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Welcome

Now that things are returning to 'normal' after the disruption caused by the COVID-19 pandemic, we're finally able to begin rescheduling client visits and travelling again. One such trip, planned following the 2019 North of England Woodworking & Power Tool Show, was a visit to the Tormek factory in Sweden.

Adapting & diversifying

Having met Tormek's UK Sales Manager Pontus Gyllby at the show and learning about the family business' roots, rich history and planned expansion and refurbishment of the entire premises, we'd originally planned to fly over a few months later, although ongoing restrictions meant this was actually put on hold until June this year. In hindsight, however, the hiatus worked in our favour as it allowed us to see, first-hand, the many developments being made to the factory. According to Pontus and another of Tormek's Sales Managers, Sébastien Ehnevid, the pandemic has allowed them to reevaluate, and in doing so maximise everything, from staff, to product, to profit. They've also seen a big increase in production, which has given rise to further expansion and exciting future plans.

Due to Tormek staff being unable to travel to events and speak to customers face-to-face, they were forced to adapt and diversify; this involved setting up a studio within the existing product demonstration area to allow live sharpening content and classes to be filmed, which could then be shared online. Initially, they didn't know how this would be received, but the channel's popularity has in fact soared and the loyal viewer base continues to grow. Starting out with just a basic Smartphone setup, the studio now houses dedicated audio-visual equipment and lighting, so content can be professionally produced. In addition, we were also given a tour of brand-new areas, including the well-equipped staff canteen, recreation rooms and warehouse, which now occupies a bigger footprint due to the growing demand for Tormek products.

The Tormek ethos

Making the two and a half hour journey from Stockholm to Lindesburg allowed us to see the stunning Swedish countryside and expansive forests of Norway spruce and Scots pine, which are vitally important for the national economy. We spent a full day at the Tormek factory, which still occupies the same site as it did nearly 50 years ago, albeit in a modernised and larger format. From walking in the door and meeting the friendly staff to touring the production line and witnessing the care and precision involved, you instantly get a feel for the Tormek ethos, which is one of innovation, simplicity, quality and sustainability. This underpins everything they do, and it runs, as you'd expect, like clockwork.

You can read the full feature in our October issue, and over the coming months, we'll bring you a whole host of Tormek sharpening content as well as taking a detailed look at the entire product portfolio. In the meantime, however, visit **www.tormek.com/uk** to find out more.

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AUGUST 2022

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New from ISOtunes – three new headphone/ear defender models to help ensure you're protected in the workshop

ISOtunes LINK 2.0

Ear Defenders. Done Better. ISOtunes' best-selling ear defender has received an upgrade. Featuring a padded headband cushion, up to 50 hours of battery life and a boom microphone for crystal clear calls, LINK 2.0 is the Bluetooth ear defender you've been waiting for.

For professionals who work with power tools, power equipment and heavy machinery, ISOtunes LINK is a Bluetooth earmuff that offers the highest level of over-ear noise isolation, durability and microphone background noise reduction, so you can protect your hearing and communicate clearly while working in high-noise environments. Please note the boom Microphone is sold separately; currently priced at £99.99.

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For further information on these and other products from ISOtunes, visit the website: **www.isotunes.co.uk**.

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Web: www.cilfiegansawmill.com

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sales@hardwoodoffcuts.co.uk

Horndon Timber Products
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Timberman (Carmarthenshire)
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Web: www.timberman.co.uk

Tree Station (Lancashire)
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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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Web: www.wenbans.com

Wentwood Timber Centre (South Wales)
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Web: www.wentwoodtimbercentre.co.uk

W L West & Sons Ltd (Surrey)
Tel: 01798 861 611
Web: www.wlwest.co.uk

Yandle & Sons Ltd (Somerset)
Tel: 01935 822 207
Web: www.yandles.co.uk

Axminster Woodturning – set of six multicoloured micro handles

Axminster Woodturning micro handles, coupled with the range of miniature turning tool blades, are perfect for turning pens and other small projects. The six different colours allow you to colour-code your tools for easy recognition. This product represents another fine example of precision engineering from the company's own manufacturing facility in Axminster, Devon. Machined from solid aluminium, the tools have a hard anodised finish as well as featuring gently contoured grips with light knurling, which prevents them slipping in the hand.

Designed to accept a range of small and miniature turning tools, the handles have a 7.5mm bore with twin grub screws to secure the blades in place. Each micro handle measures 150mm long × 25mm diameter with a 7.5mm bore. Currently priced at £99.98 for the set of six handles, see **www.axminstertools.com** for more information.

Peter Child Artist's pyrography machine

The Peter Child Artist's pyrography machine is widely regarded as the machine of choice by many professionals. Powerful enough to create dense textures and patterns, its slim, light and omfortable-to-use pen design delivers perfect balance for the finest detail work, which also makes it an ideal choice for the novice.

As you'd expect from a machine manufactured by Robert Sorby, the build quality and attention to detail is of the highest standard. The unit is supplied with a pyrography pen, 1m length of 25 standard wire gauge (SWG) to make your own points, six spare nickel chromium nibs – five standard points in 25 SWG and one spoon point in heavier 24 SWG – in addition to a handy 12-page manual full of ideas.

Please note that Robert Sorby manufactures two versions of this machine, which are only differentiated by colour and voltage. For further information, visit **www.robert-sorby.co.uk**.

Makita UK marks 50 years

Makita UK is celebrating 50 years of trading in the UK. With over 100 years of heritage and since entering the UK market in 1972, Makita UK has been at the forefront of innovation and delivered a wide range of high-quality, durable tools, which tradespeople across the country can rely on to tackle any job.

2022 also marks the 50th anniversary of the opening of Makita's first UK office. For half a century, the company has forged a strong presence in the UK with a national network of distributors and merchant partners, as well as investment into four purpose-built Factory Service Centres and training facilities throughout the country.

Makita is recognised as a market leader in the power tool market having built a reputation for delivering best in class, quality products for professional – and personal – use, covering a wide range of construction sector applications as well as garden maintenance, landscaping and grounds maintenance tasks.

With over 100 years of experience, the company's dedication to and investment in product development has resulted in a vast range of cordless machines that deliver the flexibility and safety needed for regular, professional use. Today, Makita UK's portfolio includes over 270 LXT and 50 XGT cordless models – a huge collection of highly durable machines that can tackle any task. With long battery life and short charge times, the LXT and XGT ranges ensure faster and more efficient work.

Kevin Brannigan, Marketing Manager at Makita UK, said: "We're delighted to be marking our 50th year of trading in the UK. We're incredibly proud of what we've been able to achieve since 1972 – and the vast array of cordless products and new technologies that we can offer tradespeople to aid their productivity and efficiency on site." To find out more about Makita UK, see **www.makitauk.com**.

Arno Carbur 2 solid carbide burnisher

New and available from Classic Hand Tools, this burnisher from Arno features two solid carbide rods for turning a hook. The round rod is ideal for turning a hook on scrapers with a typical hardness in the Rockwell (c) range of 40-51.

The pointed rod is used when the round rod won't turn a hook due to the steel's hardness. This focuses downward pressure on a single point, which allows you to turn a hook on the hardest of scrapers. Note: the pointed rod is a little too aggressive for use on typical scrapers. The rods are mounted in a no-frills aluminium handle, which is thoughtfully designed. The handle has a cross-guard, much like the guard on a sword; this prevents the tool slipping forward and sending your knuckles against the scraper.

The carbide rods are angled for turning a typical hook, so you simply hold the handle horizontal to the floor and the handle's geometry does the tilting for you. You can, of course, tilt the handle a little to produce a different hook if desired. Finally, the burnisher features a hang hole and is supplied with a sewn leather case to protect it from getting covered in metal filings and sharpening swarf.

Currently priced at £36, see **www.classichandtools.com** for more information.

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Fernanda Nunez's 'Guilloché' bedside tables awarded Christopher Claxton Stevens Prize

From left to right: Alderman and Sheriff Alison Gowman; Fernanda Nunez; Master Tony Attard OBE

Fernanda Nunez's 'Guilloché' bedside tables were recently awarded the Claxton Stevens Prize

The Furniture Makers' Company, the City of London livery company and charity for the furnishing industry, has awarded bespoke furniture maker Fernanda Nunez the prestigious Christopher Claxton Stevens Prize for her 'Guilloché' bedside tables.

The Claxton Stevens Prize – the ultimate accolade for designer-makers – is presented annually to the most outstanding design awarded a Bespoke Guild Mark in the livery year.

The 'Guilloché' bedside tables were the 476th design to be awarded a Bespoke Guild Mark in the award's long, prestigious history. The tables represent Fernanda's first self-designed project – an endeavour that took six months to complete and over 100 hours of extremely detailed carving and sanding work.

The design draws inspiration from a once much used but now almost forgotten decorative technique for engraving metals, the Guilloché, which creates an illusion of movement on the tables. The effect of the Guilloché pattern is enhanced by the maple's pale beauty, which evokes the rising sun. It's framed by the dark silhouetted shape of the bamboo scaffolding, conceived to create contrast through its black stained legs and rails.

Fernanda was presented the prize by Alderman and Sheriff Alison Gowman, who was representing the Rt Hon The Lord Mayor, Alderman Vincent Keaveny, at the Installation Dinner of The Furniture Makers' Company's Master, Tony Attard OBE DL, on Monday 9 May 2022 at Mansion House in London.

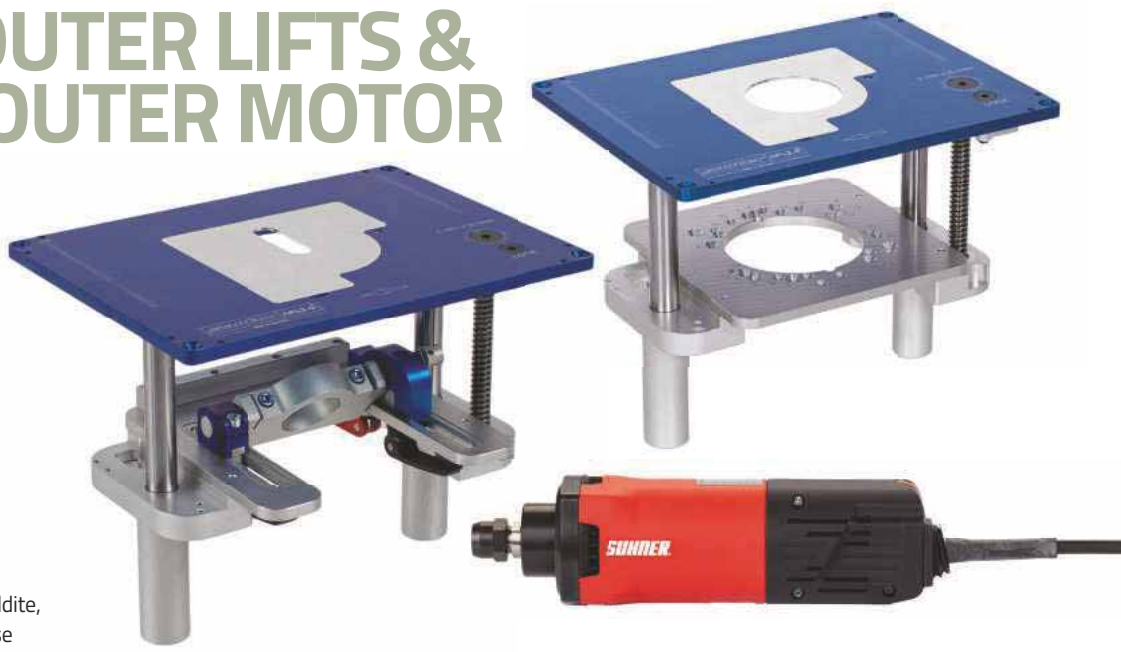
Daniel Hopwood, Bespoke Guild Mark Chairman, said: "We were delighted to award Fernanda Nunez the Claxton Stevens Prize for her 'Guilloche' bedside tables. Not only are they well made, but also offer interesting techniques in shaping the drawer fronts to create the illusion of movement, as well as being a thoughtful, useful design. This was an early project for Fernanda and we look forward to seeing what she makes next."

Fernanda said: "I'm honoured to have been awarded the prestigious Christopher Claxton Stevens Prize for the best Bespoke Guild Mark of 2021. This is both a wonderful recognition for all the meticulous work that went into making the 'Guilloche' bedside tables as well as an affirmation to continue creating unique and bespoke pieces. I hope my work provides inspiration for younger designer-makers to push boundaries and aim for the highest standards."

To find out more about The Furniture Makers' Company, see **www.furnituremakers.org**.

SAUTER ROUTER LIFTS & SUHNER ROUTER MOTOR

Having lost faith in router tables, could the **sauter** lift and **Suhner** motor combination be the perfect and complete UK solution **John Lloyd** has been searching for?



As a woodworker, can you get by without a router? If you're a Luddite, you'll probably have to, but these days, it's probably more a case of how many routers someone owns as opposed to whether or not they have one at all.

Hand-held routers are great for shaping, chamfering, cutting joints, mortising, inlaying as well as a plethora of other workshop tasks, but in order for a router to be used safely and effectively on smaller jobs, you'll also need a router table.

Router table challenges

In my experience, this is where life can get a little traumatic – starting with the fact that the plunge routers we tend to use in the UK aren't really designed for use in a table. When a router is strapped upside down to a simple insert in this configuration, it still needs to utilise its plunging function in order to control the depth – height – of cut. There's several obstacles to overcome here, notably when adjusting cut height and when changing cutters. There's exceptions to the rule, but the process of adjusting cut height will usually involve grovelling around on your knees, pushing the router upwards against the force of its springs, and fighting to make fine adjustments with the depth stop.

Changing cutters usually also presents a challenge – sometimes you can access the collet from above the table, but you'll often need to fumble about underneath with a couple of spanners, and there's a certain inevitability that at some point in the proceedings, you'll end up with blood pouring from your knuckles. So, what's the answer? Well, clever people have come up with some ingenious devices that can be added to a plunge router to make cutter height adjustable from above the table, and collet extenders can make changing cutters a much less bloody affair. I've tried some of them and they do work, up to a point, but don't offer a complete solution.

The other, potentially much more robust, accurate and user-friendly solution, is to invest in a router lift, and there's plenty to choose from. The big difference here is that the lift does all cutter height adjustments independently of the router's plunge function, and some models make use of a motor that's been removed from a fixed base router – the sort of thing that's generally found in North America. If using one of these motors in the UK, however, you'll need some clever electronic kit to convert 240V into the 110V required. A few years ago, in a bid to solve this challenge, I tried – albeit with a little trepidation – a dedicated Chinese 240V motor of the correct diameter in a fancy North American router lift. Now, perhaps I was just unlucky, but having gone through about half a dozen of the same motors in as many weeks, I admitted defeat and ended up asking for a refund. At this point, I must confess that I'd also given up on my main router table, which was now fitted with a fancy lift and no motor. I resolved to, one day, fit my fancy lift with a motor marked 'Porter Cable', rather than 'PRC', and try to sort out the voltage problem, but in the meantime, I've been managing with my very portable router table setup, fitted, when needed, with my ⅟ always been optimistic, however, that one day, someone might come up with the perfect UK router table system... so, could I have found it?

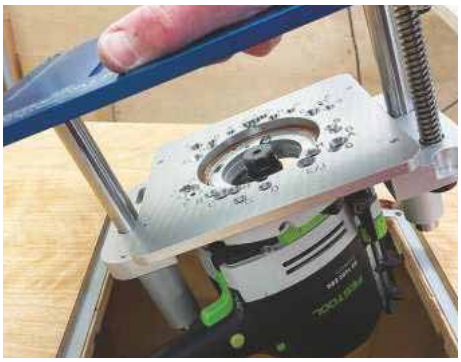
sauter router lifts

Why, then, had I not heard of sauter router lifts before? Perhaps I need to get out more, but when I was asked to test one of their lifts, which happened to be of the highest quality, designed and made in Germany, my interest was piqued. I asked about motors suitable for use with this lift and was told, by sauter, that they could also supply a dedicated, high quality, German-made motor to fit it. At this point, I was feeling hugely optimistic that I may, finally, end up with a router table solution that wouldn't annoy me every time I got anywhere near it, not to mention a motor that would last for more than five minutes. The final bombshell was the announcement that the other lift model not only went up and down with consummate ease, but also had a pivoting/tilting function.

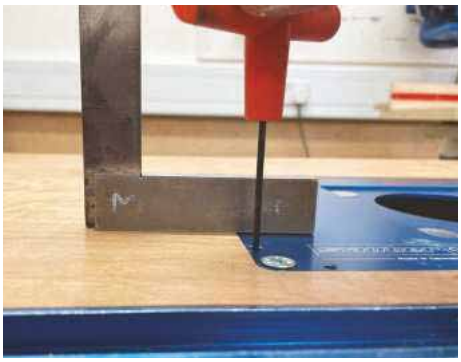
With sauter pivoting router lift and Suhner motor fitted, routing becomes a very enjoyable pursuit

Fitting a plunge router couldn't be easier; all necessary fixing screws are supplied and holes clearly marked

The optional steel levelling frame is excellent for accurate levelling of insert plate to table



With router fitted and locked in its fully plunged position, it can be dropped into the table recess



Thanks to the levelling frame, adjusting insert plate height, using the eight grub screws, is straightforward and accurate

With the OFL 2.0 router lift, the magnetic reducing plates system can be quickly levelled using the 0.1mm metal shims

This all sounded mighty impressive, and I was eager to test this German wizardry for myself.

sauter's router lifts are designed and made by their own engineering team and available in three main options – OFL 1.0, OFL 2.0 and OFL 3.0. Here, I tested the OFL 2.0, which has a magnetic reducing plate system to control the size of opening around the cutter; the pivoting OFL 3.0, which features the same reducing plate system and also pivots/tilts; and lastly, a dedicated, German-made Suhner router motor.

sauter OFL 2.0

Out of the box, my first impression of the OFL 2.0 was that it's a robust, well-engineered and nicely finished piece of kit. There's lots of shiny, precisely machined steel and aluminium, and the top insert plate is machined from a stylish blue anodised aluminium. It features really good clear, white graduations and markings, which are laser-etched into the top surface. According to sauter's technical department, this particular lift is designed to fit at least 28 different plunge routers from various manufacturers – possibly more – or, with just two bolts, it can be fitted with a 43mm adaptor and used with a dedicated motor, such as the Suhner.

Fitting the lift requires the correct sized opening and rebate in the table top, which is easily achieved using a jigsaw and router if making your own table, but the 307 × 230 × 10mm dimensions are pretty standard for any commercially produced European router table. As I soon discovered, however, and not overly surprisingly for a country that's still stubbornly clinging to the imperial system, in my table for the North American lift it was replacing, the hole and rebate were of different sizes – a little longer and not quite as wide; however, if you have a router, then adjusting the width doesn't really pose a problem.

Optional extras

sauter supply an optional 1mm-thick steel levelling frame, which sits neatly in the bottom of the table recess, and something I'd recommend as it gives the levelling grub screws – located in each corner of the lift – something solid to sit on, rather than ply or MDF, which is slightly soft and unlikely to aid precision.

In use

To fit a standard plunge router to the lift, consult the supplied chart for your make and model, which tells you which of the many supplied screws, bolts and washers you'll need as well as the corresponding holes to put them in.

Reducing plates are easily changed using a flat screwdriver in the small scoop located in the recess' front edge

It's helpful if you remember to orientate the router so that spindle lock and speed controls can be easily accessed

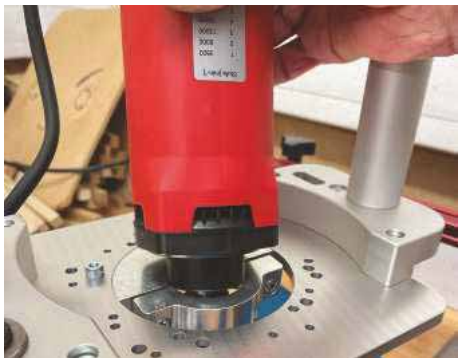
At full height, the collet is tucked just a little below the insert plate's surface, but access is still very good

With the neat 5mm hex crank handle and precise 0.1mm markings, cutter height adjustment is quick, easy and precise. The 'lock' is located beside this and makes use of the same handle

Starter pin and guard can be screwed into the insert plate for safe freehand routing – perhaps when using a template

If wanting to use a dedicated motor in the OFL 2.0 lift, you'll need the 43mm mounting adaptor to match the motor's 43mm neck

The mounting adaptor is easily attached to the installation plate with two screws



Using the supplied 5mm 'T' handle hex screwdriver, the motor can be quickly fitted into the adaptor by tightening two screws in the collar

At full height and with 43mm motor fitted, the entire collet is situated well above the table's surface, making cutter changing a breeze

Using my Festool OF1400, according to the chart, I'd require two M6 countersunk screws inserted in the holes marked 'F' in the installation plate, a hex key to tighten the screws and the router securely fixed. To complete installation, you simply plunge and lock the router at its full depth – so far, everything seemed very straightforward.

