ran the fence against the edge of the frame, **photo 24**. After making a couple of passes like this, I changed the cutter for a top-bearing-guided flush cutter and made the final part of the cut without the fence. Doing the cut in this way left a very clean and straight edge that required only minimal cleaning up in the corners where the router cutter had left a rounded profile.

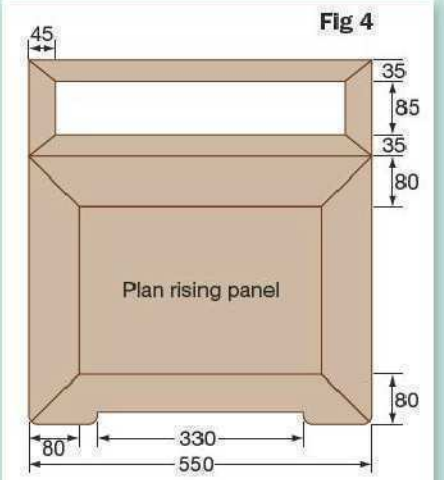
Having cut the top exactly to size and chamfered its top edge, I then moulded its other edges with an ovolo cutter and hand-finished it with a sharp chisel to

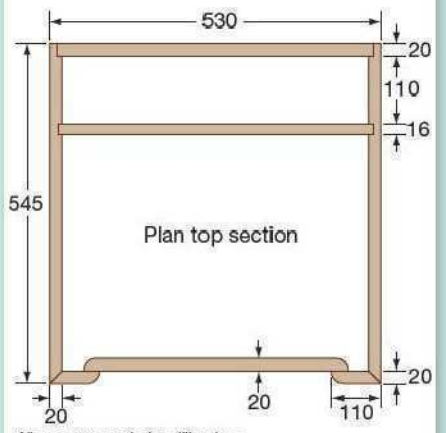


The frame has mitred corners, into which I routed slots to take biscuits

I used No 20 biscuits – the largest size that would fit within the joint

Fig 4



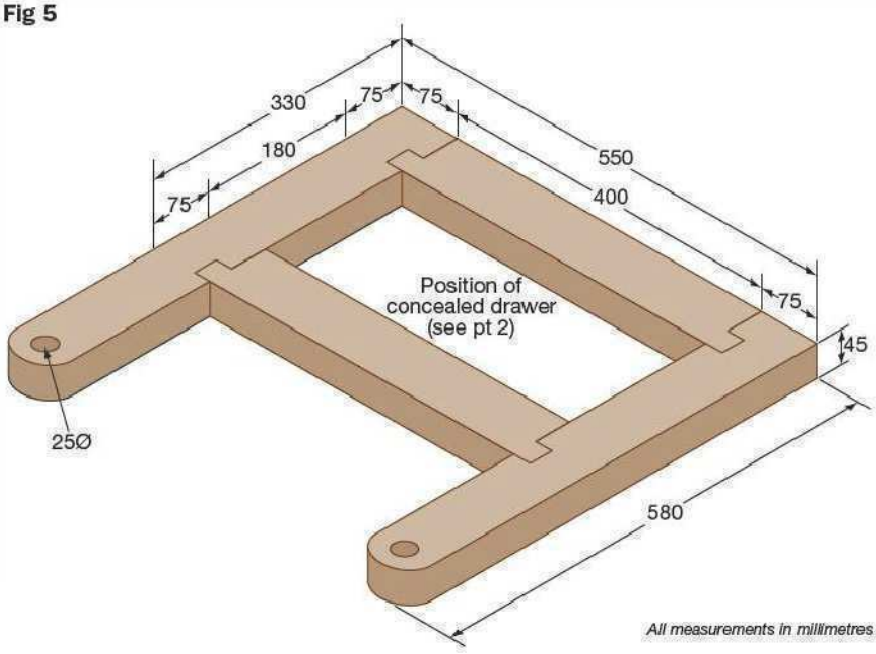


All measurements in millimetres

I formed a tongue on each edge of the panel and added a shallow bevel...

...before cutting grooves in the four frame members to accept the panel tongues

Fig 5



All measurements in millimetres

After assembling the frame and its panel, I secured the joints with a strap cramp

I made the curved cuts into the leading edge of the flap with a jigsaw...

...and removed the straight centre section between them with a series of router cuts

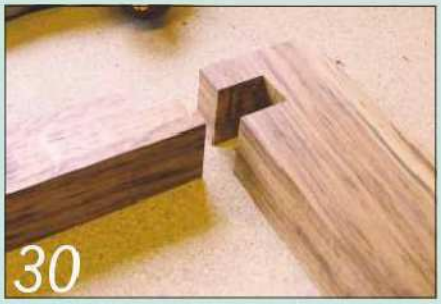
After cutting the flap to its final size, I moulded its front and side edges with an ovolo cutter

The top box could now be dry-assembled and any necessary adjustments made

The foot plate is a very simple construction consisting of two side and two end rails

I rounded off the front end of each side rail on my oscillating belt sander

A simple bridle joint connects each end of the front rail to the side rails...



...and a half-lap joint links the side rails to the ends of the rear rail

After checking the fit of the joints, the foot plate frame was assembled and set aside to dry

provide a crisp corner where the recessed part of the leading straight edge met the curve, **photo 25**.

The top box was now complete, **photo 26**, and I have to say I was very pleased with its proportions and shape. It's easy to design something on paper, but only when it's actually made can its true appearance be fully appreciated.

A blunt aside

The burr oak was fulfilling its duty with this job and the grain was amazing, but while it worked well I found that it was taking a real toll on my edge tools. Not only were chisels and planes having to be resharpened constantly; the knives in my surfacer and thicknesser also needed regular attention. Having to change them after only a few passes was quite disconcerting, knowing that in normal use they would last a couple of months when working normal oak.

Tackling the foot plate

The next section I decided to tackle was the foot plate on which the main carcase stands, **fig 5**. The majority of the timber I had available was all 25mm sawn stock with the exception of the odd thicker pieces, so I knew I had to be very conservative with their use when making up thicker sections.

I machined the main components for the foot plate to size, **photo 27**, and rounded the front of each side rail on the oscillating belt sander, **photo 28**, after removing the majority of the waste using the bandsaw. I then cut a simple bridle joint to connect the front rail to the side rails, **photo 29**, and a half-lap joint where the rear rail met the side rails, **photo 30**.

I chose these joints as I knew they would be obscured from view when the frame was mounted to the bottom of the main carcase. After checking the fit, **photo 31**, this frame was glued up and set aside for use later.

Column blanks

The two front columns were to be turned. Whereas the main section of the column was to be 85mm in diameter, the thickest stock I had was only 50mm thick. I therefore planed a pair of 600mm long lengths to 45mm square, and glued on some 20mm thick packing pieces to bulk up the mid-section as required, **photo 32**.

Having left them cramped up overnight, I cleaned them up the next morning and set them aside with the foot plate, **photo 33**. I'd decided not to tackle the actual turning until the main carcase was constructed, to ensure the correct length and proportions when they were turned.

The main carcase

This was to consist of a pair of double-panelled frames, the panels being traditionally fielded for appearance. One would be used to form the back of the Davenport and the other for the front. These would be connected by a series of simple horizontal frames that would also act as the drawer runners.

The panel frames were made by linking the rails and stiles with mitre joints at the corners, **photo 34**. The external dimensions of these were 510mm wide to match the head section of the top, and 540mm tall to give an anticipated overall height of 915mm to the finished piece.

I opted for twin fielded panels, **photo 35**, instead of a single larger panel as none of the timber I had available was wide enough to form a single panel without jointing the boards together. There was no way that a grain match could be achieved using burr oak, and the finished joint would have been highly visible.

The linking frames

Next I constructed five separate frames, two 510mm long by 325mm wide and three others each 300mm long by 325 mm wide. The longer frames were to connect the top and bottom of the two panelled frames, while the shorter ones were to be inserted between these to form the drawer runners and to leave space behind the drawers for the cupboard. These frames were mortised and tenoned together, **photo 36**.

The shorter frames were let into 5mm deep housings cut into the inner faces of the panelled frames, while the longer ones were recessed into rebates of similar depth at the top and bottom of the panels to form the basic carcase. This was glued and cramped up, **photo 37**, and set aside for the glue to dry.

A trial assembly

The three components constructed so far could now be put together temporarily, **photos 38** and **39**. The foot plate was screwed to the underside of the carcase, and the top box section screwed to the carcase top through its 9mm plywood base. Nothing was glued at this stage, as the components woiuld have to be dismantled later so the turned columns could be fitted (and of course for finishing).

In next month's issue you'll be able to learn how I completed the construction of the Davenport by making the front columns, the cupboard door and the drawers. I'll also reveal the secrets behind my cunning rise-and-fall top gallery!

32 I fattened up the blanks for the turned columns by gluing and cramping offcuts to their centres

33 I decided to do the turning later, so set the two blanks aside along with the assembled foot plate

34 The front and rear panelled frames were made with twin fielded panels...

35 ...because I didn't have any burr oak wide enough to use as a single panel

36 The five frames that link the panelled frames have mortise-and-tenon joints

37 The main carcase is assembled, cramped up and set aside while the glue dries

38 The top, the carcase and the foot plate are screwed together to check the fit

39 This view reveals how the horizontal frames will act as drawer runners

BY BEN PLEWES

A place for everything...

These two small shelf units were designed to complement an existing kitchen in American cherry. The kitchen had been hand-built to maximise the use of space, so it seemed fitting that any additional storage should match the existing style and materials

The two shelves have been built to hang side by side and fill a specific space. As with any project designed in this way, the overall proportions are dictated by what is available as opposed to what is ideal. In this case the two shelves have been made to store different items. The larger of the two is essentially a bookshelf with deep shelves to store large cookbooks, and its vertical lines tally with the wall tiles directly below it. The smaller condiment unit features shallower shelves for storing spice jars, salt and pepper grinders, olive oil, and pretty much anything else that would otherwise end up cluttering the kitchen worktop or one of its cupboards.

The right joint

With the shelf material measuring only 12mm thick when finished, it was crucial to get the construction right if the shelves were to stand any chance of surviving the rigours of daily use. From the start there was only one jointing option I considered up to the job: the sliding dovetail housing joint. It can be assembled and used dry if it's a tight fit, but with a little glue there is no stronger joint for shelving applications such as this where concealing the jointing method is a priority. It's a little trickier to make than a regular housing joint, and it requires careful material preparation prior to construction, but when maximum strength is needed with

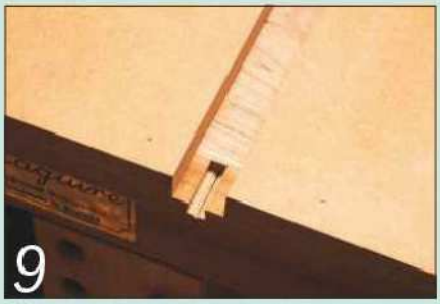
My first job was to rip the 50mm thick cherry stock down in width on the bandsaw

After grain-matching the various components, I pyramid-marked all their edges

I used a French curve and a simple grid to mark out the curved profile on the uprights

...and a bobbin sander on the curved sections to shape them precisely to the marked line

Mark out all the shelf positions with care, using a thicknessed shelf held on edge



All you need to make this simple housing jig are a few board offcuts and some cramps

no visible fixings in thin material such as this, no other joint can rival it for strength.

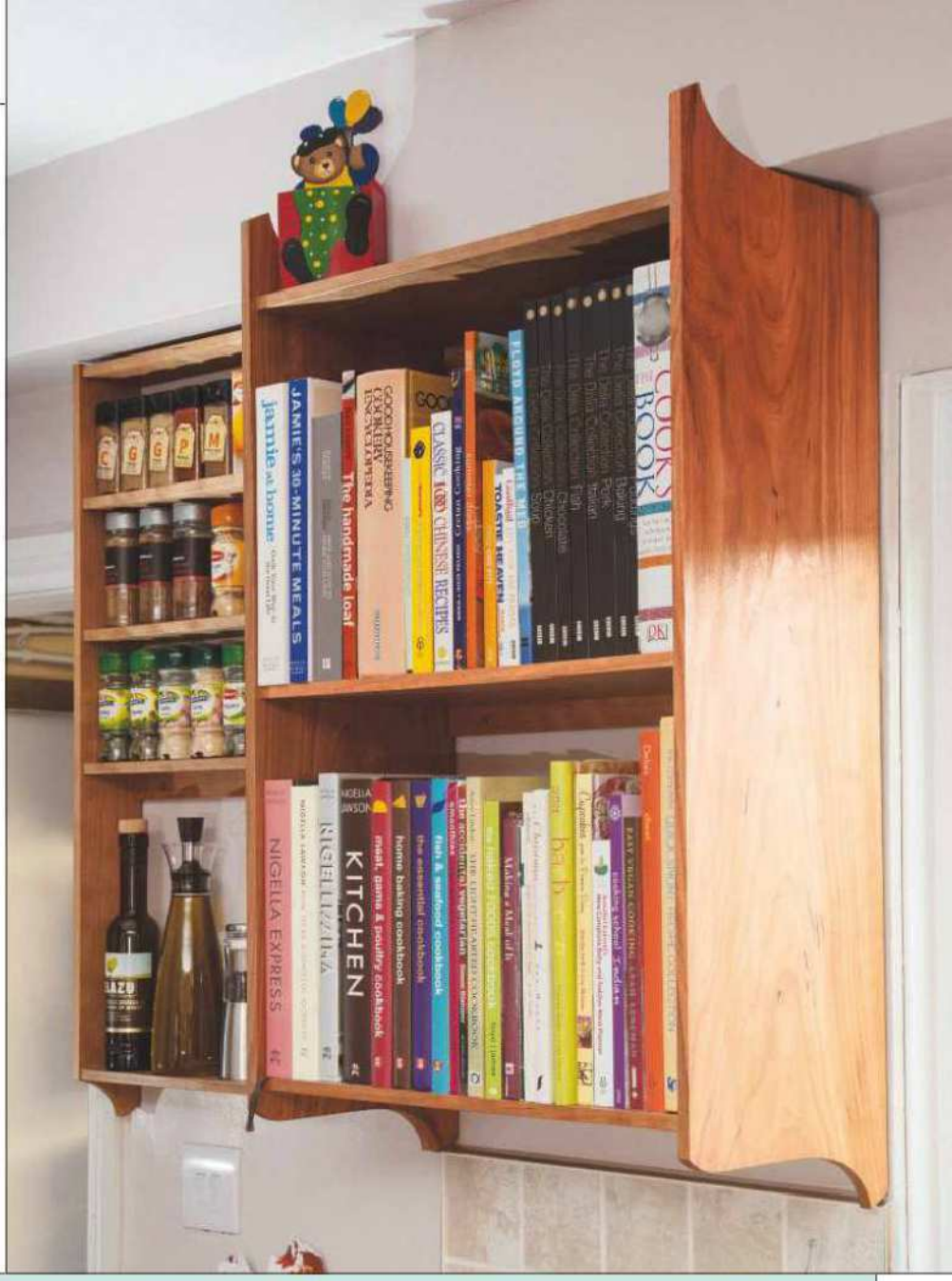
The right condition

All material for this job was cut from 50mm thick rough-sawn American cherry. I used my bandsaw to rip the boards up to 250mm in width down to equal thickness, **photo 1**. Next, I stacked the resawn boards between stickers behind my bench and left them for several weeks to acclimatise to the workshop's humidity and temperature.

This breathing time gives the wood a chance to settle. Any movement that it needs to do can happen during this period. Then later, when it comes to planing and thicknessing, it's much more likely to remain straight and true – doubly important when using dovetail housings because any slight warp or twist in the female part of the joint will adversely affect the fit.

The right thickness

When the material had fully acclimatised, I re-planed and then thicknessed the boards down to 12mm thick. Because all the material had been resawn from larger 50mm stock, there were plenty of grain-matching opportunities throughout the project. After roughly matching the pieces I ripped them to width and cut them oversize lengthways, to allow for possible errors later when making the dovetail housings. I then pyramid-marked each piece to remind me of its position, **photo 2**.




4

A series of parallel relief cuts make it easier for the blade to follow the curved line later...


5

...since the waste pieces break away one by one as the bandsaw blade makes the cut


6

I used a sharp spokeshave to clean up the straight sections on each unit side...


10

Start routing with a straight bit; the pencil marks on the jig indicate where to stop the cut


11

Then switch to using the dovetail cutter and set the depth of cut required


12

Rout the housing and check the depth; I allow an extra 1mm for the glue

Machine the dovetail on the router table, working from both sides of the shelf

Form a shallow French cleat on the rear underside of each shelf edge

You should now have four sides and eight shelves ready for a test assembly

Use a sharp tenon saw to cut away the stopped part of the joint

Transfer the curved profile from the bookshelf sides to the sides of the smaller unit

Cut the curve on the bandsaw and smooth it on the bobbin sander as before

Cutting curves

The sides of each shelf unit feature a curved profile, and my aim was to come up with one that would allow the bookshelf to fit under some existing pipe boxing in the kitchen. I wanted to do this in a way that would provide two small bookends for the very top shelf, allowing it to be used without items falling from either side. The same curved profile would then transfer to the smaller unit to tie the two together visually.

After sketching out several options, I firmed up the top and bottom curves with a series of grid lines and a set of French curves, **photo 3**.

Then it was over to the bandsaw to rough-cut the curves, **photos 4** and **5**, before using a combination of spokeshave (**photo 6**) and bobbin sander (**photo 7**) to complete the profiles.

Positioning the shelves

Before cutting any housings I needed to work out precisely where the joints should be, **photo 8** – a pretty straightforward job in itself, but worth triple-checking in any event. The bookshelf features two shelves, while the shallower condiment shelf features three – loosely based around the dimensions of a Schwartz spice jar – and a single taller shelf at the bottom for grinders and larger bottles.

I marked the centre position for each shelf, ready for my Ron Fox inspired router housing jig, **photo 9**. I can't recommend this highly enough. All the jig requires, aside from a router, its cutters and a guide bush, are some appropriately sized offcuts to build it. This jig greatly simplifies the process of cutting housings accurately with a router.

Hand or machine?

You can cut dovetail housings the traditional way, by hand, or the modern way, with a plunge or fixed-base router. After making a series of these joints by hand at college some years back, I'm now more than happy to reach for my router every time!

Because the male part of the joint – the dovetail – is made to fit the housing, the first step is to cut the housings into the shelf sides. This is slightly complicated by the need to cut the dovetail profile in one pass of the router; dovetail cutters can't be plunged directly into the wood and used with progressive passes in the same way a straight bit can.

To work around this, I first remove as much of the housing material as possible with a straight flute bit, **photo 10**, before fitting the dovetail cutter. The straight bit needs to be slightly smaller in diameter than the narrowest section of the dovetail cutter. Pre-cutting with a straight bit in this way reduces the amount of work the dovetail cutter needs to do, resulting in a smoother cut and, ultimately, a better joint.

Making the cuts

After pre-cutting all the housings and roughing out an additional housing in scrap wood for test purposes, I fitted the dovetail cutter – one with an approximate ratio of 1:8 for hardwood – and set the depth of cut, **photo 11**.

All the housing joints on both shelves are stopped, meaning the housing ends before it reaches the front edges and so produces a concealed joint when viewed from the front. This is easily done by marking the housing jig with a couple of pencil marks to indicate where to stop the router cut (see **photo 10** again).

Cutting the housings doesn't take long: it's the setting up that takes the time. It really is worth checking everything several times before reaching for the power switch. Past experience tells me these things are very easy to mess up!

To the router table

The male portion of the joint is cut on the router table using the same dovetail cutter. These can be tricky cuts to make because the shelves are upended so that the cutter is trimming along the width of each shelf side. Careful set-up is crucial here, from both accuracy and safety viewpoints.

I prefer to use a combination of sliding table and vertical fence to drive the workpiece past the cutter. The sliding table makes it easier to maintain an even feed rate while keeping fingers at a safe distance. Alternatively, a simple wooden driving block can be used against the fence to achieve the same result.

Check that all the dovetail housings fit well, and ease any that are tight

Use a marking gauge to measure the inset of the stopped housings...

...and transfer the measurement to the front of each shelf dovetail

Coat all the interior surfaces of the units with quick-drying sanding sealer

23

Glue, assemble and cramp up the two units and set them aside to dry

Trim the rear of the shelf edges so they're flush with the unit's sides. Then apply the finish

Precision machining

When cutting dovetail profiles like this, I always work on a test piece of exactly the same thickness... in this case, a shelf offcut. I also leave approximately 1mm clearance in the bottom of the housing, **photo 12**, to allow for adhesive spread and cleaning up.

I gently work the dovetail cutter into both sides of each shelf end to achieve a fit I'm happy with, **photo 13**. I usually find that the first few attempts end up too slack as I try to reach the sweet spot between tight and loose-fitting. If the fit becomes too loose I simply crosscut the end of the test piece and start afresh.

The perfect fit

Unlike many other joints, slightly loose is better than slightly tight. This is because, when a dovetail housing joint is driven together, friction increases along its length. So what starts as a loose fit may end up very tight by the time the joint is driven home. I've witnessed instances where skilled woodworkers have produced what they thought was the ultimate fit, only to find that after applying glue they could barely drive the joint halfway home because the friction defeated even the persuasive powers of a mallet. This can be devastating. So please, if you attempt this joint, make and assemble it fully in scrap wood before committing yourself.

Order of work

My workflow for cutting the dovetail shelf ends goes as follows. After careful setting up, I cut both sides of one end of each shelf to form the dovetail. I then measure the shelf length, taking into account the extra length needed for the two dovetailed ends, before cross-cutting it to its final length. Next, I repeat the router cuts on the other end of each shelf to complete the process.

