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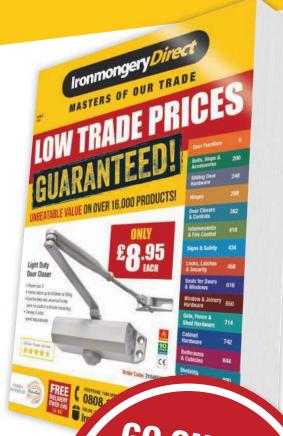












Rated as **EXCELLENT** 9.5/10 **▼TRUSTPILOT** ★★★★★



















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Welcome

I have to admit that, many years ago, the concept of stock-taking used to puzzle me somewhat; I mean, how could you not know what you had? Having been in (nominal) control of my own stocks and fortunes for the last three decades, I have come to appreciate just what an important/useful activity it can be. For a large business concern, despite computer control and careful management, you've only got to factor in a bit of human carelessness, corruption and petty thievery to realise that there's no guarantee at all that what you thought you had is what you actually do have.

When it comes to the smaller scale stocks that most readers of this magazine will be looking after, things should hopefully be a lot easier, and we can generally cast a glance around the workshop and swiftly reassure ourselves that all is well and that we're in reasonable shape for most of the basics. I'm proud to report that things have been slowly improving in my own place, and those moments of panic that come when immediate action is called for to unearth a particular item – once commonplace – are now the exception rather than the rule.

My biggest breakthrough came with the realisation that, when it comes to timber and boards, if you can't see it, there's every chance that you'll forget its existence. And this can lead to my own personal nightmare situation: having to go out and buy some more when I had it all along. True, it would probably have turned up one day, but by then the money and effort have been spent and all you can do is grind your teeth in frustration and vow to never let it happen again. The very point of stock is to save the time and expense of immediate purchase, and it's there for one purpose only – to be used.



The Editor, stocking up on birch ply

And here we have another woodworker's dilemma: do I use this fabulous piece of oak/walnut/exotic for this particular job, or do I keep it for something really special? I say use it now. There's plenty more timber out there and, just because you've had that wardrobe side tucked in by the cupboard for the last 15 years, doesn't make it any more valuable or desirable than something you might find discarded tomorrow. And isn't every job special enough for a decent bit of timber?

When it comes to making things, we should be giving it our best shot every time, and if that means the stock thins out a bit, then what the heck? We'll have more space and also new opportunities for acquiring fresh supplies. So, check your stocks and get ready for the next job it could be the best yet.

You can contact Mark on editor.ww@mytimemedia.com

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NEWS In brief...

ANY OTHER BUSINESS

We've all got our favourite things in life, and some of those things are products, manufactured items and – particularly for us woodworkers – tools. For the sake of everyone else, I hope I'm in the minority when I describe a frequently occurring annoyance; the curse of the no longer available. It's that sense of disappointment you feel when, on asking for a particular and much favoured item or product in a shop, the answer comes back 'oh, they don't make those anymore' or 'it's been replaced with this new one'. And we all know that the new one is very unlikely to come up to scratch.

OK, so perhaps I exaggerate a bit, but the good news is that there are some products – most notably power tools – in which the opposite is true. It's great to observe that, in a world of change, some particular changes are very good indeed. I expect I'm not alone in that when I pick up a new and state-of-the-art hand-held machine I'm nearly always impressed at how

neat, efficient and lightweight it is, and how much better it is than the old one I was used to.

And what about hand tools I hear you ask? It's true that much of what is manufactured to a budget and a short deadline bears little relation to the kit turned out by trusted firms of old, but when it comes to the high-end stuff, nearly all of it is on or above a par with the best our forbears would have aspired to. So, while there's very little we can do about the 'no longer available', we can rest assured that, when it comes to power tools (and some selected hand tools), there's every likelihood that the new will be far superior to the old. Let us know your opinions here at *The* Woodworker, especially if your own experiences are wildly contrary to my own. Write to me, Mark Cass, at editor.ww@mytimemedia.com and I'll get right back to you.

mark



These new bits from Trend are used in reverse mode and at slow speed in a drill using the burnishing end first to ream a tapered hole into the damaged fixing before flipping the bit and running the threaded end into the hole to grab the fixing and remove it. The sets are manufactured from High Speed Steel (HSS) for durability and performance and can be used on mild steel and alloy fixings. They are supplied in handy storage cases and can be used on a number of screwdriver types, including Phillips, Pozi, slotted, hex, Torx, square and Tri-wing.

The four-piece GRAB/SE2/SET can remove screw sizes from Nos. 4-24 (3mm-9.5mm) and bolts from M4-M12. The four-piece Micro Grabit set – GRAB/ME1/SET – is ideal for smaller fixings including delicate screws from Nos. 5-14 (3mm to 6mm) and bolts from M3 to M6, and is perfect for use in woodworking, model engineering, electronics and precision instrument applications.

Both sets are priced at £29.94 each and are available from all Trend Routing Centres and stockists across the UK. To find out more, see www.trend-uk.com.

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2 & 28* Leigh Jigs

5–9 Windsor chairmaking

6-7* & 19 Woodturning

8-9 & 28-1 Introduction to milling

9* Making pepper mills

12* Bandsaws

13–14 Bowls & platters

13 & 23* Fine-tuning hand planes

13-14 & 26-27 Intro to the small lathe

14 Sharpening

16* Routing

20-22 Adirondack chair

27 Scrollsawing

* Course held in Sittingbourne, Kent

Axminster Tools & Machinery

Unit 10 Weycroft Avenue Axminster, Devon EX13 5PH Tel: 08009 751 905

Web: www.axminster.co.uk

1-4 Build a Moxon vice

11–15 Experimental metallic surfaces

15–18 Furniture making for beginners

- a dovetailed stool

25-2 Ladderback chair making

West Dean College, West Dean, near Chichester, West Sussex PO18 0QZ

Tel: 01243 811 301

Web: www.westdean.org.uk

5–10 Make your own workbench

24-25 Basic jointing weekend

26–2 Router skills

Chris Tribe, The Cornmill, Railway Road Ilkley, West Yorkshire LS29 8HT

Tel: 01943 602 836

Web: www.christribefurniturecourses.com

17 An introduction to chairmaking

18 Living willow chair workshop

Weald & Downland Living Museum

Singleton, Chichester, West Sussex PO18 0EU

Tel: 01243 811 363

Web: www.wealddown.co.uk

3 Willow basket making

3 & 10 DIY in a day - drills

10 Carpentry for beginners – step up stool

17 Introduction to woodcarving

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Web: www.aharrisonwoodturning.co.uk

Bennetts Timber (Lincolnshire)

Tel: 01472 350 151

Web: www.bennettstimber.co.uk

Black Isle Woodturning (Scotland)

Tel: 07842 189 743

Web: www.blackislewoodturning.com

Brodies Timber (Perthshire)

Tel: 01350 727 723

Web: www.brodiestimber.co.uk

Brooks Brothers Timber (Essex)

Tel: 01621 877 400

Web: www.brookstimber.co.uk

C&G Barrett Ltd, Cilfiegan Sawmill

(South Wales)

Tel: 01291 672 805

Web: www.cilfiegansawmill.com

D Emmerson Timber (Lincolnshire)

Tel: 01507 524 728

Web: www.emmersontimber.co.uk

Earlswood Interiors (West Midlands)

Tel: 01564 703 706

Web: www.earlswoodinteriors.co.uk

English Woodlands Timber (West Sussex)

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Web: www.englishwoodlandstimber.co.uk

Exotic Hardwoods (Kent)

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Web: www.exotichardwoods.co.uk

EO Burton, Thorndon Sawmills (Essex)

Tel: 01277 260 810

Web: www.eoburton.com

Eynsham Park Sawmill (Oxfordshire)

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Web: www.eynshamparksawmill.co.uk

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Web: www.fhives.com

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Web: www.fulhamtimber.co.uk

G&S Specialist Timber (Cumbria)

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Web: www.toolsandtimber.co.uk

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Web: www.goodtimber.com

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Web: www.interestingtimbers.co.uk

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Web: www.iscawoodcrafts.co.uk

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Web: www.stilesandbates.co.uk

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Web: www.scawtonsawmill.co.uk

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Web: www.slhardwoods.co.uk

St. Andrews Timber & Building Supplies

(Scotland)

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Web: www.standrewstimbersupplies.co.uk

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Web: www.surreytimbers.co.uk

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Web: www.sykestimber.co.uk

The Timber Mill (Cornwall)

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Web: www.thetimbermill.com

The Wood Recycling Store (East Sussex)

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Web: www.woodrecycling.org.uk

Thorogood Timber Ltd (Essex)

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Web: www.thorogood.co.uk

Timberman (Carmarthenshire)

Tel: 01267 232 621

Web: www.timberman.co.uk

Tree Station (Lancashire)

Tel: 01612 313 333

Web: www.treestation.co.uk

UK Timber Ltd (Northamptonshire)

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Web: www.uk-timber.co.uk

Waterloo Timber Ltd (Lancashire)

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Web: No website

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WCG STUDENT WINS **NATIONAL BWF AWARD**

An up-and-coming talent of the UK's woodworking and joinery manufacturing industry has won 'Trainee of the Year' at the prestigious British Woodworking Federation (BWF) Awards.

35-year-old Matt Brown from Royal Leamington Spa College (WCG Group), was recognised for his outstanding achievements, commitment and personal development, beating two other hopefuls shortlisted in the category.

The BWF Awards honour the UK's very best businesses and individuals within the woodworking and joinery manufacturing industry; an industry worth £3.8 billion to the UK economy.

Jamie Ward, Curriculum Leader for Furniture Crafts at Royal Leamington Spa College, said: "Matt has now completed his City and Guilds Level 1 and 2 Furniture Making and Wood Machining. During the last two years he has consistently pushed himself and stretched his skills, to become the fine craftsman he is today."

Furniture Crafts at Royal Leamington Spa College offers City and Guilds Furniture Making and Wood Machining qualifications Levels 1, 2 and 3. Skills covered include hand woodworking skills such as cutting joints by hand or planing, dovetailing, veneering, finishing, laminating, designing and technical drawing. During the courses, the students make various items including a wall cabinet with dovetailed drawers, a mirror frame and a live project – a bench, for example.

N.E.J. Stevenson, based in Rugby, who hold the Royal Warrant as cabinetmakers to the Queen, have recently given Matt a job as trainee cabinetmaker. Neil Stevenson, Managing Director at the company, said: "Matt is a quiet and modest man who has shown great courage and determination to re-train in furniture making. He has a great talent enhanced by hard work and commitment to his craft. It was clear from Matt's first contact with us that he had a gift and passion for our trade and we were delighted to have him join us each week while he trained. We are all delighted that he has won this great award and we look forward to him joining us on a permanent basis on completion of his course."

Matt Brown, winner of Trainee of the Year Award, said: "It feels amazing to be recognised for all the hard work I have put in, and a fantastic way to end the Level 2 Furniture Course. The training I've received has put me in a position where I feel confident stepping into my new role at N.E.J. Stevenson. I returned to college in September and am currently completing



awards that celebrate the success of the rising stars of the joinery industry. It honours the work and/or commitment of those who have entered the industry through alternative routes, including graduates, A-level students and in-house trainees. They may have achieved some fantastic feats in their work, or shown extraordinary commitment that really adds value to a company's workforce or the production. To find out more, see

www.bwf.org.uk/ choose-wood/awards.



Matt Brown with his award

CRAFTSMAN WITH A PASSION FOR THE JOB

Morris Joinery has recently appointed experienced joiner Alistair Jones at its Bicton workshop to meet a growing demand for its services. Alistair, 42, has honed his skills in bespoke joinery, including windows, doors, stairs and orangeries, over more than 25 years in the industry.

He said: "I was looking for a new challenge where I could put my skills to good use. I wanted to join a well-respected company, which looks after its employees. Morris Joinery has made me feel very welcome. It's nice to be in a workshop with such a good team spirit and have interesting projects to work on."

Alistair lives in Bicton and previously worked at a local company for 19 years. "I have worked in joinery since I left school. I enjoy being able to make things with my hands; there is a real sense of achievement," he added.

Steve Granda, Morris Joinery Manager, said: "Alistair is a welcome addition to our skilled team of craftsmen. We pride ourselves on the quality of our work so we look for people with the right experience, knowledge and passion for what they do."

Morris Joinery, a well-established family business, offers a full range of commercial and domestic services from traditional doors and windows to modern and bespoke joinery pieces. For more information, visit www.morris-joinery.co.uk.



Alistair Jones with Joinery Manager, Steve Granda

LATEST ADDITIONS **FROM MAKITA**

The latest Makita two-piece DLX2221J kit features two powerful 18V Brushless motor machines: the DHP483 combi drill and the DTD155 impact driver. Both machines are the same compact size as the equivalent 10.8V models and packed with power and advanced operating features.

The DTD155 LXT impact driver with Brushless motor and ½in hex drive will drive home M8 machine screws, M12 high strength bolts and 90mm coarse thread screws. In Hi-mode this powerful impact driver will run up to 3,000rpm, deliver 3,900 impacts per minute and generates 140Nm of torque. In Lo-mode the DTD155 impact driver delivers 1,300rpm and 1,600ipm. It also features the Assist mode for greater machine control, initially driving at low speed, which allows the fixing to start, before full power drives the fixing home.

The new DLX2221J two-piece kit includes the DHP483 Brushless motor combi drill with a body length of just 176mm. This 13mm two-speed combi will deliver 25,500 impacts per minute in Hi-mode, 7,500ipm in Lo-mode, and 40Nm of torque with 20 drive settings plus drilling mode.

This powerful Makita two-piece 18V kit is supplied with two 3.0Ah Lithium-ion batteries and a DC18RC fast charger, and is packed in a Makpac Type 3 hard shell case; to find out more, see www.makitauk.com.



STARLOCK SYSTEM EXTENDED FOR VERSATILITY

With the completion of its latest range of oscillating multicutters, featuring the Starlock 3D accessory interface, Bosch says it's now time for trade professionals to move away from OIS.

Bosch recommends Starlock as a much superior alternative to OIS (Oscillating



Interface System) and is urging tradespeople to consider the benefits of switching. It points to the relatively loose connection provided by OIS, which relies on a system of pins on the multi-cutter fitting into holes on the accessory. This results in power transfer inefficiency, untidy finishing, and vulnerability to breakage of the pins. In many cases, pin damage can often spell the end of the multi-cutter's life.

By contrast, the Starlock 3D interface holds accessories tightly and ensures 100% power transfer. As well as improving the multi-cutter's speed, effectiveness and precision, that transfer efficiency reduces energy consumption, which is especially important in the case of battery-powered tools. Without 'wobbling' pins, the tool and its accessories also last longer.

Extra multi-cutter versatility

The Starlock system, developed jointly by Bosch and Fein, is an important advance in the development of oscillating multi-cutters, which are a relatively recent addition to the professional's armoury. They have been designed for machine and accessory to work together to achieve an optimal combination of both power and functionality.

Ideal for a variety of tricky situations, their side-to-side motion allows accurate, highly controlled cutting, grinding, scraping and sanding – often in confined spaces, which a rotating tool cannot reach. Essential to the Starlock system's adaptability and effectiveness is the expanding range of Starlock accessories. These are categorised into the following performance bands:

- **Starlock** for everyday use
- **Starlock Plus** for deeper cutting
- **Starlock Max** for heavy-duty applications To meet differing user demands, the new Bosch multi-cutters

include entry-level, mid-range and top-of-the-range models. In combination with the appropriate Starlock accessories, they offer greater power and versatility compared to previous multi-tools.

- Entry-level compact, lightweight and very handy for everyday jobs and common applications
- Mid-range more power, more adaptable and capable of deep plunge cutting
- Top-of-the-range highest power, versatility and heavy-duty capability

Today's choice

The range of Bosch multi-cutters now comprises:

- Bosch GOP 12 V-28 Professional Multi-Cutter (cordless) uses Starlock (SL) accessories
- Bosch GOP 18 V-28 Professional Multi-Cutter (cordless) uses SL and SL Plus
- Bosch GOP 30-28 Professional Multi-Cutter (corded) uses SL and SL Plus
- Bosch GOP 40-30 Professional Multi-Cutter (corded) uses SL and SL Plus
- Bosch GOP 55-36 Professional Multi-Cutter (corded) uses SL, SL Plus and SL Max

Bosch hopes that users of older multi-cutters with OIS will seriously think about setting them aside in favour of the Starlock alternative. It stresses the high returns in terms of increased productivity and longer product life, and advises buyers to ask their suppliers about special deals currently available on tool and accessory packages. These products are all now available from specialist retailers; see www.bosch-pt.com.

SORBY FINGERNAIL PROFILER GETS A MANICURE

Robert Sorby has released a new and improved version of the fingernail profiling arm for its popular sharpening systems. As the name suggests, the profiling arm allows woodturners to easily create a range of fingernail sweeps on bowl and spindle gouges.

Ready to use straight out of the box, the new arm offers an elegant and purposeful design incorporated in a robust steel build. A large positive grip locking wheel delivers smooth and effortless tool positioning, with a precision engineered brass clamping bar ensuring tools are held securely without any damage to high speed steel fluting.

The aluminium locking wheel has the added feature of a machine knurled grip and is anodised in distinctive Robert Sorby burgundy colours. Notable features to the new design include a machined 'V' for positive and repeatable sharpening – the head machined after casting for a precision fit – a steel thread insert into aluminium increasing lifetime and guarding against 'threading', and a shorter precision turned shank. The shank doesn't require any setting and slips easily into standard and long-grind jigs for Robert Sorby ProEdges and Universal sharpening systems.

The arm can be adjusted for personal sharpening angles and is easily returned to factory settings thanks to the alignment of three horizontal notched grooves on the front of the head and shank.

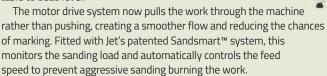
As with all Robert Sorby products, it comes with their standard lifetime guarantee for peace of mind. The arm is available as a single unit or as part of a number of sharpening kit alternatives, including the ProEdge and Universal Sharpening systems. It is not yet available in the USA. Priced at £50.77, see www.robert-sorby.co.uk.



NEWS In brief...

JET'S 1632 DRUM SANDER HAS MANY INNOVATIVE, FEATURES

The newly designed Jet 1632 drum sander will suit many small furniture or musical instrument makers looking for a precise finishing sander. It has several innovative features to help make finishing sanding an accurate and effortless task. The major focus has been around the conveyor table, which now features a simple dial to adjust the parallelism, including a stop to return the table to dead level.



The sanding drum has improved access to the abrasive securing clips, while the hood has been redesigned to improve dust extraction. The whole frame has been re-modelled not only to give a smoother look, but also to increase the rigidity and accuracy. The drum depth adjusting handle has a scale to allow relative depth to be set for each project. Both drum motor and conveyor motor controls are grouped conveniently together for easy control.

The sander is supplied with a floor stand, which has a wide footprint for stability and is pre-drilled for castors. A worthwhile accessory is the extension table set, which almost doubles the working surface area for extra support. It has a single 100mm dust extraction outlet; efficient dust extraction is vital with these machines, so please make sure your system is adequate. For more information and current pricing, see www.axminster.co.uk.

NEW CORDLESS PLUNGE SAW FROM MAFELL

The Mafell MT55 18V cordless plunge saw is a totally unique sawing system that allows you to cross-cut, mitre, compound mitre, plunge and cut panels. The MT55 can therefore be used for various jobs; it's certainly a jack of all trades.