With router fixed into the lift, the entire construction can be dropped through the table hole so that it sits on the levelling frame in the rebate. Four fixing screws, nuts and washers secure the lift into the table and two grub screws in each corner are required to level the insert plate with the table top. The OFL 2.0 has three magnets imbedded in the insert plate, meaning that when the reducing plates – metal plates with different diameter holes to achieve minimum clearance around whichever diameter cutter is being used – are dropped into the recess, they snap securely in place. Once again, it's important to level these plates with the insert plate's top surface, which is quickly and easily achieved by dropping one or two of the supplied 0.1mm circular metal shims into the recess, above each of the three magnets. Although the reducing plates are securely held, they're still very easy to remove by inserting a flat-bladed screwdriver into the little scoop located in the recess' front edge.

Cutter changing

In terms of fitting a cutter, this can often be a challenge on router tables, but the OFL 2.0 seems to have everything under control and well thought out – well, what did you expect? You start by removing the reducing plate to reveal a nice large opening, then use the little hex winder handle to fully raise the lift. At this point, with the router already plunged to full depth, the collet is easily accessed from above the table. On mine, I needed to depress the spindle lock from beneath the table, but I'd luckily remembered to ensure it was facing forwards, which made it easily accessible, and with a single spanner above the table – which had to be held at a very slight angle – cutter changing proved to be a thoroughly pleasant and painless process. Having installed a cutter and fitted an appropriately sized reducing plate, it was then time for some routing. If you're using a fence, for straight work, there's some really useful 1mm graduations marked on both sides of the insert plate, which are great for keeping track of the fence position when making fine adjustments and, if necessary, keeping it parallel. These markings run almost to the back edge of the insert plate, which means that if your fence has parallel front and back edges, you

The black lock levers control tilt and the red levers allow the installation plate and motor to slide backwards and forwards

The OFL 3.0 will only accept a motor with a 43mm neck, which is locked into the lift via two screws

To level the reducing plates with the insert plate's surface, the OFL 3.0 utilises three grub screws

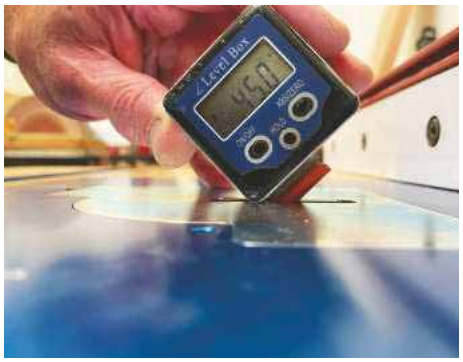
With lift and motor installed, the tilt/slide levers can both be easily accessed

In the fully raised position, the collet is set down just a little, which ensures it can be easily reached

Plenty of slotted reducing plates are available, which ensures there's only the minimum amount of fresh air around a cutter

Even though the red levers are tucked a little behind the motor, they're still easy to access

With motor slid forward, cutter angle can be set using the preset 'clicks' and/or Vernier scale



For added angle setting precision, a digital level box is a very handy aid

can reference from either of these as appropriate. For freehand work, perhaps when using templates for curved work, there's a threaded hole in the insert plate, just to the right of the reducing plate recess, along with a pin and guard, which can be securely screwed into the hole to provide good control at the start of a cut.

Making adjustments

Cutter height is adjusted using a neat 5mm hex hand crank, which is inserted into the appropriate hex hole: one hole adjusts, the other locks. One complete turn of the handle equates to exactly 4mm, and there's a fine white line on the adjuster and around it with equally fine markings at 0.1mm intervals, all of which makes precise adjustments an absolute breeze. The first thing you notice when raising or lowering the lift is that it's super smooth and there's absolutely no slack in the mechanism, which is incredibly important when trying to make very, very fine height adjustments. I've come across several router lift systems where the cutter height drops slightly as soon as you release the lock, and/or requires a partial turn of the adjuster before there's any movement in the cutter height, all of which makes achieving these incredibly frustrating. I experienced none of that with the OFL 2.0, however, just precise, smooth and accurate results.

For freehand duties, despite the fact that removing a router from the OFL 2.0 is a fairly quick and easy process, you do have the option of installing a dedicated motor. Doing so involves adding the optional 43mm diameter adaptor plate onto the installation plate, which requires just two screws, in place of a plunge router. Several motors are available with a 43mm neck, all of which run on 240V. The Suhner motor supplied for this test is described as 'industrial quality' and also 'made in Germany'. With 43mm adaptor fitted, the motor is simply clamped in, again using two screws. With dedicated motor fitted, access to the collet for cutter changing is even easier than before – when fully raised, the entire collet assembly is nicely positioned above the table's top surface, which makes this process completely hassle-free.

sauter pivoting router lift OFL3.0

I had a slight suspicion that there was something of the dark arts at play when it came to the sauter pivoting router lift OFL3.0. Of course, being able to tilt the cutter on a spindle moulder, while by no means a standard feature, is nothing new and can be incredibly useful, but a router lift with tilting/pivoting capacity isn't something I've ever seen before. An off-the-shelf router lift with this ability could certainly be something of a game-changer – if it works!

The OFL 3.0's insert plate has exactly the same dimensions as the other sauter lifts, but this time the installation plate can only be fitted with a motor with a 43mm neck, such as the Suhner. Apart from the tilt function, the only other subtle differences are the fact the insert plates have different sized slots rather than holes, although plates with holes can be used, and these are levelled using three grub screws rather than shims. Otherwise, the features are identical, including the laser-etched markings, micro height adjuster and lock.

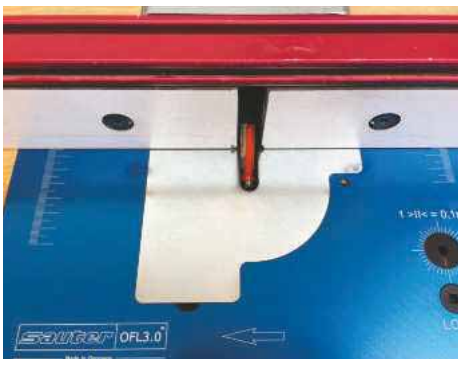
Pivoting/tilt function

So, what about this revolutionary feature? Looking under the table, two black levers are positioned at the front and two red levers just behind the motor, all of which are fairly easy to access. The other thing to notice, with reducing plate removed, is the Vernier scale to the right of the collet, which is used to set the cutter to one of five preset angles, or any other angle required, in one degree increments from -5° to +50°. The presets are the ones you'd probably expect – 0, 15, 22.5, 30 and 45° – and to initiate a 'tilt', all you have to do is release the two black levers and pull the motor towards you for anything up to 50°, or push away for up to 5° of negative tilt. As you move the motor, the presets are easy to feel although there's definitely a little play at each 'click'. If you do require precision with the angle setting, a digital level box or similar will provide the necessary help. Setting back to zero has the same slight problem, with play at the preset, so to ensure accuracy, you'll need a square. These accurate angle adjustments don't really present too much of a challenge, however, and you can always add a little pressure from the black lock levers when making adjustments; this prevents the motor moving too easily and gives plenty of control to proceedings before fully locking into position.

In use

A consequence of this tilt function is that as you head towards higher angles, there's a danger that cutters will get very close to,

Remember to lock all levers before you begin any routing



1mm increments on either side of the insert plate allow you to keep track of fine adjustments and ensure the fence is kept at right angles to the cutter

With this pivoting function, chamfers can be made to absolutely any angle you desire

For accuracy, setting the cutter to 90° must be checked with a square

Collets on the Suhner motor snap into position and can be easily swapped in and out by hand

and ultimately hit the back edge of the reducing plate, or even the insert plate. This is where the red levers come into play, and when these are released, the installation plate and motor can slide forwards. So, if both the black and red levers are released, the cutter is able to tilt backwards as well as slide forwards – just slide the motor forward enough so that the cutter can't hit anything, then lock the red levers in place. When returning back to zero, with the red levers loosened again, just slide the motor back to the 'stop' position and it'll be nicely centred in the reducing plate. You might be thinking that a micro-adjust mechanism would be nice for the tilt function, but I actually really love the simplicity of this system, which, with just a little practice, works remarkably well.

A fancy pivot/tilt facility on a router table is all well and good, but does it actually serve a purpose? Well, you can obviously achieve any chamfer angle your heart desires, not just those available using a standard chamfer/bevel router cutter. You can angle grooves for the bottom of a box, with angled front or sides, and accurately add angles to edges/ends, perhaps when constructing projects with compound angles. All of a sudden, this sort of tricky angled cutting on smaller components becomes quick, easy and safe, perhaps encouraging you to add more adventurous shapes to your woodworking projects. You can also, of course, create many more shapes for mouldings and moulded edges by angling standard, shaped cutters.

Suhner UAK 30 RF SPZ12 UK motor

As mentioned earlier, with the OFL1.0 and OFL2.0 router lifts, you have the option of using a dedicated router motor by adding the 43mm adaptor plate, while for the pivoting router lift OFL3.0, the adaptor and 43mm motor is the only option. Various makes and models of motor can also be used, which featuuakre this neck size, but here I tested the Suhner UAK 30 RF SPZ12 UK – a powerful 1,530W motor with soft-start and variable speed from 3,500-30,000rpm. It accepts collets up to ⅞
the end signifies the fact it's fitted with a 3-pin UK plug. Unlike a plunge router, this motor is designed to cope with being hung upside down in a router table and the on/off switch has a robust looking dust cover. After all, dust can be really unhelpful if it happens to find its way into a switch. Six positions are marked on the speed controller dial, although it's infinitely variable, and situated on the side of the motor body is a really helpful, clear chart, which lets you know the spindle speed that each number equates to; something you'd normally have to search for in a manual. Today, router cutters are generally marked with the speed they should be run at and with this motor, there's no guesswork involved when it comes to achieving optimum running speed for all your cutters. This is an industrial quality motor, which features all the precision you'd expect from a German-made item. The soft-start function ensures quiet and incredibly smooth operation, and all in all, it just looks, feels and sounds like a quality piece of kit. Changing the carbon brushes, which will inevitably wear out one day, is a very simple operation and should anything ever go wrong with the motor, spare parts and support are readily available – not something that's usually straightforward with machines hailing from the Far East.

Conclusion

Overall, both sauter router lift models and Suhner motor appear to be thoughtfully designed and incredibly well made. With this in mind, the price point reflects these high quality touches and build quality, and as we all know, you get what you pay for. Now that I've discovered this piece of kit, I'm actually looking forward to using my router table, and the precision, ease of use and reliability available is just what I've been hoping to find for a very long time.

Taking all these points into consideration, I have a good feeling this router lift and motor combination will provide many years of trouble-free service, not to mention lots of happy routing adventures ahead!

SPECIFICATION

Router lift OFL 2.0K – features exact height fine adjustment and magnetic reduction plates
Distance from top edge of inlay plate to baseplate of mounted router: 15mm
Dimension insert plate: 306 × 229 × 9mm
Insert plate corner radius: 6mm
Height adjustment travel/rotation: 4mm
Max. adjustment travel: 108mm
Height milling lift – max. extended: 240mm
Max. cutter diameter: 86mm
Approximate weight: 4.5kg

Pivoting router lift OFL3.0 – from -5° to +50°
Dimension insert plate: 306 × 229 × 9mm
Insert plate corner radius: 6mm
Height adjustment per rotation: 4mm
Max. adjustment travel: 74mm
Router lift height – max. extended: 240mm
Max. router bit diameter: 55mm
Approximate weight: 5kg

Suhner UAK 30 RF SPZ12 UK – industrial quality 1,530W router motor
Accepts collets up to 12.7mm (½in)
Clamping neck: Ø43mm; **input power:** 1,530W
Infinitely variable speed: 3,500-30,000rpm
Torque: 0.45Nm; **voltage:** 230V
Noise level: 72dB at 9,000rpm
Including collet chuck: ⅞ **weight:** 2.85kg
Further collets can be purchased separately

Typical prices: sauter router lift OFL2.0 – €439;
sauter pivoting router lift OFL3.0 - €649;
Suhner UAK 30 RF SPZ12 UK router motor – €489; **43mm motor adaptor** – €65.01;
1mm steel levelling frame – €16.76;
5mm hand crank – €15.88
Note prices include 19% VAT, but exclude shipping costs. Depending on delivery address, VAT may vary at checkout. Various lift, accessory and motor packages are also available
Web: www.sautershop.com

THE VERDICT

PROS

- Well designed and excellent German-made build quality; lifts are easy to fit and level in a table; plunge routers or dedicated motors are equally straightforward to fit; very easy, precise cutter height adjustment; good access for changing collets/cutters; magnetic reducing plate system is quick and easy to use and features a good range of sizes; pleasing range of imperial and metric collet sizes; spares and repairs readily available; guaranteed to make you smile!

CONS

- With the OFL 3.0, the small amount of play in the preset angle stops won't ensure accurate angle settings; accuracy requires a little operator intervention in addition to a gauge; the 43mm Suhner motor is Industrial quality and consequently not cheap, but quality always tends to come at a price and other, more competitively priced options are available if preferred

RATING :
PERFORMANCE: 5 OUT OF 5

RATING:
VALUE: 4.5 OUT OF 5

FURTHER INFORMATION

John Lloyd runs a range of woodworking courses in Sussex – for more information, see **www.johnlloydfinefurniture.co.uk**

WIN!

A pivoting sauter router lift OFL3.0 & Suhner 1,530W router motor – worth £750!

A powerful top combination for the router table, we're giving one lucky reader the chance to win a pivoting **sauter router lift** and **Suhner 1,530W router motor**

This fantastic router package includes the sauter router lift OFL3.0 plus a Suhner 1,530W router motor, for collets up to Ø12.7mm (½in). A powerful and variable solution, this top combination of pivoting router lift and router motor is made in Germany and benefits from a solid, reliable construction.

ADVANTAGES & FEATURES

- Ideal combination – features pivoting router lift OFL3.0 for router motors with a 43mm clamping neck receptacle
- Powerful Suhner 1,530W industrial motor with enormous power reserves and collet chuck up to Ø 12.7mm
- Thanks to the router motor's low weight, it's the perfect accompaniment to the sauter OFL3.0

TECHNICAL DATA

sauter pivoting router lift OFL3.0

- Pivots from -5 to 50°
- **Classic snap-in points:** 22.5°, 30°, 45° & 90°
- **Insert plate dimensions:** 306 × 229 × 9mm
- **Max. adjustment travel:** 101mm
- **Max. cutter diameter:** 55mm

Suhner UAK 30 RF SPZ12 – fitted with a 3-pin plug suitable for UK electrical sockets

- **Input power:** 1,530W
- **Infinitely variable speed:** 3,500-30,000rpm
- Accepts collet chucks up to 12.7mm (½
- Includes 6.35mm (¼
- **Weight:** 2.85kg

When installing, the following space is required under the table:

- 450mm – minimum depth when lift is at its lowest
- 150mm – minimum distance from the front edge of the lift to allow for the full 45° pivot

For further information on sauter, visit **www.sautershop.com**

HOW TO ENTER

To be in with a chance of winning this **sauter pivoting router lift OFL3.0 & Suhner 1,530W router motor**, visit **www.thewoodworkermag.com/category/win** and follow the instructions given. This competition involves two-part entry, requiring you to sign up as a member of our website and forum as well as answering the multiple choice question below:

QUESTION: What is the input power of the Suhner UAK 30 RF SPZ12 router motor?

A: 2,100W **B: 1,530W** **C: 1,200W**

The winner will be randomly drawn from all correct entries. The closing date for the competition is **19 August 2022**. Only one entry per person; multiple entries will be discarded. Employees of David Hall Publishing and Sauter are not eligible to enter this competition

sautershop©

DISCOVER

THE QUALITY AND ACCURACY OF OUR OFL3.0 PIVOTING ROUTER LIFT WITH THE NEW SUHNER UAK 30 RF SPZ12

Discover the **new** Suhner motor developed with sautershop especially for use in our lifts.

- Quality - **Made in Germany**
- Powerful **1530w**
- Up to a **1/2" (12.7mm)** Collet
- **3500 - 30000** RPM
- Quiet running (**72db at 9000rpm**)
- Light Weight- **2.85kg**
- 3-Pin or EU Plugs available

DISCOVER

www.sautershop.com

The Antex Fire Writer with an assortment of shaped nibs

ANTEX FIRE WRITER PYROGRAPHY KIT

This easy-to-use professional pyrography unit from **Antex** is solid, powerful, convincing and efficient, as **Edward Hopkins** discovers

I'm new to pyrography, and what I've learnt over the past two or three days is that there are in fact two types of tool, one of which looks like a small electric soldering iron with interchangeable brass tips. I have two versions of this: one from Antex and one from Lidl. The 'Ant' has variable heat control from 1-10 shown on a digital display, a device to help you change nibs without burning your fingers, and a very smart magnetic catch box, which the Lidl version does not. Both have similar power ratings and an assortment of nibs, which take a minute or so to heat up. Neither has an indicator to tell you when they've reached this point, however. After extended use, the pens become hot to use, and because your fingers are so far from the nib, control is therefore a little indirect.

'Soldering iron' type tools

The 'soldering iron' type tools have a range of craft uses – fabric, foil, gems, wax, etc. – and both can be hot enough to burn wood. If wood is your speciality, however, you won't want to use either once you've tried the Ant's very big brother – the Fire Writer. This comes with a hefty transformer – made in Devon – with a variable-speed dial. It still doesn't have an indicator light, but in this case it doesn't need one because in a matter of seconds, after turning it on, the bent wire tip glows red hot.

This is the other big difference: the tip consists of a piece of nickel chrome wire, which can be bent to the desired shape. Several lengths of different gauge wire are supplied with the kit. Cut an inch or so off and shape it with fine-nosed pliers. Undo the chock-block type screws, slip the wire in, tighten up and off you go. It's comfortable to use and as powerful as you could wish. The pen doesn't get hot, and your fingers are closer to the nib, which allows for greater control.

A steep burning curve

I'm not a freehand artist; I don't trust myself. I like geometry. A pyrography tool is best thought of as either a stamp – brand – or a paintbrush, and neither of these is suited to straight lines. My first thought was to use the Fire Writer for lettering; in which case, I could use a stencil. Plastic stencils would be chocolate teapots, so I searched for metal ones and came up with next to nothing – just a couple of small brass sheets. I could've spent a lot of money on bigger individual templates and might have done so if I were setting up a sign-making business, but then I'd be stuck with one font. Instead, I used plastic templates to pencil out the lettering and set about burning them by hand.

There is an amount to learn. The nib sears into the wood, and picks up the grain's varying density: a smooth line is difficult to achieve. The nib gains maximum heat as it's waiting to be used so the first touch is very hot: smoke, flames and a deep scar are easily incurred. I took to dabbing the nib on a piece of waste wood, just as you might dab a watercolour brush to get rid of excess paint, which allows you to lose some of this initial surge. Your stroke must also be deft and sure: if you hesitate, not only will the burn mark deepen considerably, but oils in the wood will be driven out, thus blotting along the grain. As the Fire Writer allows you to form your own nibs, I played with various shapes and settled on a small flat. I could dab this in on the stencilled lettering in a controlled manner.

On the Nine Men's Morris board, I made

1 The stunning pyrography of Julie Bender – www.juliebender.com. This piece, 'Into the light' – 279 × 355mm, is on maple veneer

2 The larger the letters, the less noticeable their irregularities. Poplar and beech – top – worked well

the flat a bit longer like a tiny ice skate so that I'd ride over any ripples in the grain. Here, freehand dabbing wouldn't work. I wanted guide lines. My first brilliant idea was to score the lines in with a craft knife so as to sit the skate in a groove. It sort of worked, but not always. My second was to use my hand the way you do when imitating a marking gauge. Not good enough. I tried to run the pen along a metal ruler but it acted as a heat sink. I might have tried a ceramic ruler but I don't have one. You can see my solution in **photo 3**. A piano hinge was of the correct dimensions. Even so, burning a completely regular line eluded me.

My results were good but not spectacular. I don't think they ever will be. I looked at videos and images of pyrography and saw that very little of it was faultless. Then I came across the work of Julie Bender (**photo 1**). In the past, I admit I've thought pyrography to be the province of hobbyists doing bunny rabbits and cheeky squirrels, but this is work of quite a different order. Look her up; be awestruck.

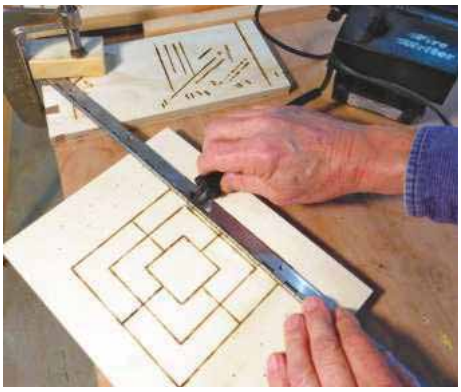
Conclusion

The Fire Writer is solid, powerful, convincing and efficient, heating the wire nib to red hot in seconds. If you ever want encouragement to take up a craft, this is it. The only niggle I can come up with is that I'd have liked more spare wires. I used half those supplied just getting to grips with it. This professional wood-burning kit is temperature adjustable to 650°C and includes a writing tip, slim pyrography pen and five nickel chrome wires to make your own tips. A splitter can be purchased separately, which allows switching between two pens, and pre-fabricated tips are also available.