With the router still set, I then make an additional cut to the rear underside of each shelf to form a French cleat profile for fixing each unit to the wall later, **photo 14**.

Housing fine-tuning

At this point I like to bring the components together, **photo 15**, and dry-assemble the shelf to check that the housings fit, tweaking them where necessary with a paring chisel and shoulder plane.

Next, I used a marking gauge to transfer the stopped housing measurement from the female part of the joint, **photo 17**, to the male part, **photo 18**, and cut away the waste with a tenon saw, **photo 19**.

After completing the housing joints for the larger shelf unit, I transferred the curve profile to the smaller condiment shelf sides, **photo 20**, and then repeated the cutting and shaping process, **photo 21**.

Final assembly

With construction complete it was time to start bringing everything together. I cleaned up the surfaces with a finely set smoothing plane to remove all trace of machine and pencil marks. I then used a smaller block plane and some fine abrasive paper to soften any sharp edges. Everything was dry-assembled one last time to ensure I hadn't missed anything.

Next I disassembled everything, coated all the internal surfaces with shellac-based sanding sealer and set them aside to dry, **photo 22**. This sanding sealer dries quickly, so it wasn't long before I could de-nib and assemble everything for real, **photo 23**.

Finishing and fitting

There's always more work to do following glue-up. Some rear shelf edges needed to be trimmed flush, **photo 24**. End grain at the top of the condiment shelf that I'd left oversize prior to glue-up also needed cutting and trimming. Then the external surfaces could be sealed before giving each shelf a generous coating of Fiddes Beeswax paste.

The final job was to fit both shelf units in their final positions on the wall. I machined up a series of French cleats to match the profile already routed into the underside of each shelf (see **photo 14** again). I then pre-drilled clearance holes in them, levelled them, fixed them to the wall with screws and plugs and lifted the shelves into place on them. The interlocking cleats make a very neat and secure fixing.

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Clarke CIRCULAR SAWS

GREAT RANGE IN-STORE

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

CCS-2

MODEL	MOTOR	MAX CUT 90°/45°	BLADE BORE DIA.	EX VAT	INC VAT
FURY	1200w	54/35mm	185/20	£54.99	£65.99
Clarke CCS-2	1300w	60/45mm	185/20	£64.99	£77.99
Makita 5704RK	1200w	66/46mm	190/30	£99.98	£119.98
Rage	1050w	54/35mm	185/20	£89.98	£107.98

Clarke SHEET SANDERS

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

CON300

MODEL	SHEET SIZE	MOTOR	EX VAT	INC VAT
COS200	190X90mm	150w	£14.99	£17.99
CON300	230X115mm	330w	£29.98	£35.98
Makita BO455	112X102mm	200w	£54.99	£65.99

Clarke RANDOM ORBITAL SANDERS

CROS1

£26.99 EX.VAT
£32.39 INC.VAT

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

INC 5 DISCS

Clarke CONTRACTOR RECIPROCATING SAW

INCLUDES 3 WOOD & 3 METAL BLADES

- Multipurpose saw for cutting wood, board, metal pipes etc.
- Max. Depth of cut 210mm
- 850w motor

CON850

£47.99 EX.VAT
£57.59 INC.VAT

Clarke POWER PLANERS

Makita

- 82mm cutting width

FROM ONLY £24.99 EX.VAT £29.99 INC.VAT

CON1020

MODEL	INPUT POWER	DEPTH OF CUT	EX VAT	INC VAT
Clarke CEP1	650w	2mm	£24.99	£29.99
Clarke CON1020	1020w	3mm	£36.99	£44.39
Bosch PHO20-82	680w	2mm	£64.99	£77.99
Bosch GH026-82	710w	2.6mm	£109.98	£131.98

Clarke ROUTERS

RYOBI trend

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

* DIY # PRO

MODEL	MOTOR (W)	PLUNGE (mm)	EX VAT	INC VAT
CR1C*	1200	0-50	£39.98	£47.98
Ryobi ERT1400RV#	1400	0-55	£87.99	£105.59
Trend T5# ‡	1000	0-50	£159.98	£191.98
DeWalt DW622K-GB# †	1400	0-55	£219.98	£263.98

PRICE CUTS! ‡ was £203.98 inc.VAT
† was £275.98 inc.VAT

Clarke DOVETAIL JIGS

- 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 Router not included

CDTJ24

PRICE CUT NOW FROM £44.99 EX.VAT £58.99 INC.VAT WAS £59.98 INC.VAT

MODEL	SIZE	WAS EX VAT	WAS INC VAT	NOW INC VAT
CDTJ12	300mm	£44.99	£59.98	£53.99
CDTJ24	600mm	£84.99	£107.98	£101.99

RECORD POWER LATHES

CL3-CAM

- Cast Iron construction
- 36" Max between centres

LEG STAND FOR DML36SH £49.98 EX VAT £59.98 INC VAT

5 YEAR GUARANTEE

PRICE CUT NOW FROM £239.00 EX.VAT £286.80 INC.VAT WAS £299.98 INC.VAT

PRICE CUTS! * was £299.98 inc.VAT # was £514.80 inc.VAT SAVE £72!

MODEL	MOTOR (HP)	NO. TURNING CAP SPEEDS	OVER BED /OUTBOUND	EX VAT	INC VAT
DML36SH*	1/3	4	9"/12"	£239.00	£286.80
CL3-CAM#	3/4	5	12"/30"	£369.00	£442.80

Clarke ROTARY TOOL KIT

CRT40

£26.99 EX.VAT
£32.39 INC.VAT

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

Clarke CONTRACTOR CR2 ROUTER

£109.98 EX.VAT
£131.98 INC.VAT

INCLUDES 15 PIECE ROUTER BIT SET WORTH OVER £20 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 1800w

CR3 Router with 15 Piece Bit Set also available only £89.98 £107.98

Clarke NEW MULTI FUNCTION TOOL WITH ACCESSORY KIT

- Great for sawing, cutting, sanding, polishing, chiselling & much more
- 230-240v, 250w motor
- Variable speed 15,000 – 21,000 strokes/min

£36.99 EX.VAT
£44.39 INC.VAT

CMFT250

RYOBI ROUTER & TABLE KIT

INCLUDES ROUTER

ERT1400G Router
- 1400w power input
- 14,000-31,500rpm
- 1/4" & 3/8" collet capacity

ART03HG Router Table
- Table dims with extensions 355mm x 101 0mm
- Mitre gauge
- Adjustable blade guard

£159.98 EX.VAT
£191.98 INC.VAT

Clarke WORKBENCH

£79.98 EX.VAT
£95.98 INC.VAT

CWB1250B

- Robust steel workbench
- Extra thick, reversible plywood faced worktop
- Large lockable cabinet with storage shelves
- Tough steel drawer

Clarke 13" MINI WOOD LATHE

£119.98 EX.VAT
£143.98 INC.VAT

CWL325V

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

Clarke BISCUIT JOINTERS

- 10,000rpm no load speed
- 600w motor
- 16mm max cutting depth
- 100mm cutting dia.

BJ600

£49.98 EX.VAT
£59.98 INC.VAT

Clarke ROUTER TABLE

Router not included

CRT-1

£54.99 EX.VAT
£65.99 INC.VAT

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

Clarke HARDWOOD WORKBENCH

- Includes guide holes and bench dogs
- 2 heavy duty vices
- Large drawer for tool storage
- Dims: LxWxH 1520x620x855mm

CHB1500

£129.98 EX.VAT
£155.98 INC.VAT

Clarke STATIC PHASE CONVERTERS

- For use with bigger woodworking machines inc. saws, planers etc.
- Variable output power to match HP of motor to be run

ROTARY PHASE CONVERTERS ALSO AVAILABLE

CONVERT 230V 1PH TO 400V 3PH

PC60

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 LIGHTWEIGHT ALUMINIUM QUICK RELEASE ALUMINIUM SASH CRAMPS

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	£9.69	£11.63

TACWISE NAILERS & STAPLERS

A range of professional Nailers from Tac-Wise

500EL

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

MODEL	TYPE	NAIL SIZE	EX VAT	INC VAT
181EL	Nail	10-35mm	£39.95	£47.98
191EL	Nail/Staple	10-35mm	£44.99	£53.99
400EL	Nail	15-40mm	£69.98	£83.98
500EL	Nail	20-50mm	£79.98	£95.98

Clarke Makita BOSCH JIGSAWS

CJS380

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

*DIY #Professional

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EX VAT	INC VAT
Clarke CJS380*	420w	55/6mm	£14.99	£17.99
Clarke CON750#	750w	80/10mm	£29.98	£35.98
B & D KS600*	450w	60/5mm	£33.99	£40.79
Bosch PST700*	500w	70/4mm	£45.99	£55.19
Makita 4329#	450w	65/6mm	£64.99	£77.99

Clarke BOLTLESS SHELVING BENCHES

- Simple fast assembly in minutes using only a hammer

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

ALSO EXTRA WIDE INDUSTRIAL UNITS AVAILABLE

QUANTITY DISCOUNTS SAVE 10% WHEN YOU BUY ANY 5 PRODUCTS FROM THIS RANGE*

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

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

CPT600

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

*Max planing width 152mm

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

MODEL	MOTOR	MAX THICK. CAPACITY	EX VAT	INC VAT
CP-6	1100w	*	£129.98	£155.98
CPT600	1250w	120mm	£179.98	£215.96
CPT800	1250w	120mm	£199.98	£239.96

Clarke WOODWORKING LATHES

3 PCE CHISEL SET INCLUDED WITH CWL1000

CWL1000

SEE CATALOGUE FOR ACCESSORIES

MODEL	CENTRE TO CENTRE (mm)	TURNING CAP.	TURNING SPEEDS	EX VAT	INC VAT
CWL1000	1016	350mm	4	£106.99	£128.39
CWL12D	940	305mm	5	£199.98	£239.98

FROM ONLY £106.99 EX.VAT £128.39 INC.VAT

Clarke DRILL PRESSES

- Tables tilt 0-45° left & right
- Depth gauge
- Chuck guards B=Bench mounted F=Floor standing

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

MODEL	WATTS/ SPEEDS	EX VAT	INC VAT
CDP5DD	250/5	£64.99	£77.99
CDP101B	245/5	£74.99	£89.99
CDP151B	300/5	£106.99	£128.39
CDP-10B	370/12	£159.98	£191.98
CDP301B	510/12	£199.98	£239.98
CDP451F	510/16	£239.98	£287.98
CDP501F	980/12	£429.00	£514.80

Clarke SCROLL SAWS

CSS16V

FROM ONLY £62.99 EX.VAT £75.59 INC.VAT

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

MODEL	MOTOR	SPEED RPM	EX VAT	INC VAT
CSS400B	85w	1450	£62.99	£75.59
CSS16V	120w	400-1700	£84.99	£101.99

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

FROM ONLY £129.98 EX.VAT £155.98 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	£129.98	£155.98
CDE7B	750w	850 M3/h	114Ltrs	£139.98	£167.98

Clarke DUST EXTRACTOR CDE1000

- 50 litre tank capacity
- 183 m³/h flow rate
- 1100W input wattage

OTHER MODELS AVAILABLE

£99.99 EX.VAT £119.99 INC.VAT

Clarke BELT SANDERS

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

BOSCH Power tools BS1

MODEL	WATT	M/MIN	EX VAT	INC VAT
Clarke BS1	900w	380	£29.98	£35.98
Bosch PBS7A	600w	250	£74.99	£89.99
Clarke CBS2	1200w	480	£69.98	£83.98
Makita 9911	650w	75-270	£92.99	£111.59

Clarke 12" CONTRACTORS SAW

INDUCTION MOTOR

CCS12

£239.00 EX.VAT £286.80 INC.VAT

- 1600w motor
- 315/30mm blade / bore diameter
- 90mm max cut depth at 90°

Clarke 16" VARIABLE SPEED SCROLL SAW WITH FLEXI DRIVE AND WORKLAMP

CSS400C

INCLUDES 64 PIECE KIT

- Parallel action arm design produces quick, accurate cuts in wood and plastic
- 50mm cutting depth • Flexible drive kit for additional grinding, polishing & sanding

£99.99 EX.VAT £119.98 INC.VAT

Clarke BANDSAWS

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

HUGE RANGE IN CATALOGUE & ONLINE

INCLUDES STAND

MODEL	MOUNT	MOTOR	THROAT	EX VAT	INC VAT
Clarke CBS190	Bench	350w	190mm	£109.98	£131.98
Clarke CBS250	Floor	370w	245mm	£179.98	£215.98

Clarke CORDLESS DRILL/DRIVERS

BOSCH Power tools PSR18

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

MODEL	VOLTS	BATTS	EX VAT	INC VAT
CCD180	18v	1	£36.99	£44.39
CCD240	24v	1	£46.99	£56.39
Bosch PSR18	18v	1	£68.99	£82.79

Clarke SPREADER CLAMPS

- Dual action spreader or compression clamp by simple head reversal • Quick release trigger for fast adjustment

CHT651

FROM ONLY £3.99 EX.VAT £4.79 INC.VAT

MODEL	CLAMP SIZE	EX. VAT	INC. VAT
CHT651	6"	£3.99	£4.79
CHT652	12"	£4.99	£5.99
CHT653	18"	£5.99	£7.19
CHT660	24"	£7.99	£9.59

airmaster TURBO AIR COMPRESSORS

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

BIG 2HP 7.8CFM

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

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

STAPLE & NAIL GUN KITS HUGE RANGE IN CATALOGUE & ONLINE

MODEL	MOTOR	CFM	TANK	EX VAT	INC VAT
BT-AC200	1.5 Hp	6.2	24ltr	£79.98	£95.98
Tiger 8/44	2 Hp	7.8	24ltr	£114.99	£137.99
Tiger 8/64	2 Hp	7.8	50ltr	£164.99	£197.99
Tiger 9/24	2.5 Hp	8.7	24ltr	£149.98	£179.98
HUNTER 55	2.5 Hp	8.7	50ltr	£179.98	£215.98
Tiger 9/60	2.5 Hp	8.7	50ltr	£189.98	£227.98
AM17EC150	3Hp	14	150ltr	£419.00	£502.80

Clarke MITRE SAW STAND - CUTS1

£76.99 EX.VAT £92.39 INC.VAT

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

evolution MITRE SAWS

makita

- Quality range, ideal for cross, bevel & mitre cutting
- 45° tilting blade & table • Dust extraction system

RAGE3

FROM ONLY £119.98 EX.VAT £143.98 INC.VAT

MODEL	BLADE DIA./BORE	MAX CUT DEPTH/CROSS	EX VAT	INC. VAT
Fury 3	210/25.4mm	60/200mm	£119.98	£143.98
Evolution Rage 3	255/25.4mm	75/300mm	£169.98	£203.98
Makita LS1040	260/30mm	95/130mm	£199.98	£239.98

Clarke 10" SLIDING MITRE SAW

- For fast, accurate cross, bevel & mitre cutting in most hard & soft woods
- 1800w motor
- 6000rpm

CMS10S2

£129.98 EX.VAT £155.98 INC.VAT

Clarke 10" SLIDING MITRE SAW ON BASE

- For easy, precise and smooth cutting of wood parts • Carbide tipped saw blade
- Rotating table for precise angle cuts ranging between -52° and +60°

FROM ONLY £159.98 EX.VAT £191.98 INC.VAT RT-SM430U *Includes laser guide

MODEL	BLADE DIA./BORE	MAX. DEPTH OF CUT	EX VAT	INC VAT
RT-XM305U	250/30mm	75mm	£249.98	£299.98
RT-SM305L *	210/30mm	65mm	£159.98	£191.98
RT-SM430U *	250/30mm	75mm	£249.98	£299.98

BLACK & DECKER POWERFILE

£54.99 EX.VAT £65.99 INC.VAT

KA900E

- Great for hard to reach areas
- 13mm wide belt, 120mm long arm • 350w motor

Clarke WOODWORKING VICES

FROM ONLY £13.99 EX.VAT £16.19 INC.VAT

Record WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EX 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
Clarke WV70R	Bolted	180/205/80	£39.98	£47.98

Clarke BENCH GRINDERS & STANDS

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

- Stands come complete with bolt mountings and feet anchor holes

8" & 8" AVAILABLE WITH LIGHT

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
CBG6SB#	PRO	150mm	£49.98	£59.98
CBG6RWC	HD	150mm	£54.99	£65.99
CBG8RSC	HD	200mm	£59.98	£71.98
CBG8W (wet)	HD	150/200mm	£55.99	£67.19

VAC KING Earlex WET & DRY VACUUM CLEANERS

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

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

* SS = Stainless Steel

MODEL	MOTOR	CAPACITY WET/DRY	EX. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£46.99	£56.39
WD1000	1000W	13.5/12ltr	£49.98	£59.98
CVAC20SS*	1400W	16/12ltr	£57.99	£69.59
CVAC25SS*	1400W	19/17ltr	£64.99	£77.99
CVAC30SS*	1400W	24/21ltr	£84.99	£101.99

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 WHETSTONE SHARPENER

- Produces accurate razor sharp cutting edges on chisels, scissors, tools etc
- 120w motor
- Grinding disc dims: 200mm dia x 40mm x 12mm bore
- Wet bath

£99.98 EX.VAT £119.98 INC.VAT

CWS200

Clarke 6" BENCH GRINDER WITH SANDING BELT

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

£49.98 EX.VAT £59.98 INC.VAT

CBG6SB

Clarke CARVING CHISEL SET

£39.98 EX.VAT £47.98 INC.VAT

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

QUALITY BEECH HANDLES

CHT400

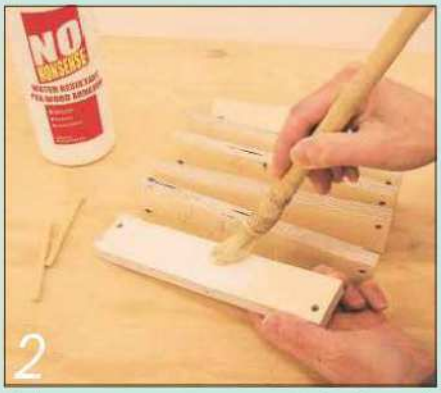
12 PIECE SET

Case study

This project was first published in *The Woodworker* four years ago, and was always one of Mike Lawrence's favourites. When he asked if he could include it in his farewell issue as a reminder to you of my talents as a designer/maker, how could I refuse? I like it too...

BY MARK CASS

The stack of plywood is held in place with short lengths of 6mm dowel through opposite corners



Each piece can now be separated, glued up and reassembled in the stack with confidence...

...that there'll be no slippage. The stack is then cramped securely while the glue cures

I've always liked small cases of different kinds, but until now I've never made one with round corners. They're entirely unnecessary, of questionable strength and something of a luxury, but from the moment I'd considered a non-square version I just knew I had to make it. Looking around the workshop for suitable off-cuts, I spied a few bits of birch-faced plywood, and almost before I realised it I was hard at work.

Laminating corners

My basic plan was to join four corner blocks to four sides to form a basic box, the blocks providing the means of creating the round corners. After preparing my dimensions and drawing out a basic rod, I set about gluing up a large block for the curved corners.

A stack of six pieces of 15mm plywood – cut with alternating grain direction to achieve a uniform appearance – would produce sufficient height for my intended purposes, and would I hoped be fairly manageable into the bargain.

My previous experiences with cramping multiple layers have generally been memorable only for the amount of comedy slippage encountered, so this time I took steps to prevent such an unwelcome phenomenon. A hole bored through two opposing corners of the entire stack enabled me to anchor things with some 6mm dowel, and I'm pleased to report back that the stack stayed steady throughout the cramping – an early success which put me in good spirits for the rest of the job!

Making templates

While the glue cured, I set about making a couple of templates for the round corners – both inside and out – using a jig I'd made for my Trend T5 router from one of Ron Fox's designs; his small circle jig. This is straightforward enough to make and very easy to use, and before long I had my two templates prepared in 6mm MDF.