The Mafell features a scoring function that is quickly activated in one single movement, and it can also cut visible edges as cleanly as a stationary machine. This can be achieved even when the splinter guard is worn. The MT55 can also execute clean cuts with supreme precision and without any tearing. Featuring the world's fastest blade change facility, you can expect to find dual indicators for use on or off the guide rail and the MT55 also has the benefit of being compatible with other guide rail systems. There is a fine adjuster for precise setting after blade change or



resharpening as well as greater power due to its high-performance CUprex compact motor. All in all, this is a premium quality machine that is designed to last. Priced from £639.95; see www.nmatools.co.uk for more information.

CLARKE LOG BUSTER 7

The Log Buster 7 from Machine Mart is the ideal domestic log splitter for those chilly winter months. Perfect for splitting logs up to 370mm long and 250mm wide, this handy tool is perfect for tree logs found in most domestic gardens and can be easily operated using



a two-handed system and ram lock for increased safety. Don't worry about carrying this splitter around in the icy conditions either because it is fitted with two wheels and a pull handle for easy transportation, and a handy LB7S stand accessory can also be purchased exclusively for this model (priced from £35.98) to bring this splitter to working height. The ram stroke can also be shortened to perfectly split different types of logs with a new depth stop feature, and with an extra strong welded steel frame, you can guarantee that this piece of kit will serve you well for years to come. Priced from £203.98, see www.machinemart.co.uk to find out more about this and other available accessories.

INNOVATIVE NEW JACKET FROM DICKIES WORKWEAR

Dickies has recently launched the Wakefield – an innovative new jacket that transforms its appearance in low light conditions. Offering tradesmen the high visibility they often rely on in winter months while maintaining a stylish look, the Wakefield appears just like a typical soft shell jacket, but becomes reflective in poor lighting conditions. Grey in colour with black detailing, the jacket is easy to coordinate with other items in Dickies' range, helping to create a modern, professional finish.

During the darker days of winter, high-visibility clothing becomes an especially vital element of a tradesman's wardrobe, and the Wakefield is a stylish outerwear option that offers a fresh alternative to traditional reflective clothing. Breathable, with waterproof fabric and an adjustable hood, the jacket is ideal for outdoor work throughout the year. Further practical benefits include an inside pocket, adjustable cuffs and internal hem adjusters.

Dickies Workwear's full selection of PPE products includes reflective options available in multiple styles

and fabrics to tackle all tasks and conditions, designed to maximise the visibility of the wearer. All high-vis clothing items are designed in line with health and safety requirements laid down by the EU Parliament. Priced at £62.50; to find out more, see www.dickiesworkwear.com.





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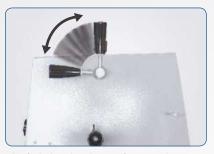




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Specification

Cutting height / width: 205 / 306 mmTable size: 548 X 400 mm

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• Cutting speed: 370 to 750 m/min

• Blade length: 2360 mm

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What's new from



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MAKITA DSP600ZJ 2 X 18V (36V) LXT BRUSHLESS CORDLESS PLUNGE SAW

MANUFACTURER: Makita

D&M GUIDE PRICE: From £389.95 (inc VAT)



New from Makita, the DSP600 is a 165mm cordless plunge cut saw powered by two 18V Li-ion batteries in series, and features a high powered brushless motor comparable to the corded equivalent.

The DSP600ZJ delivers precise and more accurate cutting when combined with an optional guide rail system (sold separately). The saw and rail system work together to produce accurate cuts with minimal tear-out. The saw combines a powerful Makita-built brushless motor powered by two 18V LXT batteries with Automatic Speed Change™ Technology, which adjusts cutting speed and torque during the cut for optimum performance.

The saw has a variable-speed control dial (2,500-6,300rpm), with soft start and an electric brake for added convenience. It has a large 56mm cutting capacity at 90°, with a bevel capability of -1° to 48° and positive stops at 22.5° and 45°. When used with a rail system the plunge circular saw is a more portable option to a table saw for select applications, and is ideal for use on the job site or in a workshop.

Available as a body only version or as two kits complete with rails and clamps, see the website for further details.









TREND AIR STEALTH HALF MASK

MANUFACTURER: Trend **D&M GUIDE PRICE:** £22.99 (inc VAT)



The Air Stealth from Trend is a new generation P3R half mask, ergonomically designed with a low profile design. It offers less breathing resistance, less clogging pressure and inward leakage and features approval P3(R) APF20 × WEL.

It protects the user against airborne particles, oil aerosols, mist, welds and fumes and the twin HEPAC* pleat encapsulated design filter provides 99.99% filtration of airborne particles and aerosols at 0.3 microns and above. The exhalation valve on the bottom of the face piece ensures there are no exhalation fumes that may steam or fog the user's glasses/visors. A protective grill covers 100% of the filter surface and a grill protects the filter from moisture and particulates, ensuring it performs better in clogging pressure and filtration efficiency. The unique integral sample port and plug allow non-destructive face fitting, in turn benefitting from a large non-return valve. The Air Stealth comprises of a single piece head and neck strap with quick release. Sizes available include small/medium and medium/large.



Lock solid

Michael Forster thought he needed a little dovetail practice but butt joints and screws would work just fine for this key cabinet

hat with the economic circumstances and growing population, I guess it's a sign of the times that living space is becoming precious. This little cabinet is designed for a narrow hallway where we needed a place to keep keys, telephone directories and outgoing post. The directories slot in behind the right-hand fixed panel so take up no extra depth, and the top is designed with a lead-in at each end to soften the experience of brushing past it.

Design considerations

Originally, I thought of using ash and sapele for a nice contrast, with hand-cut raised-and-fielded panels for the doors, but then changed my mind about the last point when I came across a nice piece of burr poplar. So the unit now combines those three timbers, plus a rather odd back panel that is visible with the doors open.

Well, all the alterations in the house had left me with a huge amount of melamine-faced chipboard that I needed to use up, and I wanted a substantial back to screw hooks into. I disguised it with a piece of solid ash down the visible edge and hope that visitors don't go opening the doors,



1 Having had a bit of time out from woodworking, I thought I'd practise my dovetail saw technique..



3 With the dovetailed end in place, the divider is simply screwed into position, located against strips of scrap

but in truth I don't think it jars that badly. After some months away from the finer side of woodworking, I knew I'd need to get my hand in again before starting on a couple of commissions that have come in for jewellery boxes, so just for practice I dovetailed the corners at the closed end.

In other respects I kept things as simple as possible to speed up the job and avoid keeping those clients waiting. If dovetails are not your thing, then there's no reason why the end panel could not just be butt jointed and screwed in place like the divider, but do shoot the ends first to get a really tight joint.

The burr poplar meant I could use plain, flat, door panels, which, along with dowelled corners for the frames, saved valuable time while still giving a pleasing effect. To give the doors something to close against, I added an extra 5mm-thick piece top and bottom inside the cabinet.

Everything flows from the fixed panel which is a little taller than the directories, with each door exactly the same size, so there was no need to prepare detailed drawings because it's the sort of furniture that can be designed on the back of an envelope – or even a bus ticket.



2 ... before tackling the real thing



4 All the door stiles and rails are shot to precise length...





WOODWORK Key cabinet



5 ... so that the Joint-Genie can register against the end of each piece



6 You'll need a drill with a depth stop to make quick, perfect and invisible dowel joints with the Joint-Genie



7 The first door in the cramps: a cramp across the diagonal is a great method of fine adjustment for squareness



8 To give the doors something to close onto, without the complication of cutting rebates, 6mm-thick linings were glued in

Carcass construction I've got a stock of 200 × 100mm slab-sawn ash

and sapele bought with the idea of ripping it down into 100mm boards closely resembling quartersawn for stability. This goes a long way toward managing movement issues since the boards are pretty well unable to cup across the width.

So I ripped the timber and brought it into the house for a few weeks to stabilise, in which time there was no visible movement at all – the system works! I could then plane and thickness it with confidence and start setting out the joints.

I shot the ends of the cabinet side that was to be dovetailed and then marked the shoulders with a cutting gauge. Those marks also gave me the length for the vertical divider, ensuring squareness. I marked all shoulders/ends with a knife, and shot them with a hand plane on a shooting board to ensure accuracy.

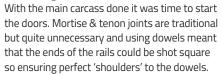
The vertical divider is simply screwed in place, the anticipated height of the unit being such that the underside is not visible. Had it been so, I should have added a complementary under-panel similar to the top but without the tapered extensions, to provide a neat cover for the screw heads.

Bear in mind that the end of the cabinet is wider than the other three members and is then rebated to conceal the edge of the cabinet back. The divider is screwed in place from top and bottom and the back screwed on, squaring up the cabinet along the way.



9 After having been shot to fit, the doors are wedged in place while the hinge housings and door knob positions are marked

Dowelling doors



When it comes to accurate, invisible dowel joints, the Joint-Genie is a brilliant piece of kit. I bought a cut-down version for £19.99 some years ago and it's perfect for my needs. Like all great ideas it's dead simple and there's nothing to go wrong, although it does still feel strange to me to make doors without horns so that the Genie can register on the ends. Shooting them

with a plane ensured precision and squareness. Once the dowel holes are cut the inside edges can be grooved for the panel at the router table. As always with solid framed panels, the panel is cut to allow a couple of millimetres' play at the bottom of the grooves for movement.

Cleaning up the burr panels took a little longer than ordinary grain, but with my high-angle blade in a bevel-up plane, and a little help from scrapers and abrasives, it wasn't onerous.

Assembling doors

When assembling the doors I had to be quite careful not to get glue on the panels since they need to float free to avoid movement issues as their width conflicts with the lengthwise stability of the rails. However, with good glue and sound joints - or should that be the other way around? - one can be quite sparing, especially on a littlestressed item like this.

Rather than just splosh the glue on, I used a nail to drip a small amount into the bottom of each dowel hole, the theory being that the glue would be forced up the sides of the dowel to form a strong joint but not far enough to get onto the corner of the panel. Don't forget to whittle a taper on the end of each dowel and cut a groove to allow air to escape from the hole.

Once the glue had dried it was time to fit the doors and front panel by shooting with a jack plane. Then, with a nice fit attained, I wedged the doors lightly in place while I plotted the positions of the hinges and knobs. The latter are taken from stock: moving house meant ripping out a lot of built-in furniture at both ends, and I'm now well provided with door hardware! They're a bit on the large side to be honest, but heigh-ho.



10 Hinge housings are marked with a knife...

Cutting hinges

I was sorely tempted to fit surface-mounted hinges to get the job done, but I'm glad I resisted because they would have detracted from the timber itself and also from the unit's simple lines.

Chopping in hinges is not a terribly difficult task and well worth the time taken over something that is going to be seen more or less immediately by visitors. However, it does need to be done



11 ... and marking gauges



12 A mallet and chisel, held bevel down, loosens the bulk of the waste..



13 ... before I pare down to the line



14 A nice result even if I do say so myself



With the hinge housings cut and a test assembly completed, the doors can be removed for final cleaning up – that lovely, therapeutic process whereby a sharp, finely-set plane glides over the surface removing gossamer-thin shavings and leaving the surfaces free of pencil markings, fingerprints and the general grime that accumulates in the making.



Once the doors are in and the carcass does not need to be returned to the vice, the fixed panel can be installed by cramping in place and then screwing from above and below. To secure the doors shut, I simply let a couple of rare earth magnets into the top inside faces and positioned a steel screw for each as a keeper.

To finish it off, the sapele top panel was simply cut to size and screwed into place, the angle at the ends being quite arbitrary as long as they matched.

This was my first use of sapele since leaving the trade in the '60s when it was used for nearly everything and popularly (heretically) called mahogany, and I was struck by how much easier it was to use now that I've got on top of the planing issues.

The spiral grain that gives sapele that striking



15 A rare earth magnet makes a neat catch...



16 ... holding against a small screw in the door stop



striped effect usually makes a half-decent finish an elusive ideal, but with my lovely bevel-up plane honed to a high angle, it positively purred its submission.

I fixed the unit to the wall by simply screwing through the substantial back, into which rows of brass cup-hooks are screwed for the keys. Job done – and one that rewards a few fairly basic skills with a deceptively impressive appearance. ww

SUPPLIERS Joint-Genie

The 6mm Jobber at £68.95 (I got mine on offer for £19.99) is a great tool if you need to make frames in small-ish timber quite often Web: www.joint-genie.com

Burr timber

I got my burr poplar by mail order from Lanarkshire Hardwoods Web: www.lanarkshirehardwoods.co.uk

Rare earth magnets

Axminster Tools & Machinery Web: www.axminster.co.uk







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Luthier David Sundberg builds guitars for celebrities

David Sundberg is one of Sweden's most talented luthiers. He has supplied handmade guitars for world-famous artists such as Keith Richards, Ryan Adams and Swedish folk duo, First Aid Kit. Every guitar he makes is unique and specifically designed to fit the requirements of individual customers. Always having sharp tools to hand is crucial for his work.

Precise craftsmanship

David, a Tormek friend for many years, is known for his impressive craftsmanship and quality guitars. All the guitars are made from the highest grade of wood and each takes from 60-100 hours to make. As a luthier, every millimetre counts and determines the result of the guitar. For example, depending on how the braces are formed and placed, the instrument will react in different ways and produce different results. This is the part where David can influence the voice of the guitar.

For this level of precise craftsmanship, it is highly important to have tools with a perfect edge. One of those David most commonly uses is the chisel, which helps him to carve the bracing inside a guitar. Another is the small plane, with which he can scrape down a piece of wood and remove excess material. Common to all of these tools is their need to be razor-sharp. David has tried different ways to sharpen his tools before he discovered Tormek's sharpening machines. He comments: "I had seen these machines here and there but clung to my Japanese whetstones as I was convinced they were unbeatable. One day, this gentleman called Stig came into my workshop and put a Tormek in front of me. I then sharpened my favourite chisel and since then, my old whetstones have remained dry. Not only does the Tormek give me more time for my craftsmanship, but it has also really saved my hands and elbows. Filling the trough with water then hitting the button to start sharpening – that's a special moment for me!" ww



The chisel is one of David's most commonly used tools



Sharp tools are essential to David's work

FURTHER INFORMATION

If you want to find out more about David, watch the video footage of Tormek's visit to his workshop, available at www.tormek.com. You can also see more of his work here: www.sundbergguitars.com, and for more information about Tormek products, visit www.brimarc.com

By George, he's got it!

David Oldfield wanted these French doors to be right in every detail as befitted a Georgian manor house

n the autumn of last year I was approached by a cabinetmaker I had known for some years with drawings for a pair of French doors with folding internal shutters. His clients were owners of a large Georgian manor house in Somerset. Could I come and have a look at the room the work was destined for?

The exercise

This was a handsome dining room facing out to the gardens at the rear of the house, lit by three large sash and shuttered windows. The central window was to be removed and the French doors installed to give access to the gardens. The room could then serve a dual purpose, not only as a dining room but a place to entertain when holding garden parties. The house was impressive, every room looking

like a set for a photo shoot, and when I met the owners I understood why, she being an interior designer and he an aero-engineer.

This sort of work is not really my bag but I agreed to take it on because it was a serious commission and I was going to have to give it all the attention it deserved. A survey of the window and masonry revealed a horror story, with everything out of kilter in all directions. The supplied drawings showed admirable but technically wrong draughtsmanship. Did this architect know anything about doors? In total the clients and I had to resolve 14 issues, and in the end they accepted my suggestion for gunstock shoulders. These are not popular with joiners because they are awkward to make, but they are the proper thing to do on period French doors – or any French doors for that matter.

The gunstock helps to reduce the width of the upper stiles while increasing the strength in the lower part of the doors (see Fig.1).

The making

These doors being 2,975mm high, I selected firstgrade utile mahogany due to its stability. If a pair of doors were to warp little could be done about it, so the stock was planed and left oversize in stick for several days. Convinced that any movement had stopped, I re-dimensioned and began the machining, moulding, mortising and tenoning, etc. (photos 1-8), then thought about the folding shutters. Ever done them? Watch out! They are a trial unto themselves. These were 3,000mm high and I shuddered when I found in the survey what had to be done to make them fit snugly in their recesses and then four-fold out perfectly into

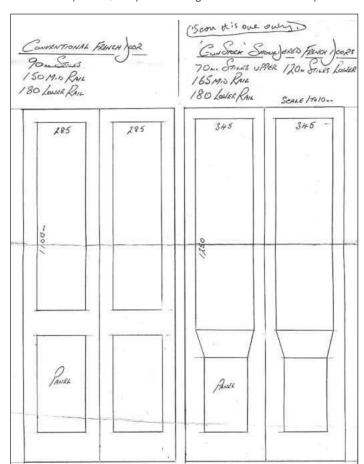


Fig. 1 Gunstocks increase light in upper half and offer strength in the lower



1 Joinery sections used as a reference when marking up



2 Shoulder cutting on the table saw using the fence stops NB Guard removed



WOODWORK Gunstock shouldered doors

the centre. The masonry and existing architraves were so far out of true that I had to make the shutters out of parallel. Fitting was a story best left untold but my engineer client understood and I'm pleased to report that his patience was exemplary.

Conclusion

Would I take on a project like this again? Probably. It was the site fitting that gave me the screamers. But I felt I had to do it for the house and for the money, and also for the ultimate satisfaction of knowing that I had got it right and it was going to stay right for a very long time. Amen. ww



5 A pair of stiles awaits the rail's guide



3 Bandsawing the cheeks of the tenons



6 A door being fitted with a large 200mm polished brass flush bolt – not an easy thing to do



4 Paring down the gunstock shoulders



7 The inner face of the doors; the ovolo moulding is a replica of mouldings on the existing shutters



8 The outward face of the doors; the panels are flush, surrounded by a captive bead – typical of mid-Georgian work

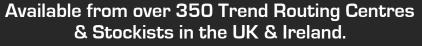


9 All that work to achieve what looks like very unassuming doors; they look as if they have always been there — what I set out to accomplish





















A NEW LEASE OF LIFE

lan Wilkie, with the help of his visiting grandson, set about restoring a lovely Ercol dining table and chairs to how they first looked in their heyday

e bought our first piece of Ercol furniture back in 1967. This was a coffee table - the height of chic and sophistication in those days - when in fact we drank tea most of the time! I have revarnished the top once but otherwise it is as good today as it was originally. Over the years we added other pieces including a desk and armchairs and would have liked other Ercol furniture, but it has always been an expensive product. In those days, the legs and frames were made in beech and the seat and table tops in elm. I like the timeless appeal of Ercol furniture with its clean, traditional look but I am amused to see this design is now described as 'vintage' or 'retro'. We have never had an Ercol dining table and chairs, so when I was offered these to restore I thought it was certainly worth looking at. For a number of years the items had been languishing in an attic unloved and uncared for. The carver chair was in reasonable condition and the joints appeared sound. One dining chair had a loose leg and the



I decided to take the job on and started my restoration on the best chair first to see how things went. I used the Bosch cordless sander to take most of the cellulose finish off. Cordless tools do really come into their own with tasks like this with no extension lead or wires to hinder or trip over. It is easy to change the grits on this machine and one charge gives plenty of working time



The Proxxon belt sander is a very useful tool for difficult areas and is ideally suited for sanding between the back spindles



A steel scraper worked best on the beech legs



There was a dowel cap missing on one side of the carver where the arm support fits into the seat, so I removed the remaining one, turned up two new matching caps in beech, and glued them in



For the joints that wouldn't come apart I used Veritas Chair Doctor Glue with a fine tube to get the glue down into the joint as far as possible



Some of the legs and stretchers were all loose and those chairs dismantled easily!