SPECIFICATION

- Variable voltage output (40W) up to 650°C
- Allows a greater variety of materials to be worked
- Supplied with a slim pyrography pen
- Additional accessories available

Typical price: £175.38
Web: www.axminstertools.com



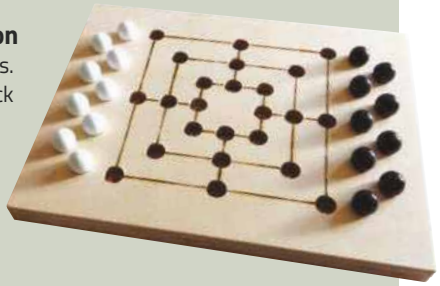
3 It took me several attempts to achieve acceptable lines. Birch-faced ply is the best material to use due to its evenness, density and colour

The rules of nine Men's Morris – courtesy of Wikipedia – where you can find more information

The board consists of a grid with 24 intersections or points. Each player has nine pieces, or 'men', usually coloured black and white. Players try to form 'mills' – three of their own men lined horizontally or vertically – allowing a player to remove an opponent's man from the game.

A player wins by reducing the opponent to two pieces – where he could no longer form mills and thus be unable to win – or by leaving him without a legal move.

The game proceeds in three phases: **1.** Placing men on vacant points; **2.** Moving men to adjacent points; **3.** Optional phase – moving men to any vacant point when the player has been reduced to three men



The completed Nine Men's Morris board

What's new from

'THE' TOOL SPECIALISTS ● WWW.DM-TOOLS.CO.UK ● 0208 892 3813

D&M TOOLS

FESTOOL KSC 60 EB CORDLESS SLIDING COMPOUND MITRE SAW – AVAILABLE FROM SEPTEMBER

MANUFACTURER: Festool
D&M GUIDE PRICE: From £799 (Basic)

Launching in September, the new Festool KAPEX KSC 60 cordless sliding compound mitre saws produce unbeatably precise cross cuts, in an enormous range of applications with mitre angles of up to 60° on each side and bevel angles of up to 47° on each side. The twin-column guide with two bearings ensures that the saw blade is guided smoothly and with precision, whichever setting is chosen; this makes every cut perfect, without wobbles or juddering. In conjunction with the dual battery system, the brushless EC-TEC motor provides virtually unlimited endurance and is sufficient for all typical applications for an entire day's work. And finally, clever details such as the speed preselection, saw blades for every application, bevel, ergonomic underframe and chip collection bag create the conditions for ergonomic, healthy and highly professional work.

NEW & UPDATED CAMVAC EXTRACTORS FROM RECORD POWER

MANUFACTURER: Record Power
D&M GUIDE PRICE: See website

Record Power has introduced the latest development in their UK-made range of CamVac dust extractors. The in-house design and manufacturing team have been working hard to develop a new-style inlet to replace the steel pipe inlet previously found on existing models. The new inlet features a bayonet fitting, allowing for fast and easy connection of extraction hose to machine. Each machine is supplied with a corresponding bayonet hose fitting, which has a positive, secure and tight fit around the hose.

Customers can purchase multiple bayonet hose fittings to suit their needs, either to connect a number of different hoses from various woodworking machines or to connect to other accessories such as reducers. This will be of great benefit to end-users as well as increasing sales of accessories.

The outside diameter of the new bayonet hose fitting is the same as the current inlets, meaning all accessories that fit over the existing metal inlet also fit over the new bayonet hose fitting.

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Transported by roof rack

Browsing *The Woodworker* of July 1958 reminds **Robin Gates** of adventurous family outings in a Ford 'Pop'

Trust an old copy of *The Woodworker* to transport me down Memory Lane, and just when I'd decided to get up and do something. Having said that, this issue from July 1958 may just have persuaded me to get up and do something different because the first article tells how to make a roof luggage rack. When the car seats are all taken and the boot is stuffed to capacity with clothes bags and kitchen wares, surely the roof is the perfect place for the tent and picnic chairs. Even if travelling light, nothing could grace a roof with more style than this sleek and curvy structure of varnished ash.

Full disclosure: as much as the roof rack, it may have been the car which had me privately reminiscing with my inner voice of yesteryear. Although not stated in the piece, I'm sure it's a Ford Squire – there were several of this very practical estate puttering about town when Dad was driving our aptly-named Ford Popular. At that time, the Ford 'Pop' was Britain's cheapest car, and possibly the least reliable. How many family outings were delayed while Dad was obliged to fetch the starting handle from the boot, thence to bob up and down before the bonnet while cranking the engine by hand. We remained sitting silently inside the vehicle, unsure if we'd be having our picnic at the seaside or in the back garden. Oh, but what joy when the engine finally burst into life and we were off on our adventure! Is it nostalgia talking or were the roads less busy then? It may simply have been that half those relying on a Ford 'Pop' to get about rarely got their cars off the driveway, the other half becoming stranded at their destination.

WOODWORKER

Vol. 62 No. 776

JULY, 1958

FOR THE MOTORIST

CAR ROOF LUGGAGE RACK

This is extremely useful at holiday times when the boot space is insufficient to hold all the luggage, and when the seating space is fully occupied. Carried out in hardwood such as ash and finished with clear varnish it has an attractive appearance. Its weight including metal fittings is only 11 lb. Brass screws are used throughout so that all risk of corrosion is avoided. If the varnish is taken over these they will retain their brightness

IT will be seen that the rack is curved in its width to line up with the car roof. In its length it is practically straight. However, some adjustment may be necessary here as roof shapes vary considerably. The rack looks much neater if its curves agree with those of the car, bottom rail. It is then easy to spring a lath to the curve and run a pencil around it. Synthetic resin glue should be used throughout because it has to resist all weathers. To give a neat appearance the centre distance pieces are shaped as in Fig. 4. The hollow corners are cleanly

FIG. 1 (*left*). CLOSE-UP PHOTOGRAPH SHOWING DETAIL
The whole thing is made in ash and finished with clear varnish

FIG. 2 (*below*). VIEW SHOWING NEAT APPEARANCE OF THE RACK
Sizes could be varied to suit the car, but if made much longer two fixing brackets at each side should be used

because it looks part of it, not a mere afterthought. The actual slats on which the luggage rests have a still more pronounced curvature as this enables them to resist the weight without sagging.

Frames.—Prepare front and side elevations in full size, making the curve parallel with the line of the car. Four frames are needed, each consisting of a main bottom rail and a thinner bent top rail with distance pieces glued between. As the bottom rail of front and back frames has considerable curvature, the wood must be at least 2 in. wide. Its top edge is shaped, but the bottom is kept straight at this stage, and is not, in fact, cut to the curve until after the glue holding the top rail has set. Clean up the curve and plane short flats where the three distance pieces are glued.

These distance pieces can be plain square pieces, the shape being cut after gluing to the

WOODWORKER 137 JULY, 1958

The most classic of vehicle timbers

Returning to the roof rack, its tough shock-absorbing ash is surely the most classic of vehicle timbers. Once favoured for the felloes of cart and wagon wheels, ash is still used in the body frame of those sporty Morgan cars built in Malvern, Worcestershire, although more visible in the woodwork of the old Morris Traveller built in Oxfordshire. 30 years ago, in a rush of nostalgia, I poured my savings into a Traveller said to have had 'one little old lady owner' only to discover that the chassis was rotten and its timber framing was 50% filler. Still, the old 'Moggie' has such a following that I'm sure my car lived on through its parts donated to others in need.

My only previous roof rack was a metal cage-like contraption, which although ugly was quickly attached to the roof gutters by four somewhat inadequate clamps – and likewise easily detached as I discovered while parked in Lowestoft one evening. This is no reflection on the good folk of Lowestoft, I hasten to add, as I subsequently spied my roof rack departing the harbour next day on the deck of a foreign-flagged vessel, and in any case, I was frankly glad to be rid of the monstrosity. Unimpeded by its windage, I'm sure my Mini 1000 of the day went 5mph faster and did an extra five miles to the gallon.

So now that I find myself looking at alternatives, what's it to be: an over-priced black plastic roof box that's not only eco-unfriendly but makes the car look like a crowded hearse, or this delightful all-timber adornment, which so perfectly melds form and function? Never mind that what goes on it will get saturated during rain, I yearn for some good old-fashioned motoring style, to don the string-back leather driving gloves, tune the car radio to the BBC Light Programme and set off with a picnic hamper on the varnished roof rack – destination seaside!

Robert Sorby

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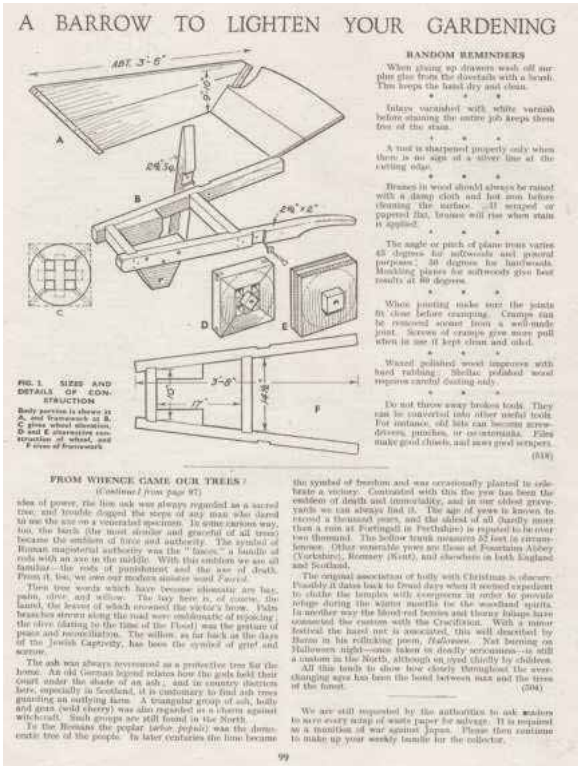
A BARROW TO LIGHTEN THE LOAD

Working from a project plan in the July 1945 issue of *The Woodworker*, **Peter Dunsmore** follows the original dimensions to recreate the 'modern' wheelbarrow design shown here, which doubles up as a handy garden planter



A BARROW TO LIGHTEN YOUR GARDENING

RANDOM REMINDERS

When gluing up drawers wash off surplus glue from the dovetails with a brush. This keeps the hand dry and clean.

Inlays varnished with white varnish before staining the entire job keeps them free of the stain.

A tool is sharpened properly only when there is no sign of a silver line at the cutting edge.

Brasses in wood should always be rubbed with a damp cloth and hot iron before cleaning the surface. If scraped or papered flat, brasses will rise when stain is applied.

The angle or pitch of plane irons varies 45 degrees for softwoods and general purposes; 50 degrees for hardwoods. Smoothing planes for softwoods give best results at 60 degrees.

When jointing make sure the joints fit close before cramping. Cramps can be removed sooner from a well-made joint. Screws of cramps give more pull when in use if kept clean and oiled.

Waxed polished wood improves with hard rubbing; Shellac polished wood requires careful dusting only.

Do not throw away broken tools. They can be converted into other useful tools. For instance, old bits can become screwdrivers, punches, or cc-internals. Files make good chisels, and saws good scrapers. (618)

FIG. 1. SIZES AND DETAILS OF CONSTRUCTION

Body portion is shown in A, and framework at B. C gives wheel situation. D and E alternative constructions of wheel, and F view of framework

FROM WHENCE CAME OUR TREES

(Continued from page 97)

idea of power, the lion; oak was always regarded as a sacred tree, and trouble dogged the steps of any man who dared to use the axe on a venerated specimen. In some curious way, too, the birch (the most slender and graceful of all trees) became the emblem of force and authority. The symbol of Roman magisterial authority was the "fasces," a bundle of rods with an axe in the middle. With this emblem we are all familiar—the rods of punishment and the axe of death. From it, too, we owe our modern sinister word *Fascist*.

Even tree words which have become idiomatic are baleful, olive, and willow. The bay here is, of course, the laurel, the leaves of which crowned the victor's brow. Palm branches strewn along the road were emblematic of rejoicing; the olive (dating to the time of the Flood) was the gesture of peace and reconciliation. The willow, as far back as the days of the Jewish Captivity, has been the symbol of grief and sorrow.

The ash was always reverenced as a protective tree for the home. An old German legend relates how the gods held their court under the shade of an ash; and in country districts here, especially in Scotland, it is customary to find ash trees guarding an outlying farm. A triangular group of ash, holly and gean (wild cherry) was also regarded as a charm against witchcraft. Such groups are still found in the North.

To the Romans the poplar (*arbor, populi*) was the domestic tree of the people. In later centuries the lime became the symbol of freedom and was occasionally planted to celebrate a victory. Contrasted with this the yew has been the emblem of death and immortality, and in our oldest graveyards we can always find it. The age of yews is known to exceed a thousand years, and the oldest of all (hardly more than a ruin at Fortingall in Perthshire) is reputed to be over two thousand. The hollow trunk measures 52 feet in circumference. Other venerable yews are those at Fountains Abbey (Yorkshire), Ronmey (Kent), and elsewhere in both England and Scotland.

The original association of holly with Christmas is obscure. Possibly it dates back to Druid days when it seemed expedient to clothe the temples with evergreens in order to provide refuge during the winter months to the woodland spirits. In another way the blood-red berries and thorny foliage have connected the custom with the Crucifixion. With a minor festival the barest nut is associated, this well described by Burns in his rollicking poem, *Halloween*. Nut burning on Halloween night—once taken in deadly seriousness—is still a custom in the North, although on tyed chiefly by children.

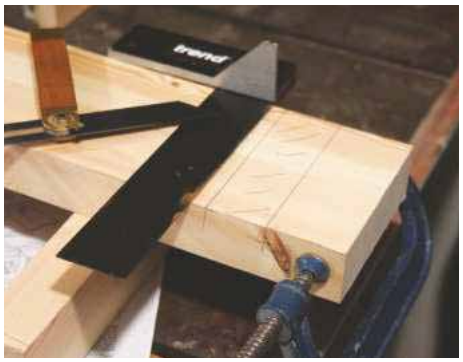
All this tends to show how closely throughout the ever-changing ages has been the bond between man and the trees of the forest. (594)

We are still requested by the authorities to ask readers to save every scrap of waste paper for salvage. It is required as a munition of war against Japan. Please then continue to make up your weekly bundle for the collector.

99

The original article, from the July 1945 issue of *The Woodworker*

1 To locate the timbers, draw pencil lines onto the board



2 Next, mark out the waste to be removed

3 Cutting both together ensures the joints correspond with one another

A few years ago, I was given some old issues of *The Woodworker* dating back to the 1940s, much of which makes for fascinating reading. Looking at the last paragraph at the bottom of page 99, which reads – "**We are still requested by the authorities to ask readers to save every scrap of waste paper for salvage. It is required as a munition of war against Japan. Please then continue to make up your weekly bundle for the collector**" – I count myself fortunate to even have the magazine!

CUTTING LIST

▪ Chassis	2 @ 1.2 × 75 × 50 1 @ 0.9 × 75 × 50
▪ Legs	1 @ 1.5 × 75 × 50
▪ Wheels	1 @ 2.1 × 75 × 50
▪ Spokes	1 @ 0.6 × 50 × 50
▪ Wheel blocks	1 @ 1.2 × 100 × 75
▪ Barrow box	20mm-thick timber as required

In a way some things haven't changed much, but one thing that has progressed for the better is the advancement in health and safety as a casual look through some of the homemade table saws and planers will testify. One article in the July 1945 edition caught my eye, which documents the construction of a 'modern type wheelbarrow'. At this time, Great Britain was still at war in the Far East and home allotments and rationing remained in full flow. Everybody was growing their own to help out, so the design of this 'modern' wheelbarrow intrigued me. Looking at the design theory, where the wheel is set further back under the centre of mass makes sense and it should therefore be easier to lift. If it really was that simple, however, why can none of this design be found in garden centres today? Was this progress or an idea that never really took off? There was only one way to find out: make one and share my experiences here. If it works, great; if it doesn't, it can still be used as an attractive garden planter.

Making a start

One advantage of this project is that the timbers are readily available from a builders' merchant and little is required in the way of fancy tools. Apart from the wheel, everything else can be cut to size and shape using little more than a hand saw, chisel, wood plane and spokeshave. However, access to either a table or hand-held circular saw and router will obviously speed up the making of joints.

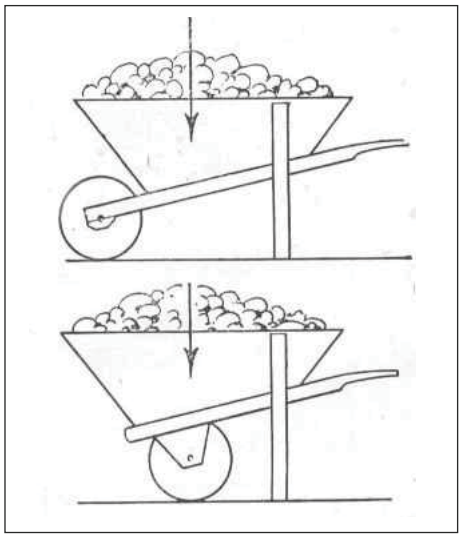


Fig.1 Wheel position

Modern screws and adhesives will also be much improved over the years but other than that, I'll keep to the spirit of the original design and adjust the timber to suit standard available stock from a local timber yard. In keeping with the original design, I'll stick to imperial measurements, which will make more sense – besides, feet and inches are fun to use.

The chassis is the first component to tackle as the remainder of the parts are built onto this. As such, its construction needs to be both strong and accurate. Working on a flat surface makes life much easier and I find that discarded melamine-faced chipboard from old cabinets is ideal here. Using this, spilt adhesive can be easily wiped away, parts don't stick to the surface, and they're usually cut square. On this material or similar, begin by drawing a centreline (**photo 1**) and, following the plans, mark the cross beams and points where the main rails cross the beams. The angle between the rails and cross beam can then be easily set with a sliding bevel. Varying slightly from the original design, I decided to use a housing joint to join cross beams to rails and the easiest method here is to clamp both chassis rails together with the front ends level, then cut the joints simultaneously. The joint's depth will be ⅜in (10mm), which is deep enough to secure the cross beams but also shallow enough to retain strength in the main rails. Use a square to mark the area for removal (**photo 2**). Next, set the angle on a circular saw to 7° off the vertical and, using a guide clamped in place, cut both ends of the joint (**photo 3**). The remaining waste in between can be removed with either a chisel or router fitted with a suitable straight cutter and depth of cut set accordingly (**photo 4**). An alternative method is to set the blade on a table saw, but as this requires you to remove the riving knife and guard, extra care should be taken when making this cut. Next, bevel one end of an overlength cross beam and test for fit (**photo 5**). It's worthwhile laying the two rails back onto the chipboard, locating them on the original guide marks and resting the cross beam in place, which will allow you to mark the lengths (**photo 6**). Then, using a combination of spokeshave and abrasives, shape the handle on the ends of the rails until you produce one that's comfortable to hold. Finally, glue and screw the four components together using a waterproof adhesive. Countersink and plug the screws and

4 A straight cutter makes quick work of levelling the base

5 Test fitting one of the cross beams

6 Mark the length of the second cross beam

using a suitable wood preservative, soak this part of the wheelbarrow, ensuring to pay particular attention to the end-grain and area around the joints. This can then be put aside to dry.

Making the wheel

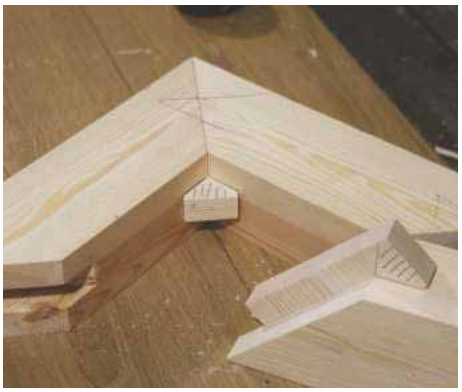
The original article suggests that the four felloes – which form the wheel's rim – are made from timber measuring 3in wide (75mm) × approximately 2-2½in (50-64mm) thick. To achieve this, I glued some blocks together to give me the required size, which was around 40in (1,016mm) in length. Next, you need to cut four pieces, which are identical in length, with accurate 45° bevels. Begin by marking the first line onto the timber, then cut through it. A satisfactory method requires a scrap piece of MDF, which is clamped in place and used to help guide a circular saw. Ensure to check that the blade is set square to the base and that depth of cut is a whisper over the timber's thickness. A sacrificial piece of chipboard protects the bench top (**photo 7**). The faces where the four mitres join need to be reinforced and some 20mm planed softwood works well providing the grain runs square to the join. Mark the outline of the cuts and create the rebate using a saw and chisel (**photo 8**). A table saw with depth of cut set to 20mm and a guide fence makes light work of this, but as before, ensure to take extra care due to the absence of a guard.

Next, cut the tongues to length and make any necessary adjustments to the four felloes to ensure a close fit. It's probably easier to cut the inside ends of the tongues to shape prior to gluing the assembly together, leaving just a little for final trimming with a chisel (**photo 9**). Don't get carried away and glue these together just yet as you still need to make and fit the spokes. When cutting mortises for the wheel spokes, the first step is to mark their location in the felloe's centre. Use a marking gauge and square to scribe the outline and remove the waste to form a mortise about 1in (25mm) deep and a little under 2in (50mm) square. Access to a mortiser will obviously speed up this process, but, using a drill, you can achieve an equally good result by drilling several holes to the required depth, removing any excess and cleaning up with a chisel (**photo 10**).

The spokes consist of two pieces of 2in (50mm) squared timber, which is jointed together in the middle with a half-lapped joint. Mark the cut's outline and saw halfway down at each end, then remove the waste with a chisel (**photo 11**) and test for fit.