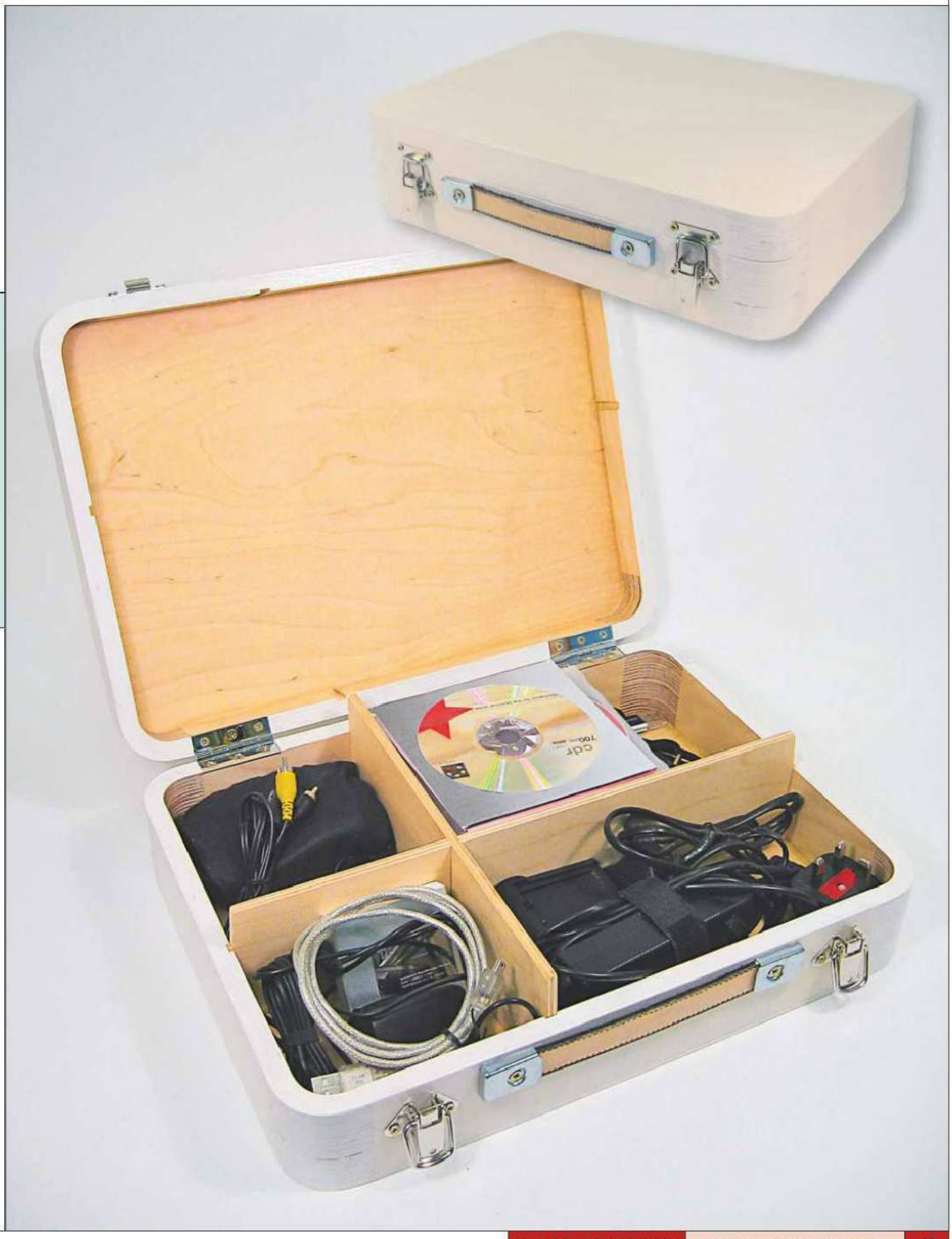
Playing dominoes

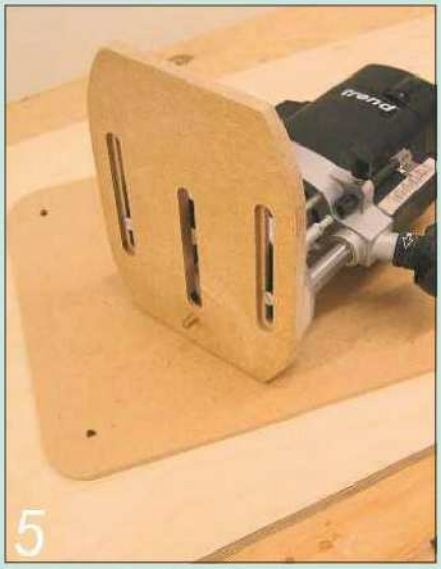
When the glue was dry I released the stack from the cramps and planed it to thickness before cutting off four square sections, one for each of the case corners. These were to be joined to the four sides by means of the smallest dominos or loose tenons.

I'm a big fan of Festool's Domino, and will use it wherever suitable; this job could also have been completed with a simple dowel jig, or Tanselli wafers in biscuit-jointer cut grooves.

With the corner pieces still square it was simple enough to hold them in the vice for cutting the domino slots. The sides, back and front of the case were then clamped to the bench for cutting the domino mortises.

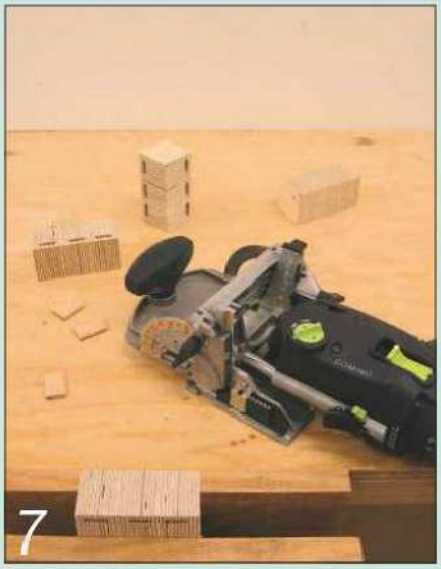
The four corner blocks are quickly cut to size





I made a couple of templates for the corners using a jig made to one of Ron Fox's designs

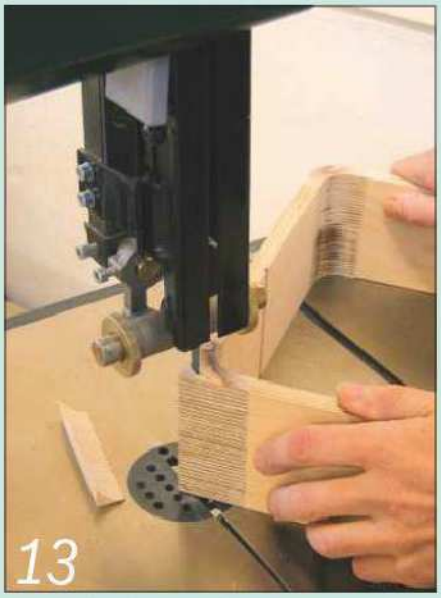
Marking out the domino positions on the corner blocks. A test block is in the background



The Festool Domino makes a quick job of cutting the slots in each corner block

Note that the external corners are left square at this stage to make cramping easier

The internal corner template allowed me to trim the internal curves; note the cutter burn



Now it's back to the bandsaw to rough-cut the external corners to shape

Cutting corners

The internal corners could now be cut out on the bandsaw (a fresh sharp blade works wonders). Then it was time to run a groove or two for case compartment dividers in the internal faces of the sides before assembly. These sides were sanded smooth while they were still accessible, then the glue-up could begin.

This proved to be quite tense, mainly because the dominoes had swollen slightly over the winter in my workshop, and once fitted there was no going back. It was a relief to get the last cramp tightened up, and this was one job where I trusted to in-built accuracy for square as I didn't see where anything could have been adjusted. As it happened it came out perfectly square, but the edges did need a bit of planing to remove a hint of a stagger in one or two places.

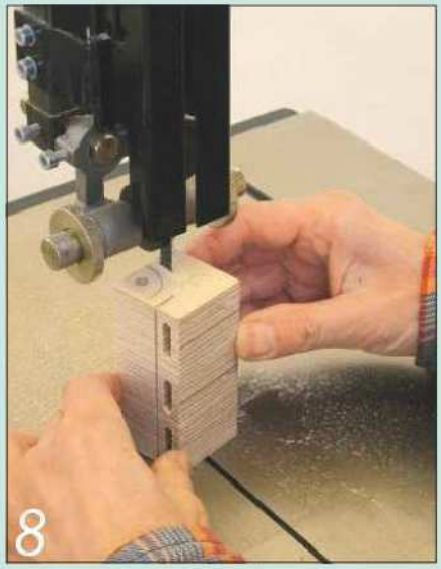
The Inner curves

After modifying one of my corner templates, it was time to address the inner curves. I've got the perfect cutter for this sort of job – a ½in Trend profile cutter which, together with my big Festool router, makes a winning combination.

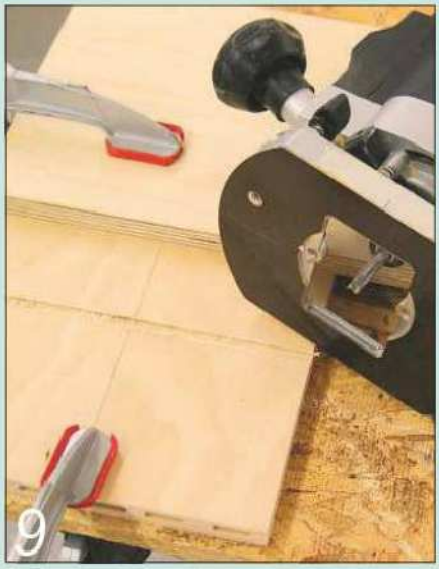
The internal faces were soon trimmed smooth, and although there was a bit of cutter burn here and there, it wasn't so bad as to give cause for concern. Next the outside corners had to be addressed. These were first rough-cut on the bandsaw, then routed as before, but this time using the external curve template.

Clean up time

Cleaning up the internal corners, though tedious, was a job well done – certainly easier to do at this stage than later. Once finished it cleared the way for gluing the top and bottom of the box into place. No nails or screws were used here, and once



The internal corners of each block were rough-cut on the bandsaw



Rout grooves in the internal faces of the sides for the internal compartment dividers

With all the case components prepared, it's time for the glue-up to begin

I then trimmed them precisely using the external curve template and profile cutter

This is now the time to clean up the internal corners of the box – a job easier to do at this stage than later

dry the oversized lids could be trimmed to size, and the external corners planed in and cleaned up.

After a spot of nail-biting and careful checking, it was time to take the plunge and cut the case into its two component parts, a box and a lid. Even though I'd planned ahead and ensured a useful gap between the top and the middle dominoes, there's always that element of doubt when you're working with something you can't see.

One into two

With the saw carefully set and the guard temporarily removed, it was plain sailing to run each side of the case through the saw. As it happened, everything worked out perfectly and left me two parts – a top and a bottom – and just a small amount of cleaning up to do on the edges.

When I was happy with the fit, it was time to reach for the hardware. I don't know what it's like buying fittings round your way, but lately I've been finding it harder than ever, and I had to search all over town for what I wanted for this particular job.

Fitting up

By clamping the lid sideways to the case body, I was able to rout the hinge recesses on both parts at once. This not only saved time; utilising the double thickness thus created made an easier job of holding the router steady. With the hinges partially fixed, I checked the fit of the closing lid, and, duly satisfied, I set about fitting the catches and the strap handle.

Dividing time

At the start of the job I'd planned on having dividers inside the case – something of an optional extra, but very useful depending on what you might decide to transport. The 6mm dividers fitted quite nicely in the grooves, although I had to trim them here

The top and the bottom plywood panels can now be glued on and cramped securely

After trimming the top and bottom edges, cut the box carefully in two on the table saw

Clamp box and lid together and rout out the hinge recesses on both parts at once

Fit the hinges and tap the two compartment dividers into their grooves

The case, complete with all its hardware, just needs a finish

and there to permit the lid to close cleanly. Finally it was time to remove all the hardware and fittings, and give the case its last clean-up before applying the finish.

All white on the night

Since the majority of consumer electronics – especially gaming and music players – are manufactured in a clean white colour, I thought I'd have a go at something along these lines. A thin wash of white primer provided sufficient pigment to achieve the colour required while still leaving the grain discernible. Then a couple of coats of acrylic varnish protected it and gave it a bit of a shine, and a final light coat of neutral coloured wax made it feel nice to the touch.

Conclusions

As a job, this little case came out pretty well, but I must remember in the future to take into account the readiness of birch-faced plywood to chip annoyingly where it's least wanted.

I was happy overall with the round corners, but a bit disappointed that the appearance of the finished case might easily lead to it being appropriated by the lady of the house whilst packing for a weekend away!

Oh well, it's all been good experience, and this job also taught me one or two new tricks along the way, particularly the importance of carrying out each task in the correct order!

CARRY CASE CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
Corner blocks*	4	30	30	78
Long sides	2	320	78	12
Short sides	2	220	78	12
Top/base	2	380	280	6

*Finished size after trimming – see text. All materials are cabinet-grade birch-faced plywood. Internal dividers are cut to size to suit the intended contents.
You will also need two small brass hinges, two snap-lock catches and a handle, plus small screws to attach them to the case.

Unbeatable Sanding Power

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76mm Belt Sander

Triton's **TA1200BS** Belt Sander is host to many significant features, from variable speed control for improved versatility, to belt tracking adjustment for accurate alignment of the sanding belt.

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for working with different materials

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adds convenience with extended use

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BY ANDY STANDING

B is for...

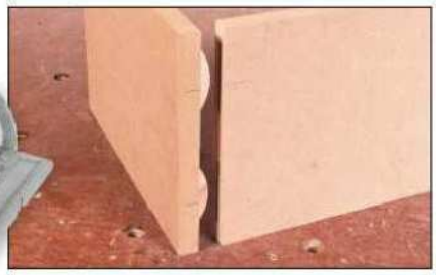
The aim of this new series is to provide you with snippets of interesting and, I hope, useful information concerning all aspects of woodworking. It will explain some of the mysteries for those new to the craft, and will I hope inspire and entertain everyone else

The idea of pottering through the alphabet and looking at woodworking topics that begin with each letter in turn generates some unusual bedfellows... and that's another B! But it's an interesting exercise in lateral thinking, because in a curious way one topic seems to lead on to another, even if there's no obvious link between them as you first consider them. Here's my second batch; please read on, and see what useful nuggets you can pick up from my trawl through subjects beginning with the letter B.

BISCUIT JOINTER

Traditionally wooden constructions have been held together with strong joints, coupled with rather weaker glue. However, today glues are considerably stronger and more efficient, meaning that there is less reliance on the mechanical strength of the joints. Increasing use of board materials such as MDF and plywood has also led to the development of simpler – and quicker – jointing techniques.

The biscuit joint is a perfect example. A slot is cut in both parts using the biscuit jointer, which is effectively a small plunge saw. Then an oval biscuit is glued and inserted into one slot before the components are brought together.



The biscuit is made from dried compressed beech; when it is inserted in the slot and a water-based glue such as PVA is applied it swells, producing a secure and durable joint. Biscuits can be used to make several joints such as housings and mortise-and-tenon joints, and are an excellent way to strengthen mitre and edge-to-edge joints too.

BUTT JOINT

This is the simplest of all woodworking joints, and can be surprisingly strong in the right configuration. When joining a number of boards to make up a wider panel, a simple edge-to-edge butt joint can be used. As long as the meeting faces are a precise fit and the joint is cramped while it sets, the result will be a very strong joint. Problems will arise, however if you try to butt-join endgrain. Because this is particularly porous it tends to suck the glue in, so starving the joint and leaving the bond very weak. Avoid at all costs!

BANDINGS

These are inlay lines used to enhance and decorate furniture and woodwork – either to create freestanding geometric patterns or simply to follow the shape of the piece on which they are installed. They're made from thin strips of veneer, and can be plain or patterned.

The usual method of applying bandings is to cut a shallow groove with a router and then to glue the banding in place. Bandings can be very narrow, and specialist inlay router cutters are available to fit them. A chisel and a combination square can be used to cut corner mitre joints, and a cabinet scraper will finish the banding perfectly flush with the surrounding surface.

BANDSAW

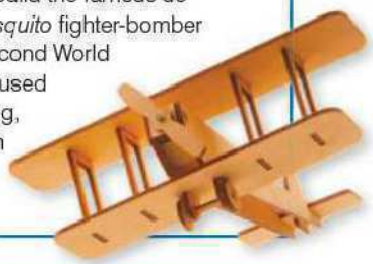
The bandsaw is a workshop machine that's primarily used to cut curved components and joints. As its name suggests, the blade is a continuous toothed steel band that runs round a pair of vertical bandwheels. The band passes though a slot in the worktable and cuts on the downstroke.

Bandsaws can be small bench-mounted tools or large floor-standing machines. Unlike table saws, they run quietly and are safer to use, as there is less danger of the kickback which can occurs when the workpiece is snagged by the blade's teeth and ejected from the machine at high speed, usually directly at the operator. Bandsaws can be tricky for the novice to set up, and their blades are easily damaged if used carelessly. However, the majority of bandsaw problems can usually be resolved by fitting a new blade.

BALSA

This, the softest and lightest of all woods, is in fact a tropical hardwood, which seems rather odd. However the terms 'hardwood' and 'softwood' don't actually refer to the hardness of the timber but to the type of tree from which it comes. Hardwoods come from deciduous trees such as birch and oak which lose their leaves in winter, whereas softwoods are from evergreen trees such as the pines and spruces. To add to the confusion, there are some very hard softwoods – yew, for example.

Balsa is light and soft, though surprisingly stiff, making it popular with makers of model planes… and a few full-sized ones. It was extensively used in the form of a plywood and balsa sandwich to build the famous *de Havilland Mosquito* fighter-bomber during the second World War. It's also used in boatbuilding, where its high buoyancy is an asset.



BEECH

Beech is one of the hardest and most durable timbers. It is extensively used in furniture for carcase construction, and it bends well so is eminently suitable for making chair frames. It's also popular for kitchen utensils such as chopping boards and butcher's blocks.

It's a plainly figured timber, so isn't widely used for decorative purposes. However, when attacked by honey fungus it can produce very attractive figuring, and is then known as spalted beech. Though the timber strength can be compromised by the fungal attack, the wood's decorative properties are enhanced; spalted beech is a popular choice with woodturners.

BOOK

One of the best ways to learn woodworking skills is from books, and there's a vast range of titles in print on the subject. I've written two myself, and I advise you to go out and buy them both immediately! Then of course you'll need to build a *bookcase*, perhaps finished in *burr veneers* which will of course have to be *book-matched*. This refers to the juxtaposition of two consecutively cut veneer sheets as mirror images of one another, like your left and right hands or the open pages of a book.

BEVEL

A bevel is a sloping surface. In woodwork it refers to the angle ground onto the tip of a cutting tool such as a plane or chisel to form the cutting edge. It can also refer to a type of angled edge moulding used on furniture. Any slope can be a bevel, though if it's cut at exactly 45° it is usually called a chamfer.

BRACE AND BIT

A brace is a large hand drill used to drive large-diameter auger bits. These bits have unique square shanks that lock into the brace's chuck jaws. The tool is often fitted with a ratchet mechanism for ease of operation, and can also be used for screwdriving when fitted with a suitable bit. Its size allows the operator to generate considerable torque – enough to drive a large bit into even the hardest timber with ease. They are less used these days as their functions have largely been taken over by the more powerful cordless drills.

BURR

This can mean two things in the woodworking world. Firstly it can refer to the strange type of growth that can occur on certain trees, particularly walnut and oak. The burr produces highly figured timber which is much prized for its decorative properties and is often used as a decorative veneer.

Secondly a burr can mean the lip of metal raised during the sharpening process on edge tools such as planes and chisels. When you sharpen the bevel, a small burr will be created on the flat back of the blade, which is removed by laying the blade flat on the sharpening stone and giving it a couple of strokes. On a cabinet scraper, however, a microscopic burr is created deliberately and this serves as the tool's cutting edge.

BOBBIN SANDER

This type of sander uses a cylindrical sanding drum that projects from the centre of a small worktable. It is predominantly used for smoothing concave curves, though can be used with care on all manner of other shapes. In skilled hands it can greatly reduce the time needed to smooth and finish shaped components.

WIN!

AN EINHELL MINI CIRCULAR SAW WORTH £70

We have six mini circular saws from the Einhell Blue power tool range to give away this month. It's a saw with a difference, because it's designed primarily for use with sheet materials up to 25mm thick, and is light enough and portable enough to be used even in confined spaces.

All you have to do to grab one of these nifty little tools is to complete the coupon below and send it in. We will then draw six lucky winners from the postbag, and arrange for Einhell to deliver your saw direct to you.

READ OUR REVIEW ON PAGE 66

Einhell
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Established in 1964

EINHELL NT-CS 860L MINI CIRCULAR SAW

This is definitely a saw unlike any other. It has a body shaped like an angle grinder and an 85mm diameter saw blade that's driven by a rubber drive belt, rather than directly as on most full-sized circular saws. The maximum cutting depth is 25mm, making it an ideal tool for cutting up man-made boards as well as jobs such as zipping the tongues off old floorboards. There's a laser on the front to help you keep the blade on line. Unlike a conventional circular saw, the soleplate is sprung, so the blade doesn't protrude through the base when the tool is not in use. A release button must be pressed before the blade can be plunged.

The saw comes complete with a coarse and fine blade, blade-changing tools, a dust extraction adapter that will connect to any standard vacuum hose, and a handy storage and carry case. It's light, weighing just 2kg, and very manoeuvrable – a saw that will go literally anywhere you want to take it.

For more technical information about the saw, or to request the new 2013 Einhell catalogue, please call 0151 649 1500

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Fill in your personal details, then cut out the coupon (or photocopy it) and send it to:

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BY ANDY KING

The bandsaw

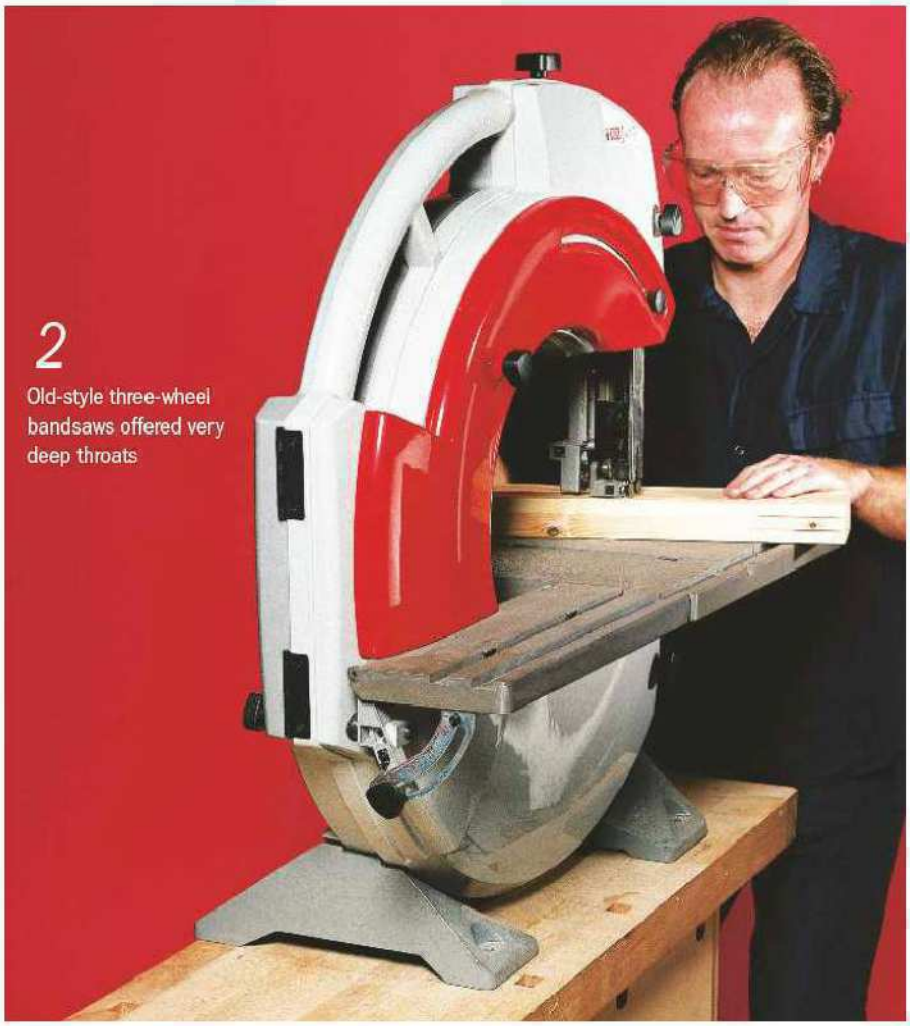
The diameter of the wheels determines the bandsaw's throat capacity

I'm often asked which is the best purchase for the workshop – a bandsaw or a table saw – but coming up with a definitive answer is almost impossible. Here's my best shot...