I cleaned each joint with a fine rasp and reassembled using Veritas Chair Doctor Glue before tapping the legs and stretchers into place with a soft-faced hammer. Once the leg spindles were firmly in the chair seat, I fitted new beech wedges to ensure a tight fit



Once dry, I used a flush saw to remove the surplus wedge and finished by sanding the top of the joint smooth to leave it looking as good as new!



The sole carver chair; now an inviting seat in the corner

CHAIR DOCTOR GLUE

This product is available as a 57ml bottle or the Pro Kit, which contains 114ml of glue, syringe and three different injection needles (1.25, 0.9 and 0.5mm). As its name implies Chair Doctor fixes chairs. If a chair has a loose rung, for example, an injection of Chair Doctor Glue will first swell the rung and then bond it in position. The secret is the low viscosity. It soaks into the end-grain, swells the wood, then 'freezes' the wood in its swollen state as it cures. A film of dry glue is left on the walls of the wood cells, thus preventing contraction. The glue can penetrate the narrowest of cracks and is supplied in a bottle with a micro dropper applicator tip, which lets you place the glue accurately. For fixing loose joints where disassembly is not an option, Chair Doctor Glue is the answer. It can be purchased from Axminster Tools & Machinery and is priced from £6.70-£8.18; see www.axminster.co.uk

WOODWORK Ercol dining table & chairs refurb



My grandson made the mistake of visiting for a weekend and I soon put him to work sanding off the old finish! The DeWalt random orbital sander was excellent and after a few hours we were back to the bare wood. He was covered in dust and I just gave advice from the sidelines and concentrated on the metal fittings!



I cleaned up the metal brackets and hinges

legs and stretchers on the other chair were all loose and about to fall apart. The table frame and legs were in good condition and although the elm top was sound and not warped, the surface had been much abused and needed considerable attention as did the extension. Originally the furniture was sprayed in the factory with a hard-wearing cellulose finish, but I knew I would be unable to do this myself satisfactorily on a large area, so instead decided to opt for an oiled finish. ww

COLRON FINISHING OIL

This product is available from most DIY outlets in tins of various sizes. It consists of a superior blend of resins and tung oil, which penetrate the wood to nourish and feed, giving a low sheen lustre and water-resistant finish. There are plenty of other possibilities such as Danish oil, which is very similar. To find out more, see www.colron.co.uk



The chairs and table were finished with natural Colron Finishing Oil. I applied three coats allowing plenty of drying time and rubbed down between applications. The last coat was rubbed into the wood with a rag while still wet. Immediately the wood came back to life, especially the elm grain, which was very satisfying



To achieve as smooth a finish as possible I de-nibbed with '0000' steel wool, applied a wax finish and buffed up with a soft cloth. The elm does still have a slightly rough feel despite all the sanding and a wax finish, but as I said before, I didn't want to use cellulose. Getting an even, smooth finish on the table top proved to be the most difficult part. I consulted several websites and the general advice was as follows: apply a thin coat of oil with a cloth, rubbing in well, wipe off any surplus and put the work to dry overnight. The following day, rub down the surface with '0000' fine steel wool lubricated with a little oil to de-nib the dust bumps and repeat the whole process over several days. You do need to take your time and not hurry this final stage, however tempting it is to get the job done. The wood did feel slightly sticky for a few days but then the finish hardened up. I gave the table a final polish with beeswax. If it becomes dull or marked over time, I will just de-wax the surface and give it another oiling



Table with flaps folded down and the two diners



The colour and grain of elm was a joy to see again

Tools of the trade that make working life more efficient & safer

For carpenters, time is always at a premium. Whether you are working on large construction jobs, fitting kitchens or making furniture, the need to work efficiently and effectively while providing a high-quality finish is always essential.

Fortunately, there is a range of tools available for tradespeople, which can speed up processes, improve accuracy, and provide enhanced protection, thereby reducing the chance of injury.

IronmongeryDirect offers some of the most popular and helpful products on the market:

DBB Morticer

The Souber DBB Morticer produces a perfect lock recess every time. It is a genuine five-minute morticer, which will save anyone who regularly fits mortice locks both time and money. The self-centring jig minimises marking-up time, while its vertical guides, height and depth stops, mean that you cannot overrun the cut area, eliminating guesswork and increasing accuracy.

Thingamejig Scribing Tool

Marking-up is a common and important task carried out by a carpenter, making this device a toolbox essential. The Thingamejig Scribing Tool can scribe laminates, painted items, stone, soft metals, timber, veneers and more. It also only requires one hand to use, so you can steady yourself, or what you are scribing, with your other hand.



The Souber DBB Morticer produces a perfect lock recess every time

Blum Mounting Plate Jig

The Blum Mounting Plate Drilling Jig is a simple yet extremely effective carpentry tool. Perfectly designed for pre-drilling fixing positions for mounting plates, it's ideal for use with CLIP Top, CLIP and modul type hinges.

Using these tools will greatly decrease the amount of time it takes to complete many common construction jobs, while ensuring consistently reliable and professional results, as well as reducing risk.

IronmongeryDirect has over 16,000 products available. Orders can be placed as late as 8pm for next day delivery, and by 4pm on weekends. For more information, visit **IronmongeryDirect.com** or call **0800 168 28 28. ww**

Engineered Precision

1400W DUAL MODE PRECISION PLUNGE ROUTER





Quiet, easy to control and simple to adjust, this compact tool is ideal for those looking for a router equally suited for table-mounted and hand-held use.









THE 'HARROGATE' SHOW 2017

a demonstrator's view

Professional woodturner and demonstrator **Andrew Hall** reports from the recent 'Harrogate' show as he gives an insight into what the event entails from a demonstrator's perspective

THE HARROGATE SONG - VERSE 3

"Well Harrogate show comes round just once a year And it will fill you all with lots of good cheer There's the Tiny Turner and Margaret here too Yes they've both come along just to entertain you"

his was my eighth 'Harrogate' show and I have to say that I really enjoy working at this event. Planning generally takes place around six months before the show. I like to have new turnings on display and new ideas to share with delegates attending this event, and this year I also gave them something to listen to.

'Edutainment'

My belief is that the show is the best in the country and, as a demonstrator, I should be responsible for both educating and entertaining the delegates attending. I call it 'edutainment'.



1 Sharpening tools using a jig

Tony Cox, the show organiser at Nelton, allocates demonstration space and lets me know the size of the area so I can scale it down and set it out on paper.

'To do' list

About a month before the event takes place, I check the items to be displayed and two days prior to the show commencing, I begin packing. The next step is to produce a to do list, which starts with tools to be sharpened and wood cut for demonstrating (photo 1).

I generally take three of each tool, which helps save sharpening during demonstrating.

Fortunately, as I have a woodturning school, I handily have multiples of each tool. I then pack all of the display items, tables and consumables required for the show (photos 4 & 5).

Setting up

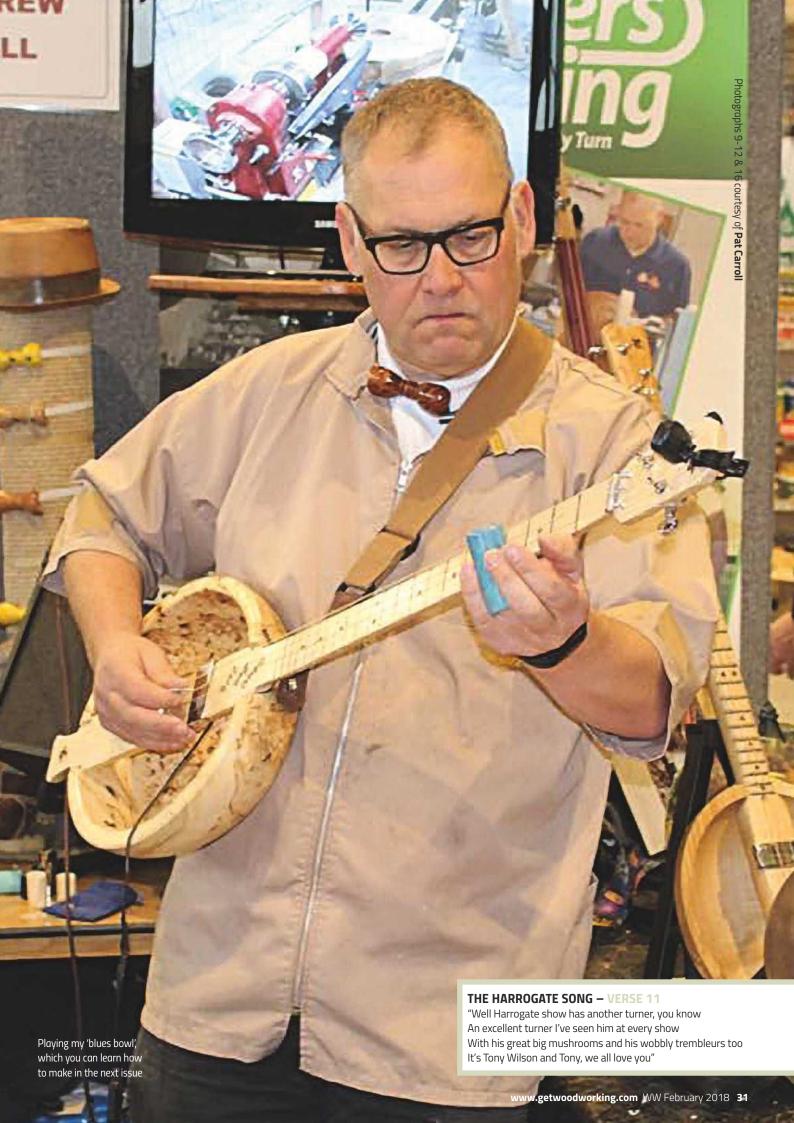
It's often been said that I take everything but the kitchen sink, but I believe that delegates like to see a good display of work.

Set up day is always the Thursday – the day before the show – and you can usually arrive in the morning to set up your display. The first sight is a blank canvas: two walls in an 'L' shape (**photo 6**), so you have to think creatively!





2 & 3 These are the blanks prepared for the blues bowls. I also prep the wet wood and leave it in water for maximum water retention, which helps the wood to bend during the production of my hats





4 The car...



6 The empty stand — a blank canvas



7 Car and trailer emptied and all the items are placed so that I can then display the pieces of work and set up the demonstration area



5 ... and trailer packed and ready for the set up day

I was demonstrating on the new Record Coronet Herald and Camvac at the 2017 show, so the black package in the centre of the area was the lathe and extractor ready for assembly. Tony always supplies 12 chairs for the delegates to sit on in order to watch the demonstrations. This was the first year I had used my trailer as I have down-sized from a mid-sized to a smaller van, so I decided to use it not only to transport all the items, but also as a display platform for the blues bowls, and prior to the show, I made a sectional top to provide a stable platform.

You can see my good friend Mark Cordle in the centre of **photo 7**. I first met him at the Alexandra Palace show back in 2009, and he has always helped me to set up at the show ever since. The event is great as it allows you to meet up with friends old and new.

Four hours later and the display is all ready



8 Four hours later and the display is all ready for the following day

for the following day (photo 8). I am supplied with a power point but I have to provide my own extension leads, and at the back of the demo area I have a TV and video camera so that those sitting can see all the tool shots from behind the lathe. I also bring a PA system; this was a result of feedback from a show I attended in Scotland when a delegate told me he had enjoyed the demo but could not hear at the back, and it also helps with voice projection as well.

Let the show begin

The thing is that when you are a demonstrator at a show, you don't actually see anything of it until the evening, and at this stage most of the stands have been covered up.

Demonstrating the Dickie bow tie is always a good warm up exercise and great for showing new turners the three basic cuts: bead, 'V' cut



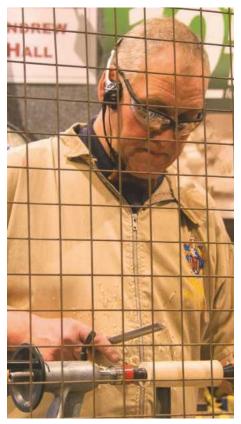
9 Pat Carroll and myself with our good friend Margaret Gerrard, who was also a demonstrator at the show



10 Display of blues bowls and hats on the new trailer stand



11 Back of display stand with the latest blues bowls made especially for the show



12 All set up and starting to turn a Dickie bow tie

and a cove (photo 12). Note the safety cage screen, which is used to protect the public. I use a mesh version as a Perspex screen would soon mist up with water from the wet wood I use for the hats.

At this show, I also got the opportunity to meet with previous students, who'd brought



15 Alison from British Hardwoods with the Blues Brothers hat and bowlkulele



17 Sheepie the supporter dog

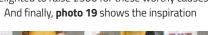


13 A dulcimer made by my first blues bowl student Barry Teague. Barry kindly brought it to display at the show – it certainly made a good talking point

their work along for me to see after they had completed the course, such as the dulcimer shown in **photo 13** and the wooden hat shown in photo 14.

You really do see and meet all sorts of people at the 'Harrogate' show, and shown in photo 17 is Sheepie, a supporter dog for a lady who has balancing problems. The dog walked alongside the lady very close to her leg, which helped to prevent her falling over. Really amazing.

On the Friday and Saturday, the show was really well attended, and on the Sunday all the members of my band, The Woodentopz, arrived: singer Tony Chappel, Allan Joicey who plays the harmonica, and myself on blues bowl. We wrote The Harrogate Song and had 50 CDs made to raise funds for H4H and Blind Veterans, and we were delighted to raise £300 for these worthy causes.





16 Our good friend Gary Lowe, the tartan turner



18 Members of The Woodentopz performing The Harrogate Song



14 James with his latest wooden hat

FURTHER INFORMATION

The 2018 North of England Woodworking & Power Tool Show, or the 'Harrogate' show as it's commonly known, takes place from 16-18 November. For further information, visit www.nelton.co.uk

for *The Harrogate Song* – my good friend Tony Wilson. I've seen him at every one of these events, both as a delegate and a demonstrator.

Homeward bound

Well, all good fun has to come to an end and the show finished at 4pm on the Sunday and like a military operation, electricians and set dismantantlers arrived and within a couple of hours the hall was virtually empty. So with trailer filled and hitched up, we were soon on the road home ready for a well earned rest (until next year!) ww



19 The much-loved Tony Wilson



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Scoring function



World's fastest blade change



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2 x 5.5ah Li-HD batteries included





SHINY SHAKERS

Inspired by an unusual source, **Niall Yates** decides to make his own set of salt and pepper shakers, which feature a plastic coating to give a really high shine

t's often surprising the extent to which the inspiration for our projects comes from the unlikeliest of sources. And it was certainly the case with this particular project.

There had been a small cone-shaped piece of wood, with a flattened tip, sitting on a shelf in my kitchen for several weeks. I recognised it as a stopper that I had once made to fit into the neck of an Indian earthenware water container - of the sort that is usually discarded after the contents have been drunk. This one, however, had survived and had charm enough to have been turned into a lamp base – hence the need for a stopper. This stopper had further been drilled out at its widest point to receive one of those lamp holders that plug into the neck of bottles. Standing there on the shelf, now minus its lamp holder and the earthenware base, that sadly had long since been broken, it seemed to have developed an identity all of its own. It had a simple elegance that I had not recognised before. Whether this came from the specific angle of its slope, or the way the patterning of the annual rings of the wood was

modified by its shape, I could not decide. Whatever its qualities, these were really just the result of a happy accident.

Despite having made it, I had never noticed its simple charm before. What it called to mind, every time I caught a glimpse of it, were some of the more elegant salt and pepper shakers that used to grace our dining tables, before the rise of the grinders that are now so commonplace.

New ideas

This then was the jumping off point, and lots of ideas came thick and fast for versions of these shakers. They ranged from carved timber, turned timber, painted timber, cast and turned resin, right through to exotic hardwood with inlaid rings of metal and even birch ply — plain and stained. Given this first flush of ideas I now needed to thin them out before deciding to run with just one.



1 Birch ply strips being cut to width



2 Strips being glued and clamped



3 Planed batten of birch ply



4 Some of the blocks ready for turning

99% perspiration

So, after the ideas, it was time to start making. I decided to concentrate on the plywood versions as I had some offcuts of good quality 12mm birch ply. These I cut into 54mm wide strips on the table saw before gluing and clamping four of these strips together at a time with PVA adhesive. When set, I planed the rough edges and thicknessed them on the planer until the ply battens were 50mm square. These were then cut into blocks measuring 75mm long (photos 1-4) on the radial arm saw. Now it was over to the lathe.

Initially, I set up the first block in an engineering chuck. I then fitted the Jacobs chuck into the tailstock and drilled into the block with a 35mm Forstner bit to a depth of 12mm (photos 5 & 6). I next exchanged the bit for the 15mm one and drilled to a depth of 70mm (photo 7). This gave me the majority of the shaping of the interior. With a small circular-headed carbide tool I further hollowed out the interior giving a slope



5 Block set up in the machine chuck



8 Turning the internal taper with a carbide tool

to the sides ending up at the shoulders of the 35mm counterbore. I refined with a box scraper and sanded this tapered interior until I was satisfied with the result (**photos 8 & 9**).

With this initial shaping complete I removed the block from the chuck and replaced it with a section of 30mm diameter maple dowel. After careful measuring of the sloping interior of my ply block, I transferred these measurements to the dowel and I turned a matching taper to form a jam chuck.

I now pushed the block onto the jam chuck and brought the tailstock up to stop it sliding off, though not before placing a small circular section of 9mm MDF between the revolving centre and the block to protect the end. It was time to start turning the outside taper that would give the shaker its characteristic form. I started with a spindle gouge, but given the orientation of the wood fibres I soon switched to a bowl gouge (photo 10) followed by a shear scraper. With the taper finished I sanded with various



6 Drilling out with a 35mm Forstner – note tape showing depth of cut



9 Sanding the inside taper with a wooden dowel inside some abrasive roll

grits of abrasive, finishing with 600 grit. I then slid the tailstock out of the way and marked and formed a gentle cushioned end to the shaker with a scraper; this cushioned end was also sanded to a finish (**photos 11-14**).

Refining the process

What I had not taken full account of at this stage was how I was going to seal the base of the shaker, to hold in the contents. To assist me in my experiments, I had borrowed a plastic bung from a novelty salt shaker on a shelf in the dining room. This had been made to fit a 35mm hole and works very well. To allow for the rim at the top of the plastic bung, a rebate has to be formed at the top edge of the 35mm hole. I had snookered myself by having already turned the external taper, so I had to find another way of holding the shaker while machining this additional detail. I realised that I could only grip this external taper on the shaker without damaging it if I made an



7 Drilling an additional 15mm hole to a depth of 70mm



10 Turning the external taper on a jam chuck – note point of live centre covered by plug



11 Sanding the external taper – working through the various grits

additional jam chuck. The new jam chuck was made from a small section of a cherry log that was first screwed to a small faceplate, before having its end trued and a 35mm hole drilled in it to a depth of 70mm with a Forstner bit. The sides of this hole were then turned with the small circular carbide tool to form a taper, and this was further refined by the use of 60 grit abrasive on a 20mm dowel. With a bit of tweaking this eventually formed a very effective chuck and when driven home the shaker revolved without any deviation; this enabled me to turn the small rebate and sand the base to a finish.

With the turning complete I drilled a 2.5mm hole in the top of the shaker and placed the temporary bung in the base – the Mk1 salt shaker was now complete (photos 15 & 16).