7 Note the use of spare timber to support the saw base

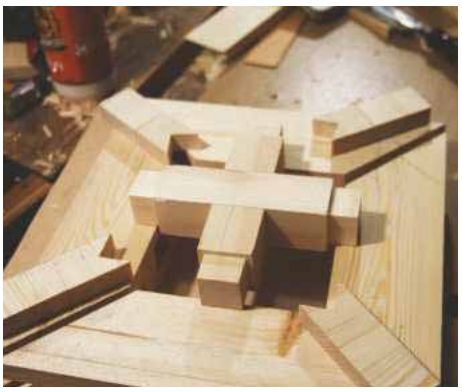
8 Using a chisel, remove the waste



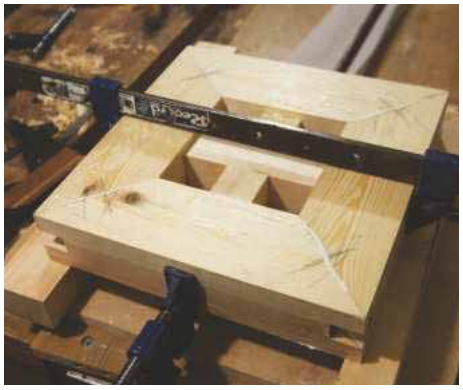
9 Don't glue the felloes together just yet!

10 The mortises must be accurately located

11 As before, use a chisel to level the joint's base

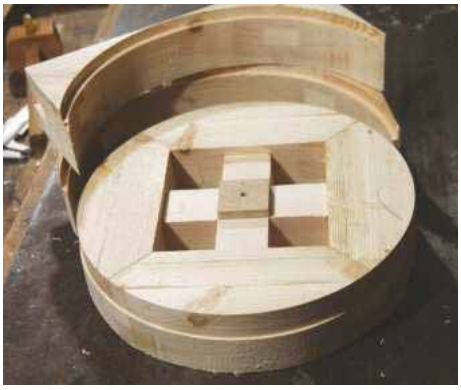


12 The main components prior to gluing together



13 Sash clamps do an excellent job of pulling the felloes together

14 An accurate circle cut with a router...



15 ... which is sawn level with the cut edge...

The tenons on either end must be marked out an equal distance from the centre and cut to suit the mortise. To ensure everything fits together well, the length of the spoke between the tenons must be equal to the length of the felloe's inside flat. Several methods can be used to cut the tenons, but I find that a router fitted to a router table yields quick and accurate results as the depth of cut can be adjusted until the tenon is a sliding fit into the mortise. Carry out a dry assembly and make adjustments where necessary until all components slide together easily on a flat surface (**photo 12**).

If using a water-based adhesive, remember that the timber will swell a little and allowance should be made for this. I found that two sash clamps located across the spokes worked really well in pulling the felloes together (**photo 13**). Alternatively, a ratchet strap can be used, but ensure that the inside half of the joints are pulled tight as the outer half will be removed when the circle is cut. Any overhang of tongues on the wheel interior can then be tidied up with a chisel or abrasives. Using a scrap piece of wood with a hole to suit a nail pinned to the centre point and another hole to suit a pencil point, locate the centre of the spokes and draw a 12in (305mm) diameter circle from this point. Cut out the circle and finish with abrasives and spokeshave, or use a router fitted with a trammel bar to cut the circle and mark the outline (**photo 14**). Saw any excess away (**photo 15**), then finish by hand (**photo 16**).

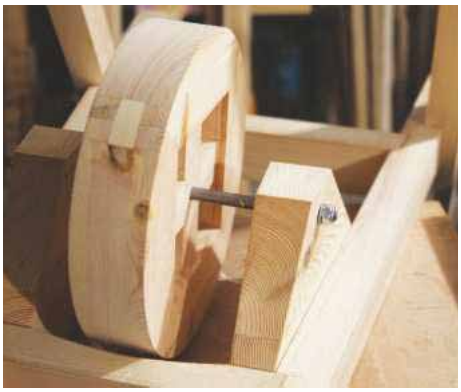
The 12mm length of steel tubing and 10mm threaded rod – which fits into this snugly – can be purchased from B&Q or similar. Next, drill a perpendicular hole in the wheel's centre, which is a tad under the diameter of the steel tube. Cut the steel tube to the distance between the wheel blocks, less the thickness of a couple of washers, before tapping into place.

Making the wheel blocks

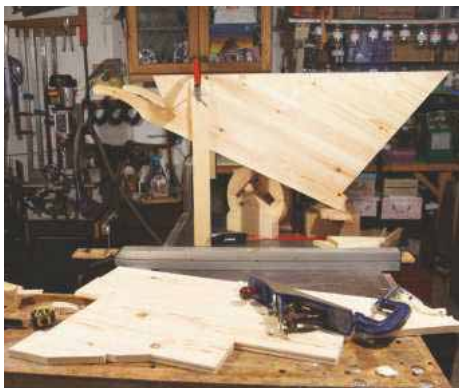
The wheel blocks are 3in (75mm) thick and tapered towards the front so their inner surfaces are parallel when positioned between the chassis rails. The depth is about 8in (200mm), and to achieve this, two pieces need to be glued together in order to create the required width (**photo 17**). Remember that the holes for the axle need to be drilled square to the inner surfaces and must be cut relative to each other to ensure the axle is parallel with the front chassis rail. Next, using a saw, remove the bulk of the waste and proceed to recreate to shape shown on the side view of **Fig.2**. Both blocks can then be planed to the required taper. Once you've

16 ... before finally finishing by hand

17 The wheel blocks coming together



18 It may be necessary to trim the chassis rail's reverse



19 The legs must be perpendicular to the floor

20 Two pieces of scrap MDF clamped either side of the post...

21 ... ensure a perfect fit every time

22 The top of the legs need to taper...

23 ... to suit the barrow sides

24 The completed wheelbarrow, which can be either used for its intended purpose, or as a decorative garden planter

shaped the blocks, cut suitable lengths of tubing and tap in place into the previously cut holes. Clamp the wheel blocks in place, then fit the threaded rod and wheel. Ensure the axle is parallel with the front chassis rail and screw the blocks in place. Note: it may be necessary to plane a little off the front rail's inside face to accommodate the wheel rim (**photo 18**). After greasing the axle, the wheels will eventually be held in place with a couple of Nyloc nuts.

Making the legs

Each leg needs to be 26in (660mm) long and positioned so that 18in (457mm) of it is below the rails' underside. Before notching the legs into the chassis sides for additional support, ensure to mark out the correct angle by clamping the legs in place and adjusting so that one of these is perpendicular to the floor (**photo 19**). Next, mark out and cut the notches using a saw and chisel, but a method I find both accurate and fast is as follows: place the timber for the leg and hold in place on the rail, with the rail secured to the bench top. On each side, clamp a piece of 12mm MDF so that it's butted up tight against the timber (**photo 20**). To remove the waste, use a router fitted with a short bearing-guided trimmer set to ⅜in (10mm) deep (**photo 21**); this will result in a perfect fit first time. Now fit the leg into place, adjust to the correct position and, using a marking knife, mark the inside faces and repeat the process to cut the joint on the inside face of each leg. Both legs should be cut individually, and when fitted to the rails, the legs' inside top faces need to be planed to a bevel to suit the boards used for the barrow sides (**photo 22**). This is a little tricky, but I suggest marking the outline on the leg and using a hand saw to remove the bulk of the waste. For any small adjustments, use a small block plane and file until a board lies in place along the top face of the chassis (**photo 23**), and flat against the leg.

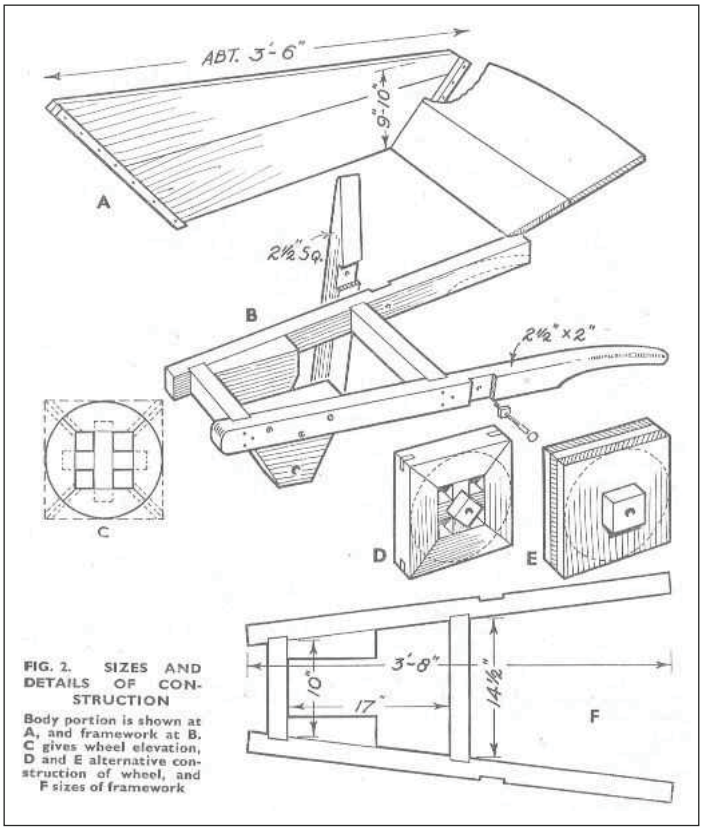


Fig.2 Sizes and construction details

Making the barrow box

For the barrow sides, using timber boards as before, these need to be laminated together to create the required width, and this is the point at which I went a bit wrong. In hindsight, I should've made a card template of the barrow side and used this as a guide for cutting the side rather than building it as I went along from the chassis rail upwards. I think it would've been better if the boards ran horizontally – not just visually – and the top edges less vulnerable to water damage with the end-grain being less exposed. You need to screw battens to the inside front and rear faces noting that these require a slight bevel to be planed in order to suit the barrow's wedge shape. Make a front and rear panel and screw in place to create the four box sides. For the floor pieces, use similar timbers and cut to fit in place. Rest these on the top face of the chassis rails noting that the boards' ends will be tapered to suit the barrow and ends slightly tapered to account for the sloping sides. The lower edges of the sides also need a slight bevel planed on them to allow the sides to rest on the chassis. Drill small pilot holes through the interior timber faces and into the top of the chassis, then nail the sides to the chassis. Before fitting everything together, apply a suitable wood preservative and ensure to pay particular attention to the end-grain.

Final thoughts

All in all, this was quite a challenging project from the outset. The theory behind the design makes really good sense and the first reaction whenever someone lifts the handle is to comment on how easy it is to do so. The pivot point is under the centre of mass, which according to my daughter's GCSE physics, explains this. What I've realised is that the balance point is quite critical in the success of this project. If it's too far back, the barrow becomes unstable as soon as any weight is placed in the forward part. One way to help overcome this is to make the barrow box from the heavier 20mm boards and this extra weight towards the rear makes a big difference. As you can see, the barrow box is tapered and the top of the legs prevents this sliding forward. If the box is pulled back slightly and a filling piece fitted between the legs and barrow side, this too is an area where the balance point can be fine-tuned. It's a matter of slight experimentation here and there, but the end result is a very easy to use wooden wheelbarrow, which is both light and comfortable. Despite my original scepticism, the end result, having undergone some tweaking, is a very good design, although it does have its limitations. I wouldn't use it filled with heavy material weighted towards the front, but for trundling round the garden with lightweight cuttings and tools, it does the job. It has inspired me, however, to revisit this design and see if I can improve on it for a future issue. Alternatively, it can also be used as an eye-catching planter to complement the windmill made in the July 2022 issue.

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CS4-6E

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- 225mm x 160mm table, tilts 0-90°
- 370W, 230V motor

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CFF18C100	18"	£49.98	£59.98
CPF18B100	18"	£59.98	£71.98
CAMAX24	24"	£199.00	£238.80
CAMAX30	30"	£269.00	£322.80
CAMAX36	36"	£349.00	£418.80

Clarke VENTILATORS

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CAM400 CON500

Model	Size	Air Flow	exc.VAT	inc.VAT
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CON350 (110V)	12"	3900m³/hr	£199.98	£239.98
CAM400 (230V)	16"	7200m³/hr	£339.00	£406.80
CON400 (110V)	16"	7200m³/hr	£319.00	£382.80
CAM500 (230V)	20"	9900m³/hr	£415.00	£498.00
CON500 (110V)	20"	9900m³/hr	£379.00	£454.80

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CIG81015	4.5 x 3 x 2.4m	£289.00	£346.80
CIG81216	4.9 x 3.7 x 2.5m	£329.00	£394.80
CIG81020	6.1 x 3 x 2.4m	£359.00	£430.80
CIG81220	6.1 x 3.7 x 2.5m	£399.00	£478.80
CIG81224	7.3 x 3.7 x 2.5m	£499.00	£598.80
CIG1432*	9.7x4.3x3.65m	£1159.00	£1390.80
CIG1640*	12x4.9x4.3m	£3250.00	£3900.00

Clarke 1" BELT/ 5" DISC SANDER

- Includes 2 tables that tilt & lock

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CBS1-5B

- Quality Induction 250W motor

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

CWVE1

CDE7B

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- Powerful 1100W motor
- 50 litre bag capacity
- Flow rate of 450M3/h

Model	Motor	Flow Rate	Bag Cap.	exc.VAT	inc.VAT
CWVE1	1100W	183 M3/h	50Ltrs	£119.00	£142.80
CDE35B	750W	450 M3/h	56Ltrs	£179.98	£215.98
CDE7B	750W	850 M3/h	114Ltrs	£189.98	£227.98

Clarke 8" TABLE SAW

CTS800C

NEW

- 500W motor
- 200mm Blade Dia.

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Clarke PLUNGE SAWS

CPS160

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INC. 2X 700mm GUIDE RAILS

Model	Motor	exc.VAT	inc.VAT
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CPS160	1200W	£119.00	£142.80

Clarke BELT SANDERS

CBS2

Makita

ABRASIVE SANDING BELTS IN STOCK

- Ideal for surface removal, sanding and finishing

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Model	Motor	M/Min	exc.VAT	inc.VAT
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Clarke CBS2	1200W	480	£89.98	£107.98
Makita 9911	650W	75-270	£99.98	£119.98

Clarke 4" BELT/ 8" DISC SANDER

- Includes two tables • 550W 230V motor

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CS48

Clarke CIRCULAR SAWS

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

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

NEW

AVAILABLE IN 230 & 110 VOLT

*Includes laser guide

CON185B

Model	Motor	Max Cut 90/45 (mm)	exc.VAT	inc.VAT
CCS185B	1200W	65/44	£44.99	£53.99
CON185B*	1600W	63/43	£59.98	£71.98

Clarke 6" BELT / 9" DISC SANDER

CS6-9D

- 1100W motor
- Use vertically or horizontally

DUST PORT

£329.00 EXC.VAT £394.80 INC.VAT

BELT/DISC TABLE ADJUSTS 0-45°

INCLUDES STAND

Clarke CPF13 ELECTRIC POWER FILE

- Variable belt speed
- Tilting head

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ARM ADJUSTS

*Black & Decker

Model	Motor	Belt Size (mm)	exc.VAT	inc.VAT
CPF13	400W/230V	13x457	£49.98	£59.98
KA900E*	350W/230V	13x455	£59.98	£71.98

Clarke PALM SANDERS

- Ideal for detail sanding of corners & hard to reach areas

CPS125

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Clarke DISC SANDER (305MM)

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

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CDS300B

Clarke 18V CORDLESS LI-ION STAPLE / NAIL GUN

- Includes 300 nails and 400 staples
- 1x 2Ah 18V Li-Ion battery

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1x2Ah

CONSN18LIC

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- 2 forward and reverse gears

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CON180LI

Model	Volts	Batteries	exc.VAT	inc.VAT
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CON180LI	18V	2x 4.0Ah Li-Ion	£129.00	£154.80

Clarke SHEET SANDERS

CON320

- Ergonomic design for optimum comfort

VARIABLE SPEED

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Model	Sheet Size	Motor	exc.VAT	inc.VAT
COS210	190x90mm	200W	£24.99	£29.99
CON320	230x115mm	320W	£35.99	£43.19

Clarke 3-IN-1 MULTI SANDER

CMS200

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1/3 SHEET SANDER

DISC SANDER

Clarke DETAIL SANDERS

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

CDS-1V

280W

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CVAC20PR2	1400W	14/12 ltr	£71.99	£86.39
CVAC20SS*	1400W	17/13 ltr	£69.98	£83.98
CVAC25SS*	1400W	20/17 ltr	£77.99	£93.59
CVAC30SSR*	1400W	24/22 ltr	£99.98	£119.98

Clarke DRILL PRESSES

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

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B = Bench mounted F = Floor standing

CDP102B

model	Motor (W) Speeds	exc.VAT	inc.VAT
CDP5EB	350 / 5	£84.99	£101.99
CDP102B	350 / 5	£99.98	£119.98
CDP152B	450 / 12	£189.98	£227.98
CDP202B	450 / 16	£239.00	£286.80
CDP352F	550 / 16	£298.00	£357.60
CDP452B	550 / 16	£299.00	£358.80
CDP502F	1100 / 12	£739.00	£886.80

Clarke POWER PLANERS

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

CON950

Model	Width of Cut	Motor	exc.VAT	inc.VAT
CEP450	60mm	450W	£36.99	£44.39
CEP720B	82mm	720W	£44.99	£53.99
CON950	110mm	950W	£69.98	£83.98

Clarke RANDOM ORBITAL SANDER

- Adjustable front handle improves control
- 7000-14000rpm

CROS3

INC DUST BAG AND SELECTION OF 125MM DIAMETER SANDING DISCS

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COBS1

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CPT600	6" (152mm)	120mm	£229.00	£274.80
CPT800	8" (204mm)	120mm	£279.00	£334.80
CPT1000	10" (254mm)	120mm	£379.00	£454.80

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Ideal for woodturning in the workshop
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- Inc. tool rest, tail stock, drive centre & face plate
- Large turning capacity of 350mm
- 4 turning speeds

CWL1000B
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- Variable speeds 600-2200rpm
- Inc. copy follower assembly, tool rest, drive centre tail stock assembly, face plate, eye shield & stand

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Clarke BENCH BANDSAWS
- Produces fast, precise mitre & longitudinal cuts
- 250W motor
- 8" throat size
- Cuts in all types of woods

CBS205
£119.98 EXC.VAT
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NEW
- Great for both home & professional use
- Induction 300W motor
- Table tilts up to 45°
- 9" throat size

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CBS225

Clarke PROFESSIONAL BANDSAWS
Top Quality Bandsaws - ideal for professional workshop use. Strong steel body with solid cast iron table
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- Adjustable blade guide
- Supplied with stand, 4TPI wood cutting blade, rip fence, mitre guide, mitre gauge and push stick
- Induction motors

CBS300
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MODELS ALSO FEATURE:
MULTI-STEP DUST EXTRACTION OUTLET
FLEXIBLE LED WORKLIGHT
REMOVABLE DUST TRAY
BLADE TENSIONING CONTROL

Model	Throat Depth	Max Cut 90°	Max Cut 45°	exc.VAT	inc.VAT
CBS250C	245mm/10"	115mm	65mm	£229.00	£274.80
CBS300	305mm/12"	165mm	115mm	£498.00	£597.60
CBS350	340mm/14"	225mm	160mm	£639.00	£766.80

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airmaster
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Model	Motor	CFM	Tank	exc.VAT	inc.VAT
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Tiger 11/550	2.5HP	9.3	50ltr	£189.98	£227.98
Tiger 16/550	3HP	14.5	50ltr	£249.00	£298.80
Tiger 16/1050	3HP	14.5	100ltr	£319.00	£382.80

Clarke 13" MINI WOOD LATHE

CWL325V
- Ideal for enthusiasts/ hobbyists with small workshops
- 325mm distance between centres
- 200mm max. turning capacity (dia)
- 0.2HP motor

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

PC60
CONVERT 230V 1PH TO 400V 3PH
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Model	Max. Motor HP	Fuse	exc.VAT	inc.VAT
PC20	2HP	10Amps	£269.00	£322.80
PC40	3.5HP	20Amps	£329.00	£394.80
PC60	5.5HP	32Amps	£389.00	£466.80

Clarke CONTRACTOR ROUTERS
- Powerful heavy duty machines ideal for trade and DIY use

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CR4

Model	Motor (W)	Plunge (mm)	exc.VAT	inc.VAT
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CR4	2000	0-66	£99.98	£119.98

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CBG6RZ	PRO	150mm	£59.98	£71.98
CBG6250LW	HD	150mm	£59.98	£71.98
CBG6250L	HD	150mm	£68.99	£82.79
CBG6SB	PRO	150mm	£74.99	£89.99
CBG8370LW	HD	200mm	£94.99	£113.99

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CON850B
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£45.59 Inc.VAT
AVAILABLE IN 230 & 110 VOLT

NEW
- 850W motor
- Includes 3 wood & 3 metal blades

Model	Motor	exc.VAT	inc.VAT
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CON850B	850W	£49.98	£59.98

Clarke 10" SLIDING MITRE SAW
- For fast, accurate cross, bevel & mitre cutting in most hard & soft woods
- 2000W motor

CMS10S2B
PRICE CUT £159.00 EXC.VAT
£190.80 Inc.VAT
WAS £214.00 Inc.VAT
LASER GUIDE

Model	Blade Dia/Bore (mm)	Max Cut Depth/ Cross	exc.VAT	inc.VAT
CMS10S2B	255/3	90/340	£159.00	£190.80

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Record

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WV7

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Record TV75B	Clamped	75/50/32	£24.99	£24.99
Clarke WV7	Bolted	180/205/78	£36.99	£36.99

Clarke CONTRACTOR Clarke JIGSAWS
CON750
BEST SELLER

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CJS400	400W	55/ - mm	£15.99	£19.19
CON750	750W	80/10mm	£29.98	£35.98
Bosch PST700E	500W	70/4mm	£48.99	£58.79

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

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BEST SELLER

CSS400C

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CSS16VB	90W	550-1600	£114.99	£137.99
CSS400C	90W	550-1600	£144.99	£173.99

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THE Alan Peters FURNITURE AWARD 2022

For the second year running, this is your opportunity to be part of a prestigious annual award, which champions UK furniture design and making talent while celebrating the life and work of the late **Alan Peters** OBE

Woodland Heritage – Patron of The Alan Peters Furniture Award 2022

Woodland Heritage was established as a charity 27 years ago, in 1994, by two cabinetmakers keen to 'put something back'.