It's almost like asking whether to buy a car or a motorbike. Both get you where you want to go, but each one has advantages the other doesn't and, of course, disadvantages too.

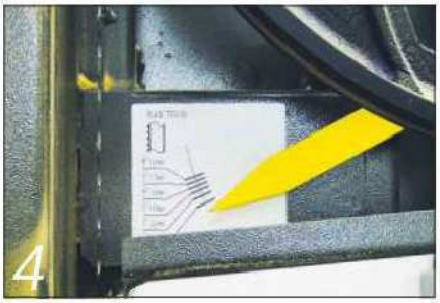
The table saw was always seen as the heart of the workshop when I was training, but we used it more for stock conversion of sawn timber prior to cleaning up and getting to finished dimensions at the planers rather than relying on it for high-end accuracy.

Things have changed a fair bit now, and with a good blade you can get accurate clean finishes direct from the bandsaw, but it's still a workhorse stock converter first and foremost in my mind.



2
Old-style three-wheel bandsaws offered very deep throats

3
The tensioning guide is often just a simple indicator cursor...



4
...or a finger that points to a dimension equal to the blade fitted

5
A useful addition on newer machines is a blade tensioning lever

6
A crowned wheel allows the blade to sit more central to the tyre

If you want diversity however, you can't beat a bandsaw. It can convert thick stock or cut the most delicate of curves, but it needs to be set up correctly to do the jobs that it's capable of.

As with any purchase there are several considerations to make before you get anywhere near spending a lot of money on a new saw.

Budget matters

Budget is likely to sway most of us first and foremost, and will also dictate capacities. Sadly, in the woodworking machine market there seems to be a notion from the major manufacturers that 'budget' automatically means 'smaller capacity'. In actual fact there's probably a decent market for well-built smaller capacity saws at higher prices for woodworkers, as I discussed in last month's planer feature.

There are also end user needs, and I've had many a request for information on what would be the best bandsaw of a certain cutting depth, especially from woodturners looking to cut blanks to size for bowls and the like.

The problem is that everyone thinks only of maximum capacities, so the question is usually 'I'm using 100mm deep timber, so what 100mm capacity saw is best?' In truth it would really be none of them as they would then be cutting to their limits more often than not. I often compare this to owning a car. Most are capable of going at 120mph, but driving one flat-out all the time is going to be detrimental to the engine in a short space of time.

Much the same applies to a bandsaw. If you see yourself cutting 100mm thick timber on a regular basis, then buy a machine with a capacity of 150mm or more so as to give yourself a bit of leeway and take some strain off the motor.

Other capacities

It's not just a matter of looking at depth of cut though. The throat dimension dictates the maximum stock that can pass through it, and while it's not a huge restriction in some instances, if you have intricate curvature to cut on a wide piece you can easily come unstuck.

There's usually a correlation between the depth of cut and the throat depth, so if you need throat dimension you will need to look to a deeper cutting capacity to gain it.

In real terms this is dictated by the wheel diameters, **photo 1**. The bigger the diameter the bigger the throat capacity, as it throws the outer edge of the wheel further away from the throat. Many readers may

remember the three-wheeled bandsaws that gave a huge throat capacity in relation to the depth of cut, **photo 2**.

While that was ideal for intricate curve work, the problem was tracking the blade. On a two-wheel bandsaw it's quite easy to keep things aligned, but on the three-wheeled designs the blade was notorious for running off.

Setting up

Getting a bandsaw to cut successfully in all types of application is a combination of correct tension, tracking and guiding, as well as the selection of the blade itself. The side guides are not part of this process, as they're present mainly to prevent the blade from twisting as you make curved cuts. Initial setting up should be made with all the guides backed off so that tracking and tensioning adjustments can be made.

It's almost an urban myth that the guides need to be snuggled up as close to the blade as possible to prevent the blade from wandering when you make any cut on a bandsaw. In truth you should be able to make good straight cuts with the side guides backed right off if the tension and tracking are right and your blade selection matches the work you are doing.

It's certainly essential that the thrust bearings are adjusted properly so the blade isn't forced back under load, but the side bearings or guides are secondary to this, and only really come into play when you start to do curved work. To rip straight work successfully on a bandsaw it's often better to use a ripping post, and those guides do play a part here... but I'll come to that later.

Blade tension

Getting the correct tension on a bandsaw is an essential part of successful sawing. It has to be of sufficient tautness so as not to deflect under load where it encounters differing hardnesses within the stock, such as knots or even growth rings.

Many saws will have a tensioning guide – often a simple indicator cursor or finger that points to a dimension equal to the blade fitted as you tighten it, **photos 3** and **4**, More elaborate digital gauges are sometimes fitted on bigger saws.

However, the term 'tensioning guide' is the key. These are just that; a guide to indicate you are in the right ballpark, but there can still be the need to tweak the setting to get it just right.

The deflection test

I usually tension to the setting suited to the blade, and then raise the guides up as high as they will go and try to deflect the blade sideways. A reasonable rule of thumb is to be able to push it by around 6-10mm, which should give you sufficient tension to hit the right spot. However, a minor adjustment here or there to sweeten it should be part of your regime, and should be done every time you swap blades, even if you put an old blade back on.

The top wheel is rotated as the tracking is adjusted to align the blade

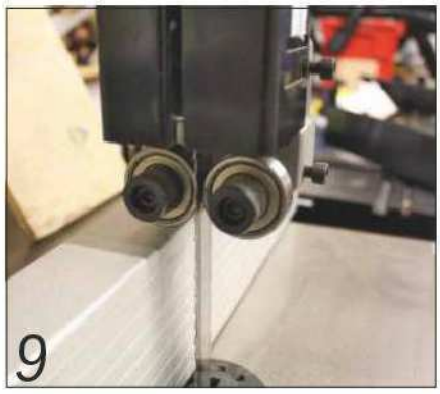
A useful addition on newer machines is a tensioning lever, **photo 5**. This fast adjuster allows the top wheel to drop far enough to slip the blade off for replacement. However, be aware that you still need to alter the tensioning to suit the blade, so it should always be used in combination with the tensioning wheel.

Releasing the pressure

Where this does prove useful is for the 'old school' teaching of bandsaw set-up. As the tensioning imparts a huge amount of force through the framework of the saw, the theory is that over time it can alter the framework enough to make accurate tensioning difficult.

It has long been seen as good practice to release the tension if the saw isn't being used over long periods in order to help alleviate the problem, and I've certainly been in a few workshops where the saw displays a sign hanging over the blade saying 'tension before use' to prevent any mishaps from occurring.

Setting the side guides can be a fiddly job to carry out on some bandsaws



Roller guides touch the blade and rotate as it passes them

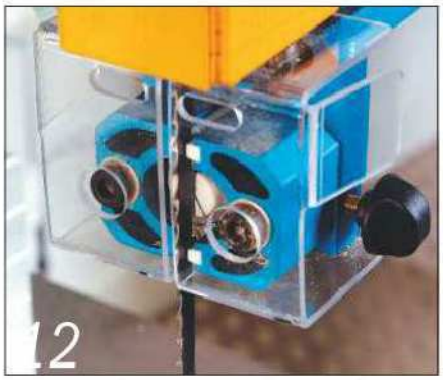
Disc guides should be set a paper's thickness clear of the blade

The right track

After tensioning is done to suit the blade, the tracking needs to be set up next. You may find that some older bandsaws have a flat-tyred wheel set-up, while the crowned tyre version is more commonplace.

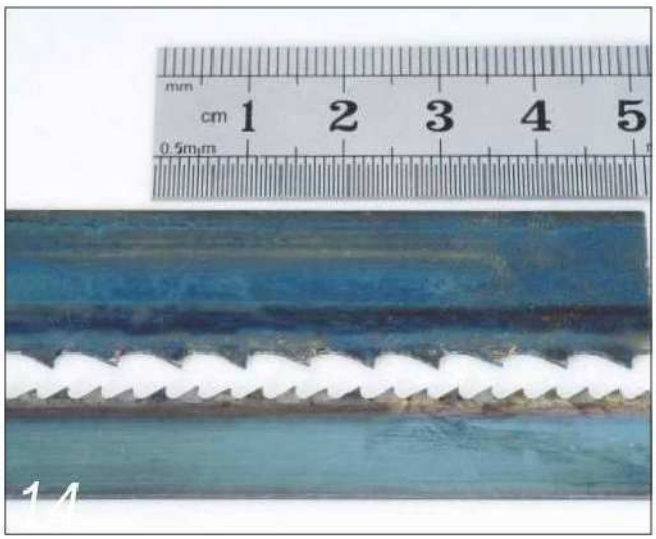
On the older style the blade is normally set up to run on the edge of the tyre so that the teeth sit off the wheel and don't dig into it. The newer crowned wheel allows the blade to sit more central to the tyre. This allows the crown to accommodate the set

Nip block guides up just enough to engage without the blade twisting



Ceramic guides are set into aluminium shoes with four small pads per set

Position the thrust bearing so it prevents the blade from moving backwards



Skip-tooth blades (top) are missing every other teeth, creating a wider gullet that clears waste more quickly than a standard set

of the teeth without digging into it or flattening the set-off, **photo 6**.

The blade should be positioned on the tyre and tensioned up to the right amount for the blade width. Then the top wheel is rotated by hand and the tracking adjusted as it's rotated to align it to the correct position on the wheel, **photo 7**.

Once this has been done I usually make sure everything is secure, guides backed off and guide post raised and the doors shut. I then start the saw up for a couple of seconds and check everything again. This ensures that the wheels are running true and the blade is sitting in the correct position. You can fine-tune as needed by repeating the procedure before moving on to setting up the guides.

Getting your bearings

Setting the side bearings or guides correctly is essential if curved work is to be done accurately, as the loading you put on the blade as you twist the work around will deflect it if the support isn't set up properly. You can also deflect the blade away with the guides in free-running mode if they aren't positioned correctly.

Setting the guides can be a fiddly job on some saws, **photo 8**, and the variation in styles and types is quite marked; older saws especially were often very basic.

Even new machines can have variations. The upper guides are often a different design to the lower set. Somewhat bizarrely, the upper set is often superior in make-up and design, and far easier to sort out than the lower ones.

It can make life that bit more awkward as you have to get under the table to gain access and deal with a design that would have been better suited on the top guides, while the easy adjusted top set would be better in the more confined and awkward lower position, but maybe that's just me thinking aloud...

The general types are usually roller, disc or block styles. Let's look at each one in turn.

Roller guides

I've always seen this bearing style as a more sensible arrangement, as the guides address the blade edge-on and can therefore touch it, rotating as it passes for maximum support, **photo 9**.

You often see thrust bearings in a similar position so that any friction from blade contact is negligible. However, some bearings are positioned where the back of the blade goes across the face, which seems at complete odds to how a bearing should work!

Disc guides

The discs are introduced side-on to the blade and are usually of cast iron construction as this is seen to have 'self-lubricating' properties should it come into contact with the blade, **photo 10**. However, they should be kept as close as possible without contact; usually the thickness of a piece of paper will serve as a margin for clearance.

Pin/block guides

This last type is the simplest and certainly one of the oldest. In some instances they were simply a couple of blocks of hard timber – preferably of a dense nature for durability under contact, so lignum vitae was always a good choice as it's a naturally oily timber. However, you can soak any dense hardwood in oil as a substitute, and it's certainly a cheap and cheerful but pretty successful way of guiding the blade.

You have to have clearance on the blade or it will pinch, so the slip of paper between each guide as clearance comes into play once again. That should also be just enough to allow the weld on the blade through, although a quality blade should be flat and smooth on the weld – you'll normally hear a click when a blade with a

slightly thick weld goes past the guide.

On the older Startrite saws the guide blocks work really well. They're long and wide, so they give a huge area of support. However, they can be frustrating to set up as there's just one bolt to adjust, and as you twist the spanner to tighten it the block can skew with it and deflect the blade. Persevere and nip the guides up just enough to engage without twisting, and they work as sweet as a nut, **photo 11**.

Cool Blocks

On some older small bandsaws where you have a pin or block style guide, there was an option to replace them with Cool Blocks. Made from a graphite impregnated laminated phenolic resins, they sit right alongside the blade – but with the added bonus that you can bring the guides forwards and enclose the teeth, giving in effect a zero clearance situation.

This set-up is great for supporting narrower blades, especially where you are doing a lot of scroll-type work, as they minimise the twist on the blade as you turn the work.

If you have the type of saw that takes Cool Blocks, finding them in the UK is difficult nowadays, but you can still get them from the USA.

Ceramic blocks

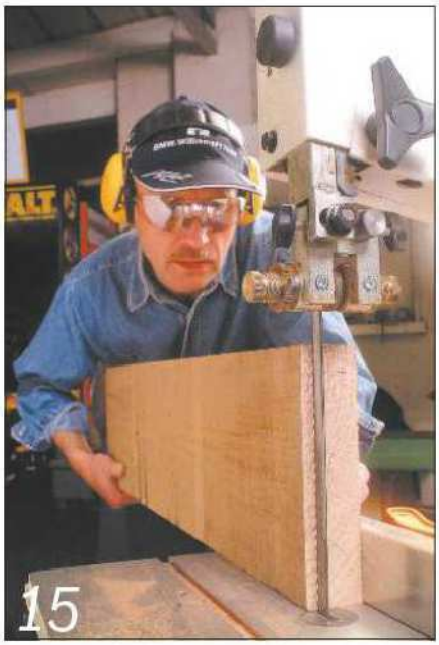
A further system found on higher-end saws is the use of ceramic material for the guide system, both for side support and the thrust support. These are very durable and run cool, but initial settling in or after a blade swap can lead to a spark or two as they bed down under cutting load.

They're set into aluminium shoes with four small ceramic pad guides per set so they will give a longer blade support area than standard guides, **photo 12**.

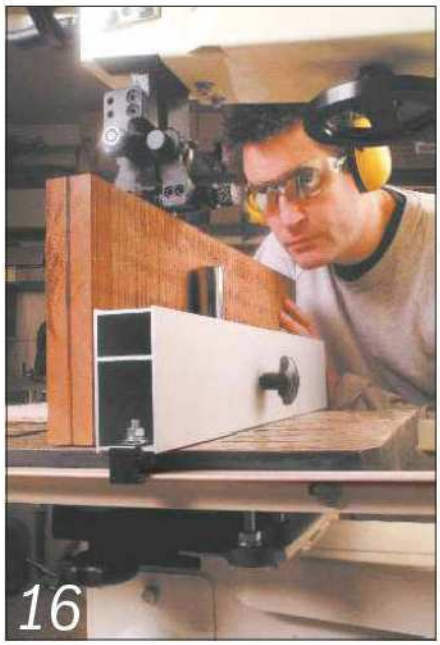
Positioning guides

No matter what type of guides your saw has, the positioning is pretty much standard. Aside from getting them as tight as possible to the sides of the blade, you should also aim to get them set as close to the back of the tooth gullet as possible to help eliminate any twisting effect on the blade if you force a cut too quickly on a tight curve.

The thrust bearing sits behind the blade and should be just no more than a millimetre or two shy of the back so that when it comes under load from the work, it doesn't allow the blade to move back and away from its optimum tracking position, **photo 13**.



The bandsaw's big advantage over the table saw is its ability to rip deep timber



A rip post allows you to correct for drift as the cut progresses

Rack-and-pinion adjustments make bevel setting an easy task

Tables on bigger machines often have a huge cast iron trunnion

The tensioning spring is also often beefed up considerably on better saws

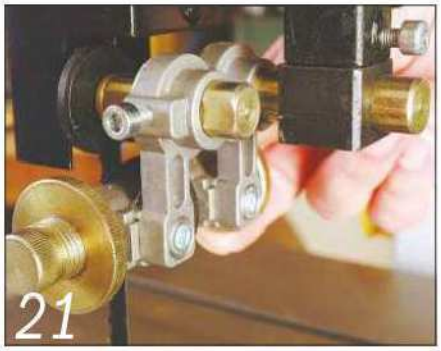
20

The guide post on most saws may be aluminium or milled steel

Selecting blades

Cutting on a bandsaw is much like any other sawing, so blade selection plays its part. Therefore a ripping cut is best done with a coarse tooth, and a finer cut with a finer blade.

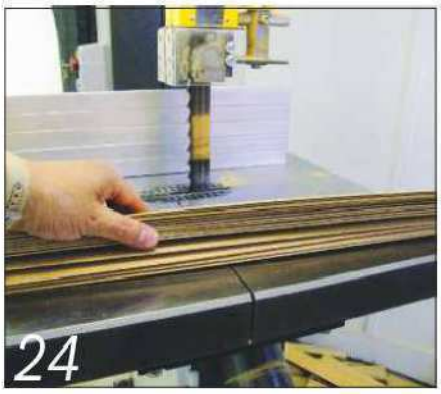
In general day-to-day use, the better choice for general rip work is a skip-tooth blade. This is simply a blade based on standard tpi parameters, so for instance if it's a 6tpi blade there should be 6 teeth per inch. The 'skip' refers to the omission of every other tooth. This gives a very wide gullet to clear the waste quickly so it rips



Setting the side bearings should be part of your maintenance routine

You usually need a tool such as an Allen key to adjust side-on roller bearings

Altering the belt on the lower wheel changes the speed ratio



The ability to cut perfect veneers makes the bandsaw an inimitable machine

fast, **photo 14**. You'll find this is often designated as a 'three-skip' blade as only three of the teeth over the inch are retained. These are set in the standard manner of a handsaw, so each tooth is set in the opposite direction to the other.

You can find as you get down to the finer tooth profiles that a wavy-set style (similar to a hacksaw blade) is favoured. For durability and a clean finish a stellite-tipped blade will pay dividends, especially in ripping work.

The ripping post

If the bandsaw has one distinct advantage over a table saw, it has to be its ability to rip deep timber, **photo 15**. While the finished edge will need additional work to clean it up ready for use, the advantages outweigh this.

Using a fence for such work can prove problematic even on a high-end machine, as there is always the chance of drift. You can alter a fence on some saws to counteract this, but for more accurate cutting a ripping post does sterling service. Some saws have the option to fit one directly to the fence, but it's a simple enough job to cobble up a suitable post.

The idea is that if the stock is directly against the fence and begins to drift, it can be difficult if not impossible to counteract. The post gives you leeway to make adjustments as the cut progresses so you can feed to your gauged or setting-out line, **photo 16**.

Saw tables

Cast iron is a standard material for bandsaw tables across the board, although older budget models can still be seen with aluminium ones. However, the adjustments remain the same, with a tilting trunnion to give bevels, usually up to 45°.

The table mechanisms vary from machine to machine. Lightweight machines can be very basic, but now a common factor on many is a rack-and-pinion adjustment to make bevel setting a very easy task to achieve, **photo 17**.

You should be looking to get a solid locking table, especially if you will be working bigger stock. Bigger machines will often have a huge cast iron trunnion, **photo 18**, and can also be limited to a tilt of about 22.5° to prevent the saw from becoming unstable when working heavier stock.

Build quality

As you would expect, the price you pay reflects the build quality. The actual cabinet of the saw is not a crucial factor (although it's worth looking out for microswitched doors for safety), but the framework within is an area where better saws are beefed up with webbing and triangulating gussets to minimise stress on the frame under tension.

The tensioning spring on better saws is also beefed up accordingly, which allows the extra tensioning required when you get up to big resaw-sized blades, **photo 19**.

The guide post on most saws is now of rack-and-pinion style for easy adjustment but the quality varies hugely, from lightweight aluminium to machined and milled cast iron and steel, **photo 20**. The benefit of a solid post for the guides is an important factor if you do a lot of intricate curve work where the side bearings are in play a lot of the time.

It is of course, the side bearings themselves where a huge amount of difference is involved, and taking the time to get these set correctly should be part of your general maintenance routine. I like the micro-adjustable disc type, **photo 21**, as they are so easy to alter. However, the side-on roller bearing is always going to gain favour as it can actually touch the blade without pinching it – although some sort of tooling is often needed to make the adjustments, **photo 22**.

Cutting performance

Bandsaws run on a feet or metre per minute ratio. In general the faster the speed the quicker the cut, but you need to ensure that the blade is designed for the cut you are making.