Next steps

I now had to track down and order some suitable 35mm stoppers online so that I could tailor the



14 Finish sanding the top



17 Remaining blocks drilled with a stepped hole



12 Marking the extent of the cushioned top

shakers to suit. Those I ordered were the ones advertised for the use in ceramic piggy banks; the ones specifically for ceramic shakers were too small and fiddly to be of much use. I had also decided the shakers might look fairly smart and be able to be kept clean and hygienic if I gave them a plastic coating, so this along with some sample primary coloured stains completed the order.

Into the swing

Using the Mk1 version as a guide, I now sought to turn more shakers to match. To this end I first set the blocks up in the engineer's chuck and drilled them all out with the stepped hole as before (**photo 17**). They were then turned, much as before, except this time I made sure that I marked and formed the rebate for the plastic bung just after I turned and sanded the taper inside the shaker (photos 18-21).

By the time I had finished turning, I had 10 shakers out of 11 blocks, as one had split apart



15 The first of many – Mk1 with hole drilled in the top



18 Remounted in the engineer's chuck



13 Forming the cushioned top with a scraper

on the jam chuck while I was working on the external taper. I now marked and drilled a central hole in the top of each of them, before selecting the half that were to be the pepper shakers. These were drilled with an additional three holes around the central one. To help me with marking these accurately, I used a template made from the metal lid of a jar.

With the best will in the world, when turning birch ply, there is always going to be some filling to do. I was lucky in only having two small voids to fill. I used a two-part filler of a matching colour and was careful to mask around the holes so that I did not get any extraneous filler on the surface of the shaker that would choke any of the end-grain and show through after staining and polishing.

Time to experiment

I mixed together some of the rainbow coloured spirit stains that I had purchased earlier and came up with a range of colours that I thought would



16 Showing the borrowed plug fitted to the base



19 Marking with a pencil with the bung inserted



20 Using a bedan to cut the shallow rebate to accommodate the shoulder of the bung

work quite well. Despite trying them out on a few scraps of ply, only colouring up the shakers for real would prove if the colour combinations were going to be successful or not.

For applying the stain I used a small squirrel mop with a tiny detail brush as well, to make sure the stain entered into each of the holes. To help control the depth of colour, I thinned the stains with methylated spirits. I had to be scrupulous about cleaning the brushes between changes of colour and frequent changes of disposable gloves were a definite help in keeping my hands clean, and preventing colours transferring unintentionally from one shaker to the other. After the stained shakers had dried, I wiped them over with a rag coated in methylated spirits, before allowing them to dry further (photo 22).

Plastic coating

I mixed up the plastic coating that I'd purchased, paying careful attention to the manufacturer's instructions, Waiting approximately two hours between coats, I applied six coats to the shakers, de-nibbing with fine silicon carbide between each (photo 23).

I waited a further 48 hours for the coating to properly harden, keeping the shakers in a warm atmosphere to aid the process. I sanded the coating by hand, with wetted 600 grit silicon



21 Plastic bung being tried for fit

carbide abrasive paper. When I was happy with the even matt surface that I had produced, I switched to a 1,200 grit before wiping clean and buffing the surface with the compound supplied. The result was not as shiny and clear as I had expected, so after reading the instructions again, I left the coating to continue hardening for several more days. Some of the holes I had previously drilled in the top of the shakers had become blocked with the coating. I cleared these by holding a drill bit firmly sideways in a pair of Vise-Grips.



22 Stained shakers before varnishing

I then introduced the bit into each of the holes successively and rotated the shakers slowly by hand, first with a 2mm bit and then with a 2.5mm one. I felt more confident clearing the holes this way, rather than putting them back on the pillar drill, as there was less chance of a mishap this late in the process.

To re-burnish the shakers, I placed them on the jam chuck with the lathe running at 740rpm and applied more burnishing compound. This time they came up with the high gloss I was looking for and I was very pleased with the results. **ww**



23 Drying the plastic coating







RECORD POWER Robert Sorby

Smoking companion

Made in solid oak with burr walnut bands, this nicely proportioned tobacco cabinet from The Woodworker of January 1937 would have involved a satisfying amount of work

s woodworkers, and readers of this long-established magazine, we are very fortunate to have such a substantial archive on which to draw. But it's not just the available content that warms the heart, somehow just the knowledge of its existence alone is enough to cheer the spirits. When I think of how many people have made a contribution and kept the whole thing going through times thick and thin, it makes me proud to play even just a small part in its continuing existence.

A seriously considered design

This randomly sampled page, from *The* Woodworker of January 1937, is a great example of a simple project, well executed, and just the sort of thing that readers have been enjoying for scores of years. The deceptively simple design gives lie to a lot of planning and forethought, not to mention a fair degree of art and skill in conceiving an item of almost perfect proportions. The dividing bands of contrast – seen here as nearly black against the imagined pale gold of the lighter quartersawn oak – encircle the cabinet case like belts around a steamer trunk. The positioning of these, one through the upper hinge, the other separating the bottom of the door from the drawer below, indicates a seriously considered design and is the sort of detail which underlines a very good quality piece (NB and so it should, emanating as it did from a Technical School).

A test of skill

There's a considerable amount of work involved in this piece, much of it 'behind the scenes' but the sort of thing that tests a person and provides a tremendous sense of accomplishment when successfully achieved. I was intrigued by the suggestion of adding flake white (presumably in powder form) to the glue mix so as to reduce staining, and in complete agreement with wetting the finished job prior to a second fine sanding and the following veneer work. A very nice project all round and I can't help but wonder if someone still has one knocking about somewhere gathering dust. If that's you, please don't hesitate to get in touch

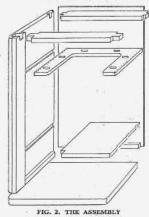


FIG. 1. TOBACCO CABINET Size 14 ins. by 8½ ins. (A Technical School Model)

(A Tuchnical School Modal)

THE tobacco cabinet illustrated in Fig. 1 was originally made in solid cak with burr walnut bands. Inside there is accommodation for pipes and tobacco jar, the drawer being serviceable for cigarettes, either loose or in packets. The cabinet is suitable for standing on a sideboard, or it might be screwed to the wall.

THE CONSTRUCTION is simple. Note in the first place that the ends are provided with thicknessing pieces glued on the inside front edge so as to permit of nicely rounded corners. The shelf and pipe rack are housed into the ends, the housing being stopped \(\frac{1}{2} \) in, from the



TOBACCO CABINET

IN OAK, WITH BURR WALNUT BANDS

front. The rails at the top are dovetailed into the ends. Here, note from
Fig. 5 that the dovetail of the front
rail is carried through the thicknessing
piece into the end. The ends are rebated
for the back. Top and bottom are
screwed on.
The Door may be made from one
piece of figured quartered oak, but it is
better if in laminated board or plywood
and veneered both sides. The drawer
is cross-banded with oak veneer to
correspond with the door. The handles
walnut was used, veneered with oak.
These can be slot-screwed into position.
The door is fitted with a ball eath.
Then Walnut Bands of veneer are
equal in width to the stuff; that is,

i in, at top and bottom, and in for
the intermediate bands. They are
planted on, and for this reason white
glue should be used in order to obviate
the cleaning off of any surplus. A little
flake white may be added to the ordinary
glue. Use fresh hot water for cleaning off.

It is advisable, before the bands are tackled, to clean up and paper the cabinet, damp down and re-paper. The end grain edges of top and bottom should be well sized before the bands are applied. Beeswax or white polish is recommended for the final finish.

THE CUTTING LIST is as follows:

Long Wide Thick the ins. ins.

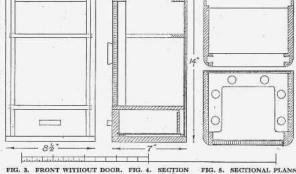
Top 8 7 1

Bottom 8 7 1

2 Ends. 1 1 7 7

2 Thicknessing pieces. 1 1 1 1 It is advisable, before the bands are





Douglas Fire, a native of British Columbia, is a wood known under many different names—Oregon pine (or fir.) British Columbia pine (or fir.) Douglas spruce, red fir, yellow fir, red pine and sometimes (incorrectly) hemlock. It is a light-coloured timber varying from pale yellow to reddish-yellow, usually of uniform growth and comparatively free from knots and resin. It is of great strength, durable, relatively light, and possesses a handsome grain. The wood is easily worked, does not shrink or warp when properly seasoned, varnishes well, and polishes satisfactorily. Care is required in applying stains, as too much of the liquid causes the grain to rise. This is also likely to occur when the wood is exposed to air, and the timber

should, therefore, be painted or varnished soon after being worked. The grain is apt to show through a painted surface. It is a valuable structural timber, and is available in large dimensions. It is suitable for railway car construction, sleepers, dock works, building, signal posts, bridge and trestle timbers, and ship and barge building (including decking), masts and spars. Large quantities of British Columbia Douglas fir sleepers have been imported for use on British railways. The timber is also well adapted for interior woodwork, joinnry, panelling (as plywood), flooring and flooring blocks and paving blocks; also for tanks, staves for vats and washing machines, ladders; boxes, laths and plywood.

A very nice little cabinet, plus a couple of bonus columns on the Douglas fir!

DO GET IN TOUCH

If any readers have memories and photos of things they or their forebears made from The Woodworker, please get in touch as we'd love to see them. Just email me on the usual address: editor.ww@mytimemedia.com and we'll get them in the mag

FOUR IN ONE





18V Router TrimmerDRT50













Warm bed for a cold frame

Tony 'Bodger' Scott turns a discarded bed into a home for plants

ardeners love cold frames. They provide a safe frost-free bed for young plants in early spring, accelerating germination and growth. Often a cold frame is just a large wooden box with a glass top and no bottom, laid over a patch of ground - a kind of mobile greenhouse. But my son and daughter-in-law have a small garden with no bare soil. They were looking for a raised cold frame to grow herbs in pots, and sketched out how big it would have to be to fit against their kitchen wall (photo 1).

From bed frame to cold frame

One of their neighbours was throwing out the frame of an old flat-pack pine bed the day they asked me - and I can't resist a pun. A real flower bed for nothing! So I grabbed it. The turned bed legs became the stiles of the cold frame. The bed's rails became the top and bottom rails for the box.

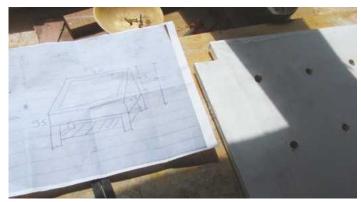
They also became the surround for the glass top – at £8 half the total cost of the project.

The first step was getting the legs right. Since the top needed to be sloping to catch maximum sun, I wound up with two pairs of different lengths (photo 2). The piece was to be painted as well. So I decided to avoid the extra work of mortises and tenons, and go instead for setting the rails into trenches chiselled into two sides of each leg (photo 3).

Setting the rails flush with the outside faces of the legs also simplified panelling the sides later. The trenches for all the fielded panels – wooden and glass - could be cut into the legs and rails with a router on a single setting. The hardest part at this stage was constantly checking which side to cut, because all four legs were unique (photo 4). Only the front and back had horizontal joints; the joints for the sloping top would have to be cut at an angle.

Like any good bodger, I usually prefer the simple to the complex. And the simplest ways to fit the rails together at each corner would have been a butt joint or a mitre. Around the top, where the angled side rails met the horizontal rails on the back and front - and the ends were thus of slightly different lengths – I did use butt joints (photo 10), but I happen to have a router cutter designed to join the corners of drawers. It rarely gets an outing, so I took it for a spin to strengthen the corners of the lower rails (photos 5 & 6).

With the lower rails screwed temporarily into place on the sides, it was easy to lay out the angled joints for the legs and top rails (photo 7). Then it was time for assembly. The ends went together first, followed by the front and back. For the panelling, I used left-over lengths of thin tongue-&-groove cladding (photo 8), roughly chamfering the ends of each piece so that it slid easily into the routed



1 A rough sketch specified the outside dimensions needed for the cold frame



3 The housing joints needed to be a snug fit to hold the rails square, but because they're deep they didn't have to be perfectly flat across the bottom



2 Once the legs were cut to length, lining up the feet allowed me to mark up a reliably level position for the lower rails



4 The hardest part of preparing the legs was making sure that all the joints were on the right faces

WOODWORK Cold frame



5 A drawer-cutting router bit helped to strengthen the corners where the lower rails met...

trenches (**photo 9**), and finally gluing and screwing in the top rail to hold everything together.

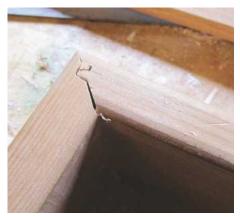
The frame for the lid was made from the last few lengths of the bed, plus another piece of the same thickness. I trenched all the inside edges using the same router setting as I had for the panelling, and matched the last piece to the rest by rounding over the corners (**photo 11**).

Putting a lid on it

For the lid, I resolved to break with tradition. The custom, of course, is to treat a glass lid like a window or picture frame: create a rebate on the less visible side, drop in the glass, and hold it in place with wooden beading or putty. But that

would usually mean painting the piece after the glass was installed, which would be bound to mean a messier job. It seemed neater to use the same trenching as elsewhere, and to make one end of the lid detachable, so that the glass could be replaced if it broke.

To that end, the lid is held together with four mitred halving joints (**photo 12**), glued and bolted in two corners, bolted alone at the other two corners. That allowed me to assemble and paint the lid, then remove one end after the paint was dry and slide in a perfectly clean pane of glass (**photos 13 & 14**). To minimise risk to the family's two small daughters, the glass is toughened and 4mm thick.



6 ... though the mating faces did need some cleaning up



7 With the lower rail temporarily screwed into position, marking up the length and angles for the top rail required no calculation



8 Making the outside faces of the rails and legs flush meant that all the trenches for the panelling could be cut with a single router setting



9 Sanding the ends of the tongue-&-groove boards allowed them to slip easily into the trenches. The boards were glued to each other but not to the frame



10 The rails were glued and screwed to the legs; the holes left over from the flat-pack bed were filled. Ledger strips support a loose plywood floor



11 When the pine in the bed ran out, I found a spare length of the same thickness and rounded over the edges to make the final side of the lid



12 Marking each half of the lid's joints from its mate ensured that small mistakes in the cutting angle didn't matter. Numbers kept matching components together



13 Unscrewing two bolts allows the glass to be slid in after painting, which makes for a cleaner finish. It also allows a broken pane to be replaced easily



14 Reassembly with the glass is simple. The lower side of the cold frame was panelled with acrylic, not wood, to let in more light safely

Four straightforward tasks

That left only four straightforward tasks before painting: fitting three old hinges along the upper edge of the lid; screwing on a brass latch salvaged from a window in a skip (photo 15); laying a removable floor of waterproof plywood on to ledger strips attached to the lower rails; and sanding the cold frame's outside corners so that the rails followed the curve of the legs.

The fifth and final job consisted of finding an appropriately sized wire shelf - £8 from B&Q, the other half of the total cost – and clamping its ends between two notched offcuts screwed to the legs (photo 16). Clamping the ends prevents the shelf bowing and pulling free under load. The finished cold frame is now in its new home, and already full of herbs. Meanwhile my elder grand-daughter – all of four-years-old – is already telling the family what to plant next. ww



15 Strips of glued-on foam rubber cut from packaging should protect little fingers if the children drop the lid on themselves by accident



16 The shelf supports were made from grooved decking offcuts. Notches (quickly cut with a bandsaw) stop the shelf pulling free even under heavy load



17 The finished cold frame snuggled into its new home outside a kitchen window

aRound Cabinet

Mauro Dell'Orco's stunning cabinet is made using American cherry and American maple

t is a free-standing piece of furniture, intended to create spaces around it, to gently separate two different places in the house.

All the component parts have the grain going in the same direction – allowing for natural movements – the aim being to reassemble the original tree structure with the four drawers representing the branches.

All the workpieces have been based on a 35mm module. The round sides have been formed by gluing together squared elements and then shaped using a router sliding on a jig that I designed and manufactured, as I wanted to achieve the visual effect of an excavated solid block of timber.

The drawer openings were formed during the gluing process, paying attention to retaining the continuity of the wood grain. In order to minimise the clearance gap around the doors, they have been cut and reassembled

before the two halves of the cabinet were put together.

The drawers' column has been manufactured to match the opening on the two sides and to contain four other inner drawers.

Great attention was paid to assembling all the parts to achieve the alignment between vertical and horizontal lines, all matching in a 35mm square grid.

There are no standard parts used in the cabinet. I designed and made the concealed hinges myself, cutting and shaping engineered precision stainless steel tubes and rods.

The final shape was refined using hand tools and a bespoke scraper I made using an old thicknesser blade. It was finished with two coats of acrylic sanding sealer and one coat of clear beeswax."

See more of Mauro's work on his website: www.maurodellorco.com. ww









Drop us a line on paper or via screen and keyboard to add your voice to the woodworking crowd; you might be one of the lucky few who will manage to get their hands on a coveted Woodworker badge! You can write to us at *The Woodworker*, MyTimeMedia Ltd, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent TN8 6HF or send an email to editor.ww@mytimemedia.com

STAR LETTER

Extended woodworking family

I don't get out much these days, but reading *The Woodworker* is a bit like a monthly club meeting. This is the first time I've written in and I just want to say that I am glad to receive it every month, thanks to my daughter. I was given a large collection of veneers recently and am working on a map of the world with some of the wood species as their native countries. Keep up the good work.

Arthur Page

Thanks, Arthur – it's great to hear from our readers, and you're right, it is a bit like a club or even a (very) extended family. I like the idea of the timber atlas, but I bet you're going to struggle with Iceland.



Can anyone help with Jack's chisel conundrum? If so, please do get in touch

Challenging chisels

Hi Mark,

Thanks for producing an excellent magazine – keep up all the good work. I read with interest the article on chisels, as well as other articles, and this jolted my memory about an unusual chisel in one of a recent buy as part of a job lot.

The tool in question has a groove down the back of the shaft, on the underside, but for what purpose? There is no reason as far as I can tell, as well as a friend of mine, and a neighbour, who has been involved with woodworking for most of his life, as I have, and both are past retirement age. It just goes to show that there is always something new to be learned. I enclose a photo for you here; it is stamped 'I. Sorby, Sheffield, England'.

A couple of other Sorby chisels were in the job lot and have No.4 and the gouge is stamped with '5', with plain thin handles, but I think the finish leaves a lot to be desired, despite their age. If there is any explanation as to the reason for the groove, either from yourself, other staff, or even from your readers, we would be interested for any information anyone can supply. Thanks and best regards, Jack Parashou

Hi there, Jack – yes, very interesting those. I'm no expert here, so I'll be hoping someone reading this will be able to give us a clue. In the meantime, I would say that the two wider chisels are custom carving gouges and the narrow firmer is a user modification. Not sure why, though, but I'm keen to find out... All the best, Mark

'Bargain' isn't always best!

In the January issue of *The Woodworker* you asked for stories about bad tools. This reminded me of a set of 'bargain' drill bits I bought a while ago, one of which (see photo) doesn't seem to know whether it's coming or going. Needless to say, it doesn't work very well! All the best, Peter C. Barnard

Ha ha! That's an absolute classic, Peter. I love machine mistakes and have started (a few times) a Black Museum of reject screws that have slipped through quality control. I suspect that whoever was filling that role at your drill bit factory was on a long lunch break that day. Has anyone else got any good ones? Mark



It doesn't always pay to buy 'bargain' tools, as demonstrated by this drill bit!