A membership-based organisation, the charity supports the resilient management of woodlands, development of the timber supply chain, furthering of knowledge and skills within the forestry and timber sectors as well as within the general public, and tackling of threats to the future supply of high-quality UK timber.

As well as running the popular 'From Woodland to Workshop' courses and a Field Weekend each year, Woodland Heritage produces an annual Journal for its members.

For many years, the charity sponsored the 'Best use of British Timber' award at the Celebration of Craftsmanship & Design exhibition in Cheltenham, which recognised the creative talents of both established woodworkers and those relatively new to making.

Since 2016, Woodland Heritage has owned Whitney Sawmills in Herefordshire, with its support for research into Acute Oak Decline dating back to 2009, since which time £2.5m has been raised to tackle this threat to our most popular tree.

HRH The Prince of Wales has been Patron of Woodland Heritage since 2005. For more information, see **www.woodlandheritage.org**

2019 winner of Woodland Heritage's 'Best Use of British Timber Award' – Adrian McCurdy's 'Ark'

WOODLAND HERITAGE

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This annual award celebrates the legacy of one of Britain's most prominent furniture designer-makers of the late 20th century while aiming to encourage all talent in the craft of furniture design and making. Any woodworker who's a resident citizen of the British Isles, over the age of 18, with a passion and talent for designing and making contemporary furniture, is invited to submit up to two pieces made primarily of wood. These can also include, if applicants so wish, other complementary materials that echo Alan Peters' design philosophy. Judging is based on the appropriate use of material, quality of workmanship, functionality, as well as originality of design.

Both one-off designs and potential batch-produced designs are encouraged and the piece(s) doesn't have to be large. Applicants should be familiar with the work of Alan Peters prior to applying and are encouraged to read organiser Jeremy Broun's 64-page online video-integrated e-book, which is offered free-of-charge here: **www.woodomain.com/alanpetersaward2022** .

The man behind the award

Alan Peters OBE (1933–2009) was one of Britain's most prominent furniture designer-makers of the latter part of the 20th century. He was apprenticed to Edward Barnsley and had a direct link to the English Arts and Crafts Movement. He was hugely influential internationally in his practice, teaching and publications. Above all, his respect and understanding of how wood behaves and the value of hand skill, while moving tradition forward, resulted in the creation of many timeless pieces. He created affordable, functional furniture, which was built to last, making an art of his craft in some of his subtle innovations.

History of the award

The original award was called 'The Alan Peters Award For Excellence' and was initiated by Jason Heap in 2010. The prize was offered to three winners, each of whom were given free exhibition space alongside the professionals at his annual furniture event in Cheltenham. The award ran for eight years and the judging panel comprised of Jason Heap, Keith Newton and Jeremy Broun.

Following the success of the 2021 online award, this year a physical exhibition, plus prize-giving ceremony, will take place at Axminster Tools' Nueaton branch on 12 October.

Expert judging panel

Jeremy Broun (Organiser) – designer-maker and co-exhibitor with Alan Peters from 1978–2002

Andrew Lawton – designer-maker who worked with Alan Peters as well as on his last commission

Freya Whamond – Yorkshire-based woodworker and furniture designer-maker.

2021 AWARD WINNERS

1ST PRIZE

Overall winner of The Alan Peters Online Furniture Award 2021: Andrew Lapthorn's 'Remnant' table

2ND PRIZE

Aidan Donovan's 'WAGA' table in English elm

3RD PRIZE

Nick Newlands' 'Art Chest' in cherry and sycamore

PRIZES OFFERED

1ST PRIZE £1,000 Axminster Tools voucher

2ND PRIZE £500 English Woodlands Timber voucher

3RD PRIZE £300 Judges' prize

This award is open to any resident citizen of the British Isles, aged over 18, who has an enthusiasm and flair for woodworking. A piece of furniture – indoor or outdoor – is to be made and six high resolution JPEG images submitted, together with a Word document description. Shortlisted applicants will be asked to engage in a Zoom video call or submit a one-minute mobile phone video introducing themselves and describing the piece(s).

Judging of entries will take place in September followed by a judging ceremony and exhibition on 12 October

Despite the award deadline having been extended to **31 August 2022**, it's still important to get designing and making as soon as possible. To download an application form and view the free e-book, visit **www.woodomain.com/alanpetersaward2022**. The entry form can be found at the right of the page. Payment for entry can also be made securely via the website. For further information, contact Tegan Foley **tegan.foley@mytimemedia.com**), or Jeremy Broun (**jezbroun@gmail.com**)

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WOODWORKER'S ENCYCLOPAEDIA A-Z PART 42

In the penultimate part of this series, **Peter Bishop** is still in the Ws, but there's not many more to go!

Waste

Wood waste is created at every step of the production line. Converting logs into lumber has the biggest percentages of waste. This is reflected in what we call the log's 'yield'. Typically, here in the UK, oak and other hardwoods will struggle to achieve a yield greater than around 50-60%, if you're lucky. This is because of the generally miss-shaped trunks, which are converted. Where stands of trees have been managed, this percentage will increase because the trunks will be straighter and longer before branches occur. In forest-grown conifers, the yield rates can be up to 80% or more. It's the skill of the prime sawyer who'll impact most on the levels of waste produced at this stage. More waste is created in the drying stage with boards being rejected as they're unusable. By the time we get our hands on it, perhaps more than 50% of the original tree has gone, then we cut more away to waste. Over recent years, moves have been made to laminate small pieces together to create bigger ones. When applied to both hard- and softwoods, this makes sense and should be encouraged. We can also do our bit by joining up stuff and not being too precious about things like knots. Make a feature of them and encourage their inclusion rather than chop them out.

Water, weather bars & weather mouldings

These are the mouldings fitted to external doors, at the bottom, and similar applications. Their purpose is to help throw off rain water and stop it seeping in. Traditionally made from wood with a sloped outer face and a drip groove under, they should extend beyond the edges of the framing. On modern door design, there's a variety of different, integrated systems, although they all perform the same job.

Hardwood weather bar

Sawmill waste collection in Staffordshire by PH Winterton & Son

Waste wood fuel

Fitting a weatherboard to a door

Water marks on a wooden table top

Water marks

Us furniture makers hate these! You've gone to some length to get that lovely smooth lustre finish on the top of your piece and someone puts a wet glass, coffee cup or spills water out of a vase onto it. "Oh dear" they say, "it'll wipe off and a bit of polish will fix it." In your dreams! You can try all sorts of things including old fag ash and the marks still persist. If they refuse to go, there's only one solution – get the sander out!

Water-based stains

Rather than spirit- or oil water-based stains, these are more popular than they once were. Like all other ranges, they come in a wide variety of colours and tones. I always find it difficult to buy just the right one and end up blending several to match. As with all stains, care needs to be taken near the end-grain. Because this has the open cell structure, it'll take on more stain and may be darker. Personally, I prefer spirit stains for two reasons: I think they penetrate the wood further, and don't raise the grain when applied.

Watertight knot

This is a 'live' or 'sound' knot, which doesn't go right the way through the piece. It'll show no signs of separation and be totally inter-grown with the surrounding wood.

Wattle and daub in wooden frames

Wattle & daub

I mentioned this under the 'timber-frame building' heading. It's a traditional way of filling the timber panels. The 'wattle' is split hazel, ash or other similar coppiced woods. The open frames, into which the wattle is fixed, will have grooves or notches cut into their middle sections. The wattle is then bent and woven into the frame and held in place by grooves or notches. Once this is sorted, the daub is chucked on, to make it squeeze in and around the wattle, then smoothed off. The daub is made up of various choice things – mud mixed with cow muck, or whatever's to hand, which is often hair, grass or straw.

Wattle and daub is a composite building technique, which has been used to construct walls for thousands of years. It consists of a woven lattice – the 'wattle' – which is then daubed with a sticky filler material

Weatherboarding

This is horizontal, wooden sheathing, which is applied to the outside of buildings. Typically seen here in the UK on old barns, in North America it's a common finish on houses and referred to as 'clapboarding'. Made from simple wedge-shaped sections or specifically moulded to a suitable design, weatherboarding is laid from the bottom up with each following piece overlapping the previous one. There should only be one fixing in the width of the board on each stud; the one on top holds the one beneath down on its top edge; this then allows the wood to move, swell and shrink with the changing seasons. It'll split if too many fixings are used, however.

Many different species of wood can be used for weatherboarding, suitable due to their natural resistance to decay

Captain William Smith House at Minute Man National Historical Park, Massachusetts – a restored saltbox-style house with unpainted clapboard siding

Larch weathered timber cladding

Weathering

When wood is left exposed to the elements, it'll weather. This is a breaking down of these exposed surfaces where the cell structure starts to disintegrate. As long as moisture doesn't pool or lie on these surfaces, they shouldn't rot. If left long enough, some of the softer wood will be worn away and this will leave a pleasing silver grey, ridged pattern. If you don't want your wood to weather, then the surface needs to be regularly treated with a suitable sealer.

Wet rot attack

Wet rot

Wet rot is common in the UK and, in the main, usually found outside. The wood doesn't rot but is 'eaten' by fungi, which attack it if the conditions are right. Those conditions will need to have moisture contents over 20% or else the fungi won't survive. There's a number of fungi that like these conditions, the most common being 'cellar fungus' (*Coniophora puteana*). This one likes it really wet and will thrive where the moisture content is anything up to 50% or more. Internally, the fungal damage might occur where there's a water leak. If a down pipe or gutter is spilling water onto some adjacent timbers, this will encourage the attack to take place. Leaking roofs or blocked air vents won't help, either. The key to eradication is to get that moisture content down below a level where it can't survive. Cut out the badly affected stuff and treat with a propriety wood fungicide and, if you're lucky, it won't come back!

Whitewoods

A broad classification of softwood lumber from the spruce and fir trees. Redwood, which we discussed earlier, is the similar name given to pines. These timbers, imported from the Baltic States, Russia or Scandinavia, are known as whitewoods. In general terms, we'd use these for internal finishing such as skirtings and architraves. Redwood, which should be more durable, is used for external tasks.

Whittling wood

People have whittled wood for centuries. This is the practice of shaping wood with a knife, or knives, to produce a finished product such as a love spoon, stick handle and a wide variety of models, etc.

Various examples of whittling

Specialised whittling or carving knives

Wind & winding sticks

A piece of wood, which has 'wind' in it, is twisted; it's just another name for the same thing. 'Winding sticks' can be used to determine whether or not there's a twist on the surface. These sticks are two pieces of, shall we say, batten, which have been planed perfectly flat, straight and square. To check if the surface is true, one of the sticks is placed across the grain at one end and the second at the other. You then eye up the top edges of the sticks. From this you should then be able to determine whether the surface they're sitting on is flat or twisted.

Walnut winding sticks from Rickerby Hand Tools

Checking for wind

A winder staircase

Kite winder stairs

Winders

Where we have to bend a stairway in order for it to fit, there may be one or more points at which the stair changes direction; this is a winder. The triangular-shaped stair treads made to fit into these spaces are called 'kite treads'.

Window, window board & window frame

We all know what a window is; it's an opening that lets light into a room or space. The window frame is the outer part with fixed or opening lights within and the window board fits to the internal side of the window cill at the bottom.

A pastoral-style wooden window frame

Wood block flooring

You make wood block flooring from regular-sized pieces of the same thickness. Traditionally laid onto a tar-like base, each piece can be positioned to create different patterns. I guess the most popular one is 'herringbone'. Usually with rectangular pieces, short and long, you can now find hexagonal shapes to make life more interesting. Wood block flooring, or 'parquet flooring' if you wish, is an extremely durable and long lasting surface. Arguably, end-grain flooring will be even tougher.

Various styles of parquet flooring

Laying herringbone parquet flooring

Warping

Any plank that's not flat and straight will have some warping in it. Most warping will occur while the wood dries. Some can be avoided, some not. There's a whole range of different types of warping – bow, cup and twist are a few such examples.

NEXT MONTH

In part 43, Peter finally reaches the end of the series, and finishes off with various terms including woolly grain, xylem and zebrano

WIN WITH LIBERON

Having asked readers to share their woodworking projects and showcase a range of workshop skills, we finally announce the deserving winner of the recent **Liberon** competition, as well as featuring various other selected entries

Ian Burnell's award-winning 'Lelló' cabinet – London plane, sandblasted glass and Medite Clear – 1,250 × 1,180 × 400mm

In conjunction with Liberon – woodcare experts since 1912 – we recently ran a three-month long competition, giving readers the opportunity to show off their woodworking skills, regardless of discipline – be it general woodworking, woodturning, carving or cabinetmaking, for example. We asked you to send in photos of a recently completed project or restoration, along with a brief description detailing the making process involved.

We were incredibly impressed with the calibre of entries received, which certainly made the judging process a difficult one. The expert panel consisted of representatives from Liberon along with the magazine's editorial team, to ensure that pieces were evaluated fairly and objectively. Following much deliberation, the panel finally reached a consensus and chose Ian Burnell's 'Lelló' cabinet as the winning piece. In recognition of his fantastic efforts and skill, Ian received a £200 Amazon voucher plus a bundle of Liberon woodcare products, worth over £120, for use on future projects.

WINNER – Ian Burnell's 'Lelló' cabinet

Ian Burnell – an award-winning Product Designer from Ireland who's now turned his talent to designing and making furniture – graduated from Robinson House Studio in May 2022. He designs both one-off, bespoke pieces as well as small batch-run furniture and prides himself on having a keen eye for detail, which he perfected while training under some of the industry's best makers and designers.

The judges chose Ian's stunning 'Lelló' cabinet – a modernist-inspired piece with an eco-conscious twist – owing to his clever use of London plane and the way in which finishing products were utilised to ebonise and enhance the vibrancy of this stunning timber's natural tones.

Construction & material selection

The name of the winning piece stems from Ian's clever and playful use of the colour yellow. In terms of construction methods, the entire cabinet is held together by 46 hand-cut dovetails – five or six on each corner – including the internal box sections. The London plane, used for the cabinet's carcass, was taken from a tree grown on the streets of East London.

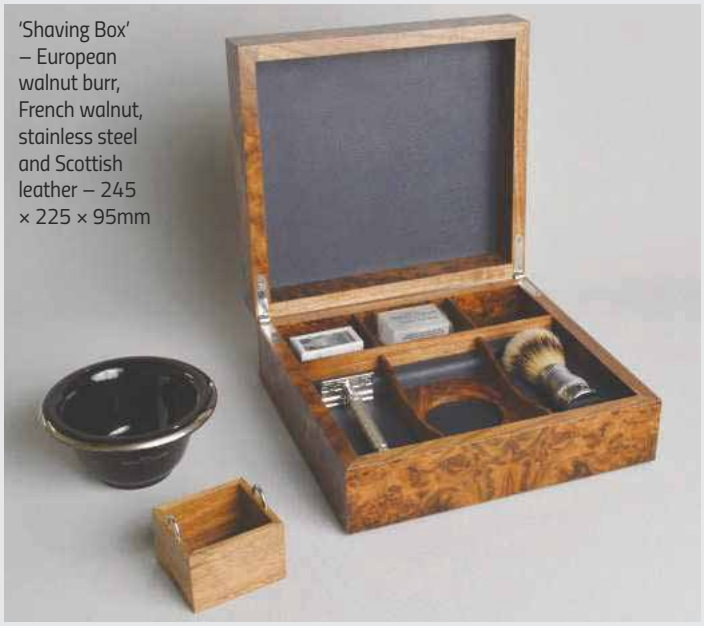
On making the piece, Ian comments: "When I set out to design this cabinet, I took some inspiration from the work of various pivotal female designers of the early 1900s, such as Eileen Gray and Charlotte Perriand. I loved their use of colour and bold lines in terms of furniture and architecture. My goal was to try and incorporate something similar in my design."

When it came to choosing materials, Ian's aim was to explore the idea of using either frosted or ribbed glass to obscure the painted internals: "I hoped this would encourage people to open the doors and investigate what was going on inside." As for the timber selection, Ian's main goal was to use something local and sustainable. Through carrying out some research, he was able to find a company that worked with trees grown in London, which were then processed for furniture makers. "This is how I discovered London plane and subsequently fell in love with it. It has such an exciting figure, which really pops on the inside of the cabinet, but is also very eye-catching when blacked out with Indian ink."

The entire structure is held together by 46 hand-cut dovetails – five or six on each corner – including the internal box sections

All surfaces are hand-painted with a low to no VoC water-based paint

The exterior has been ebonised and the internal surfaces waxed to enhance the vibrancy of this stunning timber's natural tones



'Shaving Box' – European walnut burr, French walnut, stainless steel and Scottish leather – 245 × 225 × 95mm

'Shaving Box'

As well as the winning 'Lelló' cabinet, Ian also entered the first project he made during his time studying at Robinson House Studio – a shaving box designed for the high-end luxury product market. "I used the finest materials but was mindful not to compromise my eco-conscious ethics. All materials – excluding the substrate – were sourced as locally as possible. The box is constructed using Forescolor – a no added formaldehyde MDF – with a European walnut burr veneer and lipping along with the finest Scottish leather. The shaving set was sourced from Edwin Jagger, a Sheffield-based company."

Maker's secrets

In the next issue, Ian will take us through the steps involved in the making of his wonderful cabinet, in an effort to give readers an insight into construction secrets as well as the various techniques employed

Instagram :@ianburnelldesigns
Web:www.ianburnell.com

While Ian's 'Lelló' cabinet was the star of the show, several other entrants caught the judges' attention, several of which are shown below, plus other notable pieces pictured opposite

2ND PLACE – David Henry's Champagne box

Originally from Canada but having lived in the Cotswolds for the past 15 years, David describes himself as a very enthusiastic 'amateur' woodworker. His passion is making keepsake boxes for family and friends and over the past few years, he's been fortunate enough to have benefitted from undertaking woodworking courses with the likes of Peter Sefton and Andrew Crawford.

Speaking on his wonderful champagne box, David made this celebratory gift to mark the birth of his niece's second baby – named Forest – who'll hopefully also go on to become a budding woodworker! Featuring a wooden ribbon, which he made after watching an online YouTube tutorial, this was David's first attempt at creating such a piece, and we think he did an incredible job. He used sapele and bookmatched sapele for the lid, with ebony splines at the corners, a veneered walnut burr bottom, with the ribbon tying everything together. The box was then lined with velvet suede, routed beading on the bottom edge to give the impression of feet, before installing brass hinges, engraving the inside lid, and finally adding the requisite bottle of bubbly.

David's wonderful champagne box features a handmade wooden ribbon

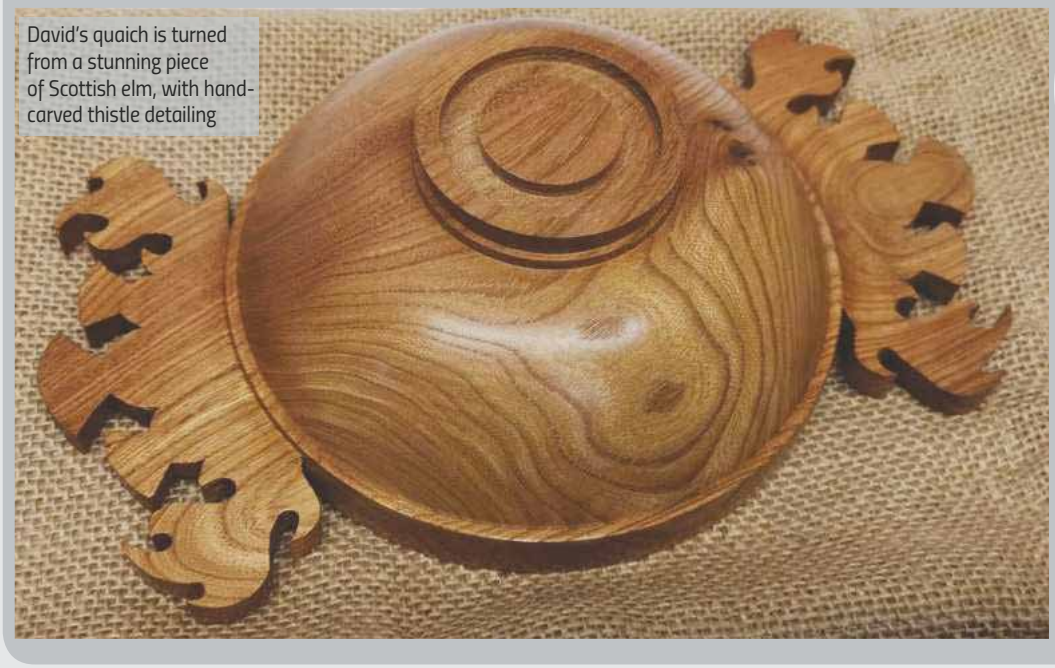
The completed champagne box is lined with velvet suede and features brass hinges, with an engraved message inside the box's lid

Inlay banding

During lockdown and having undertaken Andrew Crawford's boxmaking course, where students were introduced to his beautiful handmade inlay banding, David decided to have a go at making his own, for use on boxes, picture frames, etc. The photo opposite shows a range of inlay banding examples produced by David over the past two years, using a wide range of different timbers. He encourages other interested woodworkers to have a go at making their own, commenting on how you'll be surprised at what you can accomplish

Various examples of inlay banding, for use on boxes, picture frames, etc.