The bandsaw is a very adaptable machine and having two speeds or a variable speed option gives more scope for cutting alloys as well as plastics. The budget end of the market is well catered for here with some decent saws having the option, simply by altering the belt on the lower wheel to change the ratio. It's certainly worth having if you're looking to get the most from your saw, **photo 23**.

Once set up correctly and with the right blade fitted, the bandsaw is a powerful machine capable of the intricate curve work we expect of it. Alongside this is its deep ripping capacity and its ability to make thin, consistent and economical veneer cuts, **photo 24**, that for me will always put it alongside the table saw as a workshop essential. I always see both as valuable assets, rather than one replacing the other.

BY KEITH SMITH

Shop notes

For the last couple of months we've been working on a farmhouse renovation. It's a massive place which has had no real work done on it for many years and, as they now want to rent it out, it had to be brought up to date as much as possible

The work has been very off and on as we've had to wait for the other trades, but we've finally finished – a huge relief, as we can now look forward to spending the rest of the winter working in our relatively warm workshop.

Like many old farmhouses, this building started small and grew over the years as various extensions were added. Most of the work done is of a high quality, but bodgers have been at work on houses since time immemorial and this one hasn't entirely escaped their attention!

Treading lightly

The first job we had to do was to repair a flight of oak stairs where some of the treads were very loose. There was no access underneath, so we cut out one of the risers. This allowed us to remove the next tread and riser, **photo 1**. This was when we discovered that the strings didn't have the usual wedge-shaped slots to house the ends of the treads, so these were completely unsupported. Instead the strings seem to have been added as a decorative afterthought, like a sloping skirting board, although it's hard to imagine why.

Fortunately there was a timber carriage and frame underneath, and we were able to build up supports from that, **photo 2**. We then fitted new 21mm thick risers to give the treads more support before fitting them back in place. Once the stair carpet was laid, as shown in the main picture above, no one would ever know what lay beneath!

Levelling up

One of the biggest problems with old houses is that floors are rarely level, and in this house the bathroom floor was wildly out. The WC waste outlet was also set too high for a modern toilet pan to fit it. So we were asked to make a support in moisture-resistant mdf, 22mm high at the back and 35mm high at the front, **photo 3**, to raise and level the pan. We've never been asked to make anything like it before, but it did the trick, **photo 4**.

Securely hinged

In the same bathroom there was a rather sad-looking cupboard recessed into the wall. The doors had twisted and didn't fit flush, and to prevent this happening again we wanted to make replacement doors from moisture-resistant mdf. They had to be fitted with butt hinges, and the problem with mdf is that the fixing screws can't get a decent grip in the edge of the board.

So to make a really durable fixing we made the doors and cut a slot 10mm wide and 20mm deep in their hinge edges, running the full height of the door. We then glued a fillet of beech into each slot using polyurethane adhesive, **photo 5**.

The doors could now be rebated for the hinges and the fixing screws driven directly into the beech strips, **photo 6**. Even though they're yet to be painted, the new doors look far better than the old ones, **photo 7**, and should better withstand the extreme changes in temperature and humidity they are likely to suffer.

Power box

Our final job was to cover up the new consumer unit which had been installed high up on the kitchen wall, **photo 8**. It had been the intention to fit a simple box over it, but we thought that this was far from ideal in an otherwise smart kitchen. So we recommended making a full-size wall cabinet to go over it instead.

The main problem with this idea was that the drop-down flap of the consumer unit had to be easy to access. The hinge was directly in line with the top of the cabinet; this meant that the cabinet would have to have a large cut-out in it, leaving a very shallow top. To accommodate this we made the cabinet as normal but thoroughly glued the back to the sides and the bottom. Then, to strengthen the top, we glued and screwed the cornice in place. Once the cabinet was hung on the wall, we fixed a pelmet to the bottom and added an easily removable box section to the top to hide the consumer unit and wiring, **photo 9**.

We couldn't work out what had been holding these treads up, as it looked as if there had never been any supports

There were two joists under the stairs onto which we fixed some wedge-shaped blocks to support the treads

We get asked to make some odd things, but this tapered plinth of mdf was certainly one of the most unusual

The plinth was needed to level the pan and to bring the pan outlet in line with the soil pipe fixed in the wall

A solid wood fillet glued into a groove in the edge of an mdf door makes a secure fixing for the hinge screws

The fillet allows the hinges to be recessed into the edge of the door and will be invisible once it's been painted

7

We fitted a new frame over the top of the old one to give us a square opening in which to fit the new doors

As you can see, the wall hanging brackets for the cabinets are directly in line with the opening flap on the consumer unit

This necessitated a large cut-out in the top and back of the cupboard, neatly concealed by the cornice and top box

BY COLIN SIMPSON

Half & half

Making vases or hollow forms can present a considerable challenge for many turners. Hollowing the piece through a narrow neck can be difficult, strenuous and time-consuming, and frequently requires specialist hollowing tools

These tools can be expensive, and it's difficult to justify their cost if you intend to make only a few vases. So in this project I'm going to show you how to create vases and hollow forms more easily using conventional tools – a bowl gouge, spindle gouges, a skew and a parting tool.

The perfect start

I'm using a piece of spalted beech measuring about 300 x 190mm. The tree had been cut down some years ago and left to spalt, and I initially cut the piece roughly to size using my chainsaw. Once in the dry of my workshop, I made a better job of cutting the blank on my bandsaw, **photo 1**.

For a blank of this size it's worth cutting the corners off before mounting it on the lathe, and I also did this on the bandsaw by tilting the table to 45° and running the square blank through four times to make a rough octagon.

The initial shaping

Find the centre of the octagon at both ends, mount the piece between centres and turn it to a cylinder using either a spindle roughing gouge or a fingernail profile bowl gouge. Square up both ends with a parting tool or spindle gouge and then cut a spigot on both ends to fit your chuck, **photo 2**.

Next, do the initial shaping of the outside of the piece. I like to start at the tailstock end and work towards the headstock, **photo 3**. I was planning to make a bottle type shape with a high shoulder near the top but as I cut towards the headstock I hit a problem, **photo 4**.

A change of plan

The spalting had gone far too far in one place – and this may have been helped by some wood-boring creatures – but either way a design change was called for to turn away this area of wood. I decided therefore to make the neck much narrower and ended up with the shape in **photo 5**. This is just a rough form at this stage; final shaping is done after the hollowing-out process.

Two stages of separation

Remove the vase from between centres and fit your chuck. Mount the vase in the chuck using the spigot at the base. Use the tailstock as support initially and then part the neck off, **photo 6**. I'm using a narrow parting tool to do this, to reduce the amount of grain mis-match when the two pieces

Square up your blank and take the corners off on the bandsaw

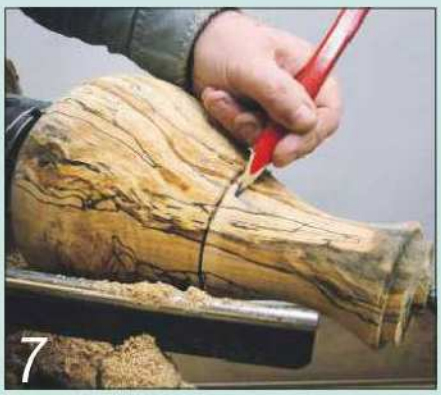
Turn to a cylinder and cut a spigot on both ends to fit your chuck

Start shaping the outside of the piece at the tailstock end

This soft area must be turned away, causing a change of design

Complete the rough shape on the outside using a spindle gouge

Use a narrow parting tool to part off the neck with a thin cut



Remember to make a witness mark so the grain can be re-aligned later

Drill a hole with a narrow spindle gouge to the required depth

come together again later on.

With spalted beech I'd be able to align the grain of the two pieces quite easily, but if you're using a blander wood, make a witness mark on either side of the parting cut, **photo 7**. Also note in **photo 6** that I've released the tailstock pressure before parting all the way through.

Drilling techniques

The orientation of my vase means that I'll be hollowing into end grain. To cut with the grain you need to start in the centre of the piece and work out towards the edge. This is made easier if you drill a hole to the required depth first. You can do this either using a drill bit in a Jacobs chuck in the tailstock, or do as I did and drill the hole using a spindle gouge. Here's how it works.

With the tool resting on its back on the toolrest and the handle down, gently place the tip of the tool in the very centre of the revolving wood. Hold the tool firmly and raise the handle until the tool is horizontal and the handle is in line with the axis of rotation. Now push the tip of the tool into the vase to drill the hole. Remove the tool often to release the shavings, but re-insert it in the way described, **photo 8**.

Let the hollowing begin

To hollow this vase I used a ⅜in spindle gouge with the wings swept back. Imagine that the hole you've just drilled is a clock face, and start with the flute of the tool pointing towards 11 o'clock and the cutting edge on the left wing of the tool just inside the hole, **photo 9**. Push the handle away from you, pivoting the tool on the toolrest. This action should make a semi-circular cut.

Continue hollowing in this way. As the hole gets deeper, the tool can't just be pivoted on the tool rest, but must be pushed through your front hand at the same time as swinging the handle away from you. As the hollowing gets deeper, the tool will overhang the toolrest too much and will begin to chatter. When this happens, move to a larger tool; I changed to my ½in fingernail profile bowl gouge. However, the cutting action is the same.

Standing tall

Photo 10 shows my stance while executing these cuts. Note that my back is almost upright – far more comfortable than crouching in an attempt to look into the hole. Also note that my forearm is on top of the tool's handle. This means that my whole arm and shoulder help counteract the downward force on the cutting edge as it overhangs the toolrest. This results in far

less fatigue than trying to counter this force with just your hand and wrist.

Stop the lathe frequently to remove the shavings that quickly build up in the cavity. **Photo 11** shows an extremely useful home-made tool for doing this. As work progresses, I use double-ended callipers to help judge the wall thickness inside the vessel, **photo 12**.

A word of caution

Don't reduce the wall thickness at the joint too much. You need to leave it a little thicker here so you can blend the bottom and neck together later. I left mine at about 12mm, but I did thin the walls out below the joint to about 6mm.

Once you're happy with the hollowing-out – try to achieve an even wall thickness throughout, including the bottom – cut a step on the rim to locate the neck of the vase. I did this with a scraping cut using a skew chisel, **photo 13**. Measure the diameter of this step using Vernier callipers.

Turn to the neck

Remove the bottom of the vase from the chuck and mount the neck section in its place. Use the Vernier callipers to transfer the diameter of the step to the lower end of the neck and then cut a corresponding step there, **photo 14**. This needs to be cut accurately to ensure a strong, tight reunion of the two pieces. Keep offering up the base until you're happy with the fit. Then you can start to hollow out the neck. This is done in the same way as hollowing out the base. I used a spindle gouge to drill a hole right the way through the neck, and then hollowed it up to about two thirds of its length, **photo 15**.

Together again

The next step is to glue the two pieces together, making sure that the grain or witness marks line up. I used polyurethane glue and clamped the two pieces together using the tailstock, **photo 16**. When the glue has cured, reverse the piece on the lathe so the bottom of the vase is being held in the chuck. This allows access to the top of the neck of the vase. Hollow this out gently using the spindle gouge, **photo 17**. Remember that at some point you'll break through into the cavity you've already created, so proceed with caution!

Hiding the join

Next, blend together the base and neck, **photo 18**. Note the small mismatch in diameter here, caused by cutting the two steps in the base and neck to join the two

Start hollowing by pivoting the tool sideways on the tool rest

This upright stance is far more comfortable than a stooping one

An old teaspoon taped to a dowel is useful for removing shavings

Keep checking the wall thickness with double-ended callipers as you work

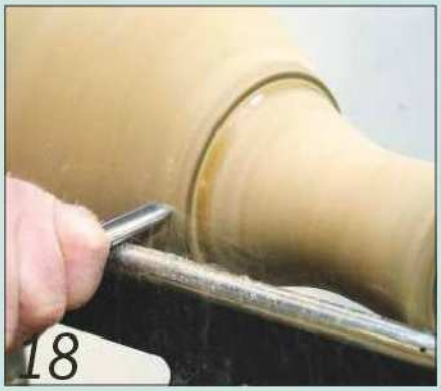
Cut a square step on the rim of the vase body with a skew chisel

Remount the neck section and cut a matching spigot on its end

Hollow out the neck to about two thirds of its length with a spindle gouge

Glue the two pieces together, making sure that the grain lines up

Reverse the piece and complete the hollowing of the vase's neck



Blend the base and neck sections together with the spindle gouge

If a lot of the wood fibres start to tear out due to the spalting...

...apply some thinned sanding sealer. You can run thin superglue into very soft areas

When the sealer is dry, take a fine finishing cut with a very sharp gouge

This will produce a much better surface finish that's ready for sanding

The hairline joint between neck and base is still clearly visible...

...but cutting a series of beads over the joint area helps to disguise it

pieces together. This is why it's important not to make the wall thickness too thin, as I explained earlier. Blend the two pieces together using a spindle gouge, and try to get a continuous curve throughout the whole of the vase.

Coping with tear-out

Spalted beech can look stunningly attractive, but can also be a problem to work with. The spalting is caused by fungal attack and is, in effect, the first stage of the wood rotting. This can cause soft areas in the wood that are prone to tear-out, **photo 19**.

I've found that it's often useful to saturate the piece with thinned-down sanding sealer. Allow this to soak in while you sharpen your spindle gouge. Any very soft areas can be hardened up still further by running in some thin superglue, **photo 20**.

Final cuts

When the sanding sealer has dried, use your newly sharpened gouge to take a very fine finished cut. Cut with the grain; here it's from the widest diameter to the narrowest, **photo 21**. The result is a much better surface finish and one that can easily be sanded, **photo 22**.

The joint on my vase isn't bad, but it is clearly visible, **photo 23**. I disguised this by cutting three small beads using a skew chisel held on its side, **photo 24**, before sanding the whole piece down to 400 grit and applying a coat of Danish oil.

Another change of plan

Normally I'd reverse-chuck a piece like this to turn away the chucking spigot, but on this occasion I didn't think there was sufficient strength in the neck of the vase to allow this, as the spalting was quite soft there. I therefore decided to remove the spigot using a small Arbotech blade in my Proxxon angle grinder. I used a bag of wood shavings to support the delicate rim of the vase as I did this, and kept my right hand well away from the business end!

Sand the base to a finish and apply some oil to match the rest of the vase... and there you have it: a simple technique you can use to make hollow forms easily and without the need for expensive specialist tools

BY IAN WILKIE

Pop tarts!

If you have some little girls in your family, you'll know that they love having tea parties. I first made a selection of cakes, similar to the ones featured in this article, for my granddaughters some years ago, and they've stood up to a lot of wear and tear!

Thes little cakes are great fun to make, a good way of using up small turning blanks, and there's endless scope for design variety. The idea was given to me when I was demonstrating at a woodturning show many years ago. One of the visitors came to my stand and presented me with a perfect Bakewell tart he'd turned, and that started me off.

I recently bought a bag of small cherry offcuts at Ockenden Timber, and qualified for a 'free' bag of well-prepared lime, and these are the two woods used in the examples shown here. To display your collection you can even make a little plate stand to finish things off.

PASTRY TARTS

My pastry tarts are to be painted and varnished, so it's best to choose a plain, fine-grained timber which won't splinter and can be sanded to a good smooth finish. I'll explain how to make one individual tart and then show you some variations you can try out.

■ For the turning I used my Oneway chuck fitted with the step jaws. These give an excellent grip in expansion in a 4-5mm deep hole without the need to form a dovetail. The chuck is available from Toolpost (www.toolpost.co.uk).

■ Make a small jig to hold the tart whilst the edge is being crimped – see photo 8. Turn a blank to the round between centres. Then turn a spigot on either end to match the recess on the underside of the tart.

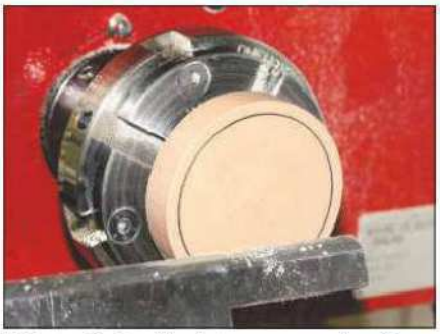
■ If you want to decorate your finished tarts with half a glacé cherry, turn a small blank with a long spigot which can be glued firmly into a hole in the cake after the painting stage.

1 Draw out 70mm diameter circles on wood 20mm thick. It's handy to make a little template for this so that all the tarts will be the same size

2 Cut the circles out carefully; as usual I use my Hegner scrollsaw for this job

3 Drill a 5mm deep hole with a saw-toothed Forstner bit in the centre of each blank, at a diameter to suit the chuck jaws you're going to use

4 Prepare a selection of blanks, ready for mounting on your chuck



5 Mount the first blank, turn it to round and face it off. Then draw a circle to give a 5mm wide rim around the edge

6 Remove the centre with a gouge to produce a shallow recess for the 'jam'. Use a 4mm parting/beading tool to square up the inner edge

7 Sand the wood by hand on the lathe to get a really smooth finish

8 Hold the jig in a vice by the lower spigot and push the tart onto the upper spigot. A sheet of tissue paper will help to ensure a tight fit

9 Use a small half-round file to shape the edge of the tart so it looks like traditional pastry crimping

CUP CAKES

You'll have seen cup cakes made in soap, in plastic and in candle wax. Now here is the wooden version! Try to avoid the temptation to put on any elaborate decorations, though, in case they get detached from the cake and become a choking hazard to a child.

If you made my routing jig to use with a flexible drive unit as described in *The Woodworker* (August 2011 page 61), you can flute the outside edge of each cake to represent a paper case, and I think this looks very effective.

1 Mark out the blanks as for the pastry tarts, but use thicker wood this time – at least 45mm. Turn each blank to the round, angle the sides slightly and then form a shallow dome on the top surface. Sand the blank smooth

2 Position the fluting jig so it matches the angle of the cake side. Then use an indexing system and a parallel-flute cutter to produce 24 equally spaced grooves all round the sides of the cake

OTHER IDEAS

To make fondant fancies, cut small blocks of wood perfectly square and sand them smooth, rounding off all the corners and edges. Turn a small domed button with a long spigot. Drill a hole in the top of the cake to match the spigot and glue the button in securely. Paint on the icing to cover the entire cake, and drizzle on some brown paint when it's dry.

To make Jammie Dodger™ biscuits, turn two thin discs with the same diameter and one disc slightly smaller. Drill a hole in the top biscuit and use a small half-round file to form shallow grooves all round the edge of the disc. Paint the smaller disc red and then sandwich and glue the three parts together so that the red paint shows at the edges and through the hole in the top layer.

ICED RING DOUGHNUTS

These are simple to make and fun to paint in a range of bright icing-sugar colours. When you've turned the shapes, sand them smooth and treat them with a coat of sanding sealer before you paint them. Don't worry if the paint colours run a little; it happens with icing sugar too!

1 Start with a square blank of thicknessed wood and drill a hole right through the centre with a saw-tooth Forstner bit

2 Expand the chuck jaws into the hole for a firm grip, and move the tool rest up into position so you can start turning the blank to round

3 Shape the front of the doughnut into a gentle rounded-over profile. Then remove the work from the chuck jaws, turn the ring over and re-mount it so you can finish the other side to match, ready for decorating

A CAKE STAND

With your the cakes finished, it's time to make a simple cake stand so they can all be displayed to their best advantage before the guests arrive for tea!

TOY SAFETY

When making toys, it's essential that all finishes you use are child-safe, and this is especially true with something like these cakes! The information on the paint tin should state its suitability clearly, so do check first. I used water-based acrylic paints throughout.

The wood chosen should be splinter-free and very well sanded to a smooth finish. The design should not include any sharp edges. Any additions such as cherries or sweets should be very firmly attached to the host with strong spigots and reliable adhesive; you need to be confident that they can't be pulled out and swallowed. Although these cakes and tarts are clearly make-believe, and are intended for children who have passed the sucking and chewing stage, one has to make allowances for the younger brother or sister who may be included in the play!

1 Cut out two discs of 6mm mdf. My base disc had a diameter of 220mm and the top disc measured 190mm. Drill a 10mm hole in the centre of each one. Paint the edges and the undersides with acrylic paint

2 Turn a spacer column with a spigot 10mm in diameter and 6mm long at the bottom and another 10mm in diameter and 25mm long at the top. The length of the column you need will be determined by the number and the size of the cakes to be displayed.

Turn the handle and drill a hole 10mm in diameter and 11mm deep in the bottom end to fit onto the spigot turned on the column. Make sure that the top of the handle is smooth and domed so that it can't poke in a child's eye

3 I glued a pretty paper to the top surfaces of the discs. Coloured paper was often used in Victorian times to line wooden boxes or to decorate the outside surfaces to obscure a coarse pine finish. There are good quality papers in the best stationers and these can be glued with PVA to cover boring (but very stable) mdf to good effect. Glue the column into the bottom disc and push on the top disc

4 Glue the handle on to the protruding spigot. My finished stand had an overall height of about 200mm, and provided plenty of room for a selection of Wilkie's exceedingly realistic cakes and tarts!