Wadkin machine parts

Good afternoon, Mark,

Sorry to bother you but I have a problem that I hope you may be able to assist me with. I have in my workshop an old (but in quite good condition) Wadkin Tradesman planer/thicknesser. However, I am having difficulty in obtaining spares, in particular cutterblock wedge screws. I would be grateful if you could advise if you are aware of any concerns that may be able to supply parts for these old machines. I've tried the usual channels, including the latest incarnation of this classic firm, Wadkin/AMS, but they have been unable to help thus far.

Apparently, the machine in question is one of a series that were produced in Brazil for Wadkin and are now obsolete.

I am presently working on other possible options in an effort to obtain manuals/spares for the machine, which, despite its age, is still in good order and solidly built.

In the meantime I would appreciate it if, in your general perambulations around the woodworking sphere, you could pass on any information that you might come across that would help in this quest. Once again, thanks for your help. Jim Walmsley

P.S. I always enjoy receiving your magazine each passing month.

Hello, Jim – well, Wadkin would have been my own first port of call, followed by secondhand machine dealers. It sounds like a challenging search, but I wonder if it might be possible to get some of those wedge screws machined up to fit? I know there's not so much industry around these days, but I often see single unit engineering firms on industrial estates round my way. Or maybe put an advert in a model engineering magazine? There must be plenty of hobbyist engineers out there who would welcome the challenge of making some machine parts? If anyone reading this could help, please don't hesitate to get in touch.

Good luck with it, Mark

GET IN TOUCH! Don't forget, we're always keen to see your photos, so please don't hesitate to send them in if you've snapped something of interest recently. Email me on the usual address: editor.ww@mytimemedia.com

Please note that all digital photos need to be greater than 1MB in size to guarantee sufficiently good reproduction for the printed page





of price and performance

Lynton White

abinetmaker and fabricator, Lynton White, was recently challenged with creating a 1-10 scale model of an artist's impression of Clevedon pier, while working closely with the artist on the design to figure out how this would all come together. Using blueprints and scale drawings, Lynton was able to construct the 37m long piece of art. "I got to the point where I just had to accept that I was going to have to do it little piece by little piece," he says, "it was quite daunting."

Lynton has had a CF 741 combination machine from the FELDER range for over eight years, but has been using FELDER machinery for most of his career. He commented: "I first came across FELDER machinery many years ago at an older cabinetmakers that I looked up to and it was at that point I decided one day I would have my own. I've had the CF 741 for almost a decade and it has never missed a beat. It is still as accurate as the day I bought it. I love it; it's great!"

The impressive pier, built by Lynton, features over 2,400 pieces in its construction and all of them were made using his combination machine: "I knew from the word go that this job was possible as I have a piece of kit that is accurate enough to repeat that many joints. I couldn't do them all at once, so I had to come back and reset them to the same angle time and time again, to ensure each one was absolutely accurate. The repetition of joints was fantastic and every single one is perfect."

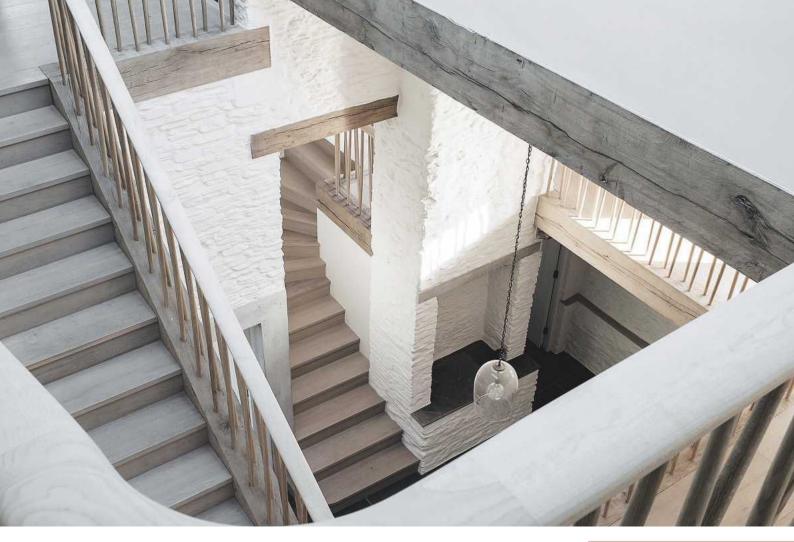
Talking about the experience he has had working with FELDER, Lynton said: "I am in the process of relocating to the Czech Republic, so the first thing I did was to call FELDER GROUP UK to make sure there was a branch located there, and luckily there is. I will continue to work with FELDER and hopefully expand the workshop with more of their machinery."

See how a range of machines from FELDER can benefit your workshop by visiting www. felder-group.co.uk, or call 01908 635 000 for more information. You can watch the full testimonial on YouTube (www.youtube.com) by searching for 'FELDER GROUP UK TV'. ww





The 1-10 scale model of an artist's impression of Clevedon pier, which was created using the FELDER CF 741 combination machine



WOOD AWARDS WINNERS 2017

FURTHER INFO

To find out more about The 2017 Wood Awards winners, see www.woodawards.com

Unveiling excellence in British architecture and product design, here we announce the winners of the 2017 Wood Awards

he winners of the annual Wood Awards were recently announced at a ceremony held at Carpenters' Hall in London. The Wood Awards is the UK's premier competition for excellence in architecture and product design in the world's only naturally sustainable material, aiming to recognise, encourage and promote outstanding design, craftsmanship and installation using wood.

Hosted by Johanna Agerman Ross, Founder of Disegno magazine and Curator of Twentieth Century and Contemporary Furniture and Product Design at the V&A, the 2017 Awards included some outstanding work from student designers, including Mark Laban's wonderful Rustic Stool 1.0, as well as some bigger projects, all of which are made using wood as their core material. ww

ARNOLD LAVER GOLD AWARD & INTERIORS AWARD

Arnold Laver sponsors the Arnold Laver Gold Award, which is the project that the judges deem to be the best of all the winners. In 2017, Coastal House, Devon, by 6a Architects, scooped the prize, and the project is also the Interiors category winner. The judges were seduced by this entry while looking at the shortlisted builds.

The interior of this house uses timber in several different ways to create a wonderful home, which feels both natural and unaffected. Tapered oak verticals are used as supports throughout, including primary drawing room columns and the stair spindles.





FACT FILE

Location: Dartmouth Architect: 6a architects Structural engineer: Price & Myers Wood species: French oak; British Douglas fir; pine



COMMERCIAL & LEISURE

RIEVAULX ABBEY VISITOR **CENTRE & MUSEUM**

The judges selected Rievaulx Abbey Visitor Centre & Museum as the Commercial & Leisure winner as it does something highly unusual – it creates an abstract, numinous space using timber as an expressed structure.

A glulam spruce central hall has been inserted into the existing L-shaped timber visitor centre. Visually the new structural frame echoes the existing columns and arches of the abbey ruins. The frame gradually splays to reveal previously obscured views. The frames are connected by CLT sheeting at roof level and a perimeter edge beam contains concealed lighting and services. These panels are exposed where possible and stained to match the mainframe.

The aim of the project was to upgrade the museum building to meet modern curatorial standards, encourage visitors into the ruins, and improve overall facilities.

FACT FILE

Location: Helmsley Architect: Simpson & Brown Client/owner: English Heritage Joinery company/wood supplier: Cowley Timber & Partners Wood species: Scandinavian spruce



The Rievaulx Abbey Visitor Centre & Museum creates an abstract, numinous space using timber as an expressed structure

Photograph by Giles Rocholl Photography

EDUCATION & PUBLIC SECTOR

MAGGIE'S OLDHAM

Maggie's Oldham was chosen as the Education & Public Sector winner as dRMM have created a sensitive interior that is also a world-first. Built in the grounds of NHS cancer hospitals, Maggie's Centres offer free practical and emotional support for people affected by cancer. The design of Maggie's Oldham is less about form and more about content. Supported on slender columns, the building floats above a garden framed by pine, birch and tulip poplar trees. From a central oasis, a tree grows up through the building, bringing nature inside.

Maggie's Oldham is the first permanent building constructed from sustainable tulipwood CLT. The slatted ceiling was created from wood left over from the CLT fabrication process, ensuring no waste. Externally the building is draped in custom-fluted, thermally modified tulipwood.

Location: Oldham Architect: dRMM Client/owner: Maggie's

Wood supplier: Middle Tennessee Lumber, Morgans Timber & Northland Forest Products Wood species: American tulipwood; American white oak; American ash; American black walnut



dRMM architects have created a sensitive interior that is also a world-first

PRIVATE

HAMPSHIRE PASSIVHAUS

The winner of the Private category was Hampshire Passivhaus. The judges were impressed by the design, craftsmanship and attention to detail of this self-build home on the south coast. It is an L-shaped detached dwelling, creating private courtyard spaces on a tight brownfield site with multiple neighbours. Spruce CLT panels form the entire super structure, walls, floors and roof and give a tactile and harmonious quality to the living spaces and bedrooms. European oak bespoke joinery is used to highlight interior features including the open tread staircase, recessed handrails, worktops and integrated shelves.

Externally, the house is clad in Siberian larch rainscreen cladding. The untreated larch ages over a short period of time to become silver, providing a maintenance-free finish well suited to the coast.

Location: Hampshire

Architect: Ruth Butler Architects Structural engineer: Price & Myers Main contractor and joinery company:

Nicholas Coppin Ltd Wood supplier: Timbmet Wood species: European spruce; European oak; Siberian larch



This self-build home on the south coast impressed judges due to its design, craftsmanship and attention to detail

SMALL PROJECT

FEILDEN FOWLES STUDIO

Feilden Fowles Studio was selected as the 2017 Small Project winner. The company master-planned Waterloo City Farm from the design of animal pens, sheltered outdoor classroom and barn, to their new studio, which was offered in exchange for their design services. The judges praised how simple yet beautifully thought through the project is. The timber frame structure clad with corrugated Onduline sheets can be dismantled and re-erected when the lease comes to an end.

To the north, the timber frame projects at a high level to articulate large lights, which run the full length of the space, referencing traditional artist studios and providing generous diffuse light and cross ventilation. The 1,830mm column grid and 2,440mm datum running around the ply-lined interior demonstrates how proportions have been carefully calibrated to minimise cuts and waste.

Location: Waterloo City Farm, London Architect & client:

Feilden Fowles Architects

Structural engineer: Structure Workshop

Joinery company: Timber Workshop Wood supplier: S H Somerscales Ltd Wood species: British Douglas fir



Feilden Fowles Studio was praised for being simple yet beautifully thought through

STRUCTURAL AWARD

THE SMILE

The Smile was awarded the 2017 Structural Award, which was chosen from all the buildings shortlisted in each category. The judges were impressed by the ease with which The Smile rested in place, which masked some impressive and complex engineering.

Conceived as a habitable arc, The Smile was a $3.5m \text{ high} \times 4.5m \text{ wide} \times 34m$ long curved timber tube that cantilevered 12m in two directions with viewing platforms at both ends. Up to 60 visitors could enter at one time through an opening where the arc touched the ground. Innovative solutions using long screws were developed, allowing the opening to be in the most highly stressed region. The Smile was the first project in the world to use large hardwood CLT panels; the entire structure was made from just 12 tulipwood panels, each up to 14m long and 4.5m wide, and these were connected with 7,000 self-tapping screws. At the base, a glulam timber cradle filled with 20 tonnes of steel counterweights allowed the project to be self-supporting. Perforations in the walls, concentrated in areas where there was less stress in the structure, brought dappled sunlight into the interior and dispersed where the timber was structurally working harder.



FACT FILE

Location: Chelsea College of Art, London **Architect:** Alison Brooks Architects Client: American Hardwood Export Council/ London Design Festival

Main contractor/joinery company: Aldworth lames & Bond

Wood species: American tulipwood



Conceived as a habitable arc, The Smile was chosen as the winner of the 2017 Structural Award

FURNITURE & PRODUCT COMPETITION WINNERS

(BESPOKE & PRODUCTION MADE)

Bespoke – Time and Texture Installation ('A Landscape of Objects')

The winner of the Bespoke category is Time and Texture Installation ('A Landscape of Objects'). The judges praised the beautiful body of work, which shows control and expression of the material.

Set in the gardens of Forde Abbey, the brief was to reference both the shapes, colours and texture of the gardens and buildings and the importance of water on the site. The installation is formed of three hollowed vessels on rusted plinths and four solid forms designed to show how natural elements erode and work away at

materials. Through building up layers of texture through carving and sandblasting away the softer wood, it is possible to show how natural elements and processes layer and colour wood. The wellingtonia and sycamore vessels were turned on a lathe and hollowed out through a small hole. The four solid pieces are sculpted from English oak and cedar. The spherical form was chosen to reflect the natural shapes in the garden. The textures are reminiscent of seeds, pollen and rocks that have been eroded by water.



FACT FILE

Location: Chard, Somerset Designer & maker: Eleanor Lakelin Client & owner: Flow Gallery/Somerset

Wood supplier: English Hardwoods

Wood species: British oak; cedar, wellingtonia;

sycamore



Eleanor Lakelin's turned vessels display textures that are reminiscent of seeds, pollen and rocks that have been eroded by water

PRODUCTION MADE

NARIN CHAIR

The judges awarded the Narin Chair the Production Made award for its elegant, distinctive, logical and comfortable design.

Case wanted to change preconceptions of what a folding chair is: a piece of furniture you would be proud to have on display at any time and not the emergency chair that comes out of the cupboard at Christmas. The Narin doesn't comprise on aesthetics or comfort despite the folding design. Its smooth, sweeping transition is accentuated through the solid timber turned legs into the formed backrest. The comfortable backrest acts as the pivot from where the back legs rotate. The seat and back are made of a high-grade birch ply with oak or walnut veneer while the rest of the chair is solid wood. Also awarded the Design Guild Mark in 2017, this chair can be stored in condensed stacks and is easy to collapse and move around.



FACT FILE

Designer: David Irwin Maker/manufacturer: Case Furniture Wood species: American white oak; black walnut; European birch

The Narin Chair was selected due to its elegant, distinctive, logical and comfortable design

STUDENT DESIGNER

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

Student Designer winner – Rustic Stool 1.0

The category winner was Mark Laban's Rustic Stool 1.0. The judges praised this interesting new typology that creates a new aesthetic.

The piece was developed through a process-driven approach to design engaging directly with the manufacturing technique itself: a three-axis CNC router. Through manipulating the machine's software, unexpected and unconventional surfaces are created. These artificially generated rough textures begin to evoke the raw state of the material in its natural form. The stool is part of Mark Laban's 'Digital Daiku' collection, which interprets traditional Japanese aesthetic principles and explores their possibilities using contemporary digital manufacturing processes. American hard maple was chosen as the main material due to its fine grain and delicate colouring and tonality.

More recently, Mark has extended the series to include versions 2.1-2.5, which are constructed out of yellow Valchromat, a high density fibre material made with organically dyed wooden fibres that are bonded in resin.



FACT FILE

Maker/manufacturer: Mark Laban College/University: Central Saint Martins Wood species: American hard maple



Using a three-axis CNC router allows unconventional surfaces to be created

STUDENT DESIGNER - PEOPLE'S CHOICE WINNER

HEX DRINKS CABINET

The People's Choice Award was deservedly given to Damian Robinson's stunning Hex Drinks Cabinet, which was inspired by a bees' nest found in the maker's garden.

Hand-cut veneers in contrasting timbers and grain patterns were used for the honeycomb design. The maker laid the veneer hexagons out in sequence while referring to the actual nest. The edges of the doors were designed to meet in a line that followed the interlinking hexagons. The inset brass levers (shown opposite) devised to open the doors were made in the same size as the hexagons, in order to mesh seamlessly with the overall design, and English bog oak, dating from 3,300BC, was selected to set off the complex honeycomb pattern without interference. The piece measures approximately 1,900mm high × 780mm wide × 490mm diameter.





Inspired by a bees' nest found in the maker's garden, this drinks cabinet makes use of interlinking hexagons

FACT FILE

Designer/maker: Damian Robinson (BlytheHart Made) Maker/manufacturer: Williams and Cleal Wood species: British bog oak; fumed oak; English cherry;

black walnut; tropical olive; teak; olive ash



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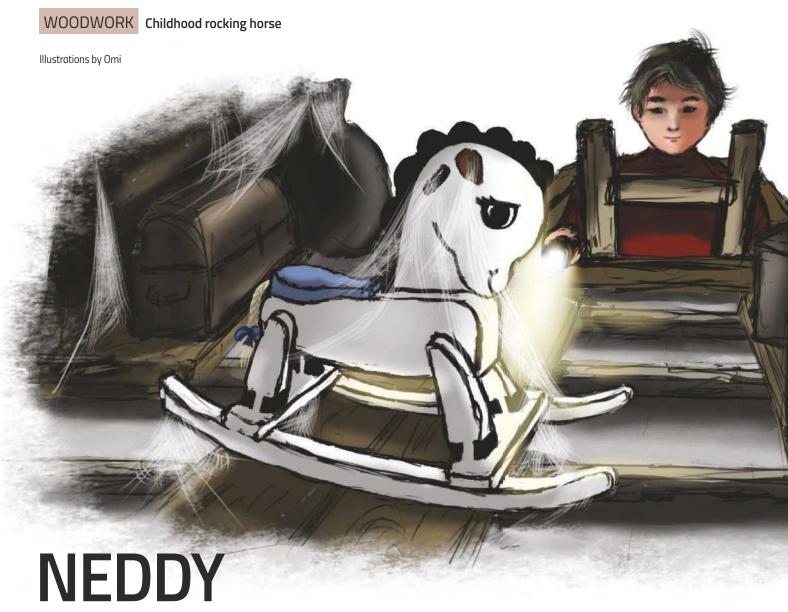


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Robin Gates recalls the rocking horse his father made from a plan published in *WW*, and a childhood filled with the scents and sounds of things being made

years ago, I faced the bittersweet task of clearing my childhood home. I was moving at a snail's pace, losing myself in drawers and cupboards, clutching at fragments of old stories. Were these cracked tea cups the ones that survived the Portsmouth Blitz? And who was this jaunty sailor in the cabinet photograph, dated 1914?

Last to be explored was the attic, reached through a hatch above the upstairs landing. Standing on a kitchen stool, I pushed the hatch to one side, grasped the end of the wooden ladder and let its solid uprights slide through my hands to the floor. Like most things in the house, Dad had made the ladder from scratch, and after decades of use its rungs had been chamfered by the passage of climbing feet.

At the top of the ladder I waited for my eyes to adjust to the darkness. Pigeons were cooing from the roof, water dripped, and there was a faint smell of soot. As a glimmer of daylight leaking from the eaves grew stronger, the accumulation of the years came into focus. I saw boxes stacked in lumpy pyramids on boards sagging between the joists, like a forgotten

cargo in a warehouse, the ship having sailed. Looking for somewhere to put my feet, I heard Dad's warning from the shadows of my memory, 'Don't tread there, Rob, or you'll fall through the ceiling.' I decided to come back with a torch.

The torch beam swept across disintegrating cardboard boxes, thick with dust and cobwebs. I found Mum's wedding dress, and ice skates. Dad's navy kit bag was filled with books from a spell as PC 318 in the Hampshire Constabulary. Pram, pushchair, knitted baby clothes and old school blazers. What would I do with it all? As I was beginning to despair, my torch lit on a coy smile coming at me from over by the chimney breast. Neddy!

'An appealing toy for Christmas'

It was my old rocking horse, which Dad had built from a plan published in *The Woodworker*, described on the cover as 'an appealing toy for Christmas'. Reading that issue today, from November 1960, I see the rocking horse was designed by one G D Sleight of Kenilworth, to be built entirely of ¾in plywood, and it was their prize-winning entry in a competition run in aid of Dr Barnardo's Homes.