3RD PLACE – David Hutcheson's turned & hand-carved Scottish quaich



David's quaich is turned from a stunning piece of Scottish elm, with hand-carved thistle detailing

Here, the judges were particularly impressed with the way in which David showcased the Scottish elm and highlighted its wonderful grain patterns with Liberon Finishing Oil. A traditional piece, this Scottish quaich, made as a wedding gift, was first turned on a lathe, then hand-carved thistle details were added to both handles. Unsurprisingly, it's one of David's favourite projects to date

Other notable entries

Daniel Robins' mahogany jewellery box

– with contrasting ash and corner splines

Tony wood's hall settle in white oak

– comprising a dowel construction with homemade tongue & groove panels

Jacob Green's side table in English and olive ash

– featuring a Brazilian purpleheart core and black walnut strips

Peter Filcek's Krenov-style cabinet

– featuring hand-cut dovetails, with stretchers made up from an interlocking bent lamination, and continuous grain wrapping around the carcass

KEY WOODCARE ITEMS FOR YOUR TOOLKIT

Keep these core woodcare items in your toolkit. Liberon's superior quality range helps both professional and amateur woodworkers achieve a beautiful finish on a wide range of different projects.

WOOD DYES: Spirit & Palette

Liberon's Spirit Wood Dye is an ethanol-based product ideal for dense hardwoods. Any of the eight colours in which it's offered can be mixed together to achieve the preferred shade.

You can achieve an exact shade by mixing any of the 13 colours in which Liberon's Palette Wood Dye is available. This is a quick-drying, water-based option suitable for either soft- or hardwoods.

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WAX POLISH: Black Bison

Liberon's Wax Polish Black Bison has a good content of carnauba wax and, being highly lustrous, makes wood look simply beautiful. It provides good resistance to finger and water marks, and is ideal for small surfaces. It feeds, polishes, helps to prevent wood drying out, and has traditionally been used on antiques. For further information on Liberon's range of woodcare products, see **www.liberon.co.uk**

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Now in its 27th year, The North of England Woodworking & Power Tool Show – affectionately known as the 'Harrogate Show' – is the longest established, highest attended retail woodworking event in the country

Attendees can expect to see more than 40 top demonstrators in each of the five 'mini' theatres; various hand tool workshops; a woodworker's 'clinic'; 3 × 1.5m panel of beautifully-crafted carvings – incorporating everything from automata to sound – as well as over 80 companies exhibiting on trade stands.

The 'Harrogate Show' really is a great day out for all! The dates for this year's event are 11–13 November. Following a three-year hiatus, we look forward to welcoming you back to Hall 1 of the Great Yorkshire Showground!

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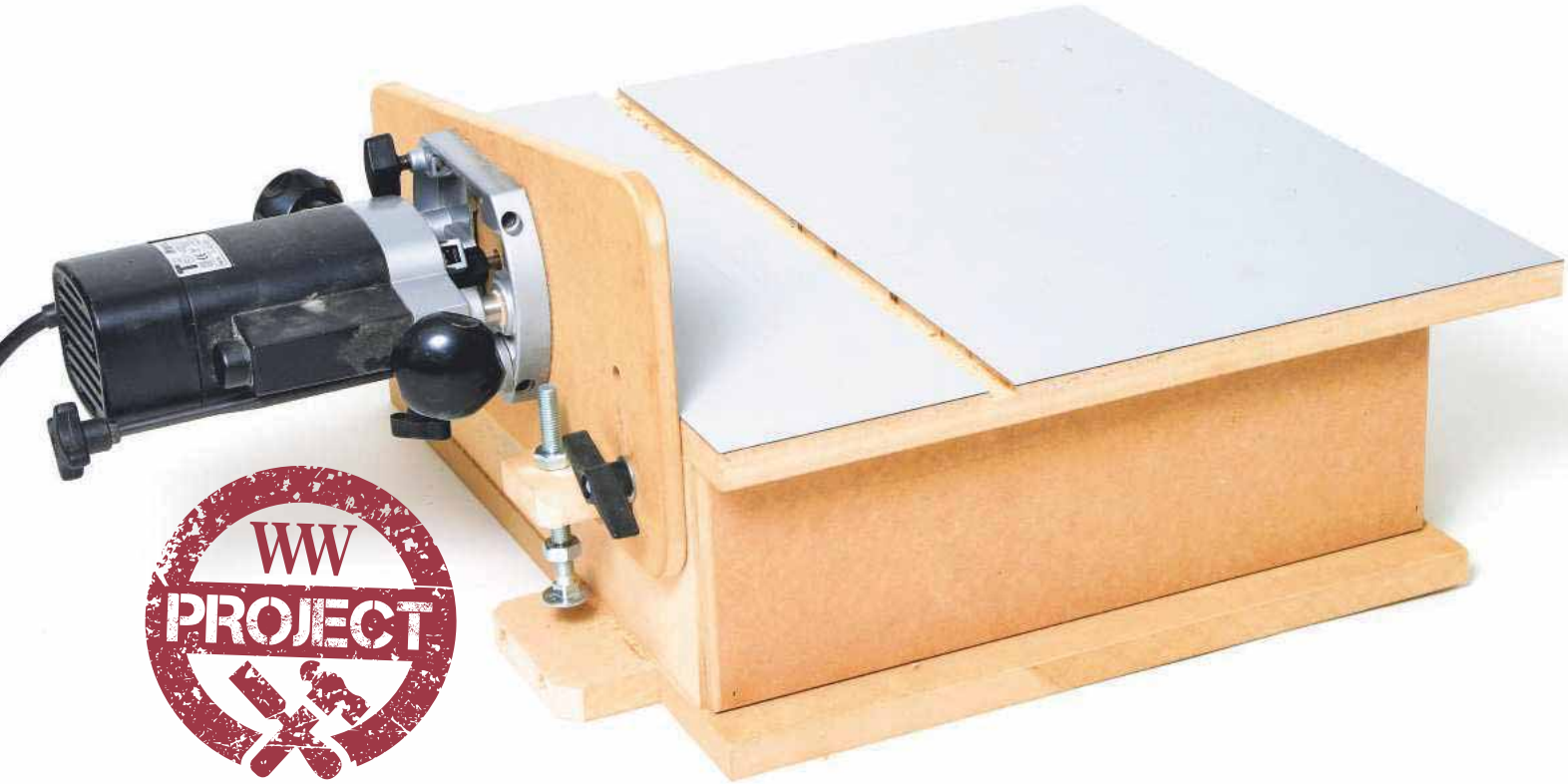


A LEVEL PLAYING FIELD

You may think that a horizontal router table performs exactly the same functions as a vertical one, but working with a router in this orientation actually has a number of significant advantages, as **Alan Holtham** shows

Let me explain: for a start, it's always difficult to balance a wide workpiece on edge and feed it through a standard vertical router table, as even the tiniest bit of wobble is magnified at the cutting edge. With a horizontal setup, however, the board's entire width is supported and, as such, there's no chance of any movement spoiling the cut.

The other main advantages include the fact that the cutter is a great deal easier to access for changing, and you don't get all that damaging swarf dropping into the motor casing, as you do when the router is mounted vertically under a table.

CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
Base	1	483	406	18
Side	2	406	127	18
Sub-top	1	406	370	18
Worktable	1	483	406	18
End	2	394	127	9
Support boss	1	100	100	12
Router plate	1	406	203	12

You'll also need a plastic laminate offcut, a little larger than the worktable, in addition to contact adhesive, clear varnish, two coach bolts and wing nuts

Seriously useful

A horizontal router is ideal for a host of routing operations, in particular mortise & tenon work, edge grooving, cutting wide rebates and panel raising with a vertical bit. In fact, since I built this table, I'm using it far more than my vertical version, even for standard moulding work.

I copied the basic design from an American routing book, making a few changes and improvements to suit my particular needs. It's a very simple project that's quick to make, but it's worth spending some time doing it properly as you'll be amazed how much you use it.

1 Owing to its stability, MDF is the ideal material for the router table's construction

Preparing the parts

You can construct the table from whatever materials you have to hand; I used 18mm and 10mm MDF (**photo 1**), primarily for its stability, but plywood or well-seasoned hardwood would also be a suitable choice.

When you're planing up the edges of MDF boards, remember that it's a highly abrasive material and will very quickly dull your cutters. For this reason, I recommend using only the extreme end of the cutterblock on your planer (**photo 2**); you can then avoid this blunted area for any other subsequent planing work you carry out.

SAFETY FIRST

There's one very important safety aspect to consider when using the horizontal router table. On a normal table, you always feed the work from right to left to ensure you're working against the direction of cutter rotation. With the horizontal table, however, it's essential to feed from left to right in order to maintain the correct work and cutter orientation. The set-up is similar to a planer, where the timber is fed over a cutterblock, which is revolving towards you

2 When planing up the components, only use one end of the cutterblock

3 Biscuit joints are ideal for assembling the open box frame

4 Form a clearance hole for the cutter in one side as well as the sub-top

Assembling the basic box

The components are all jointed together with biscuits. You can either use a biscuit jointing cutter in the router or, if you have one, a dedicated biscuit jointer (**photo 3**). All pieces are straightforward shapes, but, prior to assembly, you'll need to form a cutter clearance hole in the sub-top and in one of the sides (**photo 4**).

Glue and cramp up the main box section (**photo 5**), ensuring that the top surface isn't distorted in any way, as this will affect the basic accuracy of the finished table.

Adding the worktable

The table consists of an open box frame (**photo 6**), onto which the worktable is then screwed (**photo 7**); hence the need to ensure all is flat and level. Note that the table needs a small opening in one edge to accommodate the cutter; its exact size will be determined by the type of cutters you envisage using. To ensure maximum support, keep it as small as possible; it can always be enlarged at a later date.

When you screw the table to the box frame, check to ensure the screw heads are well countersunk and that any burrs around the holes are sanded flat. If you wish, you can leave the MDF surface as it is, although it's better finished with a coat of clear varnish. However, on any sliding surface such as this, I prefer a laminate finish as it provides a super smooth surface and allows the work to slide easily. Also, it's straightforward to apply.

Fitting the laminate

Apply a coat of contact adhesive to both worktable and laminate underside, brushing it out as evenly as possible and checking to ensure it covers the surfaces (**photo 8**). Leave both surfaces to dry thoroughly for about half an hour or so, then stick the laminate in place and smooth it down with a hard roller (**photo 9**), ensuring no air bubbles are trapped underneath.

Using a bearing-guided cutter, trim off any excess laminate round the edges of the table (**photo 10**). Next, trim out the cutter clearance slot in the laminate to match the one in the MDF worktable (**photo 11**).

Cutting the mitre guide slot

The next stage is to rout a slot across the worktable to accommodate a mitre guide. Slot dimensions need to be accurately sized to suit the mitre guide bar you intend using; if you don't have a spare, borrow one off another machine.

Cut the slot in a single pass using a straight cutter (**photo 12**), keeping the guide fence pressed firmly against the side of the table to produce a perfectly straight groove.

5 Glue and cramp up the box frame and check that it's square

6 Don't over-tighten the cramps in case you distort the sub-top – it must be flat

7 Centre the worktable on the sub-top and screw it in place

8 Brush contact adhesive onto both the worktable surface and laminate

9 Stick the laminate in place and roll it to remove any air bubbles

10 Use a bearing-guided cutter to trim the laminate all round...

11 ... to leave a neatly finished worktable, ready for the next stage

12 With a single pass of the router, cut a slot for the mitre guide...

13 ... this will help ensure that the mitre guide fits snugly in the slot

Notice that I'm using extended guide rods on the side fence in order to achieve the necessary reach. If you don't have these, the same result can be achieved by clamping a straightedge to the table and running the router base against it. Just make sure the slot is perfectly parallel to the table edge.

If your router fence has a fine adjuster, you can use this to adjust the width of the slot very slightly and make the mitre guide a snug sliding fit (**photo 13**). Apply a coat of cellulose sealer, then wax the cut surfaces to ensure that the guide slides smoothly and doesn't wear the sides of the slot.

Closing the box

The open sides of the box can now be closed in; however, you first need to drill a hole in one of the sides and fix an 18mm MDF support boss in place to accept a dust extractor nozzle. Make this side removable by simply screwing it in place (**photo 14**); this will allow access to the box's interior if it ever becomes clogged. The other side can have a permanently fixed cover. Take the removable panel off for now, as you'll need to access the interior later.

Mounting the router

The router is fixed to another piece of 10mm MDF, which will act as a movable plate. This needs to be accurately drilled to accept the fixing screws and is made much easier if you temporarily screw a couple of bolts with points ground on their ends through the router base (**photo 15**), and use these to mark out the hole centres on the MDF plate.

Drill slightly oversized holes at these points and countersink the heads of the fixing screws well below the plate's surface. You can then attach the router to the plate. Fit a straight cutter in the router and plunge it through the MDF plate in order to form the cutter opening in the centre (**photo 16**).

Mounting the plate

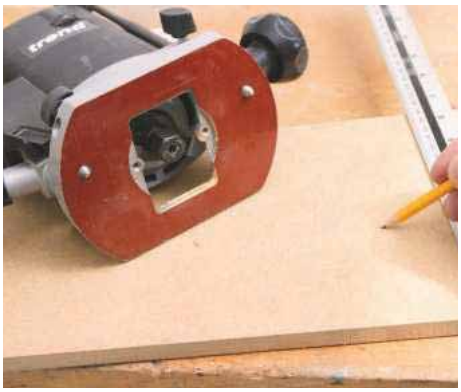
Tip the router table on its side, position the router plate so the cutter lines up with the aperture in the worktable and drill the pivot point right through the router plate and box side panel (**photo 17**).

Using a coach bolt and wing nut, fix the router plate in place through this hole. You can then drill another hole through the plate and box side for the locking bolt at the other end of the plate.

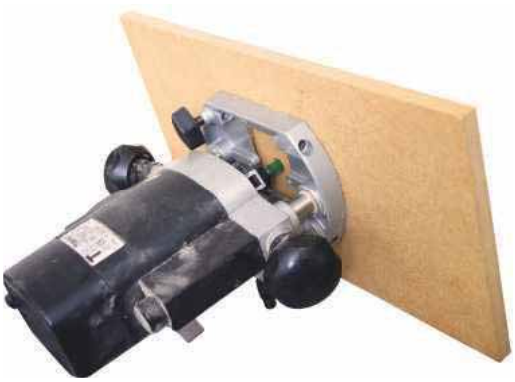
Making the plate adjustable

To mark the position of the curved slot required for the router plate's up-and-down adjustment, reach inside the table through the open end, poke a pencil up through this

14 Fit a support boss for an extractor nozzle in the removable side panel



15 Mark router fixing screw positions on the router plate



16 Attach the router, fit a straight cutter and plunge a hole in the plate

17 Position the router plate on the end of the table and drill a pivot point

18 Drill a second hole for the locking bolt and mark the line of the curved slot

19 Using the router, cut a curved slot, then reattach the router plate

20 Finally, reattach the router to the plate and you're ready to start work

second drilled hole and pivot the motor plate from side to side (**photo 18**), so that the pencil marks the required arc on the router plate's underside.

Remove the plate, unscrew the router, then use it to cut the curved slot in the plate by eye. Use a straight cutter a shade bigger than the fixing bolt's diameter and make the slot long enough to give about 50mm of movement on the router plate. With the coach bolts and wing nuts, reattach the plate to the side of the router table (**photo 19**), fit the router to it, then you're ready to start work (**photo 20**). Although the table itself is fairly heavy and you can get away with using it freestanding, it's actually much safer and easier to use if held firmly in position. You can either cramp it to the workbench (**photo 21**), or screw a block to the underside, which can then be gripped in a vice.

21 To ensure extra stability, it's a good idea to cramp the router table to a workbench

Late amendments

After just a little use, I quickly realised that it wasn't very easy to precisely set the cutter height. So, the first modification I made was to fit a simple fine-height adjuster using a bolt attached to the router plate (**photo 22**). In retrospect, it would've been much better if the bearing surface for this had been part of the original table base. If making your own table, simply extend the overall base dimensions to accommodate this.

Router specification

As most of the work carried out on this table will be relatively small in scale, it doesn't really matter what size router you use. A relatively cheap one, which you can attach permanently, will be fine but do pick one with a positive on/off switch that can be locked in the 'on' position. Some models have a 'dead man's handle' type switch, which has to be held on during use.

As the cutters are likely to experience a fair amount of extended overhang, particularly for mortise & tenon work, it's also preferable to fit an 8mm collet where possible, as the larger shanks of these cutters will go some way towards minimising inevitable vibration.

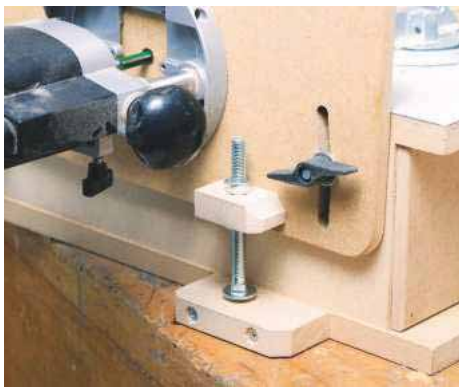
A simple cutter guard

There's so much work you can do with this simple horizontal table, tenoning being the obvious one. Haunched tenons are also easy to cut – just rotate the wood clockwise for each subsequent cut. Note that for the first cut, in order to minimise breakout, you'll need to use a scrap block at the back of the work.

I was slightly concerned by the safety aspects of the exposed cutter, but this is easily overcome by clamping a block to the router plate (**photo 23**). In due course, I'll refine this temporary solution into a proper guard and also incorporate a hold-down mechanism. In the meantime, however, keep an eye on that cutter!

Final thoughts

The router plate's fine adjuster allows depth of cut to be accurately set, but it also helps to fit a fine height adjuster to the router itself, so that length of cut can be precisely set. In use, I found that the extraction works superbly, with virtually no shavings ending up on the table surface. Everything was sucked into the table body (**photo 24**), and off to the extractor. I just wish all my other machines were this clean and efficient!



22 My first modification was to attach a simple fine-height adjuster to the router plate

23 I created a temporary guard by clamping a block of wood to the router plate

24 The extraction set-up worked well, with the table kept free of shavings

WW TECHNIQUE

DECORATIVE KNIFE CARVING

Starting with a brief history of the carving knife, **Iain Whittington** goes on to demonstrate the practical use of various knives for a 'flat plane' carving depicting a troll perched atop a fence post

The carving knife likely pre-dates the chisel by a long way, and as a dedicated carving tool, it's still relevant today. The correlation between softwood and knife blades is a practical reflection concerning the difficulty in making a clean cut in softwood and green wood when using a chisel. This is because the wedge shape of the chisel edge tends to crush the grain, whereas a knife can be used more effectively to make a clean cut by slicing across the grain. Until recently, the Scandinavian carving or slöjd knives were predominantly made from laminated steel. Today, there's still a few traditional Norwegian knife manufacturers remaining, plus the Swedes making 'classic' or 'Tollekniv'.

However, the only mass-producer of the traditional slöjd or carving knives is Morakniv. The current home of the former Frosts Knivfabrik, these are now available in both 'traditional' – birch handled laminated steel – and a 'basic' knife, which is plastic-handled with a thinner carbon steel blade. Finns also have the 'puukko', which the original slöjdkniv was presumably based on. The other useful 'traditional' Scandinavian carving knife is the double-handled späntkniv, which transliterates as 'splitting-knife' – otherwise called a push-knife and the opposite of the better-known drawknife.