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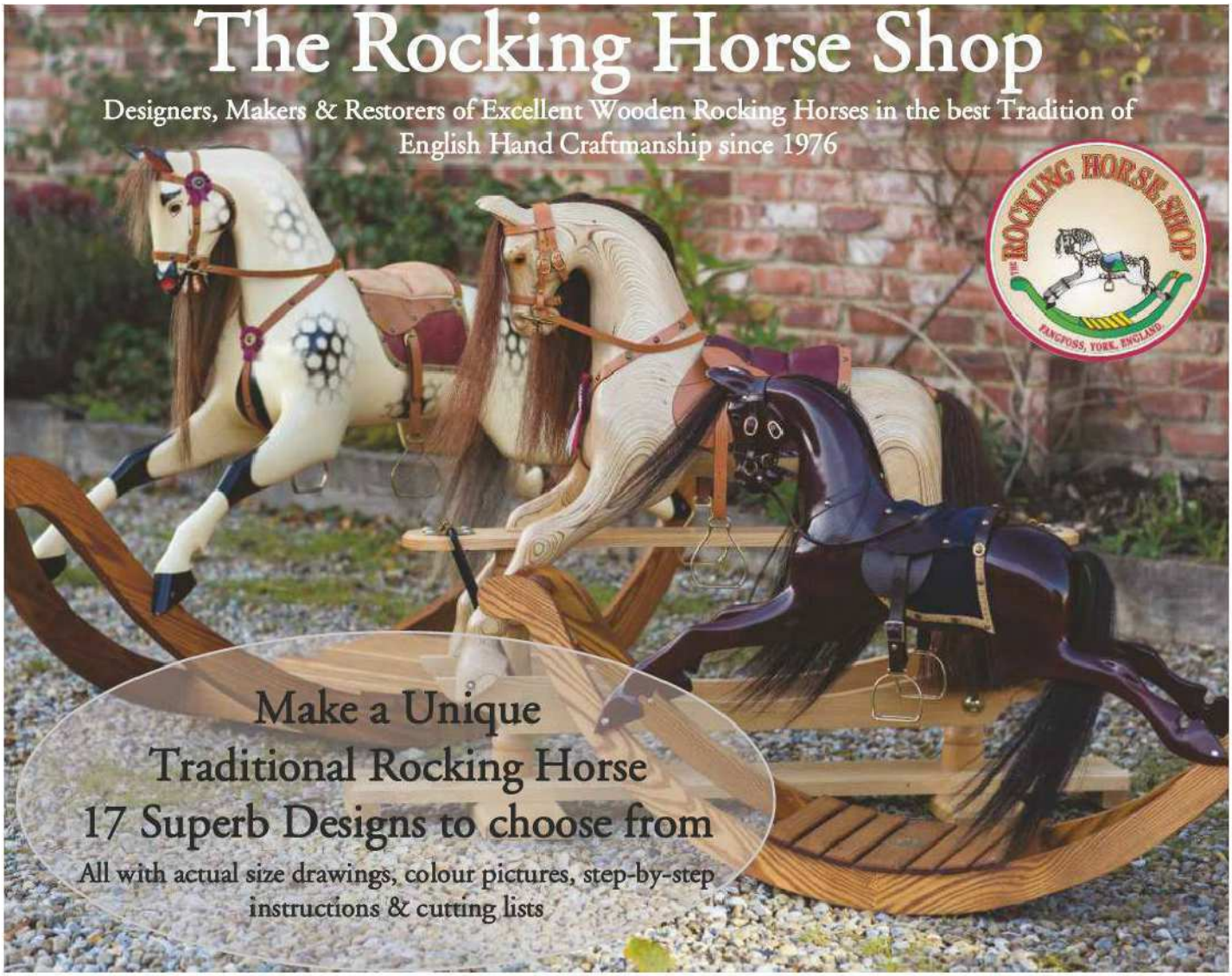

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BY BOB CHAPMAN

Bobbin' along!

When an elderly gentleman rang me to ask if I could make some new bobbins for his sister's spinning wheel, I said I was sure I could: I'm always game for a new challenge! Making them would serve to illustrate some points in the copying process too

He brought one along for me to copy, **photo 1**, and the first thing I did, of course, was to examine the original fairly closely. At first glance the bobbin appeared to be a single piece of wood. However, closer inspection of the grain direction revealed that it was, in fact, made of three separate pieces which had been glued together. The grain of the central stem runs lengthways as you would expect, but the grain in the domed top and the pulley wheel run from side to side as it would in a bowl, **photo 2**.

To copy or not?

This raises questions. Is there a reason for the grain direction being as it is, and is it necessary for me to do the same? Well, the original bobbins were probably mass-produced and sold alongside the spinning wheels they were used with, and this mass production would have involved techniques aimed at economising both on materials and on labour costs.

I can easily imagine one lathe worker turning out hundreds of central stems, while someone else concentrated on cutting circles for the tops and bottoms from a thin board. A second turner might do nothing but convert these circles into pulleys and domed tops. The pieces would then be assembled by yet another worker. A system like this makes sense if you're producing something by the hundreds or thousands. However, if economy was the only reason for this method of construction, I can't see any need for me to make them the same way.

The thing is, I've been asked to make just two, and it will be much easier for me to do the whole job from a single piece of timber with the grain running lengthways. It's not the most economical use of timber because most of the long central section will be turned away as waste, but for just two pieces it's simply not worth the hassle of doing it any other way. What I lose in materials I'll more than gain in time.

Measuring up

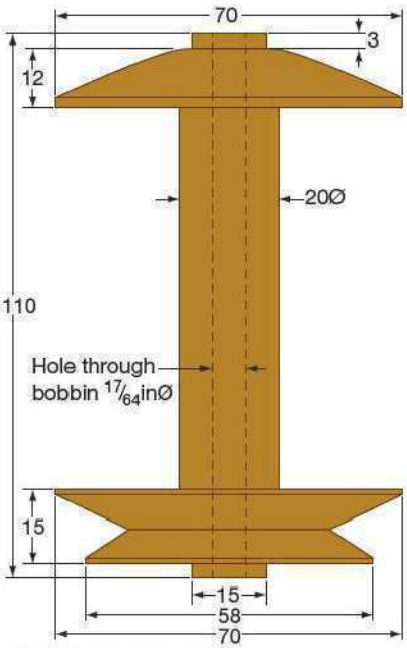
The next job was to measure the sample bobbin and make a drawing of the dimensions (see **fig 1** overleaf). It's doubtful whether an item like this needs to be made to a very precise specification. However, as I've never used a spinning wheel, I've only a vague idea of exactly how it will be used and so I think it's best if I mimic the dimensions as accurately as possible. And I'll do it in millimetres, not in inches!

Unequal flanges

The pulley arrangement at one end of the bobbin is unusual because the two sides of the vee groove are not the same; the inner flange is 70mm in diameter but the outer one is only 58mm in diameter. I've not seen an asymmetrical pulley like this before, and don't know the reason for it, but I don't anticipate it causing a problem. Next time I see a spinning wheel I'll look more carefully at the bobbins and how they fit.

1 The original bobbin seemed like a fairly straightforward piece to copy

2 The grain direction on the ends betrays the bobbin's three-part assembly



All measurements in millimetres

3 An old imperial-sized 17/64in drill bit was the perfect match for the original hole

It seemed a pity to waste the beautiful pattern of the spalted beech revealed when I cut the blank

5 My old imperial drill bit wasn't quite long enough to drill the hole in one go

6 Start by roughing the blank down to a cylinder with a spindle roughing gouge

7 Use a skew chisel in a peeling cut to form a dovetail spigot on each end

Back to Imperial

The only problem presented by this bobbin is the hole through the middle. A 6.5mm twist drill bit was a little smaller than the hole. Perhaps a 6.5mm hole would do, but I didn't dare risking it because I'd no idea of the diameter of the spindle it fits on. On the other hand, a 7mm drill was just a bit too big to push into the hole. Metricated as I am, I still don't have a drill in my collection between these two sizes.

I'd pretty much decided to use the 7mm drill and hope it wouldn't be too sloppy on the spindle. Then I thought I'd just have a look through the box of old drill bits that sits in the corner of the workshop gathering dust. You've already guessed the result; there I found the precise size required – an old and battered 17/64 inch drill with a Morse taper fitting, **photo 3**. I'm guessing now, but I bet the wheel's spindle was exactly ¼in in diameter and the extra sixty-fourth was to provide some clearance. As I said, I'm imperial only when I have to be…

Making a start

As for timber, it depended largely on what I had that would accommodate a maximum diameter of 70mm. After a quick search through my woodstore, I found an offcut of 75mm thick beech that I thought would do the job nicely. After cutting into it I discovered that it had some very pretty spalting patterns in it, **photo 4**, and I did briefly consider saving it for something more artistic, but I couldn't find an alternative so I decided to use it anyway. I cut two pieces 75mm square and 115mm long to allow a little waste, and mounted the first one mounted between centres on the lathe.

The hole comes first

Whenever you're making anything with a central hole running through it, it's good practice to drill the hole as the very first operation. The piece is then centred on the hole and any subsequent turning will by definition be concentric with the hole. If you do the turning first and then drill the hole, you run the risk of it being slightly off-centre. On a piece like this that spends its life spinning round, that would be disastrous!

Unfortunately my old drill bit wasn't long enough to drill the entire hole in one go, **photo 5**. It would have to be drilled from each end towards the middle, with the obvious danger that the two might not meet precisely. With this in mind, I mounted the piece between centres and used a spindle roughing gouge to turn the piece to a cylinder, **photo 6**. At this stage I left the diameter greater than the required 70mm.

Preparing to drill

Using a skew chisel in a peeling cut, I cut a small dovetail spigot on each end of the piece, **photo 7**. This allowed me to hold the piece in a four-jaw chuck, remove the tailstock live centre and replace it with the 17/64in drill bit, **photo 8**.

To reduce the risk of the drill bit running off-centre I reduced the lathe speed and fed the drill bit into the wood about 20mm or so at a time, withdrawing it frequently to clear the waste from the flutes. In this way I slowly drilled the hole to the full length of the drill bit, **photo 9**.

I then reversed the workpiece in the chuck and followed the same slow procedure working from the other end until the holes met somewhere in the middle. Inspection against a light showed that the hole was perfectly aligned all the way through, **photo 10,** with no noticeable step where the two holes met.

The final diameter

With the hole drilled, I remounted the piece between centres located in the ends of the hole, **photo 11**. Fortunately I had an old four-pronged drive with a sprung centre just slightly larger than the hole. Using tailstock pressure to push this back until the prongs engaged gave me a drive firmly centred on the hole. This would ensure that all my subsequent turning will be concentric with the hole.

Although the maximum diameter of the bobbin had been measured at 70mm, I find that it's always better to measure directly from the piece using spring callipers, **photo 12**. I then turned the workpiece down to this diameter using the spindle roughing gouge, **photo 13**.

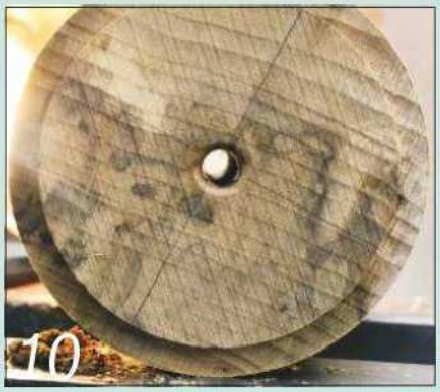
Marking the features

If several pieces are to be made to the same dimensions, a 'story stick' with all the major dimensions permanently marked on it can be used to ensure consistency, but in this case it was hardly worth making one for just two bobbins. Instead, I marked the positions of the major features directly from the original, **photo 14**.

I used a 3mm parting tool to cut in on the inside edges of each end, **photo 15**. This is simply to mark their positions permanently and to remind me of 'what's where' on the piece. I then used the roughing gouge again to reduce the diameter between the cuts a little, **photo 16**. It's generally not good practice to remove too much wood from this region while the ends remain to be turned, as it will only serve to weaken the piece. The basic rule is to avoid turning thin sections until you have to.

Hold one dovetail spigot in a four-jaw chuck while you start to drill the hole

I drilled as far as I could reach, then finished the job by drilling from the other end



Inspecting the holes against a light showed that they matched up very well

Remount the piece between centres I ocated in the ends of the hole

It's always better to take measurements directly from the original...

...and to transfer these to the copy blank before turning it down in size

14 Mark the major features directly onto the work from the original

15 Use a narrow parting tool to cut in on the waste side of the marks

Some of the waste can be removed at this stage, but not too much

Mark out the mid-position of the pulley vee groove with a pencil

Cut the sloping sides of the vee with the long point of the skew chisel

Turn the 15mm diameter end stubs and use callipers to get the size correct

Use a small bowl gouge or a spindle gouge to shape the domed end

You can now remove most of the waste from the central spindle area...

...before sizing its final diameter accurately with the callipers and then finishing it off

Sand the bobbin smooth all over to ensure threads don't snag on it in use

Turning the pulley

I marked the mid-position of the pulley wheel, **photo 17**, and reduced the outer section to a diameter of 58mm with the parting tool. Starting in the middle of the pulley I took a series of light cuts, first from one side and then from the other, with the long point of the skew. Each cut removed a thin sliver of wood from the edge of the pulley down to the bottom of the vee. Gradually working out from the middle of the pulley towards the two edges, I then made the vee shape slowly wider and deeper, **photo 18**.

It's unusual in turning for there to be only one way of doing something, but it's difficult to see another way of cutting this vee shape. I suppose a scraper ground to just the right angle might do the job, but I certainly wasn't going to that degree of trouble for only two pieces.

Accurate sizing

Using the Vernier callipers as a sizing tool, I cut the small 15mm sections at each end with a parting tool, **photo 19**. This is a technique to be practised, as you must hold the parting tool in one hand and the callipers in the other. Using a tool one-handed is a useful skill to master, although it's not one used every day. The secret lies in a firm but not tight grip, and very smooth movements. A sharp tool makes it very much easier to control. If you're in doubt about working one-handed, cut a little and measure, cut a little and measure, until you get it to the right diameter.

I then used a small 6mm bowl gouge to shape the curved end of the bobbin, **photo 20**, although a spindle gouge could do the job just as well... or even a skew chisel in the right hands.

Reducing the middle

With both ends finished, it only remains to reduce the central region to the required diameter. Start cutting in the ends with the parting tool and then use the spindle roughing gouge to remove the waste rapidly and cleanly. Laid well over to the right, its long wing can reach right into the corner, **photo 21**, meeting up with the parting tool cut. Turn the tool to the left and use the same method to reach into the other corner.

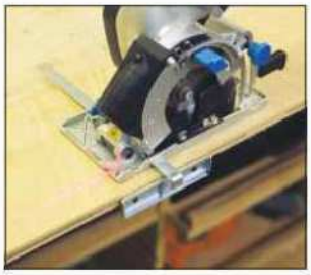
As the final diameter is approached, use the Vernier callipers and parting tool to establish the final size, **photo 22**, before finishing to this size with the spindle roughing gouge. Sand the bobbin to 180 grit, **photo 23**, and the job is finished. The entire process is then repeated for making the second bobbin.

TESTED BY
ANDY STANDING

How large a circular saw do you need? *It's not often that you use sheet material more than 25mm thick, so a saw with around this depth of cut should do. This tiny Einhell saw is small enough to be used in confined spaces, and at around £70 it is a bit of a snip too*

Einhell BT-CS 860L circular saw

The saw cuts thin boards with ease and is ideal for plunge cutting



The projected laser guide line is bright, clear and accurate

£70
(web price)

SPECIFICATION

MOTOR	450W
NO-LOAD SPEED	6000rpm
BLADE DIAMETER	85mm
MAX DEPTH OF CUT	23mm
WEIGHT	2kg

ACCESSORIES storage case, side fence, extract adapter, 2 blades, 2 Allen keys, spare drive belt

VERDICT

This is a very useful little saw, excellent for plunge cutting in floorboards and ideal for slicing up thin sheet materials.

PROS
- Light and compact
- Cuts wood, plastics and tiles
- Laser cutting guide
- Overload cut-out

CONS
- Fiddly plunge lock release button

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

FURTHER INFORMATION

- Einhell
- 0151 649 1500
- www.einhell-uk.co.uk

The depth-of-cut scale is located on the upper blade guard

The plunge lock release button feels a bit fiddly to start with

The sliding power switch is on the side of the saw's long body

The dust extraction adapter is well positioned and highly effective

The side fence fits in a slot cut in the edge of the soleplate

Changing the blade requires the use of two Allen keys (supplied)

TESTED BY
ANDY STANDING

Axminster 10mm reversible air drill

£28.99

If you have an air compressor in your workshop, *it can do a lot more than just powering a nailer. There are lots of air-powered tools available, and I wondered if an air drill would be useful for woodworking*

Air tools need no direct electrical connection. They have few moving parts so they're cheap, have a long working life, and are always ready for use.

Power tools need mains power or a charged battery. They contain complex mechanical and electrical components that are prone to wear, and can be expensive.

So on the face of it air tools look quite appealing. Obviously you need to buy a suitable compressor to start with. But once you have it, you can buy other inexpensive air tools to run off it.

Just the drill

The Axminster air drill is a solid and robust tool made from alloy with a cushioned rubber handle. It has a metal trigger and a simple switch to reverse the rotation direction. It is fitted with a keyed chuck with a maximum capacity of 10mm. A ¼in BSP quick-release airline fitting is included.

The drill is easy to manoeuvre even with the airline attached. When it runs, it makes a bearable high-pitched squeal. However, it uses so much air that the compressor runs most of the time, which makes a lot of noise. My compressor is relatively large, so with a smaller one the noise could be worse. Of course, in a fully air-powered workshop the compressor is often sited outside or in a separate room to overcome the noise problem.

Apart from the noise the drill itself works very well. It's powerful and controllable, as the trigger regulates the airflow and so is effectively a speed control. One strange sensation is that the tool remains very cold in use, because of the temperature of the air powering it.

Summing up

While this is a well-made and efficient tool, it won't appeal to many woodworkers… and it isn't really intended to. These tools are excellent for use in metalworking and car workshops where their small size, spark-free operation, robust construction and low price make them stand out. Not for me!

The reversing switch is located immediately above the trigger

The keyed 10mm (in) chuck is small by today's standards

Simply connect the airline to the inlet and you're ready to drill

SPECIFICATION

NO-LOAD SPEED	up to 2200rpm
CHUCK CAPACITY	10mm (keyed)
INLET	¼in BSP
AIR CONSUMPTION	4.5cu ft/min
OPERATING PRESSURE	90psi
WEIGHT	1.2kg

VERDICT

This is a well-balanced tool, but is very noisy unless your compressor is in a separate room.

PROS
- Cheap yet robust
- Forward and reverse modes
- Few moving parts to wear

CONS
- Noisy
- Small-capacity keyed chuck

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Axminster
- 03332 406406
- www.axminster.co.uk

Until recently I had never really seen the point of miniature circular saws. However, my opinion changed when confronted with a tricky installation job that involved much cutting of chipboard flooring and cladding in situ. A mini circular saw was just the tool for the job and produced an excellent result. I've now added one in my toolkit.

An unusual design

The Einhell has a long body, similar to an angle grinder, which is extensively covered with softgrip rubber. It houses the sliding power switch and also the reset button, for use if the motor cuts out due to overloading. The blade is mounted on the end of the body and, unusually, is connected to the motor by a rubber drive belt instead of being driven directly.

Plunging and fencing

Unlike a conventional circular saw, the soleplate is sprung, so the blade doesn't protrude through the base when the tool is not in use. A release button must be pressed before the blade can be plunged. On the upper blade guard is the depth-of-cut setting, which is used to control how far the blade will cut into the workpiece. On the soleplate there's a slot to accommodate the parallel side fence, and on the front of the machine is a small laser, to help guide the tool. A dust extraction adapter is supplied and this will connect to any vacuum hose.

Using the saw

The little Einhell saw performs remarkably well. It's comfortable to hold and plunges smoothly into the workpiece. I found the plunge lock release button slightly irritating to start with but I soon got used to it, and it's a good safety feature. The depth of cut scale is reliable and the side fence serviceable. The dust extraction adapter is well positioned and highly effective. The laser is bright and helps you keep on track.

Summing up

This is a useful little saw. Obviously you can't use it to rip 2in thick oak boards, but it can do a lot of other things. It's ideal for cutting inspection hatches in floorboards. It's also good at trimming thin material such as cladding or hardboard. Its small blade and diminutive size mean that it can get into confined spaces, making it an excellent installation tool. Overall it's a very worthwhile addition to any toolkit.

TESTED BY
ALAN HOLTHAM

If you're a bandsaw user, then next time you need a new blade try one from Tuff Saws. *Not only are the blades superb: they're backed up by excellent sales advice. And this isn't just my opinion; all the woodworking forums are littered with praise for Tuff Saws' blades and service*

Tuff Saws Vari-tooth bandsaw blades

from **£9.25**

I was delighted to receive some test samples of Tuff Saws' new Vari-tooth bandsaw blade recently. As the name suggests, it has a tooth pattern that isn't constant. The teeth are actually all the same size; it's just that the pitch varies, with a group of widely spaced ones separated by a group closer together.

They're made from the same material as most of the other Tuff Saws blades. The backing is a high-quality carbon steel that gives flexibility, but the teeth are then ground and induction-hardened. Doing it in this order makes a huge difference to the blade life and its sharpness, or more accurately, to the length of time the blade stays sharp.

Reduced tension

I tested a ¾in blade in my Startrite 401, but other widths are available and Tuffsaws will weld up blades to any length. The first thing you notice about these blades is that the thin backing requires far less tension to get it tight enough. This also means that you can fit a wider blade to a smaller machine that wouldn't normally have enough 'grunt' to tension a conventional wide blade.

SPECIFICATION

½in blade	from £9.25
⅝in blade	from £13
¾in blade	from £14

* depend on blade length

PRICES*

Tuff Saws' blades just keep getting better. I can quite see this becoming my standard general-purpose choice.