I would have been 2½-years-old when I found Neddy beside the Christmas tree, and although I don't remember that occasion, I do recall playing with him off and on for years, until I was way too big and rocking so wildly I snapped one of his rockers clean off. My emergency repair with screws and glue had survived the years, and it was oddly satisfying to be reacquainted with an instance of my childhood woodwork. I could picture my tool kit of those days as vividly as if it were beside me: the brass-backed saw, the little Record block plane, and bright red Rapid hand drill.

Handmade home

Looking back, I think I was lucky to grow up before computers and the internet. We had radios in every room, and listening to the radio doesn't stop you from getting on – in fact, it can speed things along. We didn't have a TV set at home until I was 14-years-old, by which time Dad's restless urge for designing and making was flowing through my veins like electricity. He was always building something, or sketching a plan, or reading.

In the front room there was a shapely corner seat he'd made, with navy blue upholstery, and two doors to an L-shaped cupboard underneath.





inning this month-A SPECIAL FEATURE.

fitted furniture throughout the house but built the front and back doors, garden gates, garden shed, the garage, and conservatory - things usually bought pre-fabricated now but which, back then, were typical weekend work for the to build stuff at home he and a neighbour built a plywood catamaran in a garage up the road. I remember the blue and red tin of Cascamite

to motor boats. In the space of a few years, Dad not only average householder. When he ran out of space

If one tool sums up the DIY years of my childhood, it's Dad's gold and grey Black & Decker power drill

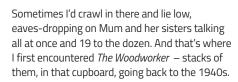
powdered resin glue they used, with horses pulling in opposite directions on the label, unable to break the glued joint.

Some hand tools turned up at every project, seemingly as much a part of Dad as the pencil behind his ear. There was the gleaming Spear & Jackson handsaw, rasping cleanly through a plank wedged beneath his knee, and the split-proof Marples chisels, which glowed like Lucozade in the sun. My favourite was the Yankee Handyman pump-action drill and screwdriver, with bits loaded in the plastic handle like bullets in a cowboy's Smith & Wesson revolver. Of course, I could be a nuisance; I played with the steel tape measure so much I broke off its hooked tab, then fixed it with Araldite and made the first inch measure one inch and an eighth.

High rpm memories

Having grown up with Dad's DIY being as much a part of home life as Mum's gardening, I'm as touched by machinery as by handsaws and chisels, and the scream of a high rpm blade meeting timber stirs happy memories. Dad was of a generation for whom power tools and small machines became affordable for people fitting out their homes in leisure time, and if not affordable in one go, then with a down payment and so much a month. That's how he afforded the Minorette Universal Woodworker, which stood outside the kitchen door. This little red multi-tasker combined a circular saw with capabilities for mortising, sanding, grinding and more with its diverse attachments. I wasn't allowed near the machine while Dad was working, but the aroma of freshly sawn timber percolating indoors, and driving toy cars through the heaps of sawdust which grew underneath, were adequate consolations.

If one tool sums up the DIY years of my childhood, though, it's Dad's gold and grey Black & Decker power drill. That drill lasted him for years, and was as familiar a part of the domestic soundtrack as Mum's push-along mower whirring through the grass. ww





Dad regularly used his trusty Spear & Jackson handsaw

ME AND MY WORKSHOP Norman Dewey-

85-year-old Guernseybased woodworker Norman Dewey opens the doors to his double garage workshop

1. What is it – and where is it?

With a certain amount of resistance, I took over half the double garage and am slowly edging into the rest of it. I also have a tiny workshop where I keep my lathe.

2. What's the best thing about it?

Despite having retired from my manufacturing business years ago, I can still be a 'maker of things'.

3 . And what's the worst?

When things go wrong - bear in mind I'm addicted to Norm Abrams' New Yankee Workshop - it gets called 'Norm Dewey's New Wonky Workshop'.

4. How important is it to you?

I'm retired so - travelling, gardening, cooking, entertaining, and golf - it fills the gap! I am not very fond of peace and quiet.

5. What do you make in it?

Well, it's been said that I make the neatest firewood in all of Guernsey, but a few nice little boxes and some decent turnings emerge among the DIY jobs.

6. What is your favourite workshop tip?

'Everything in its place, and a place for everything', if I can remember where it is!

7. What's your best piece of kit?

Hmmm, I suppose my table saw with its array of jig sleds.

8. If your workshop caught fire, what one thing would you rescue?

The old panel saw that my dad gave me. I started my first business with it – door to door kindling when I was 10-years-old.

9 . What's your biggest workshop mistake?

Buying an expensive planer/thicknesser that takes ages to convert from one to the other. Instead I should have kept the two individual units that I passed on to my son.



A view inside Norman's Guernsey-based workshop

10. What's the nicest thing you've ever made?

The oak card table for my house in Portugal, or possibly the scenic base for my 26 × 15ft model railway.

11. And what's the worst?

A mahogany box of little drawers with 'guillotine secret front' that has hopelessly warped and jammed.

12. What's the best lesson you've learned?

Draw it, list the parts, and get the decks clear and everything ready before you start!

13. If you won the lottery, what would you buy for your workshop?

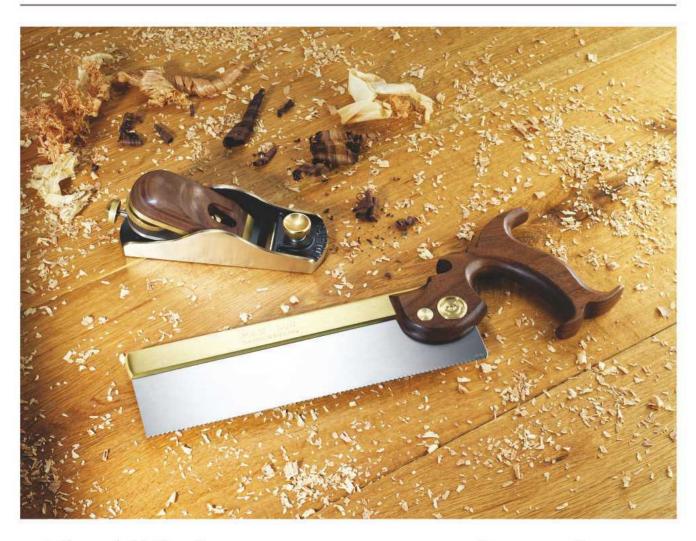
Easy - a nice CNC router - one with a large table and an overhead beam, all computer controlled. ww

NEXT MONTH

In the next issue, we step inside the workshop of Andrew Axworthy and Sarah Watson of The Little Grey Hen. We'd love to hear about your workshops too, so do send in a photo of your beloved workspace and feel free to share a few words – we look forward to hearing from you

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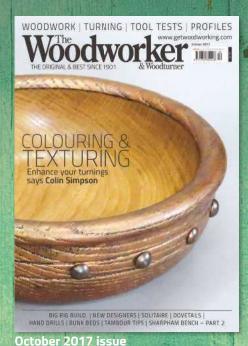
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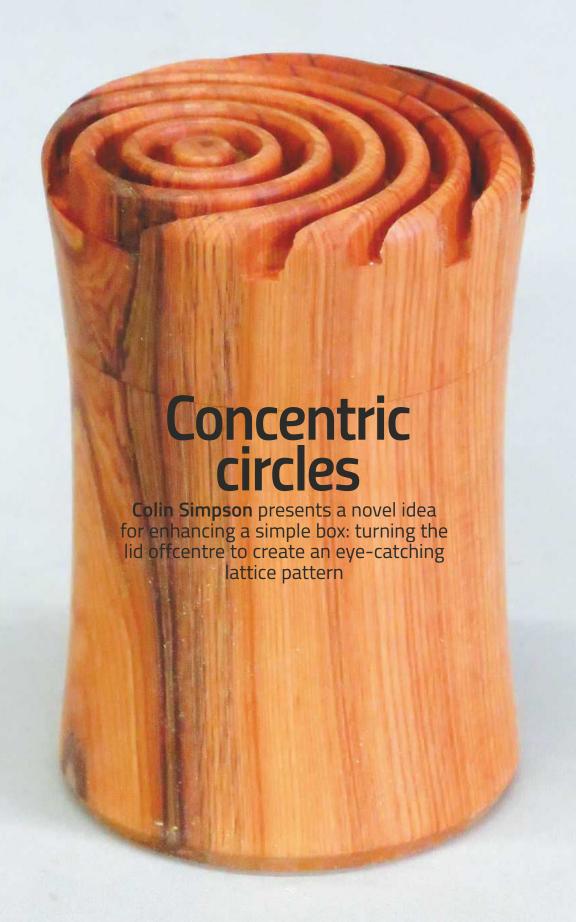


January 2018 issue

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1 Turn the blank to a cylinder using a spindle roughing gouge



2 Cut a chucking point on both ends of the blank



3 Use a parting tool to cut the tenon on the base...



 $\boldsymbol{4} \dots$ and a narrow parting tool to separate the base from the lid



5 Alternatively, cut the lid off with a saw



6 Hollow the lid with a spindle gouge...



7 ...then use a skew to cut a parallel side wall



8 Use a small parting tool to cut concentric rings in the lid

his month I am going to show you how to turn a simple box. A reasonable degree of accuracy is required in order to have a good fitting lid, but I'll also show you a way to fit the lid that requires very little measuring. As an added complication, I am going to partially turn the lid offcentre to create a lattice pattern.

Turning a cylinder

Start by mounting your blank between centres and turn to a cylinder using a spindle roughing gouge (**photo 1**). I started with a piece of yew measuring 80mm square and 120mm long, but you can, of course, make yours any size and from any wood. The main criterion is that the wood must be dry and stable. The lattice work

can become quite fragile, so a close-grained timber is also desirable. Square off both ends of the blank and cut a spigot on each end to fit your chuck (photo 2). I also started to cut a shallow cove on the box because I like the waisted shape. Mount the blank in your chuck and measure approximately 30mm in from the headstock end and cut an 8mm wide groove about 8mm deep with a parting tool (photo 3). This will form the tenon on the base of the box onto which the lid will fit. Use a narrow parting tool to the left-hand side of the groove and part the blank into two (photo 4). Remove the tailstock before parting right through. If you don't like the idea of parting through completely, then stop the lathe and cut the lid from the base with a saw (**photo 5**). The piece that is left in the chuck will form the lid.

Making the lid

Measure the diameter of the tenon on the base with Vernier callipers and transfer this measurement to the lid. Use a spindle gouge to hollow the lid (photo 6), but keep the measured mark. If you are going to cut the lattice work, it is best to have parallel sides and a flat bottom on the lid. This can be done using a skew chisel held on its side (photo 7). Use the long point of the skew chisel to cut down the side wall and then swing the handle away from you so that the cutting edge of the skew scrapes the flat bottom. The thickness of the lid should be about 8mm once the chucking point has been removed. It is also important that the side of this recess is parallel as this will fit over the tenon on the base of the box.



9 Glue the lid to a plywood disc, offsetting it a little



10 Remove the chucking spigot and clean up the top of the lid



11 Cut a series of concentric rings using the small parting tool



12 Round over the top of the rings with a skew chisel



13 Bore a hole down the centre of the box using a spindle gouge...



14 ... and hollow from the hole, working outwards



15 Scrape down the side wall and across the bottom

16 Sand and polish the inside of the box

Creating the concentric rings

Next, cut a series of concentric rings in the bottom of the lid using a small, narrow parting tool. Start just to the left of centre and work outwards towards the edge. Cut these rings by eye, trying to keep them as even as possible and cut them 4mm deep, i.e. half the thickness of the lid (photo 8). Sand the inside of the lid, including the rings. Take care when sanding the inside wall – it needs to remain parallel. You can then seal and polish – I used sanding sealer and wax. Remove the lid from the lathe and mount a scrap piece of MDF or plywood onto a faceplate and true it up. Hot-melt glue the lid to this scrap, but make sure it is offset by about 15mm from the centre. I used the tailstock to gauge this and also to hold the lid in place while the glue cooled (photo 9).

You can then remove the tailstock and turn away the chucking spigot, to leave a clean, flat surface on the top of the lid (photo 10).

Now cut another series of concentric rings about 4mm deep. They should just break through the rings on the other side (photo 11). Round over the top of the rings with a skew chisel held on its side (photo 12). You can then sand and polish the top of the lid before breaking the hot-melt glue joint.

Hollowing the base

Mount the base of the box in the chuck and drill a hole down the centre of the base using a spindle gouge (photo 13). Hollow the base by widening the hole with the spindle gouge. Start the cut with the tool in the hole and the flute pointing towards

10 o'clock, then swing the handle away from you (photo 14). Continue to hollow the box in this manner until you reach the bottom of the drilled hole. **Photo 15** shows my negative-rake scraper that I use to cut down the inside wall and then across the bottom of the box in exactly the same way as I used the skew in step 7. Sand and polish the inside. When sanding the inside of a hollow, use only one finger like this and do not wrap the abrasive around the finger (photo 16).

Fitting the lid

Use a skew to cut a small chamfer on the tenon (photo 17), then offer up the lid (photo 18). The lid should fit somewhere on the taper and if the lathe is running as you do this, the lid should leave a light burnish mark on the taper (photo 19).



17 Cut a small chamfer on the tenon...

I have deliberately held the lid onto the taper longer than necessary in order to highlight the burnish mark for the camera, but you don't need as large a burn when you do it. Now cut the tenon down to the burnish mark using a skew or parting tool (**photo 20**). The burnish mark should just disappear and the lid should fit perfectly.

Final steps

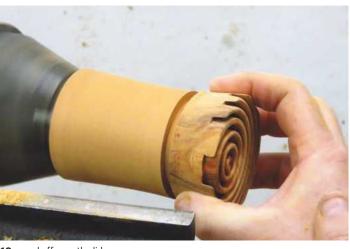
With the lid in place, finish turning the outside of the box. I made the waist a little more prominent and cut a small chamfer at the base to create a shadow line (photo 21). Next, sand and polish the outside. Reverse chuck the base onto a small domed dolly and bring the tailstock up. This gives access to the chucking point, which can be turned away with a spindle gouge, leaving just a small stub for the revolving centre (photo 22). This small stub can be cut or sanded away off the lathe. ww



21 Finish shaping the outside of the box



22 Reverse chuck the base to remove the chucking point



18 ... and offer up the lid...



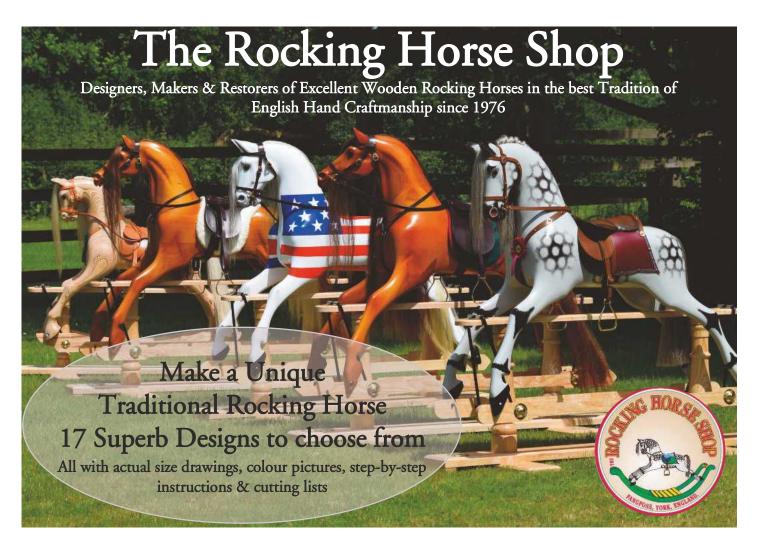
19 ... to create a small burnish line



20 Cut the tenon down to the burnish line for a good fitting lid



23 The completed box with lattice decoration should look something like this



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hile the nailed butt joint is useful, the butt joint is useful, the butt joint is undeniably crude and not suitable for fine work. One of its weaknesses is the propensity of the two components to slide out of position as the nail finds its way home (the winter growth rings of softwood being tough enough to deflect its course). Setting a housing — even a shallow one — into one of the components enables them to lap together and be held tightly in place while they are nailed. The lap also lends rigidity to the joint as it restricts movement — at least in one direction. It also increases the surface area of the joint, making glue more effective.

Cutting basic lap joints

The lap joint can easily be cut with a basic tool kit. Hold the two components together at right angles and mark the shoulder line for an open housing or measure it off the end. Use a square to emphasise the line with a knife. Alternatively, you could use a cutting gauge to mark the shoulder. Mark the depth of the housing along the sides and the end-grain using a standard pin marking gauge off the main face.

Saw down the shoulder line with a tenon saw (for small accurate work) or a panel saw. If you find this long shallow cut difficult, cramp a square block of waste wood on the line and run the saw beside it. Chop away the waste by tapping the end-grain with a chisel, bevel side down. Straight-grained timber should split away neatly, but if any knots or grain irregularities are present, a succession of saw cuts should



The lap joint is an improvement on the basic butt joint but will still need nailing for strength

be made to weaken them.

For finer work, chisel the housing a little undersized, then finish it down to the line with a bull-nose plane, working from either side and taking care not to run over the far side where you might splinter the grain. If you don't have a bull-nose plane, use the same chisel, bevel up. Take light quick strokes across the grain, raising or lowering the handle to adjust the cut.

Choice of tools

Here you might finish the housing more precisely using a router. It is possible to cut the entire housing with a router, though this is not as easy as it might sound. The router is cutting a lot of end-grain and that is its least favourite activity. Don't even attempt it without a sharp cutter. Secondly, it will make a bit of a frayed mess of the shoulder line — score this line first with a craft knife against a straightedge to obviate this. Rather than set up a fence, the easiest method is to run the router base against a straightedge

cramped square across the board and offset by the exact distance between the router base edge and the cutter line. For repetitive work it would be worth making up a jig.

If you are cutting just the occasional set of joints, it may be simpler to saw the shoulder, remove most of the waste with a chisel and clean up the baseline with a hand-held router, bracing your hands on the workpiece to ensure that you don't slip off into good wood. The fence on the router can be set to eliminate much of this danger, but on the end of the board only half the fence is in contact with the workpiece at any given time, and at either edge, the router is still free to swerve. In addition, only half of the router base is well supported on the workpiece. This is clearly not an operation for beginners!

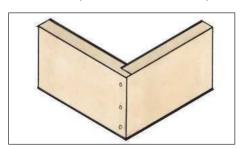
Alternatively, mount the router in a table and clean up the housing by holding the workpiece face down, sliding it along the table fence.

Nailing the joint

corners the lap joint, and its more complex cousin,

the barefaced shoulder joint, can be relied on

Mark out the positions of the nails accurately whether or not you use the lost-head variety



The nailed lap joint

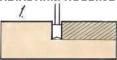
ADVANCED METHODS

The radial arm saw, wound up from the table, makes light work of waste removal. You can either take a few cuts and break out the waste with a chisel or you can saw the entire housing away slice by slice. The disadvantage of this is that the alternate tooth pattern of the saw blade leaves a ridged cut rather than a flat one, so that the base of the housing remains rippled. It is possible to move the workpiece from side to side under the blade - held in several positions - thereby smoothing out the ridges. A danger here is the lack of fine control over side-to-side movement and the risk of crashing into the shoulder, though this can be controlled by the use of a stop. It is preferable to take more closely spaced cuts, thereby making a more tightly rippled (flatter) housing. If the housing

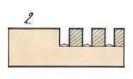
needs to be smoother, a couple of swipes with a bull-nose plane should do it. Too much handwork, however, and you are destroying the point of using such an accurate machine.