As with other carving tools, there's no need to buy a 'set' as you may not use them all. However, the 'set' of Scandinavian woodcarving knives consists of the following:

- **Photo 1 (top)** – a long blade knife, where the sharp blade curves up to meet the spine – the original slöjdkniv (#105/106 – 80mm) – where the #105 has the birch 'safety handles';
- **Photo 1 (bottom)** – alternatively, the #106 traditional Scandinavian barrel handle in birch;
- **Photo 2 (top)** – then there's a short chip-carving blade #122 – (60mm) with a straight edge and spine, which curves down to the tip, giving a more robust point;
- **Photo 2 (bottom)** – next, somewhat different

1 Top: a long blade knife – where the sharp blade curves up to meet the spine – the original slöjdkniv (#105/106 – 80mm) where the #105 has the birch 'safety handles'; **Bottom:** the #106 traditional Scandinavian barrel handle in birch

2 Top: a short chip-carving blade #122 – (60mm) with a straight edge and spine that curves down to the tip, giving a more robust point; **Bottom:** somewhat different in shape from the more curved chip-carving blade common in middle-Europe and the UK

in shape from the more curved chip-carving blade common in middle-Europe and the UK;

- **Photo 3 (top)** – the push-knife – späntkniv – #220 with either birch 'safety' handles or 'classic red' barrel handles has a similar 114mm blade to, say, the small Flexcut drawknife;
- **Photo 4 (bottom)** – the traditional general-purpose Tollekniv, with a pointed 100mm utility blade, completes the full set.

3 Top: the push-knife – späntkniv – #220 with either birch 'safety' handles or 'classic red' barrel handles, has a similar 114mm blade to, say, the small Flexcut drawknife; **Bottom:** the traditional general-purpose Tollekniv, which has a pointed 100mm utility blade

Knife-carving project

The project here aims to demonstrate the use of carving knives in the Scandinavian 'flat plane' style. I'll go on to show the practical use of different knives for a 'flat plane' carving depicting a troll perched atop a fence post. Unfortunately, the common fence post is now a fast-grown Baltic pine, which has been pressure treated. A poor carving timber at best, it's further degraded by the tanalising process, which has replaced creosote, because, apparently, if you eat creosote, you get cancer! This turns the outer layers into rot-resistant mush. Although modern tanalising is more environmentally friendly, some care should still be exercised in its handling and disposal.

Due to the difficulties in roughing-out with a chisel, I started by using a saw to notch the main features and knock off the corners (**photo 4**). Having established the basic shape and re-sketched the pattern, the double-handed späntkniv is then ideal for the next stage of roughing-out, as the twin handles can be used to give the blade some leverage on larger chunks, yet, with care, fine shavings can still be taken. Unlike a traditional drawknife, which is shaped to facilitate 'drawing' or pulling, the späntkniv can be re-oriented from pull to push – so reversing the angle of attack when used as a double-handed 'push-knife' – which is a great asset in carving (**photo 5**). With its long, tough knife blade, the long slöjd knife can replace a straight chisel for stop-cuts, using downward pressure while sliding the blade along the stop-line (**photo 6**).

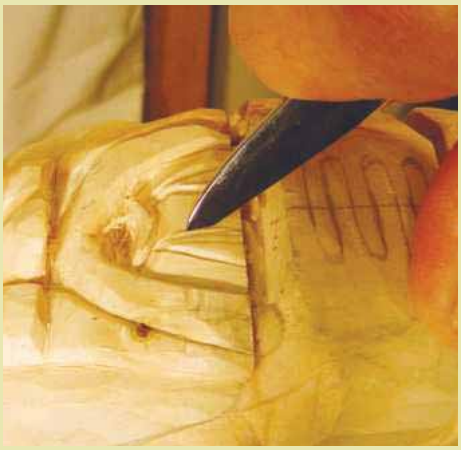
The waste can then be eased out using an opposing slicing cut. However, you must

4 To begin, I used a saw to notch the main features and knock off the corners

5 The späntkniv can be re-oriented from pull to push cut

6 The long slöjd knife can replace a straight chisel for stop-cuts, using downward pressure while sliding the blade along the stop-line

7 The waste can then be eased out using an opposing slicing cut



8 The 'V' tool can be replaced by a short-bladed chip-knife

9 This straight blade is also useful for removing waste using a paring cut, by rocking the blade into the stop-cut in much the same way as a chef's knife is rocked when dicing vegetables

Laminated steel blades

Both the Vikings and Saxons made and used laminated steel for knives. Although widely used in Scandinavia to the present day, the practice apparently declined in England after the Norman conquest and died out almost completely post industrialisation – apart from a few special plane irons. Handmade laminated blades are still made by folding a strip of high carbon steel into the middle of the blade and forge-welding the layers together using heat and a hammer. Commercial laminated steel for knife blades is triple-layer, with a high-carbon RC 61-62 steel laminated between two layers of flexible medium carbon steel, all pressure-welded together by heat and high pressure rollers. The composite blade then has the benefits of a hard steel: a sharp edge with a flexible – tough – body. While a hand-made folded-laminate may afford greater strength than a general-purpose Tollekniv, the industrial laminate actually provides a better steel for a slöydkniv, as it extends the hard – sharp – edge right to the very point. The hallmark hard edge can be clearly seen with the naked eye on a laminated blade as it's a slightly lighter colour. This change in metallurgy also gives rise to the attractive patterns present in Damascene steels

The hallmark hard edge can be clearly seen with the naked eye on a laminated blade as it's a slightly lighter colour

TIP

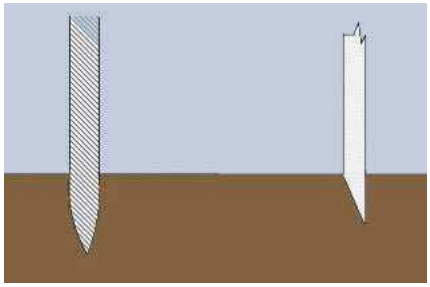


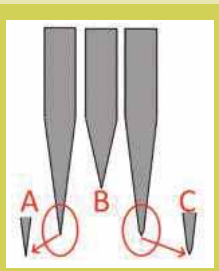
Fig.1

Using a No.1 has the benefit over a carpenter's chisel as it makes an even-sided 'knife' cut (**Fig.1** – left) rather than a wedge-shaped cut (**Fig.1** – right), which will allow the chip to break out evenly along the centreline when cut from either side. If you only have a carpenter's chisel, the same effect can be achieved by running the chisel back along the line with the blade reversed

ensure to not lever the blade here as it's very easy to snap the long pointed hard-steel tip (**photo 7**). The 'V' tool can be replaced by a short-bladed chip-knife, where a pair of angled parallel incisions are used to intersect along the line of the required groove (**photo 8**). This straight blade is also useful for removing waste when used in a paring cut orientation, by rocking the blade into the stop-cut in much the same way as a chef's knife is rocked when dicing vegetables (**photo 9**). As when peeling potatoes, keeping the opposing thumb well away from the blade is a good idea. Although the cut from a sharp knife does heal quickly, prevention is obviously far better than cure.

Scandinavian grind

No, it's not 'inappropriate material', just another 'secret ingredient' of the slöjd knife. A standard knife bevel is ground at 30° for the main bevel with a 40° secondary bevel, giving a strong structural cutting edge, much in line with a plane blade. As the laminated blade is tougher, you can use the Scandinavian grind at 25° with no secondary bevel, as the greater strength afforded by the hard steel core is well supported by the flexible mild steel outer blade. By contrast, a No.1 carving chisel has a 30° bevel, with or without a secondary bevel. For comparison, the bench plane has an effective cutting angle of 45° and the bevel-up plane – for end-grain – has an effective cutting angle of 25°. Therefore, the Scandinavian grind is a better compromise for adapting to variable grain



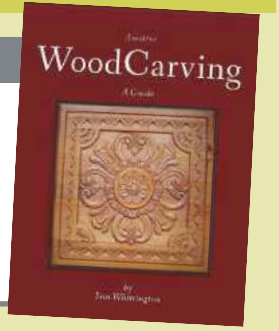
A) Scandinavian grind – 25° – no secondary bevel; B) No.1 carving chisel – 30° – double bevelled; C) standard knife grind – 30° – with 40° secondary bevel

AMATEUR WOODCARVING – by Iain Whittington

This article has been compiled from original information given in Iain's book. Here, you'll also find detailed instructions on the use of a computer and 'Freeware' for the preparation and manipulation of plans for Kolrosing, chip-carving and decorative carving.

Amateur Woodcarving was published with the support of GMC Publications and all proceeds donated to SSAFA – **www.ssafa.org.uk** – 'The Armed Forces Charity'. It's available in most book shops or online via Amazon: **www.amazon.co.uk/dp/1915191068**

In support of: ssafa the Armed Forces charity



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CHIPPENDALE SCHOOL 2022 GRADUATE SHOWCASE

Featuring a multitude of international talent, join us as we celebrate the exquisite work of **The Chippendale International School of Furniture**'s 2022 Professional Course graduates

The Chippendale International School of Furniture recently celebrated its 37th Graduate Exhibition and Fine Furniture Sale. The four-day event, held between 15–18 June at the School's East Lothian premises, was an impressive display of talent, skill and craftsmanship from the School's 27 Professional Course graduates.

Travelling from across the globe to attend the nine-month furniture making course, this year's graduating students have crafted some truly exquisite pieces, which made for an exceptional graduation show.

In addition to teaching students key woodworking skills and techniques, the Professional Course also places a focus on marketing and business development to ensure that graduates can go on to successfully establish and run their own furniture making businesses.

The School's Principal, Tom Fraser, described the annual event as a "celebration of woodworking and a momentous occasion for graduates as they begin the next chapter of their furniture making careers." For more information on the School, visit **www.chippendaleschool.com**.

GROUP 1: TAUGHT BY MATTHEW BREBNER

Alirio Pinilla
PinaliFurniture

Instagram: @pinalifurniture
Web: www.pinali.co

Following a long career in manufacturing, Alirio shifted his attention to a more creative career path and retrained as an industrial designer. Studying on The Chippendale School's Professional Course, Alirio has found joy in a calmer pace of life, dedicating his time to building impressive pieces of fine furniture. A skilled cabinetmaker, Alirio's designs are at once intricate and robust, timeless yet contemporary, showcasing his unique style and craftsmanship. Under his business, Pinali Furniture, Alirio aims to create treasured items, which bring joy to the people that use them

Console in rosewood, American white oak and birch ply – 1,200mm wide × 480mm deep × 750mm high

Ben Williams
JAM Studio

Having lived and worked in Japan, Canada, Europe and Australia, Ben has witnessed first hand the unique ways in which various cultures deal with functionality and natural materials. While studying at The Chippendale School, Ben has been able to explore the intersection of traditional craftsmanship and the magic of unexpected functions through his work. Committed to honouring and complementing the wood's unique properties, his style is sophisticated and polished. Ben plans on moving to Canada at the end of the year to find an apprenticeship, before one day starting his own workshop

Solid walnut drop leaf table

Ben with his solid beech desk/drawers, complete with walnut pins

Instagram: @jam_studio__

Karthik Dilipan
Treeform Woodworking Studio

KARTHIK DILIPAN **'PUBLIC'S CHOICE'**

Karthik has always been intrigued by the versatile nature of wood. A self-taught woodworker since 2018, the Professional Course has broadened his knowledge as well as fine-tuning his skills as a furniture maker.

Karthik creates bespoke pieces of fine furniture under the trade name 'Treeform Woodworking Studio', employing both traditional and contemporary joinery techniques to produce stunning designs. Karthik's ambitions don't stop there, however; he intends to share his appreciation and awareness of quality craftsmanship with everyone around him. At Treeform Woodworking Studio, dreams are turned into reality and the possibilities really are endless

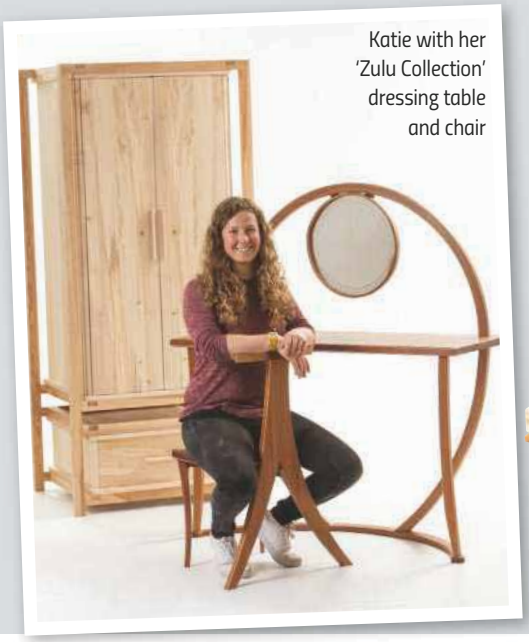
Karthik with his six-seater walnut dining table and chairs

Instagram :@treeform woodworkingstudio
Web:www.treeformwoodworkingstudio.com

Katie Richter
Rivers and Roots Furniture

Wherever Katie has travelled, she's looked to create, but it was studying engineering that initially sparked a love for expressing her creativity in a physical form. This love has only grown, culminating in a desire to study woodworking.

Katie's childhood in South Africa and travels to Asia, as well as her former career as an outdoor adventure instructor, have greatly influenced her design aesthetic. Inspired by life experiences, Katie combines cultural diversity, nature and technical ability to design and produce pieces of furniture that reflect the beauty she sees in the world. Through her work, Katie hopes to share her passion and educate others



Katie with her 'Zulu Collection' dressing table and chair

Instagram : @riversandrootsfurniture

Marion Morris
Marion Makes

MARION MORRIS **'THOMAS CHIPPENDALE AWARD FOR MARKETING'**

After working in the corporate world, Marion waved goodbye to a nine-to-five job and began to explore her creative talents. The Edinburgh creator has bought together her love of art, design and woodworking to launch Marion Makes. Her pieces combine wood, paint and fabric, resulting in creative yet functional furniture.

Having lived in Japan and Scotland, Marion's pieces are often inspired by these beautiful countries. In terms of what's next, she plans to expand her home line, range of storage benches and begin to explore wooden toys. She also looks forward to working with clients on bespoke commissions and prides herself on a design process that's sensitive to their ideas while incorporating her own unique aesthetics. Marion is bursting at the seams with ideas

'Bonnie Box' – keepsake toy box/blanket box

Marion with her 'Haruki' cabinet in ash and ebonised oak

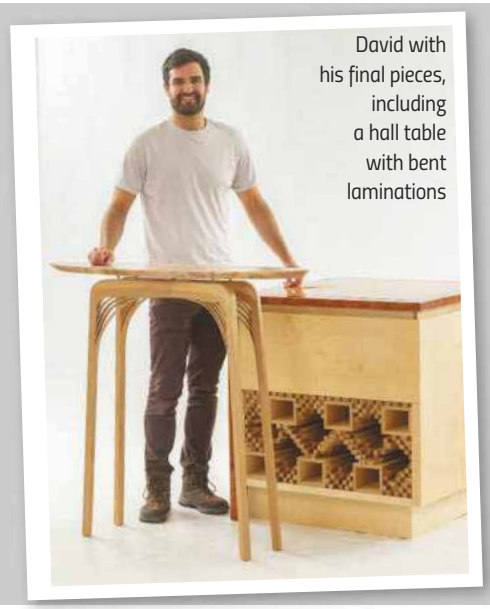
Instagram :@marion_makes
Web:www.marionmakes.co.uk

GROUP 2 : TAUGHT BY GRANT ANDERSON

David Hanlon
Adhmad Mín

From computer science to fine furniture, David explores the techniques of steam-bending and laminations to create seamless curves in his pieces, giving the final work an elegant look. For onlookers, the eye is deceived into thinking the furniture has grown in this form.

David takes an innovative approach to woodworking. Exploring the kitchen island and the space it occupies, he created a mechanism to allow the island to travel freely throughout the kitchen – and the result? The space becomes more dynamic and expansive, with room created where the island once stood. David plans to continue woodworking in his Irish homeland



David with his final pieces, including a hall table with bent laminations

David's incredibly intricate wine rack

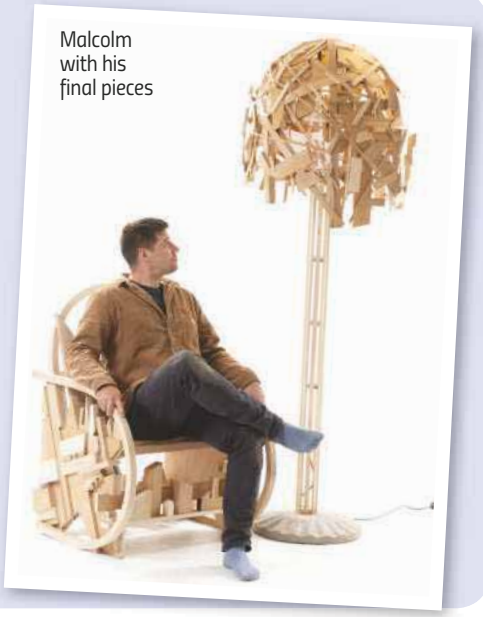
Instagram : **@adhmadmin**

Malcolm Mackenzie

A crofter and artist from Plockton, Malcolm graduated from Glasgow School of Art's Sculpture and Environmental Art Programme in 2018. Seeking ways to bring people together through collaborative making, Malcolm's practice is centred on social and community engagement.

Exploring form over perfection, his work on the Professional Course is inspired by the urban landscape but speaks to a more rural vernacular and resourcefulness, finding ways to make by reusing other's waste wood.

Malcolm will leave The Chippendale School to begin an 18-month project building two coastal rowing skiffs alongside Atlas Arts and the communities of Lochalsh & Skye as part of Creative Scotland's Culture Collective



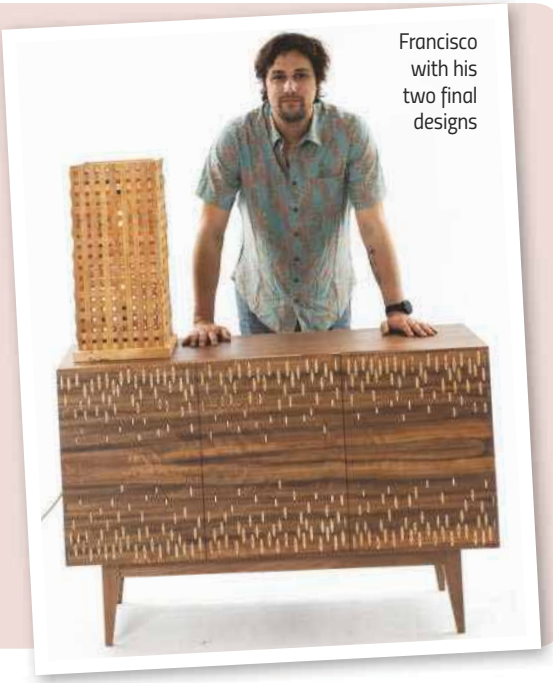
Malcolm with his final pieces

Francisco Pimentel
Arrayan Furniture

Leaving behind an eight-year long career in business and administration, Francisco made the decision to start from scratch as a woodworker. Through the process of designing and making, he's been able to unearth a passion for exploring geometry, patterns and textures.

After graduating, Francisco plans on staying at the Myreside Studios to further hone his skills and create new and ambitious designs for both commercial and residential spaces

Instagram : **@arrayanfurniture**



Francisco with his two final designs

Ildikó Somorjai
Bauplan Studio

Ildikó has a background in scientific research and spent the last 15 years working in academic institutions across North America, Europe and the UK. Growing up in the foothills of the Laurentians, she's inspired by the "imperfect perfection" of nature, and the precarious relationship between urban/human and natural environments.

In her work, Ildikó attempts to explore the concept of metamorphosis and the evolution of biological form and function, incorporating contrast and pattern into architectural pieces. Ildikó hopes to continue challenging herself on the journey as a designer-maker, sustainably combining wood and other materials in art and furniture to define her unique style

Ildikó with one of her final pieces

Instagram : @bauplanstudio

GROUP 3 : TAUGHT BY ANDREW COCKERILL

Ania Boryslawska
Doyenne Woodworks

Ania's design aesthetic stems from a childhood in San Francisco and years spent as a young adult in Los Angeles. Just as the nostalgic façades of these iconic cities are positioned among the scape of modernisation, Ania's furniture is a fusion of innovation and sentimentality.

Ania beautifully combines her artistic eye with great technical ability, creating pieces that inspire joy and a sense of playfulness, while ensuring to maintain a high degree of functionality

Ania with her final work, including the 'Jolene' cabinet in elm, cherry, sycamore and maple with hand-gilded detailing and brass fixtures

'The Wallace' – duo level coffee table in Scottish elm with turned legs in flamed sycamore, a hand-gilded mirror tray and brass feet

Instagram : @doyenne_woodworks

Carl Fink
The Finkus

Solid oak piece designed to organise the user's living space; 24k kintsugi footstool; bench

Building and designing furniture had always been a dream of Carl's. After graduating from university in 2021, he decided to make that dream a reality. With a passion to innovate and experiment with different techniques and materials, Carl's spent the last nine months on the Professional Course building pieces that are both well designed and well crafted. Combining his strengths in aesthetics and content creation, Carl plans to market his products online under the brand 'TheFinkus', continuing to push his design practice

Instagram : @thefinkus

Ellie Agnew
Agnew Workings

Ellie has been working in events as a freelance lighting and sound technician for the past seven years. Before the pandemic hit, she was looking at changing direction, and on driving past The Chippendale School last summer, felt that she might have struck upon something good.

The future is unknown, and our world is constantly changing: ecologically, socially and creatively. One positive step is that women are gaining roles in previously male-dominated industries, such as furniture making. Ellie hopes to go on to create beautiful furniture for people while considering the environmental impact of the industry, by incorporating the practices of reuse, up-cycling and restoration in her work

Ellie with her final pieces, including the 'Tempest' cabinet

Instagram : @agnewworkings

Valerio Marconi
VMaker Woodworking

A scientist turned woodworker, Valerio has long been interested in creative projects and learning new skills. After discovering a love for woodworking, he made a decision to leave the laboratory in order to craft functional designs, built to the customer's needs.