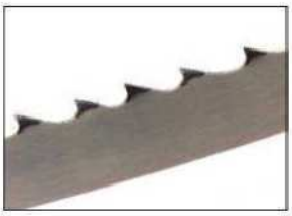
PROS
- Superb cutting performance
- Thin kerf allows use of wider blades on smaller machines
- Excellent technical back-up

CONS
- None

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

FURTHER INFORMATION

- Tuff Saws
- 07896 058499
- www.tuffsaws.com



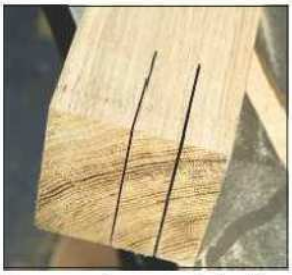
Widely spaced teeth are separated by groups of identical closer ones

The backing is carbon steel; the teeth are ground and induction-hardened

The thin backing of the saw blade requires far less tension to get it tight

The blades are ideal for deep work such as resawing or cutting thin veneers

The finish off the blade is superb, with fine closely-spaced saw marks



The ease of cutting is helped by the blade's very fine kerf (left, compared with a standard blade)

TESTED BY
ANDY STANDING

Bosch GML 10.8V-Li Professional radio

£99.95

Site radios are usually hulking great things bristling with protective bars and chunky knobs. *The emphasis is often more on the looks than the performance... but not with the Bosch GML, which is aimed at the more discerning listener*

A radio is always a welcome companion when you're working, and this Bosch radio is the perfect addition to any toolkit. It can be run on a 10.8V battery or off the mains via the supplied adapter, and it has an Aux input so you can play music from your smartphone or MP3 player. Battery life is impressive, and the sound quality and reception are excellent.

Tough design

The Bosch is a sturdy little unit. Apparently it can fall up to a metre onto a hard surface and still survive. It has an LED display on the top that illuminates whenever a button is pressed. This incorporates a digital clock and also displays the frequency and tone settings. Rubber buttons control the radio operation, and an unbreakable folding rubber aerial is mounted on the top. The speakers are mounted on either side, angled slightly outwards.

At the rear is a hinged compartment in which the mains adapter is stored, along with the aux connecting lead. The aux input and power input sockets on the rear are both protected with rubber covers. The 10.8V battery, which is not supplied, plugs securely into the base of the radio, and the display shows the state of charge.

Using the radio

I'm listening to the Bosch as I write this. It's playing music from my iPhone and it sounds great. The power output is more than enough to cope with a noisy environment, and the tone controls allow you to tailor the sound to your taste. There's also a useful mute button.

Battery life is impressive. I've been using the set for two days and it doesn't seem to have run down at all. The radio performance is good too, with an efficient self-seeking tuning system that can lock onto even weak stations. Although it's small, the speaker quality is good and it produces quite a reasonable stereo image.

Pros and cons

To make the most of this radio you need to have some Bosch 10.8V tools so you can use their batteries. If you don't, you could buy one battery and a charger, but this is an expensive option. It is a pity that there isn't an integral battery charger, but I suppose that would increase the size too much.

Some of you may be wondering why this is not a DAB (digital) radio. Digital coverage can be patchy, particularly in rural areas, and I wouldn't risk using a purely digital radio as a site radio. With this radio you can be assured of reception wherever you are.

The 10.8V battery slots into the base of the radio

The radio is a perfect fit in one half of an L-BOXX container

SPECIFICATION

BATTERY	10.8V Li-ion
MAINS	via supplied 12V adapter
OUTPUT	5 watts per channel
PRE-SETS	10 (5 FM, 5 AM)
WEIGHT	1.4 kg

ACCESSORIES mains adapter, aux connecting cable, 2 AAA batteries for clock back-up

VERDICT

This is an excellent high-quality radio with good reception, tough construction and simple controls.

PROS
- Battery or mains power
- Aux input for MP3 player
- Fits in half an L-BOXX
- Still works after 1m drop!

CONS
- Battery not included
- No integral charger

VALUE FOR MONEY ■■■■■■

PERFORMANCE ■■■■■■

FURTHER INFORMATION

- Bosch
- 01895 838743
- www.boschpowertools.co.uk

The weld on the blade is perfect, so it runs without surging or bumping

The blade can cope with wood of almost any thickness, as shown here

Reduced resonance

The Vari-tooth blades are designed for deep cutting such as resawing or veneer cutting. Their big advantage is that the variable-tooth pattern significantly reduces blade resonance, which is what always causes a poor-quality finish. The sawn finish off these blades is superb for a bandsaw, with fine closely-spaced saw marks on the surface, and it just slices through the timber like a knife through butter.

This ease of cutting is no doubt helped by the fine kerf compared to a standard blade; all are 0.022in (0.55mm). Also, as you would expect with a Tuff Saws blade, the weld is perfect; in fact you'll often struggle to find it. This ensures that it runs perfectly true, with no surging or bumping.

Through thick and thin

This Vari-tooth pattern makes the blade a lot more versatile, as it can cope with a wider range of thicknesses. Where a 3tpi blade should only cut wood thicker than 30mm, the Vari-tooth can cut stock from 20mm thick, but still also happily deal with really thick pieces too. I've now left it permanently on my machine and have used it for cutting thin material down to 10mm as well!

The smooth cutting and clearly apparent longer life of this blade make it a joy to use, and it's not significantly dearer than the other Tuff Saws blades.

Hitachi has recently introduced this new bench planer into the UK market at a discount price that will beat most of the competition. *But is it money well spent? I've taken one home to try it out...*

Hitachi P20SF bench planer

£96
(web price)

I still have an old electric planer left over from the days when I operated from the back of my garage. I took it with me on many jobs, and found it invaluable for roughing work down before a final finish with a hand plane. Although these machines appear to be aimed at the hobbyist, in the right hands they can produce excellent results and certainly save time when a lot of material needs to be removed.

Standard design

Almost all handheld planers are based on the same general design, but some are not particularly well engineered. This Hitachi machine is built to the same high standards that we have come to appreciate from this well-established and experienced tool manufacturer.

Hitachi has settled on the 82mm cut width standard and there are plenty of third-party replacement blades on the market at well under £5 per pair. Having said that, I've had the same pair of blades in my old planer for 30 years! Blade changing is quite straightforward on this machine, and a useful alignment gauge is provided to help set up the blade position correctly.

Simple adjustments

The height adjustment follows the trend of a rotating knob that doubles up as a handgrip during planing, and the 2.6mm maximum depth of cut is more than sufficient for normal work.

The supplied guide is used for both general positioning and rebate work. It also acts as a useful grip as an alternative to the

Without any dust collection the planer produces a lot of chippings

Just one screw secures the optional dust port adapter to the planer body

The edge guide is a useful extra support during normal surface planing

Blade changes are straightforward using the supplied tool and setting gauge

TESTED BY PETER PARFITT

height-adjusting knob at the front.

The standard machine doesn't come with a dust bag – unbelievably, it's an optional extra – and an optional dust port adapter is required for the planer to be connected to an extractor or to the optional dust bag itself. Not so clever, then...

Using the machine

The P20SF is well balanced in the hands and barely suffers from any turning force from the motor and the spinning cutter cylinder that dogs many of its cheaper rivals. The machine comes up to speed quickly and it hardly draws a breath even when tackling dense hardwoods.

It took a few practice runs to get the cutting action right, but I'm convinced that anyone can become an expert with this machine after an hour or so. My first rebate and chamfer were actually perfect... even though I say so myself!

Extract options

The optional dust port adapter isn't expensive (so why isn't one supplied free?), and is easy to fit using a single screw. There's almost no mess with the dust bag connected, and none at all when an extractor is used.

Planers produce a lot of chippings, so it was no surprise to discover that the dust bag filled up quite quickly. The bag is easy to empty, but an extractor is my preferred choice. When using an extractor, care has to be taken to keep the machine level due to the turning effect caused by the weight of the hose.

I took the machine into the garden to test it without any provision for dust collection. I now have chips everywhere! How anyone could contemplate using a planer like this without either a bag or extractor beggars belief. I understand that the dust adapter may be included in a special deal sometime soon.

Summing up

This Hitachi planer has a list price of £174 but is on offer from internet sellers such as Power Tools Direct for under £100, making it incredible value for money. It performs well, is sturdy and is easy to use. Replacement blades are cheap, so the machine will be inexpensive to run.

SPECIFICATION

MOTOR	620W
NO-LOAD SPEED	17,000rpm
CUTTER WIDTH	82mm
MAX DEPTH OF CUT	2.6mm
MAX DEPTH OF REBATE	9mm
WEIGHT	2.5kg

VERDICT

This is a well-engineered and easy-to-use machine which won't put a huge dent in the pocket.

PROS
- 82mm standard width
- Easy blade change
- Powerful cutting action

CONS
- No dust bag supplied, and an optional dust port adapter is needed for dust collection

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Hitachi UK
- 01908 660663
- www.hitachipowertools.co.uk

The planer is supplied in a sturdy carry case complete with a side guide

My first chamfer went perfectly once I'd got the cutting action right

Rebates up to 9mm in depth are easy to produce in a series of passes

Connecting an extractor to the machine's port means that no dust escapes

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BUCKINGHAM WOODSTATION

A NEW concept in logging

The Buckingham Woodstation offers a fast, convenient and very safe way of cutting logs with a chainsaw. Portable and versatile, it saves time and money while making cutting logs and firewood a much simpler job than in the past.

Convenient:

The Buckingham Woodstation can be either free-standing, or hung on the side of a trailer or truck body. When mounted onto the purpose-made stand, logs can be cut and bagged without bending your back, and when hung on the side of a truck logs can be emptied straight into the trailer.

Time-saving:

As well as the convenience, the speed will surprise you. One customer told us he easily cuts 150 logs in five minutes using the smallest Garden Model.

Another customer said that using a Woodstation halved his logging time compared to using a Fergie logging bench.

Versatile:

The Buckingham Woodstation allows you to cut stakes and fence posts with the use of a simple attachment that turns the Woodstation into a 'horse' holding the log at the perfect height for splitting and sharpening.

You can also cut smaller diameter wood easily and effectively, which is especially useful for charcoal burning. Even cutting slabwood becomes a pleasure.

Model sizes & options:

Whether logging is your business, or you cut logs for an open fire or wood stove, the Buckingham Woodstation will make cutting firewood faster and easier than before, and there are a range of model sizes to suit your particular need.

Each model includes the basic stand with log cradle and anti-spin bar, and all models can take the optional attachments: log-retaininwg sides (to prevent smaller cut logs from falling out of the cradle); hooks (for mounting onto a truck or trailer); and the stake holder.

Laurie Buckingham: **01892 783152** / mob: **07939 162433**
Terry Buckingham: **01892 782000** / mob: **07734 735 283** ⊙ email: **joce-metal@hotmail.com**
For more details, prices and to see a demonstration video: **www.jocemetal.co.uk**

Orbital sanders come in several sizes, but for general workshop use the half-sheet size is probably the most popular. *This new Metabo model has all the power you could need combined with rugged build quality*

Metabo SRE 4351 TurboTec ½-sheet orbital sander

The orbital sander is an excellent general-purpose sanding machine. Fitted with coarse abrasive, it can be used to smooth rough or badly damaged surfaces, and with finer grits it will produce a surface fit for polishing. Unlike the random orbital sander, its square-edged pad means that it can be used right up against edges and into corners.

Standard features

The emphasis here is on durability: this is a machine built for hard work and it shows. The main body of the sander is green plastic, with rubber inserts on the main handle and the top. On the front is a secondary handle that can be removed without the use of tools for sanding right up to obstacles. There's a two-finger trigger with a

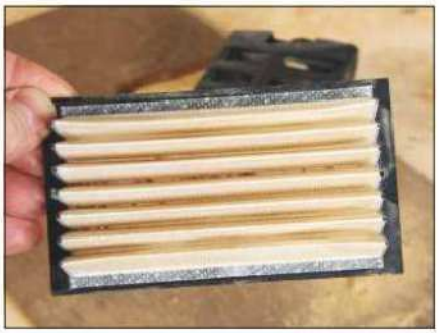
The variable speed control at the front sets the sanding speed to suit the job

The Turbo Boost switch overrides the variable speed selection for extra power

The filter-system dustbox clips neatly onto the dust extract outlet

TESTED BY ANDY STANDING

The dustbox collects far more dust than any fabric dustbag can...



...thanks to this highly efficient pleated polyester filter system

lock-on button, and above it is the Turbo Boost button. There is a 25mm diameter dust extraction connection, and a filtered dust box is supplied.

All sanders obviously produce a lot of dust, and you want to avoid this getting into the machine and clogging up the bearings. The Metabo has a neat rubber gasket which seals the joint between the motor and the sanding plate to keep everything dust-free.

The sanding plate itself is a solid alloy construction, with a pair of substantial spring clamps to hold the abrasive sheet in position. It can also accept Velcro-fastened abrasives. The plate is perforated with dust extraction holes, though no perforating tool is supplied.

Using the sander

As you might expect, the Metabo is a highly efficient tool. The abrasive is easy to attach with the excellent clamps. The machine runs smoothly and the motor is powerful. You can set the speed using the wheel on the front, and when you want a bit of extra power you simply press the Turbo Boost button. This switches it to maximum power and overrides the variable speed. The dust extraction is also impressive. So many sanders have cloth dustbags that just let all the dust come straight through, whereas this filter system really works and manages to collect the dust neatly. Of course you can also connect it to a vacuum extractor if you prefer.

Sanders might not be the most exciting woodworking machines, but they are vital. This is an extremely good example – solid, powerful, efficient and built for serious work.

SPECIFICATION

MOTOR	350W
SANDING PLATE	112 x 230mm
NO-LOAD SPEED	8,400-22,000rpm
ORBIT DIAMETER	2.2mm
WEIGHT	2.7kg

VERDICT

This is a rugged professional-quality tool, built to last and with great performance.

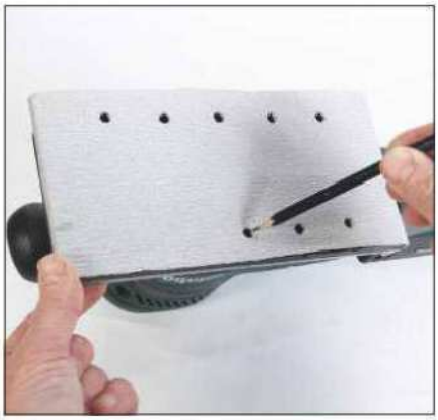
PROS
- Solid build
- Versatile abrasive system
- Effective integrated dust extraction

CONS
- No perforating plate supplied

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

FURTHER INFORMATION

- Metabo
- 02380 732000
- www.metabo.co.uk



Perforating abrasive sheets with a pencil is a hit-or-miss operation

The spring clamps at each end of the baseplate hold the paper securely

The sander can be used with a one-handed or two-handed grip, whichever you prefer

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The circular saw is the carpenter's workhorse. It's small, portable, needs no setting up and can perform a wide range of functions. *This new Makita saw is aimed squarely at the site worker, with a generous capacity and rugged build quality*

Makita HS7100 circular saw

Circular saws are available in a wide range of sizes and styles, from small cordless trimsaws up to large capacity mains-powered machines. This Makita is a mid-range machine, ideal for general site use.

It's a good, solid professional machine. All its metal components are neatly cast and accurately assembled. The plastic parts are smoothly moulded and there's extensive use of rubber padding to ensure the operator has a comfortable, secure grip. There are no flimsy knobs or attachments to break off.

Quality engineering

The baseplate is a vital part of the machine. It must be able to hold the saw at a precise angle and provide accurate support as the tool is moved across the workpiece. Any weakness or flexibility will greatly affect the accuracy and performance. Luckily this example is beautifully made from cast alloy, with extensive bracing across the top. Large integrated brackets hold the saw and there are adjusting handles at both ends. Two slots are provided for the side fence, and

The bevel adjuster is located at the front of the saw's baseplate...

...and the secondary locking handle is to be found at the rear

The depth-of-cut control features a large scale and clearly marked scale

TESTED BY ANDY STANDING

The saw is comfortable to use and dust extraction is very efficient

The 12 TCT blade supplied is rather coarse for most cutting jobs

this is held in place using rather clever sprung cam levers.

The saw can be tilted to 45° for bevel cutting, and you can release a revolving stopper to give you an additional 5° of tilt, should you need it. The depth-of-cut control is at the rear of the saw and allows the blade to be lifted clear of the workpiece. This makes the saw easy to use for plunge cutting.

Cutting matters

The blade is well-protected, with heavy alloy guards both top and bottom. The saw isn't fitted with a riving knife, in common with many circular saws these days. So for ripping solid timber it would be wise to have some wedges available to hold the kerf open, should it decide to close onto the blade. The blade supplied is a relatively coarse one with only 12 TCT teeth. For delicate materials a finer blade would be advisable. A dust extraction port is mounted on the upper blade guard. Blade changing is simple using the supplied Allen key and the integrated spindle lock.

SPECIFICATION

MOTOR		1400W
BLADE DIAMETER		190mm
NO-LOAD SPEED		5500rpm
MAX DEPTH OF CUT	at 90°	67mm
	at 45°	48.5mm
WEIGHT		4kg

ACCESSORIES side fence, Allen key

VERDICT

This is a rugged and robust machine with powerful performance and a good range of adjustments.

PROS
- Solidly made
- Maximum cutting angle 50°
- Excellent for plunge cutting

CONS
- Coarse blade only supplied
- Very short flex

VALUE FOR MONEY

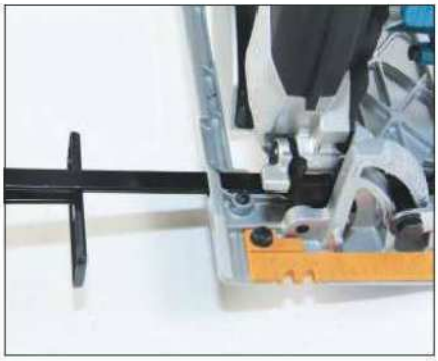
PERFORMANCE

FURTHER INFORMATION

- Makita
- 019078 211678
- www.makitauk.com

Using the saw

Comfortable and capable, this is a great saw to use. It cuts fast and the dust extraction is surprisingly efficient. The only minor gripe is the very short flex fitted to it. Professional tools are normally supplied with a generous length of flex, and this is particularly important on a circular saw because the machine can actually travel quite a long distance when cutting large boards. However, this is an excellent machine. It cuts with perfect accuracy and is tough enough to be chucked into the back of the van at the end of the day, without suffering. Though I hope you look after yours properly.



Clever sprung cam levers hold the side fence securely in place

Blade changing is simple using the spindle lock and an Allen key

You can release this revolving stopper to get an extra 5° of tilt

Festool have redesigned and updated their Carvex jigsaw range with both battery and mains models. *Nobody expects jigsaw cuts to be particularly high-quality, yet everyone expects a Festool machine to be a cut above the competition. Is it?*

Festool PSC 420 EB-Plus Li 15 jigsaw

Most jigsaws spend their working lives cutting holes for sinks in kitchen worktops or trimming skirting boards during second fix. There may be the occasional letterbox to cut, and sometimes some trimming to a scribed line. Very few of these cuts require great precision, but it does help if they are clean and square.

A choice of designs

The new Carvex machines boast Festool's EC-TEC brushless motor technology. There are mains-powered as well as 15V and 18V battery models in the range. Each is available with either a D handle or a barrel grip. The D-handle machines have a trigger on/off switch, while the barrel-grip models have an on/off switch on both sides of the barrel.

Cutting matters

Festool have redesigned the reciprocating mechanism of the Carvex range in order to improve performance. The new design includes an adjustable blade guide which not only improves accuracy but allows a wide range of blades to be fitted.

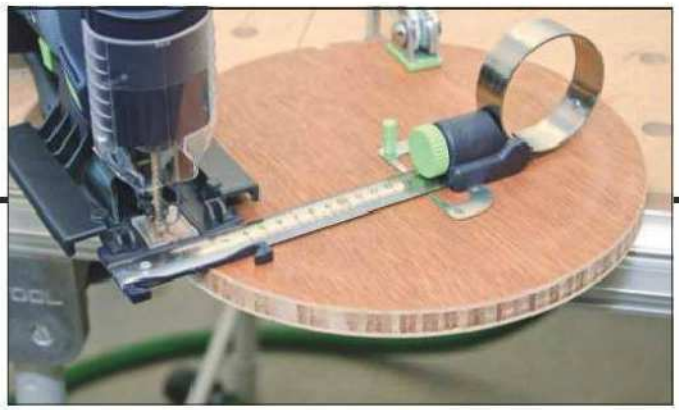
Fitting a blade is straightforward. Just remove the base and then slide the blade ejection lever forward. Select the new blade, push it into the holder and twist it. Finally adjust the grub screw on the blade guide and replace the jigsaw base. Always ensure that the battery or power cord is removed prior to blade changes.

The Carvex has a four-stage pendulum action which improves cutting quality and speed. There's a stroke rate control which can be set from 1 to 5, or put in an auto setting whereby the machine

The saw is released from the soleplate by sliding this lever forward

The new blade is inserted into the holder and then twisted to secure it

The blade guide screw is adjusted to nip the blade and then slackened



TESTED BY PETER PARFITT

SPECIFICATION

BATTERY		14.4V 2.6Ah
STROKE RATE		1500-3800spm
MAX CUTTING DEPTH	wood	120mm
	non-ferrous metals	20mm
	steel	10mm
WEIGHT		2.3 kg

VERDICT

Festool's long awaited upgrade to its Carvex range of jigsaws delivers the performance expected from this quality German manufacturer.

PROS
- Powerful, accurate and robust
- Brushless motor technology
- Versatile operating light
- 3-year warranty includes theft insurance

CONS
- Instruction manual could be improved

VALUE FOR MONEY

PERFORMANCE

FURTHER INFORMATION

- Festool UK
- TTS Tooltechnic Systems
- 01284 760791
- www.festool.co.uk

Large curves and circles are easy to make with the optional Core Maker

You can make accurate 45° cuts using the Angle Base attachment

adjusts its stroke rate according to the workload it's being asked to tackle; this I found to be an excellent feature.