For the professional, the only advance on previous methods – apart from a tenoning machine - would be a spindle moulder fitted with a horizontally spinning circular saw blade with which the waste can be sliced away in one perfect action. The same effect could be attempted on a table saw, but the workpiece would need to be slid over the blade on its end-grain. For this to be safe, a tall perpendicular fence needs to augment the table fence. Not even this giant saw is amused by cutting end-grain; the workshop tends to fill with blue smoke at this point

RADIAL ARM HOUSING



Cut shoulder with radial arm saw: chisel waste away



Take out more waste with repeated cuts but still chisel waste





Routing the housing will leave possible breakout at the end of the cut. Avoid this by backing up the board with a piece of scrap

- most fillers are a less than perfect colour match no matter which timber type appears on the label. Angle the nails so as to create the far stronger dovetailing effect. Drill the upper, rebated component so as to minimise the risk of splitting it and to help keep the nail from bending.

You could emphasise this method of jointing by using contrasting dowels rather than nails, a feature that would work particularly well with drawers. Consider using a dark wood such as walnut for the drawer front and the dowels, contrasted with a lighter timber such as maple for the (thinner) sides, or vice versa. ww



The ragged shoulder left from a router cut can be prevented by using a knife to sever the fibres at the shoulder line before routing



Make sure your router does not tilt when routing open housings like these

CUPPED BOARDS

Instead of housing parallel to a cupped face, machines take a dead flat slice, averaging out any irregularities. To work cupped boards, flattening them as you fit them, you will have to revert to basic methods; mark out a housing parallel to the cupped face and chisel to that slightly curved line. To avoid the major problems:

- A Select timber which is unlikely to cup well seasoned and quartersawn boards
- **B** Thickness the timber equally from both sides to maintain an equal moisture equilibrium
- **C** Between operations, keep boards weighted flat in the stick to allow good airflow around all faces and avoid uneven drying
- **D** Cut the housings straight after planing the boards
- **E** When housing with a radial arm saw, place the timber cupped face down. This gives two points of contact with the bench, making it more stable

HOW TO CUT A LAP JOINT BY HAND



1 Square the shoulder lines on the lapped piece with knife or pencil, then gauge the thickness of the lap from the face side



2 Hold the timber against a bench hook or dog and saw the shoulder to the waste side of the marked line with a tenon saw



3 Chop away the waste from the end. Hold the chisel bevel side down to control any tendency for the timber to split downwards



4 Pare down to the gauged line across the grain with the chisel bevel side up, or use a small shoulder plane

BAREFACED HOUSING JOINT

An improvement on the lap joint is to tongue & groove two corner components together to form a barefaced housing joint. This locates the parts more securely, restricting movement between them even more. Unfortunately, the housing creates a band of short-grained wood and undue pressure put on this - even as little as an over-tight tongue – will shear it off. Note that this weakness only occurs in a tongue & groove joint when it is cut across the grain. Cutting with the grain is a strong, useful and relatively easy way of joining solid timber and sheet materials.

A small tongue fitted into a housing in stable timber will survive with glue alone. If you wish to reinforce it with nails or dowels, do so down into the tongue itself, angling nails into the main body of the tongued board. Nail through the weak short-grain, and you are asking for it to part company.

The cutting of the tongue, by whatever method, is identical to the cutting of the lap joint previously described. The tongue is simply what remains when a housing is made on the end. It is vital, however, that this tongue



The bare-faced shoulder joint locates much more positively than the butt or even a lap joint

is not cut oversize. If it has to be forced into the housing, the chances of shearing the short-grain are increased.

When marking out this joint, consider the grain strength. Little is to be lost by making the tongue quite slender – its long-grain strength remains intact. By making it slender, the vulnerable short-grain band is made fatter and much safer. Cut the groove slightly deeper than required by the tongue so that it cannot possibly restrict entry.

How to cut the housing

Mark out the housing as for the lap joint, but with two shoulders. Saw either side and chop the waste out with a chisel, taking care not to exert pressure on the short-grain band – you could leave on an extra horn for protection, removing it after assembly. The floor of the groove can be finished with a plane such as an Old Woman's Tooth – the original router. If you plane the housing floor flat, check the size of your blades before committing yourself to a particular width.

With an electric router, use a cutter of the groove's finished size so that both sides are cut in one go. Take a couple of passes, setting the depth stop so that the first pass removes the bulk of the waste and the second skims the floor flat. With troublesome timbers, take a light skimming pass first to sever the surface fibres, or knife the lines first. This saves having to sand loose fibres away and risk rounding over the shoulders. If you are setting up for the housing, you may as well rout the tongue, or at least clean it up in the same way as you cleaned up the previous housing

CUTTING A BAREFACED HOUSING JOINT WITH A ROUTER



Rout the housing to the width of a cutter, guiding the router base with an offset homemade try square cramped in place



For basic joinery you could just mark off the width of the tongue from the housing. Finer work will demand a marking gauge



You could rout the mating tongue in the same way as the lap joint, working off the straightedge again...



. or set up a table router and work off the fence. Use a mitre fence or a square timber scrap to guide narrow boards

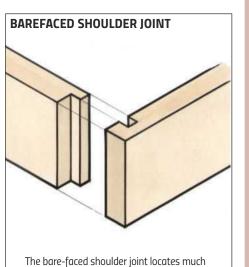
ADVANCED METHODS

Radial arm and table saws are both well suited to cutting housings, though setting the latter is slightly more awkward because the cut is taking place face down where you cannot see it. For grooves wider than the kerf of the blade, the radial arm saw can be set with stops so that repeat components – providing that they are cut to the same length – can be treated equally. The saw's faceted cut may not present a problem here, as the completed joint is often not visible.

If it is necessary to produce these joints in quantity, it makes sense to choose a more

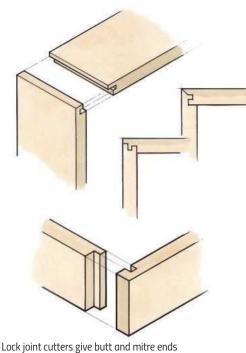
complex – and therefore stronger – pattern and to cut both parts with dedicated router or spindle moulder cutters. The difficulty here is that on running the workpiece past the cutter, the grain on the exit side is likely to tear, leaving a ragged finish. Minimise this by holding a block of similarly sized waste-wood behind the work. Cutters must be sharp. Several light passes work better than one heavy one although the spindle moulder will manage this with ease.

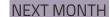
ADVANCED LOCK JOINTS



more positively than the butt or even a lap joint

Barefaced shoulder joints are often seen on quality door linings and are sometimes used to joint the rear components of drawer boxes, though not for fine work





Coming up in the next issue...

WW March on sale 9 February

NO FRILLS, PLANE CUPBOARD

The Editor is forced to make a workshop storage cupboard for his burgeoning plane collection; circumstances have necessitated that this particular mother of invention may well be looking at a big family...



SAW BENCH – PART 1

In part 1 of building a sturdy saw bench, Robin Gates finds himself restoring the saw that inspired it, constructing a Heath Robinson saw clamp, gluing rosewoods, and making a 'baby's tooth'



LEARNING CURVE

Tasked with making an Art Deco style coffee table with curved ends, Peter Dunsmore shares the build with us here as well as the challenges he faced during its construction

PLUS • My workshop – Sarah Watson & Andrew Axworthy
 Remembering Mr Challis – a retired shipwright • Andrew Hall's blues bowl
 Colin Simpson turns a small hollow form for beginners

Cabinet for objets d'art

Phil Davy constructs a display cabinet for his precious collection of wooden boxes

hat's the first thing you'd try to save in the event of a fire in your home, I wonder? It's the sort of question most of us have probably thought about at some stage. Apart from family and pets, of course, there are bound to be one or two objects you'd try to rescue. They may not be worth much materially, though they could

well have sentimental value. Over the years I've collected various handmade wooden items, two of them delightful boxes turned by popular expert Dave Roberts. These are gorgeous, tactile pieces that I'd grab if the alarm was to sound...

In the meantime, I've always wanted somewhere more suitable to display these items, plus a few other bits and pieces collected on my travels. This simple cabinet uses biscuit joint construction, though you could use housings if you don't have a jointer. I used 20mm-thick softwood throughout, reducing the thickness down to 15mm for the drawer components.

Although I don't usually mix MDF and softwood, the front panel would not be sturdy enough if made from pine. Once the arch is cut out there would be a narrow section with short-grain at the top, which would be liable to snap while you're working on it. As the front panel is 19mm MDF you could make the entire cabinet from this material, especially as it will need a painted finish. I fitted the panel into the carcass with pocket-hole screws, though you could simply add a small batten around the inside edges and fix it to this.

Template construction

The 6mm-thick template only needs to be half the width of the front panel. This way you'll end up with a symmetrical curve to the arch when routing the actual MDF. Make the template slightly wider than half, though, so that the cutter bearing does not run off the end when routing the panel itself.

I added a pair of my favourite trefoils to the front panel as decoration. The middle shelf is adjustable and sits on steel supports, which are a push fit into 5mm holes. Depending on what you wish to display, there's plenty of space for a second shelf.

I have to admit to cheating with the drawer construction. Normally I wouldn't use biscuit joints here, but as they are softwood and lightweight I decided to risk them. On a more substantial drawer, I'd house the rear panel into the sides and dovetail the front, particularly if building the cabinet from hardwood. **ww**

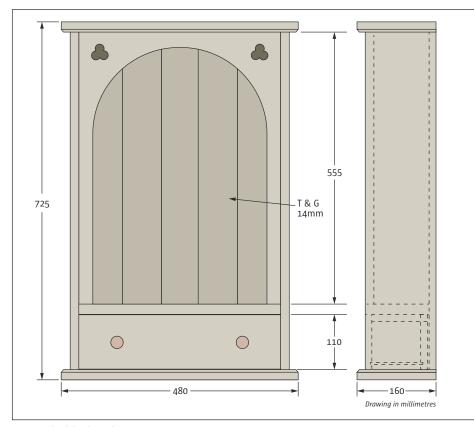


Fig 1. Arched display cabinet

TOOLS YOU'LL NEED

Circular or table saw Biscuit jointer Jigsaw Router & table Sander Drill stand Bench planes Drill/driver Pocket-hole jig



1 Saw the softwood to length and mark biscuit positions. Cut slots for No.20 biscuits with the jointer



2 Space the biscuits so that joints will not interfere with pocket-hole screws (front panel) or rear rebate



WOODWORK Arched display cabinet



Rout a 15mm-deep rebate along rear edges for the matchboard back panel. The rebate is stopped on the top and bottom



Assemble the drawer divider and sides with PVA glue and cramp up. Use the drawer front as a spacer at the far end



Cramp top and bottom panels together and lightly plane front edges to clean them up, if necessary



Chamfer upper and lower edges with a bearing-guided bit, then glue up carcass, checking for square



Saw the MDF front panel and trim edges until it fits snugly. This will be cut out to create the arch



Construct a template from 6mm MDF. Make a trammel from scrap and mark out an arch radius of 175mm



Cut carefully with a jigsaw and tidy up the template curve with a sanding drum mounted in a drill stand



When the template is accurate, lay it on the MDF panel and draw around the arch. Flip and repeat for the opposite side



Saw the arch from the MDF front panel, keeping it at least 2mm on the waste side of the line



Stick eyes of the double-sided tape to one side of the template and remove the backing paper



Align the template with the edges of the MDF panel. Apply pressure and stick them firmly together



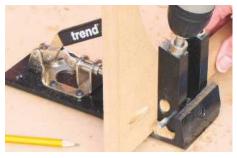
Using a flush-trim cutter with the bearing running against the template, rout the MDF panel



Either round over or chamfer the front edge of the panel with a bearing-guided router bit



Using a 15mm Forstner bit, add decorative trefoils to the top corners



The MDF panel is fixed with pocket-hole screws. Mark out and drill using a suitable jig



18 Cramp and screw the panel into the cabinet, setting it back 2mm from the carcass' front edge



19 Reduce timber thickness for the drawer to around 15mm. Cut front, back and sides to size



20 Trim ends square on a shooting board if required. Mark and cut slots for smaller, No.10, biscuits



21 Mark and drill the drawer front for knobs before gluing up. Counterbore the rear screw heads



22 Rout a 7mm-deep groove for the bottom panel along lower edges of the front, back and sides



23 Dry-assemble the drawer and carefully measure for the bottom panel. Cut this about 2mm undersize



24 Check that the 6mm-thick MDF panel slides into the drawer and everything fits together snugly



25 Glue the drawer together, though avoid gluing the bottom panel. Cramp and check for square



26 Clean up the upper and lower edges of the drawer, checking with a straightedge. Avoid breakout on the corners



27 Check the drawer fits into the cabinet neatly. Adjust if necessary by trimming the ends with a finely-set plane



28 Clean off excess glue from the joints and sand the cabinet inside and out using 180 grit or finer abrasive



 ${\bf 29}$ Cut the matchboard to length and saw outer boards to width if needed. Pre-drill and nail into the rebates



30 Brush on at least two coats of a suitable paint, sealing the MDF first



 ${\bf 31}$ Finally, fit knobs and fit the cabinet to the wall



32 Note my trademark trefoil decoration

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Price: £196.69 Web: www.axminster. co.uk

PROS

- Speed and power for carving, and about as safe as you can get in a potentially dangerous situation
- Accessories available (see WW upcoming)

CONS

Noisy and dusty (unavoidably)

RATING: 4.5 out of 5

Arbortech Mini-Carver power tool

A pleasure to use, this smaller version of the famous Arbortech Pro blade is much appreciated by professional carvers for its ability to reach into areas where the standard version will not

Anyone familiar with the original Arbortech system will no doubt be aware of just what a great tool it is, and I don't expect there'll be many carvers and green woodworkers without one. In response to requests for something with a touch more finesse, Arbortech Industries of Australia have given us the Mini-Grinder, with extension neck and a dedicated scaled-down version of the original wood shaping cutter.

Efficient & straightforward

Although simple in appearance, the Arbortech blade is frighteningly efficient at removing timber stock at speed, and you'll need a bit of a practice first before you start to use it in earnest. I experimented with both right- and left-hand grips and finally found the optimum set up for me; one which enabled me to execute gentle sweeps in a sideways motion,

and one which avoided any hint of jabbing or stabbing. It's a fairly straightforward hand-held machine, essentially a scaled-down grinder body (the original and full-sized blade mounts onto any standard grinder) with an extension assembly taking the drive to the tip of the neck and the blade via a V-belt, safely housed. I took mine apart out of curiosity and felt that, while an engineer might have a suggestion or two for improvements, the basic construction was sufficiently robust and definitely fit for purpose. There was also scope for a little user adjustment, something that's always a welcome feature in a cutting power tool.

Exchangeable blades

Blades are exchangeable (it comes with a spare) and you can also fit one of the small sanding discs supplied (1 medium, 2 × coarse and 1 very coarse). The on/off switch is a positive push forward to start, and only the slightest downward pressure needed to stop; it's safe and you always feel in control without having to fumble for it.

Safety first

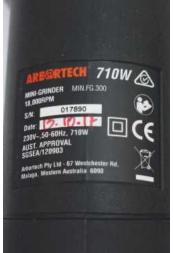
In my experience there's no other tool like an Arbortech, and there's no way I would be without my one, regardless of how infrequently I might use it. When you do come to use it, it's well worth preparing for what might be a prolonged session (I couldn't put it down). Make sure you have a minimum of eye-protection (goggles are best), a dust mask and some ear defenders. Probably one of those full-face visors that tree surgeons wear wouldn't be a bad idea (the ones with ear defenders attached), and you might want to consider gloves, too. Oh, and be prepared for sawdust, lots and lots of sawdust.

In summary

All in all, this is a really terrific machine; once you get the hang of it you'll be amazed at how quickly you can achieve impressive results. **MC**



The Arbortech Pro blade is frighteningly efficient at removing timber stock at speed



As depicted, this is a 710W machine that runs at an impressive 18,000rpm



The mini Arbortech comes with a spare blade plus four sanding discs



The excellent on/off switch; the side handle fits in just above, or on the other side



The smaller blade of the mini system enables tighter access for any kind of shaping work

Bosch GLI 18V-1900 C 18V floodlight

Benefitting from the latest mobile app technology, this handy and robust floodlight from Bosch features a powerful CoB LED that really lights up the whole work area

Hot on the heels of their recent release of power tools that can be controlled via a mobile phone interface (Bosch Connectivity, see WW September 2017) comes this blindingly bright portable worklamp. It's a compact size and features a high-power LED lamp unit fixed into a five-position adjustable frame, which offers plenty of scope for flexibility and also houses the manual on/off switch.

Impressive brightness

The back hinges open

as a battery cover

It's battery powered and takes both 14.4V and 18V Bosch batteries, either of which will help light up your jobsite with an impressive 1,900 Lumens courtesy of its high power LED. I'm not entirely sure how to describe the brightness, but let's just say you can't look directly at it (there's a safety warning in the instructions to this effect). If you do find yourself a bit dazzled, you can turn down the brightness a notch by pressing and holding the on/off button. At first I thought it was just styling, but the lamp has cooling fins cast into its body, implying the possibility of excess heat. I think this is just a sensible precaution as I ran it for most of the day and, while it did warm up, it definitely wasn't a fire hazard (although it comes with the warning that it could overheat if left closer than 200mm to a flat surface).



The disc battery lives here and powers the onboard electronics

A positive step into the future

The floodlight is compatible with the Bosch Toolbox mobile phone app that controls other Bosch kit, and can be checked, adjusted and a timer set from a few rooms away. A small disc battery powers the necessary electronics and, once activated, communication between phone and lamp

can begin. It could be argued that the benefits of this remote control aren't at present enormous (although saving a trip back upstairs to turn it off at the end of the day might be considered sizeable at the time), I believe that it's more of a positive step into the future than a present day solution; who knows just where it will all lead? I for one am very keen to find out...

In summary

After putting this new offering from Bosch through its paces, I have to say that the GLI 18V-1900 C presents a useful and very bright temporary lighting solution that will prove to be a real boon, either on site or in the workshop. MC



battery): 1.6kg Length: 145mm Width: 187mm Height: 292mm Battery voltage: 14.4-18V Brightness (full power): 1,900 lumen Brightness (dimmed): 1,000 lumen Operating time 14.4V: 80 mins/Ah Operating time 18V: 100 mins/Ah Bosch simply connected:

Price: £137.64 Web: www.boschprofessional.com

PROS

Yes

Portable & controllable batteries mean convenience

CONS

Batteries need charging

RATING: 4 out of 5



The on/off switch — press and hold for decreased illumination



The app shows lamp on, but low battery



So bright, it's just possible it contains a piece of the sun

Motor: 750W
Blade speeds: 42-660
& 64-1,001 metres
per minute
Blade width: 3-12mm
Max depth of cut:
160mm
Max width of cut
with fence: 220mm
Throat capacity:
250mm

Price: £1,385.88 Web: www.axminster. co.uk

PROS

- High quality construction
- Very stable
- Can cut metal and other materials

CONS

- Lower guides aren't tool-free adjustments
- No speed setting indication on speed dials

RATING: 4.5 out of 5

Axminster Trade Series BS11-INV bandsaw

This trade-rated bench-top bandsaw is made to very high standards and is definitely a contender for the bigger, more expensive machines out there

It's always perplexed me that smaller machinery seems to be built and aimed at a budget audience when there are in fact plenty of people out there who do fine, high quality work at smaller levels.

Instrument makers, box makers and beyond are prime examples of such needs and I've mentioned it often, so having been invited to check out this new machine from Axminster that is aimed at just that market, I was more than happy to go and have a look.

The nitty gritty

So let's talk costs first. At a price that would buy a very nice bigger machine, this one is built to the same quality of the big boys; just as I would have hoped, and depending on what you work with as far as materials are concerned, there's the option to have an equally well made two-speed machine or this model with an inverter drive to control the motor. This allows the speeds to be controlled within the ratios of the two belt positions with a dial mounted on the neck of the bandsaw. This speed control allows a wider material base to be used, including mild steel up to 10mm-thick.

There's no indicator on the dial to give an idea of the speed, however, so it's a case of using an adjustment on the fly type control to find the sweetest spot on some materials. Metals respond better on the lower belt speed and lowest blade speed to gain maximum torque under load and to minimise heat build up. Lower speeds tend to work best with plastics as well to prevent any melting issues from heat.



On test

Putting the steel function to the test, I tried the saw with a suitable blade on an 8mm-thick piece of flat bar. If you haven't cut thick steel on a bandsaw before, then don't expect it to be as nippy as a cut in timber; it is far slower but the saw is very capable, not struggling as the work is fed through and leaving a decent finish.

So before looking at the timber performance it's well worth analysing the adjustments and settings. The upper guides are fitted to an externally mounted heavy steel rack and pinion adjuster, with equally stout guide adjusters. These are again all steel and of a good standard, including the locking wingnuts; an area where penny pinching is often employed.

Roller bearings support the sides of the blade with a further roller bearing acting as the thrust support.

All the setup tweaks needed are made with fine threaded adjusters for quick and easy accurate positioning when swapping between blade sizes. The downside is the lower bearing setup; these are again all roller bearings, but you have to get the hex wrenches out to position them, although access is decent enough for this.



The depth of cut is altered with this heavy-duty rack and pinion setup



The upper guides are adjusted without the need for tools



Height adjusting screws allow the insert to sit perfectly flush



The fence locks with a cam lever and has a fine adjuster built in



You swap the belt to alter to either of the two speed ratios



Blade tension and tracking are set using the top and



Rack and pinion gearing make tilting the table easy



Metal cutting up to 10mm-thick is a breeze



Thin repeat veneer cuts are accurate and consistent

The cast-iron table adjusts on a rack and pinion trunnion for setting any bevels and has a pin locking index for the 90° and 45° positions. There's no reason why you can't drill out a couple more locations on the trunnion if you work a specific angle regularly, which is a bonus, but the Bristol lever secures firmly for general setting.

There's a side loading slot for changing the blades in the table so the front fence support stays in place. A thick metal insert closes the blade aperture and sits on adjustable jacking screws to set it perfectly flush, which is a nice touch as a slightly high or low insert can be frustrating when the work snags or catches.

Blade tensioning and tracking is standard with a topmounted tensioning knob and rear-mounted tracking knob, while a viewing window in the side of the cabinet is useful for checking the blade position on the wheel.

There's no blade tension indicator, however, so you have to adjust and tweak accordingly; not really a huge problem as the tension indicators tend to be ball-park positions that need fine-tuning as well.

The fence is secured with a cam lever and holds securely without flex; there's also a fine adjuster built in for fine-tuning a cut, which proves useful if you are cutting tenons or veneers and need to achieve a very accurate setting.

Machining timbers

Putting the saw to work on timber, I found that it matches its ability to cut steel in the power department but at a higher feed rate. The high build quality makes it a smooth ride and therefore you can work to good accuracy, which I put to the test by making some veneer cuts.

I was able to book-match veneers directly from the saw with no steps in the fit when I butted them up, which will be a major asset to the box and instrument makers where veneers and small components need to be cut accurately and consistently every time. Capacities are decent as well with 160mm being the maximum depth of cut, so it's at home on bigger pieces such as tenons or deeper veneers as required.

In summary

It's refreshing to see that Axminster have invested in a bandsaw that matches the big boys in terms of build quality to fit in with the end of the market that works to a smaller capacity but still demands accuracy and consistency, and this saw is definitely one to take a closer look at if you fall into this particular category. If you don't require steel cutting, then you can save yourself a few bob and opt for the standard BS11 version, which doesn't have the inverter motor. AK



The saw is equally powerful for deep ripping of timber



Input: 400W Sawing capacity in metal: 8mm Sawing capacity in aluminium: 12mm Sawing capacity in wood (jigsaw): 80mm Sawing capacity in wood (reciprocating saw): 80mm Blade speed: 3,000spm Sawing capacity in branches Ø: 80mm Stroke length: 18mm Weight: 1.4kg Voltage/frequency: 220-240V/50-60Hz

Price: £52 Web: www.skil.co.uk

PROS

- Selecting saw function is easy
- Good for occasional use

CONS

- Lack of professional features
- Tedious blade swapping
- Mains power is limiting
- No storage case supplied

RATING: 3.5 out of 5

this handy 2-in-1 reciprocating and jigsaw combination from Skil Multi-purpose power tools tend to be aimed at the DIYer, with Skil's 4600AE Combisaw being no exception. Lighter build quality and lack of professional features (such as toolfree blade change) are common factors to keep the cost

down. Merging jigsaw with recip, or sabre saw, is a slightly unusual concept, although Black & Decker's Scorpion and the similar Bosch Multisaw have both been around for a couple of years.

The Combisaw has been designed to use the same blade mounting system whichever mode is selected. As a jigsaw, it can be fitted with either bayonet or older, universal-type blades. As a recip saw, fitting a standard straight blade (with hook and pin shank) is also no problem. The downside is that you need a hex key to tighten a securing screw, which means swapping blades can be tedious.

Dual control

Recip saws are designed to be held with both hands for safer working and control, especially when cutting through items that may not have an even surface for the tool to run against. A jigsaw is generally gripped with just one hand as it usually sits flat on a surface.

Selecting the saw function is dead easy on the Combisaw. You simply slide a spring-loaded button above the motor housing with your thumb, while swinging the handle up or down with your other hand. This locks automatically, creating a horizontal top handle (jigsaw mode) or rear handle (recip saw mode). As a recip saw the main body of the tool then provides the front grip.

Mains power

Mains-powered, the Combisaw's motor is rated at 400W. A hefty trigger and lock-on button above are well positioned, though there's no soft-grip cushioning around the handle areas.

The single fixed speed of 3,000 strokes per minute is fine for recip work, though it does limit the tool's scope as a jigsaw. By contrast, variable-speed is very useful if cutting veneered boards and denser materials, while it's almost essential for sawing metals. Stroke length is 18mm, while depth capacity in timber is stated as 80mm in recip mode. That said, I managed to saw some logs that were roughly 90mm in diameter.

Cable length is 3m and there's storage for the hex key at the entry point, though I found the key tended to fall out with the saw in use. This is a budget tool so there's no storage case, just a cardboard box.

Demolition work

For light demolition work a recip saw is particularly useful as it can be used for cutting through timber, plasterboard, metal, plastics, even brickwork with a carbide blade. Fitted with an appropriate blade you don't need to worry about damaging teeth on hidden nails, either. Unlike a jigsaw, you can safely cut through curved items such as pipes, even logs or branches.

Unlike a normal recip saw there's no pivoting shoe on the Skil. The small alloy baseplate remains fixed, making the tool slightly more awkward to control for angled cutting. There's no obvious anti-vibration damping built into the handle either, which you'll notice after a few minutes' work. I'd guess the Combisaw will probably appeal to woodworkers more as a



As a recip saw, fitting a standard straight blade (with hook and pin shank) poses no problem



Selecting the saw function is easy: simply slide a spring-loaded button above the motor housing with your thumb...



... while swinging the handle up or down with your other hand



You do need a hex key to tighten a securing screw, which means swapping blades



A hefty trigger and lock-on button above are well positioned

jigsaw. The main disadvantage is a lack of pendulum (orbital) action, though. Most jigsaws these days offer at least two settings, with three or four on pro tools. Without this function, cutting timber of any reasonable thickness is very slow.

I tested the saw on 12mm MDF, 18mm exterior ply, 22mm iroko and several thicknesses of softwood – it really did struggle on hardwood. Quite a decent cut was produced, bang on $90\,^\circ$ when straight sawing. Just as well, as you can't tilt the baseplate for bevelled cutting and therefore can't calibrate the blade to zero if the cut is slightly out of kilter. There's no rear blade support roller, so don't expect exact perpendicular edges on thick timber when sawing tight curves; most budget jigsaws struggle in this respect. I found the clear plastic blade guard made it tricky to see the pencil line at times, though the built-in dust blower worked well at clearing away waste.

One 130mm recip blade and two jigsaw blades (wood cutting) are included. These are quite coarse, and I got better results cutting across the grain by fitting a finer Bosch blade. To prevent splintering, either stick masking tape over the pencil line or use a finer blade, which will further slow down cutting.

In summary

So, the Combisaw is a pretty basic, compact power tool, which is likely to appeal to occasional users. As a jigsaw it's better suited for cutting thin sheet materials or softwood, though it would be worth buying a few better blades. As a recip saw it should cope with small-scale demolition projects, recycling timber, cutting firewood, or pruning the odd branch. Make sure you wear gloves to absorb the vibration, though. PD



You can safely cut through logs or branches



Testing the saw on 12mm MDF. The Combisaw copes better cutting thin sheet materials than thicker timber



I found the clear plastic blade guard made it tricky to see the pencil line at times



One 130mm recip blade and two jigsaw blades (wood cutting) are included

Sizes: 10-32mm (10, 12, 16, 20, 22, 25 & 32mm) Shank: ½in hex

Typical price: £25.14 Web: www.trend-uk. com

PROS

- Fast, clean cut
- Snappy and hex chuck compatible
- Great storage wallet

CONS

 13 and 19mm would perhaps be better for closer imperial sizes

RATING: 4 out of 5

SNAP/FB3/SET Trend Snappy seven-piece flat bit set



If you're looking for a flat bit set with impressive performance that cuts fast and clean holes in a variety of materials, then check out this offering from Trend

Depending on the work being undertaken, flat bits are a great addition to your tool kit. They are ideal for fast cutting and jobs where you don't necessarily need ultra-clean holes or to be overly accurate in the size of the hole.

Situations such as drilling out waste for locks, clearance holes for fittings or running cables through joists and studs are all areas where these find favour. Alongside these uses, the cost factor is impressive: this set of seven can be picked up for around £25 – about the same cost as a decent quality traditional auger for more refined work.

Push for greater control

Having drilled more holes than I care to remember, one thing that is always evident when comparing flat bits to augers is the strain imparted on a battery drill. The worm screw driven augers will try and pull themselves through quickly and the result can be the high torque becoming too much for a drill, especially a lightweight or DIY model, but switch to a flat bit and the torque is lessened dramatically.

The lack of worm screw means you have to push the drill to get it to cut so the torque can be controlled by altering the pressure, and secondly, it cuts with a scraping action and with a thin shank, the shavings break away and eject easily, especially if you ensure to withdraw the drill as you progress when working on deeper holes.

Being able to push will give you a chance to control the cut

a little more and with this design, you have 'wiggle room' to alter the course slightly if you find yourself drifting. This, of course, can work detrimentally as well as you have to exercise better control as you work to ensure they don't drift in use; a traditional auger has lands along its entirety to keep it on track.

Variations on a theme

There are many variations on the theme of flat bits and while this set of seven from Trend are at the more basic end of the spectrum, they are pretty nippy at their job and cut quickly while leaving a fairly clean hole. There's a cutting spur on the outer edge to score the entry hole before the taper ground cutting edges engage and, of course, the shank is designed to fit into Trend Snappy chucks for fast swaps or a direct fit to a standard three-jaw chuck. They will also fit directly to an impact driver chuck and I gave one a go for drilling through some 50mm wallplates for bolts and it blitzed through it without any problem, but there's no indication as to whether the bits are impact driver compatible, so you might want to leave them just for standard drills when you use them.

In summary

Either way, they put in a great performance for the jobs I've used them on, cutting fast and clean. Being supplied in a very durable storage wallet makes them easy to transport, and keeps them in good nick, ready for when you need them. **AK**



I tried the bits in an impact driver on some narrower holes and didn't experience any problems



Fitting locks with these flat bits is ideal for finer spindle and key hole drilling



They are equally at home removing the bulk waste with wider bits



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Stanley No.5 'before & after' photo courtesy Peter Hemsley - The ToolPost

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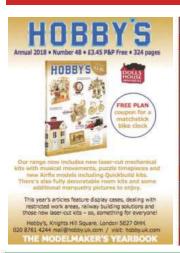
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FOR SALE

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Woodworker magazines - over 300 copies in total, from 1990-2015 - offers around £50; buyer collects 01295 710 526 (Oxfordshire)

Full-size woodworking bench with excellent vice & four drawers on right-hand side - in good condition: £100 07716 994 616 (Derby)



Shopmate 10in radial arm saw – 240V saw in good working order complete with Dexion angle section; stand on lockable castors and instruction manual; will cross-cut, rip, & mitre in two planes. Power outputs on opposite side to saw at 3,450rpm and 20,000rpm; £130 ONO 07938 126 343 (Leicestershire)

Shopsmith MKV 510 - with jointer, as new, most attachments still boxed; buyer collects - highest offer secures sale 01634 232 191 (Kent)

Record multi-purpose machine - circular saw, router, planer/thicknesser; £450 – buyer collects **01903 243 526** (West Sussex)

Axminster lathe APTC – used once and in pristine condition; set of woodturning tools included; £250 buyer collects 01344 486 214 (Berkshire)

Fine selection of veneers including ash, beech, mahogany, oak, maple, tulip, plus various others - buyer collects; £50 01356 624 513 (Brechin)

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Startrite 352 bandsaw – in good working order: f395 07973 252 854 (Hertfordshire)

Lurem C260 10 × 6in floor-standing planer/ thicknesser with second set of unused blades; £180 – buyer collects 01434 320 735 (Tyne Valley)

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Triton Workcentre WCA201 series 2000 & Triton TA235CSL precision power saw and blade height winder – assembled but never used; £420 07811 510 950 (Dorset)



APTC M950 lathe – six-speed, plus many extras including two chucks and revolving centres in very good condition; call for details; buyer collects - £499

01284 705 656 (Bury St Edmunds)

Record Power WG200 8in wet stone sharpening system, complete with accessories. Cost £150, unused, still in box; selling for £100 01322 664 388 (Kent)

Record PT260 planer/thicknesser with dust extractor; £225. Also, Trend router table & DeWalt 625 router with various bits; £200 01444 246 922 (West Sussex)

Woodturning workshop contents for sale – including lathes, bandsaw, pillar drill, plus lots of hand tools and wood for turning 01628 628 147 (Maidenhead)

Multico-Pro-Mex TWL 1000 woodturning lathe - in good condition; £250 07716 994 616 (Derby)

Kress routers mounted on Powermate workstation, plus user guides; £65 01628 628 147 (Maidenhead)

Axminster CT-150 planer/jointer; £250; CT-330 thicknesser; £250; Multico Supershop 5-in-1; £300; shop vac; £20 01604 870 380 (Northants)

Coronet Minor with circular saw table; sanding & mortising table; planer with thicknesser attachment; single phase; good condition; £230 01684 592 968 (Worcs)

Elektra Beckum HC260 planer/thicknesser - includes extractor, hood & wheels; £120 01934 732 451 (Somerset)

WANTED

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Good times, bad times

The Editor recalls chalk and cheese moments of initial site visits

Approaching the house on this first visit (of what turned out to be very many more), I felt an air of promise as I observed a number of encouraging signs. A fairly large property (well maintained and of a generally interesting appearance), off-road parking in the shape of an irregular drive which currently housed two cars and more than enough room for another, a comfortable cat dozing on a window-sill, and a well-tended but casual garden with numerous blooms, including some sweetsmelling roses (my favourites).

The door had a working door-bell which, on my application to it, summoned a friendly occupant in the figure of Mrs Stapleton with whom I'd had a couple of exchanges of emails following her first enquiry regarding some fitted wardrobes. So far, so good, and as I stepped into the parquet-floored hallway, I was welcomed by the smell of baking and noted one or two artworks I felt I could very easily live with myself.

The good

After a bit of preliminary chat regarding interiors, cats and flowers, we climbed a set of wide stairs, crossed the landing and entered a large and light double bedroom at the rear of the house. This was mostly empty and gave every appearance of having been recently cleared out and some preparatory decorating work having been executed. We discussed wardrobe requirements for a bit, then Mrs Stapleton – by this time familiarised as Jane – left me to measure up while she put the kettle on. I find that the whole process of measuring up is greatly improved if there are no distractions and, after forgetting one or two key dimensions over the years through finding myself discoursing on any number of furniture-related topics, nowadays I usually ask the potential customer if they wouldn't mind leaving me to it.

The house, built around 1900 in an Arts and Crafts style, showed every sign of good construction, and the walls seemed flat, true and even possibly square and plumb where they should be. The floor was level and the boards in good shape; with sufficient room to put up a Workmate and enough floor space to spread



my kit out, it was all shaping up to be one of the better work sites I'd visited for a while. I took my customary measurements (including the ones I didn't think I'd need), and was just finishing off a sketch of the room and its relevant details when tea arrived, and with biscuits too. After another pleasant five minutes of conversation it was time to go, and it was with an air of satisfaction that I left the house and made my optimistic way back to my van, promising (and meaning it) that I'd be in touch with drawings and designs in the next few days.

The bad

What a contrast my next visit proved to be. I parked on a steep hill as near as I could manage to the house concerned, and squeezed my way through the gate and past hedge and motorbike to knock on the door of a reasonably sized terraced house. A burst of loud barking rent the air and the door was opened by an angry woman on the phone who was struggling to restrain a large Alsatian while simultaneously berating somebody very loudly on the phone. She motioned me to wait while she finished delivering the last couple of sentences of (I assumed) a lengthy tirade to some unfortunate on the other end of the line, then dragged the now slightly calmer (but still large and growly) dog down a cluttered passageway to the rear of the house where she was able to shut it in the kitchen. On her return, I joined in with a brief analysis and discussion on the shortcomings of insurance companies, until we were eventually able to get back on track to matters related to the purpose of my visit:



the shelving and cupboard requirements of the household. I tactfully asked if she'd only recently moved in, but it transpired that she'd been there a while, even though it looked to me as if the contents of one or two other domiciles had recently been deposited in the hall and on the stairs and were in every likelihood heading to be a permanent feature of the area.

The room in need of storage fitments was at the top of the steep stairs and seemingly devoid of any natural light or even much space, either on walls or especially the floor. Our earlier phone call had provided me with the basic requirements of the job, and, despite her best efforts to the contrary, I got the feeling that my presence was, at best, a time-wasting nuisance and, at worst, some kind of outrageous imposition. As she showed no signs of leaving me to it, despite my hints, I measured up the dingey walls in very quick time, took a couple of photos for reference and declared my intentions to depart.

As we came back down the stairs there was a spate of renewed barking and the back door thumped and crashed as the (fortunately) captive canine hurled itself at the thin panels in an effort (I imagined) to see the unwelcome intruder off the premises. As the front door closed behind me I was making good progress down the path, a strange crawling feeling between my shoulder blades and a very real reluctance to look behind me. Reaching my van just in time to avoid a parking ticket from a disappointed mobile official, I started the engine and drove away, mentally composing the email I'd send: I'm sorry, but I won't be able to take on your cupboard job... ww



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