First-class extras

One of the features that make the Festool jigsaws stand out above the competition is their operating light. This can be set to be off, on all the time or operating as a strobe light synchronised with the stroke of the blade. This latter mode is particularly useful when following a pencil line.

A disposable splinter guard can be fitted to the base which helps prevent chips or splinters occurring on the upward cut of the blade. Even without the splinter guard fitted I found the cuts to be clean and chip-free, even when cutting melamine-faced board.

Fine performance

I put the Carvex through its paces by making a series of cuts that represent the most common tasks expected of the jigsaw. I made straight and curved cuts in laminated kitchen worktop and every one was clean and square.

I then used the Core Maker that made cutting curves and circles extremely easy. This is an optional trammel guide that can be used for curves from 120mm to 3m in diameter. The Angle Base is another optional component that allows angled cuts from 0 to 45°. I made a 45° cut across the width of a piece of kitchen worktop with no problems at all.

Finally, I made a cross cut through a 110mm thick piece of maple – perhaps the least likely application for a tool of this kind, but one that illustrates that it's a robust and capable machine.

An accessory kit which includes the Core Maker, Angle Base and numerous other gadgets is available at £200, but costs just £170 if bought with the basic machine. It is worth looking out for special offers from Festool dealers as there's a lot of competition in the tool market at the moment.

The saw easily made a 55mm diameter freehand cut in this kitchen worktop

This base attachment allows Festool guide rails to be used for straight cuts

The saw even managed to cut across this 110mm thick lump of hard maple

***The Jet DC1100A is a trade-rated extractor with a special cyclonic cone feature** that helps to maintain extraction efficiency. It can be upgraded to handle finer dusts by the addition of an optional 1-micron filter cartridge*

Jet DC1100A extractor

£347.50

This powerful extractor features an internal cyclone disc that improves the separation of waste to the bag and air to the top filter, so reducing clogging of the filter and maintaining waste throughput for longer.

It arrived in a large cardboard box with all the parts well wrapped and protected with moulded polystyrene. The painted components were finished to a high standard and were free of grease. Five 200 litre plastic waste bags were included. The clear instruction booklet made the assembly straightforward.

This is a large extractor with four decent swivel wheels on the base giving good manoeuvrability. The control box is reassuringly solid, with large buttons that are positive to use. The absence of a no-volt release switch means that the extractor works with auto-switching systems. Just check that your auto-switch is okay with this size of motor.

Inlets and outlets

The waste bag is held in position with a bendy plastic ring that fits into a groove inside the housing. The pressure within the waste bag helps to form the seal. Once I got the hang of using the sealing ring, I found changing the bag so much easier than using an external clamp.

The main air inlet is 150mm in diameter. Alternatively, the supplied two-way adapter provides a pair of 100mm diameter inlets. Each inlet has a plastic guard to stop large debris from reaching the fan impeller. The guards work well, which is useful with such powerful suction, but they also stop large shavings and the hose sometimes blocks as a result. However, it's easy to unblock if the hose clamp is set to a snug fit.

Maximum throughput occurs when using the 150mm inlet or both of the 100mm inlets. If only a single 100mm inlet is required the overall throughput is reduced, but fitting the supplied 100mm cover cap to the unused inlet does improve matters.

Using the machine

The extractor is surprisingly quiet – far quieter than my planer thicknesser, mitre saw or router table. The manufacturers state that it may need a 16-amp power

The waste bag is held in place with a bendy plastic ring inside the housing

The twin-branch 100mm inlet adaptor is fitted with a guard and a cap

The cyclonic cone fitted to the extractor housing helps to prevent clogging

TESTED BY DUNCAN ROSE

The control box is mounted on the motor and has large on/off buttons

supply, but I used a 13-amp one with no problems.

The cyclone feature seemed effective, as the suction didn't drop noticeably. When changing a full waste sack, I gave the cloth filter a shake and only fine dust fell out beneath: very impressive!

Finer filtration

An optional fine filter cartridge can be used instead of the cloth bag. This is ideal for the finer dust generated by saws and sanding machines. It filters particles down to one micron across, and extractor performance seemed unaffected by using it. Fitting the cartridge is easy using four hand knobs, and a ring of foam on the filter base makes an air-tight seal.

A very useful feature is the pair of internal cleaning paddles. These are rotated using external handles and knock accumulated dust off the inside of the filter. The bad news is that the fine filter cartridge costs £241!

Summing up

My workshop is small and I have to think carefully before introducing new or larger machinery into the limited space. This extractor with its internal cyclone is a relatively compact and powerful dust extraction system. I'm surprised that the simple addition of a cone isn't used more, and hope that this may become a standard feature on other machines. I shall miss using the DC1100A when it is time to return it.

SPECIFICATION

MOTOR		1900W
AIR FLOW	Ø150mm	1620cu m/h
	Ø100mm	1150cu m/h
INLET HOSE DIAMETER		150mm or 2 x 100mm)
BAG CAPACITY		200 litres
FILTER BAG		30 microns (supplied)
WEIGHT		48kg

ACCESSORIES Two-way adaptor, five waste bags

VERDICT

This is a well-made and powerful extractor that can be used for extended periods, with long intervals between cleaning the filter.

PROS
- Performance and quality
- Reduced filter cleaning
- Optional fine filter cartridge

CONS
- Filter cartridge and hose are extras

VALUE FOR MONEY

PERFORMANCE

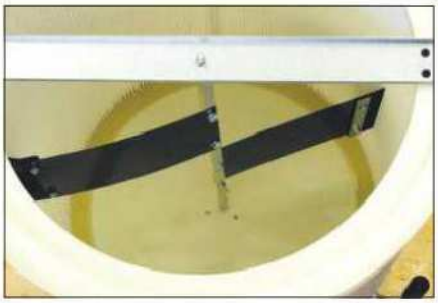
FURTHER INFORMATION

- Axminster Tool Centre
- 03332 406406
- www.axminster.co.uk

The optional fine filter cartridge replaces the standard cloth filter bag...

...and is fixed in position by tightening four small locking handles

The cloth filter bag is secured to the canister with a retaining strap



The internal paddles knock accumulated dust off the inside of the filter

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Every month we aim to bring you the best projects, the widest range of tests and the most useful techniques, building up into a complete library of essential woodworking knowledge. If you've missed an issue, here's your chance to find that vital tool test or project. If an issue is sold out, we can send you a photocopy of any feature at a discount price.

MARCH 2012

PROJECTS: Living room toy chest, Alcove storage unit, Pivoting occasional table, Tapestry frames
FEATURES: Horizontal router table, Jointing jigs and Miller dowels, Shop notes, Gadgets for woodworkers, Building a workshop cyclone
TURNING: Decorated off-centre bowl, Laminated 3D apple, Stave jointing techniques
TESTS: Cyclone Central cyclone kit, Jet bandsaw, Axminster sliding mitre saw, Axminster deluxe saw stand, Bosch 18V cordless SDS+ hammer drill, Proxxon two-speed fretsaw, Festool router

APRIL 2012

PROJECTS: Nest of tables, Wooden models, Carved name plaque, Bathroom cabinet, Chisel plane
FEATURES: Kitchen worktop jig, Portable power tools 5 – jigsaws and reciprocating saws, Gadgets for the router, Shop notes
TURNING: Elm vase with waterproof liner, Creating barley twists, Kitchen scoops
TESTS: Bosch plunge saw and guide rail, Supertuff bandsaw blades, Axminster oscillating belt sander, Skil multi-tool, Bosch cordless drill driver, Colt Forstner bits, Veritas saws and plane, Festool work table

MAY 2012

PROJECTS Mackintosh-style dining chairs, Embroidery stand, Games table restoration
FEATURES: Tuning a budget bandsaw, Preparing your stock, Portable power tools 6 – multi-cutters, Shop notes
TURNING: Elm bowl with a scorched rim, Double barley twist candlestick, Tool handles
TESTS: Bosch cordless nailer, Scheppach saw bench, Quangsheng spokeshave, Makita drill/driver kit, Bosch multi-cutter, FAMAG lip-and-spur drill bits. Japanese mitre square, Trend router cutter sets, Axminster drill guide, Festool extractor

JUNE 2012

PROJECTS: Cherry dresser 1, Jewellery chest, Pedestal side tables, Guestroom towel rail
FEATURES: Marking and setting out, Portable power tools 7 – routers & router tables, Using a vertical panel saw, Shop notes
TURNING: Banksia nut projects, Metalworking tools for turners, Two-tier tripod spice rack
ON TEST: Trend combination router base, Famag Forstner bits, Dremel compact saw, Makita cordless circular saw, Trend goggles, Axminster table saw, Einhell multi-tools, Trend hex key set, Mafell circular saw with guide rail

SUMMER 2012

PROJECTS: Cherry dresser 2, Outdoor dining table, Glass-topped lounge table, Patio side table
FEATURES: Preparing tools, Tailor-made bench 1, Choosing machinery, Shop notes
TURNING: Hollow cedar gourd, Silvered candlesticks, How spalted wood occurs
ON TEST: Makita router/trimmer, Axminster pillar drill table, DeWalt laser, Trend depth gauge, Veritas palm plane, Trend sharpening stones, Axminster drum sander kit, DeWalt camera, Robert Sorby Micro modular tool system, Axminster compressor

JULY 2012

PROJECTS: Veneered DVD cabinet 1, Tenor ukulele 1, Oak blanket chest
FEATURES: Making mechanical joints, Building a tailor-made bench 2, Routing with templates, Shop notes
TURNING: Techniques for turning spalted wood, Three ways to shape small boxes
ON TEST: Festool circular saw, Draper bandsaw, JCB plunge router, Flexidisc sanding system, Elmer's glues, Makita combination table/mitre saw, Draper bench-top spindle moulder, Veritas miniature planes, Axminster double bevel marking knife

AUGUST 2012

PROJECTS: Children's outdoor climbing frame, Tenor ukulele 2, Open cherry bookcase, DVD cabinet drawers
FEATURES: Making interlocking joints, Using profile-scribing and panel-moulding cutters, Shop notes
TURNING: Desktop companion, Cutting screw threads, Dowsing pendulum
ON TEST: Axminster Stayput worklight, Mafell cross-cutting system, Axcaliber mitre trimmer, Festool Surfix oil finish system, Makita cordless biscuit jointer, Proxxon bench drill, Axminster squirrel-tail palm plane

SEPTEMBER 2012

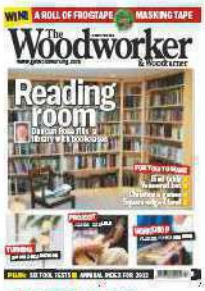
PROJECTS: Curvy ash reclining chair, Interwoven room screen, Tenor ukulele 3, Glass-topped map table
FEATURES: Shaping your work, Getting components to fit together well, Making a ledged-and-braced door, Shop notes
TURNING: Writers' Circle trophy, Multi-centred wall plaque, Green bowl in applewood
ON TEST: Makita cordless jigsaw, Intelligent Workshop and Qwas bench dogs, Osmo oil finishes, Hammer planer thicknesser, Numatic workshop vacuum cleaner

OCTOBER 2012

PROJECTS: Oak front door, Child's tricycle, Tenor ukulele 4, Curved mantelshelf
FEATURES: Letter and numeral templates, Cleaning up your work, Making a bench hook and shooting board, Shop notes
TURNING: Three easy-make pincushions, Involuted turning
ON TEST: Lie-Nielsen shooting board plane, Veritas chisels, Hitachi cordless combo kit, Radian router cutters, Axminster flexible drive unit handpieces, Liogier rasps and rifflers, Makita workshop/site radio, Wera screwdriver and bit sets, Dremel cordless drill/grinder, Lie-Nielsen tenon saw

NOVEMBER 2012

PROJECTS: Curved-top bookcases, Bentwood ash footstool, Tenor ukulele 5, Oak futon base, Adjustable-height workbench
FEATURES: Shop machines 1: The table saw, Restoring a bench plane, Shop notes
TURNING: Cedar wood moth-proofing medallions, Long-hole boring: making a base for a table lamp
ON TEST: Veritas optical centre punch, Bosch GSS orbital sanders, Parkside vacuum cleaner, Dremel 3000 multi-tool, Veritas sliding square, Woodster Divar saw system, Jet mini lathe



DECEMBER 2012

PROJECTS: Library bookcases, Veneered hardwood box, Tenor ukulele 6, Bird table, Traditional table games
FEATURES: Workshop machines 2: The planer thicknesser, Shop notes
TURNING: Christmas tree decorations, Square-edged yew bowl
ON TEST: Einhell circular saw, Japanese adjustable boring bits, Makita cordless random orbit sander, Axminster lathe, GemRed digital callipers, Gedore Magic shear cutting set
INDEX: Full contents listing for the January to December 2012 issues

JANUARY 2013

PROJECTS: Five-bar pedestrian gate, Small workbench, Tambour-fronted chest of drawers
FEATURES: A woodworker's ABC 1: the letter A, Shop notes, Workshop machines 3: Singles or twins?
TURNING: A selection of bowls, Combined clock and table lamp, Hourglasses
ON TEST: Axminster Evolution chuck, Einhell jigsaw, Osmo wood fillers, Mafell circular saw, Dremel Moto-Saw, Osmo PolyX-Oil wood finish, Hitachi cordless combi drill, Veritas marking gauge, Einhell workshop vacuum cleaner

MARKETPLACE

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Record dust extractor, RSDE3 wall-mounted model with 4in hose, in good condition but surplus to requirements; £50. Buyer collects.
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Record planer thicknesser, model PT260, 2.5hp, on wheeled stand; £350. !0in circular saw with rise/fall/tilt features; £250.
01275 374550 (Bristol)

Dremel drill press; £20. DeWalt DW753 150mm grinder/linisher plus spare belts; £99. Buyer collects.
01434 682419 (Northumberland)

B&D 626 Workmate: £30. Earlex ELE super 55 sprayer (unused); £15. Wolf dowelling jig; £15. B & D WM25 Workmate, new top; £10.
01992 627927 (Hertfordshire)

Draper BS350 bandsaw on stand, virtually unused, cost £672; yours for £395.
07821 779179 (West Sussex)

Myford Mystro lathe, variable speed, with 4-jaw chuck, drill chuck, steady, bowl attachment, compound slide and 17 tools; £450.
01275 374550 (Bristol)

Hand planes assortment – Stanley Bailey, Record, Marples etc – in eight sizes; from £15 each. Call for more details.
0118 971 2472 (West Berkshire)

Record Power drill stand, model DMS26, cast iron with 43mm collar, fits most drills, used only once so as new; £60.
01372 273268 (Surrey)

Patternmaker's toolbox and tools; £200 ono. Other antique tools; £35 ono. Buyer collects.
01572 723976 (Leicestershire)

Myford ML8 bandsaw and planer thicknesser attachment with spare blades, in very good condition; £100 the pair.
02476 414438 (West Midlands)

Coronet Minor woodworking machine, board mounted, with circular saw, planer thicknesser and long-bed lathe; £175 ono. Buyer collects.
020 8440 3666 (North London)

Dakota scroll chuck, precision model supplied with ¾in x 16tpi threaded adapter, never used so as new; £70 ono. Buyer collects.
01403 784679 (West Sussex)

Triton Workcentre 2000, 9in circular saw, router, jigsaw, planer, biscuit jointer, sanding discs, multi-stand; £500.
01267 235336 (West Wales)

Jet 10-20 drum sander plus three rolls of abrasive, unused so as new; £400.
01579 350097 (Cornwall)

Elu planer thicknesser, floor-standing, in excellent condition, ideal for DIY; £300 ono. Buyer collects.
01744 810078 (Merseyside)

Trend PRT router table complete with all supplied accessories and instruction book, little used so in excellent condition; £395. Buyer collects or delivery at cost.
01243 263643 (West Sussex)

SIP swivel-head lathe, model 01938, 550W induction motor, variable speed (500-2000rpm), lever-operated with digital speed display, never used so as new; £350 ono. Buyer collects.
01403 784679 (West Sussex)

Vintage hand and breast drills. Stanley No 905 two-speed, Millers Falls No 77 single-speed, both in perfect working order; £15 each.
0118 971 2472 (Berkshire)

Trend router lathe, left and right-hand spiralling, tapered turning; £100 ono. Trend router table designed for woodworker; £90 ono. Buyer collects.
01744 810078 (Merseyside)

Elektra Beckum spindle moulder, 230V model TF100M; £250. Perform CCNPT 260 x 160mm planer thicknesser; £200. Jet JTS-315 site table saw with sliding table, 110V model; £150.
07702 123182 (Kent)

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01400 272535 (Lincolnshire)

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01530 834581 (Leics)

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01780 751768 (Lincs)

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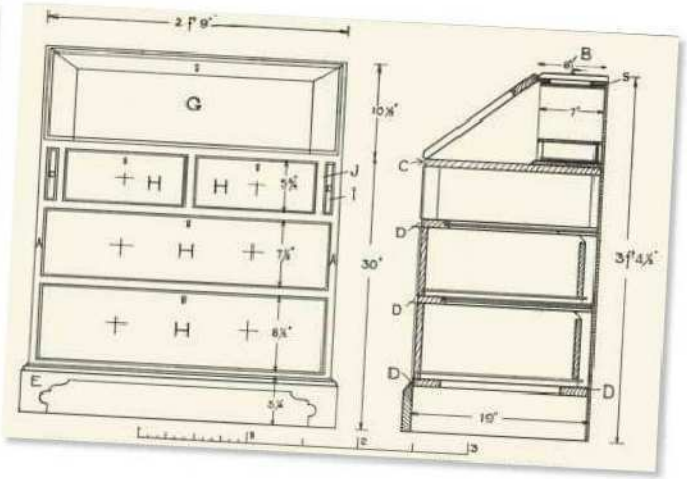
What goes around...

They say a change is as good as a rest, and incoming editor Mark Cass certainly has his eye on making a few changes. For a start, he's been having a browse through the archive and has found a theme to follow



They say that what goes around comes around, and while this phrase is generally applied to acts of human fate and fortune – younger readers would probably use the term *karma* – the same can be said of changes in popular taste and trends of interior decoration too.

These two bureau designs, despite being published only 30 years apart, are radically different in terms of appearance, even though their basic functions are the same.

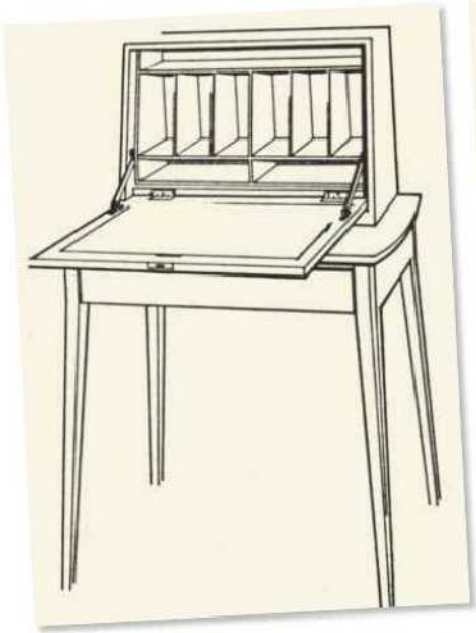
Although the interwar years were responsible for some radical design movements like Bauhaus, Art Deco, Modernism and so on, much of the Western world was still comfortable with classics from 150 years ago. The earlier of these two bureaus – referred to in the July 1926 issue of *The Woodworker* as an 'old model' – is based on a Georgian design from the 18th century, but is none the worse for that. In fact, the writer of the piece suggests it's always a safe plan to follow the proportions and design of an old model as 'these leave little that can be improved upon'.

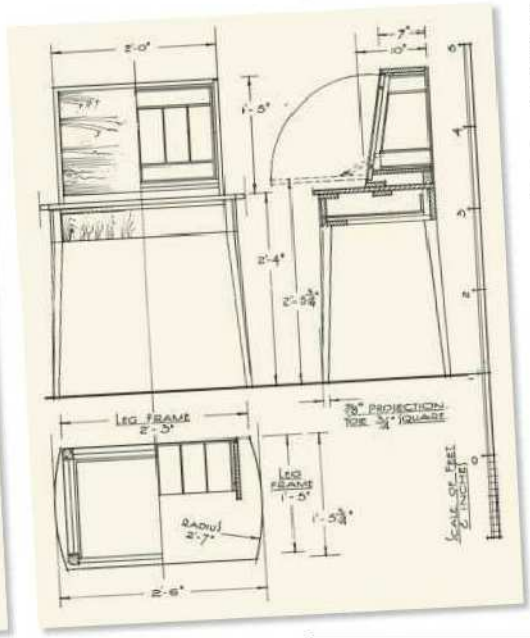
That's something I would definitely agree with. I'm sure I'm not the only one to have discreetly measured and recorded a classic on a chance encounter. After all, as my boss used to say, why reinvent the wheel?

The second bureau featured in the December 1958 issue - some might call it a secretaire - reflects the changing tastes of the post-war years and, with its lighter appearance and modern curves, all the hope and optimism of a new and better world.

What I find particularly amusing is that I've seen both of these styles come round again; the Georgian style faded from popularity some 20 years ago, while the 1950s vogue is currently finding favour among a new generation revelling in all things 'mid century' and vintage. What next on the fashion merry-go-round?

Mark Cass





More from The Woodworker archive next month...

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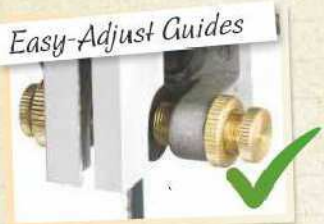	
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