Valerio loves finding solutions for real problems, yet always with an eye on aesthetics and style. Practical yet artistic in nature, he perfectly combines functionality with creativity. After graduating, Valerio intends to build on his experience working in the fitted furniture industry, while also taking client commissions

Shoe rack

Valerio with his artist's desk in walnut veneer

Instagram : @v_maker_woodworking

Zaman Hazir

Zaman Hazir loves to think. In his opinion, the act of doing is a waste of precious time and the earth's even more precious resources. 30 weeks at The Chippendale School have reinforced his belief that if humanity just thought of doing, instead of actually doing, it'd greatly reduce the impact of bad designs on the planet and as a result, there'd be peace on earth.

Right now, you're probably thinking 'useless fool', but that's good. At least he's got you thinking. Now, think on

ZAMAN HAZIR **'STUDENT'S CHOICE'**

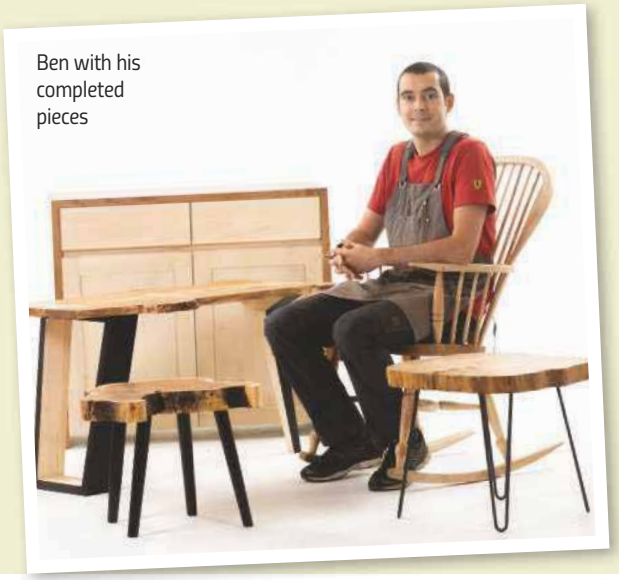
Zaman with his three final pieces

GROUP 4 : TAUGHT BY HUGH PARSONS

Ben Murgatroyd
BWM Furniture

Leaving a career in the travel and tourism industry, Ben enrolled on the Professional Course in a bid to carve out a new path for himself.

A lover of nature and the outdoors, Ben's designs highlight the material's natural beauty and organic forms, while absorbing as many techniques and methods as possible. Ben plans to combine his new love of furniture making with a passion for wilderness guiding and travel



Ben with his completed pieces

The 'Waterfall' sideboard

Instagram : **@bwm_furniture**

Emma Sauvage
TreadwellStudio

Emma decided to put her career in nursing on hold in order to pursue woodworking. As someone who finds great joy in working with her hands, she wanted to take time to explore her creativity through this new medium. Although Emma is still developing her individual aesthetic, much of her inspiration is derived from the shapes and patterns she observes in the natural world. Emma aims to one day have her own workshop where she'll focus on creating sustainable, beautiful and functional pieces, which are designed to be well used, injecting beauty and practicality into the home

Emma with her final three pieces

Instagram : **@treadwellstudio**

Laurence Veitch
Laurence Veitch Furniture

Drawing on a range of influences from product design to graffiti and philosophy, Laurence aims to merge craft, design and art in his furniture.

After leaving design school, he gained hands-on experience from master craftsmen in Scandinavia. Returning to the UK, Laurence worked with designers Sam and Maggie Booth to build modern eco-homes before pursuing a dream of designing and making furniture under his own direction.

After nine months of hard work on the Professional Course, Laurence has developed a unique style inspired by simplistic modern design, contemporary design and traditional vernacular furniture, but always with an emphasis on quality and sustainability

'Sitrus' stool

Laurence with a few more of his final pieces

Instagram : **@laurenceveitchfurniture**
Web: **www.laurenceveitch.com**

Mauriel Ojeda
Mojo Made Woodworks

Mauriel has worked many an odd job, from commercial crab fishing and surf companies, to recording studios and eventually construction. Never afraid to take a leap of faith, he's now found himself in Scotland learning the finer side of craftsmanship.

Looking to the future, Mauriel is working on starting his own company, 'Mojo Made', creating traditional wooden surfboards as well as bespoke pieces of built-in and standalone furniture. Drawing upon past life experiences, Mauriel enjoys creating functional pieces inspired by his many passions, journeys and California roots. Just like the ebb and flow of the ocean, Mauriel hopes his pieces will be timeless

'The Bolt' – a '70s inspired single fin surfboard with modern elements; various handplanes and paipos; handmade skateboard

Mauriel with his final pieces

Instagram :@mojpmadewoodworks
Web:www.mojpmadewoodworks.com

GROUP 5 :TAUGHT BY BEN DAWSON

Chaska Schuler
ChaskArtFurniture

Before enrolling on the Professional Course, Chaska completed a four-year cabinetmaking apprenticeship in Switzerland. Her interests include furniture history, design, restoration, veneering, steam-bending, inlaying, marquetry and parquetry, gilding as well as business management.

Chaska finds inspiration in the tree's connection to the cosmos through Mother Earth, creating the most wonderful material in existence. She feels a deep spiritual connection with the material, which is expressed through her craft, as well as in the relationships built with clients, with whom she embarks on a creative journey.

After graduation, Chaska will spend a few more months on the road, gaining new experiences and deepening her knowledge and skills, before establishing her own woodworking business

Sideboard in solid sycamore, ash, beech and sapele painted with acrylic – 850mm high × 975mm wide × 310/205mm deep

Instagram :@chaskart_furniture
Web:www.chaskart.ch

Daniel Smith
Studio Smiddy

Considering Daniel couldn't use a drill on day one of the Professional Course, the past nine months haven't gone too badly for the founder of Studio Smiddy.

Having previously enjoyed a career in comedy festivals, Daniel has swapped the laughs for the lathe and endeavours to create pieces of work he'd love to own but can't afford. Inspired by Mid-century modern and Memphis styles, he seeks to create fun yet functional pieces, which also act as a design focal point. Under the Studio Smiddy brand, Daniel aims to continue pushing and expanding his design practice while earning enough to subsidise his love of M&S food

Undulated bench in fiddleback mahogany and birch ply – 1,200 × 450 × 400mm

Coffee table in elm burr and birch ply – 900 × 900 × 410mm

Daniel with the final pieces in his 'Studio Smiddy' collection

Instagram :@studiosmiddy
Web:www.studiosmiddy.com

Kyle Woodman
Woodman Woodworks

Kyle with his final pieces

Kyle came to Scotland from Portland, Oregon where he's worked for the past seven years in experiential retail design. Kyle has always loved making and building, so decided to attend the Chippendale School in order to cultivate and refine his fine woodworking skills.

His inspirations are varied, including George Nakashima, designer and furniture maker Kylle Sebree, and the simple functionality of Shaker furniture. He strives to create accessible, high quality, functional furniture and is planning to open his own woodworking shop, Woodman Woodworks, upon returning to Oregon

Instagram : @woodmanwoodworks

Shane Corstorphine
Woodbee Workshop

Passionate about bees and woodworking, Shane has revelled in bringing both together in his fine furniture designs. Keen observers of Shane's work will note references to nature reflected in various designs in the form of hexagonal patterns and unique craftsmanship.

Shane's engineering background coming to the fore, he seeks to combine function with form. An admiration for simplicity is reflected in his portfolio of designs, allowing the natural beauty of the materials to take centre stage. Shane plans to continue his work at Myreside Studios, where he'll develop pieces that combine the natural world with fine furniture demands

Shane's final pieces contain various references to nature

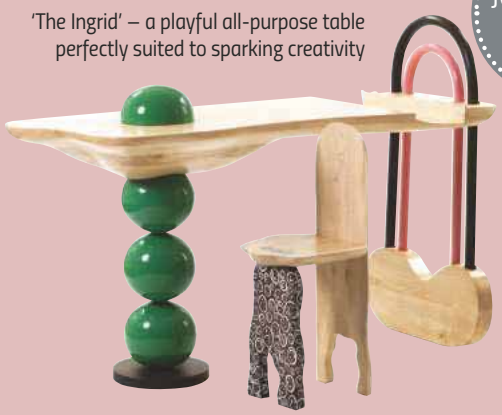
Instagram : @woodbeeworkshop

GROUP 6 : TAUGHT BY GRAHAM DAVIES

Molly Johnston
OddballStudio

MOLLY JOHNSTON **'BEST DESIGN'**

'The Ingrid' – a playful all-purpose table perfectly suited to sparking creativity



From fashion shows to fine furniture making, Molly entered the world of woodworking following eight years of working as a Fashion & Home Stylist and Set Designer. After daydreaming about the Chippendale School of Furniture for seven years, she decided to take the leap and see where her maker hands could lead her, and they didn't disappoint.

Molly's a colour enthusiast, thoroughly obsessed with patterns, feel-good textures and unabashedly in love with 80's vibes. Under her brand Oddball Studio, she seeks to excite a form of communication between object and user, using the playful, yet striking aesthetic of the Memphis Pop era melded with flowing organic lines. Molly's aim is for the viewer to stand in front of her pieces and yearn to touch, move around, unlock a nostalgic memory, and ignite their inner child. After all, furniture should be a little Odd

Molly with her 'Memphis' bookcase

Instagram : @oddballstudio.co
Web : www.oddballstudio.co

Luca Dal Molin
DM S Furniture

The 'Ocean Wave' – Krenov-style cabinet

Luca with his final designs

After over 30 years working in the aviation industry, Luca decided to follow his passion for woodworking and enrolled on The Chippendale International School of Furniture's Professional Course. "I'm attracted to beautiful things around me," he explains: "Elegance, clean lines and curves inspire my design. Every piece of furniture I produce has a story behind it; I love listening to my client's needs and creating something meaningful for them."

Using traditional techniques with a mix of hand tools and machines, Luca creates beautifully unique, high-quality pieces, which are designed to last for generations to come

Instagram : @dm s_furniture

Javier Salvatierra

Javier with one of his final pieces

Raised in Chile, Javier comes from a country where wood speaks in order to tell stories. From the Roman Cassie in the northern desert, to the Araucaria forests, between volcanoes and lakes in the South, Javier grew up surrounded by nature.

After several years in the corporate world, however, he finally decided to go back to his roots. A perfectionist artisan, Javier is determined to conceive his ideas. His projects combine the technical and organic, which results in the creation of high-end furniture with simple, elegant designs. The next step is starting his own workshop in the Southwest of France… hopefully, in the middle of a big forest

Nick Charles
Elem entalW orkshop

Nick with his final pieces, including the 'Gambit' games table

Nick spent the bulk of his 20s backpacking year-round, working between hospitality gigs and volunteer projects, and while the service jobs paid the bills, it was through the latter that his love of woodworking was born. Building houses, barns, camper vans and permaculture garden systems, Nick knew that this was his true calling, and so he set in motion a way to hone this passion into something that he could do full time.

Nick doesn't like to stay monogamous to one particular style, however, commenting that "with a history of ideas at your fingertips, why pick one outfit for life?," electing instead to follow his inspiration wherever it may lead. More often than not, he'll design a piece around the material's natural beauty

Instagram :@w orkshop_elem ental

Aidan Inglis
Aidan InglisW uid

Aidan with one of his final pieces

Before enrolling on the Chippendale School's Professional Course, Aidan had spent the majority of his time overseas repairing wind turbines. Deciding to make a change, he looked to pursue a more purposeful career while channelling his existing skills into a creative outlet.

Aidan creates his pieces using a combination of traditional hand tool craftsmanship and modern techniques, using 3D software to modify designs before finalising and beginning the making process. Aidan's designs are clean and considered, often taking inspiration from Japanese and Scandinavian simplicity and function, and he intends to carry this focus forward into the future

Instagram :@aidan_inglis_w uid

FURTHER INFORMATION

To find out more about the Chippendale School's intensive 30-week Professional Course, see **www.chippendaleschool.com/cabinet-making-courses/professional-course**

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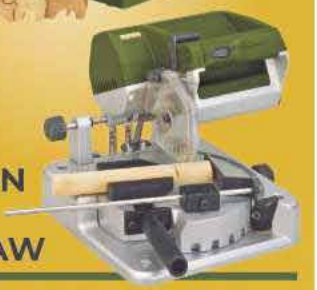

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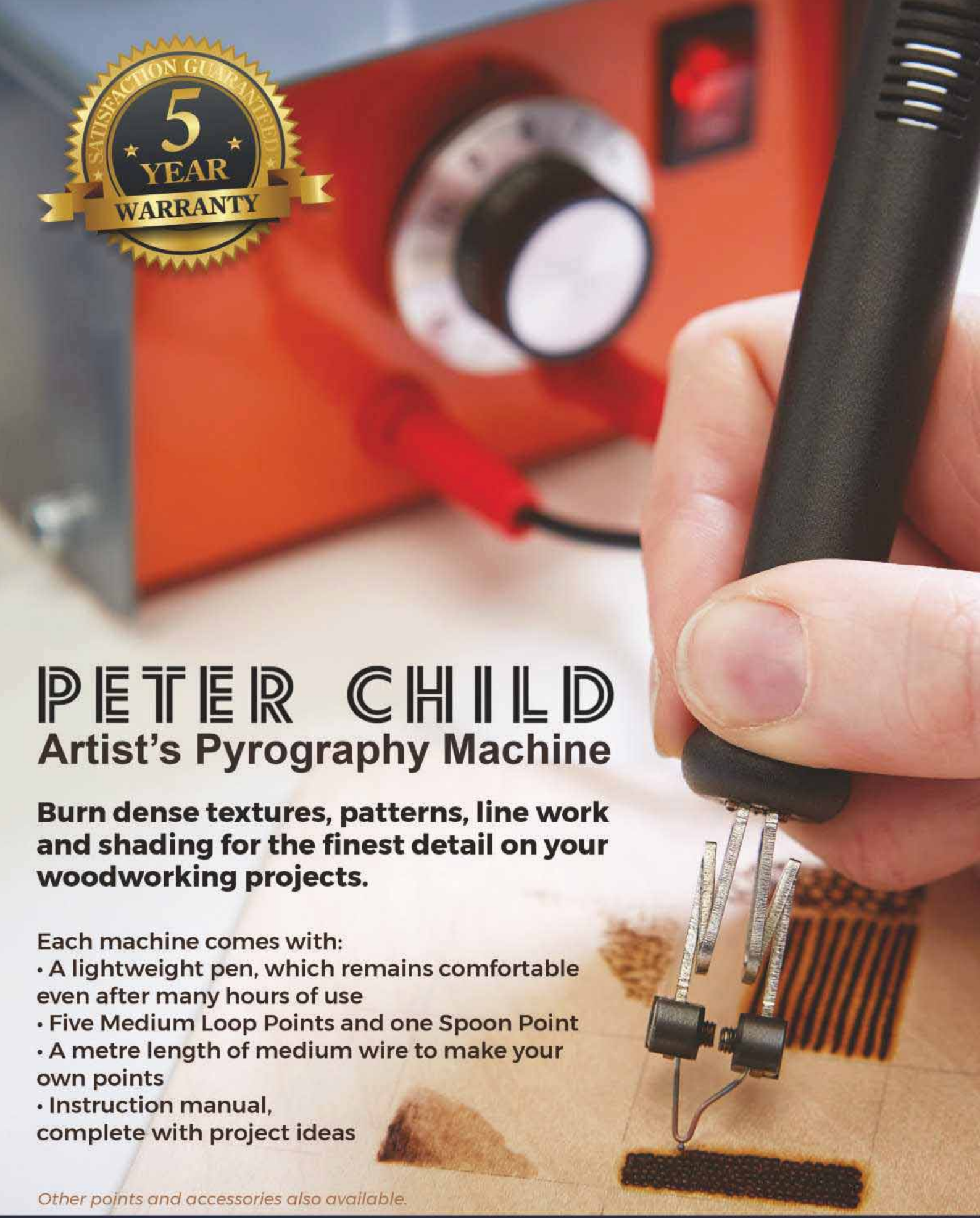

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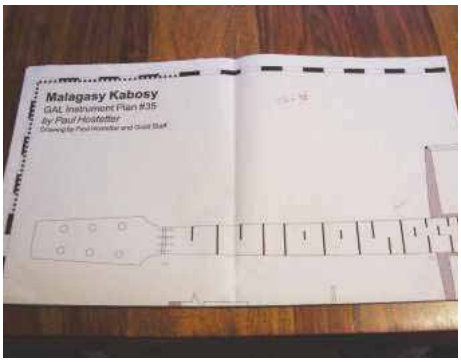
MADAGASCAN MELODY PART ONE

In the first of a two-part series, **Shaun Newman** shows how to make this beautiful box-shaped wooden guitar, which is commonly played in Madagascar. He begins by looking at the instrument's origins before going on to construct the neck, headstock and soundbox

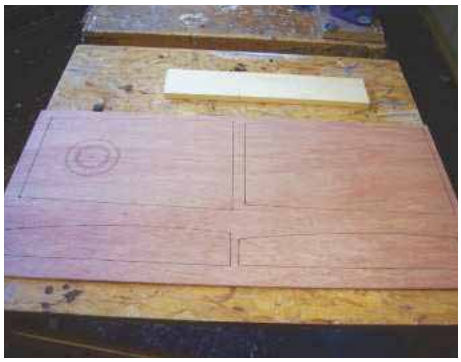
This guitar-like instrument is unique to the island of Madagascar, though it resembles other instruments such as the 'cigar box' guitar, probably first made in the southern states of America from cedar boxes, which housed Central American cigars. Both types of instrument share the maker's wish to use discarded materials or at least to cannibalise parts from a range of sources, which may in no way be linked to the making of a musical instrument. For example, with the kabosy, the strings could be made from scraps of fishing line, and at times for the bases, inner cables from a bicycle braking system. The head, neck and body could be made using driftwood, and the instrument comes in many sizes. Just as the violin family ranges from the child's violin through to the viola, the cello and ultimately the double bass, the kabosy ranges through many sizes but almost always retains its rectangular body shape. In Madagascar, the instrument is played in solos and also in bands, which have

MEASUREMENTS

Lower bout width	235mm
Upper bout width	216mm
Heel depth	60mm
Tail depth	72mm
Height at top side of curve	77mm
Soundbox length	365mm
Whole instrument length	820mm



1 GAL Instrument Plan #35


2 Outlines drawn onto 4mm ply


3 The soundbox ends and sides


4 Fretting out the soundhole


5 The soundhole is cleaned up


6 Preparing the soundboard braces

their own set of rhythms and tunings.

The instrument here has been made with a standard six strings found in the modern acoustic guitar, and has 18 frets, all of which run across the whole fingerboard. It's tuned to EADgbe, but can be tuned up a whole tone, or perhaps a tone and a half. The kabosy in Madagascar is tuned differently in that some of the frets don't extend across the whole fingerboard and it's tuned to an open chord, such as G maj.

Materials & learning about construction

In considering this project, I had a hunt through my scraps pile and was pleased to discover that I had more than enough bits and pieces to make a medium-sized version. There was enough 4mm ply for the back, front and two sides, with some spruce for the neck and tail ends. The neck itself and headstock were made from some pine shelving boards I had left over from a previous project, and the fingerboard from two scraps of padauk, which I laminated together to give the correct thickness, but more on all of this later.

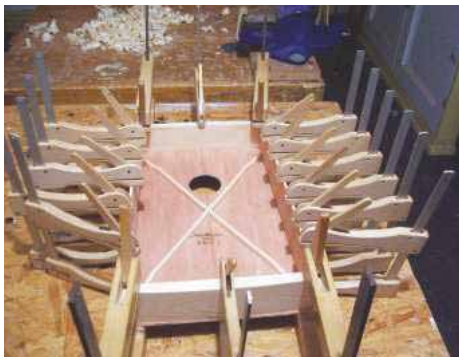
The first step was to carry out some research in a bid to find out more about the construction, dimensions and such things as optimum string length. Luckily, The Guild of American Luthiers has a working drawing of a kabosy in its listings – GAL Instrument Plan #35. To be honest, even a rudimentary understanding of how a guitar is made would be sufficient without the drawing, but if the maker wanted to go for maximum authenticity, for example with the fret layout, then the drawing is worthwhile (**photo 1**).

Having made up some card templates of the principal components, I was able to mark outlines on the ply's surface, which included the position of the soundhole and rosette (**photo 2**). Note the pronounced curve on the sides of the instrument, which is highly characteristic of the kabosy. The first stage of construction was to make a soundbox, with no top or bottom to start with. I butt-jointed the spruce ends to the sides and held them firmly in place with fine moulding pins and adhesive. Next, using a 12in disc sander, I applied a very gentle curve to both ends; however, the ends can also, if needed, be left flat (**photo 3**). Before fitting the top, it was necessary to cut out the soundhole (**photo 4**), and finish the inside edge with a sanding stick made from a piece of PVC downpipe covered in abrasive (**photo 5**). It was then necessary to brace the top to prevent it from bending inwards or even breaking under the downward push of the strings on the bridge. For the cross braces, I used spruce, with the grain running vertically,


7 Securing the cross braces


8 Scalloping the braces

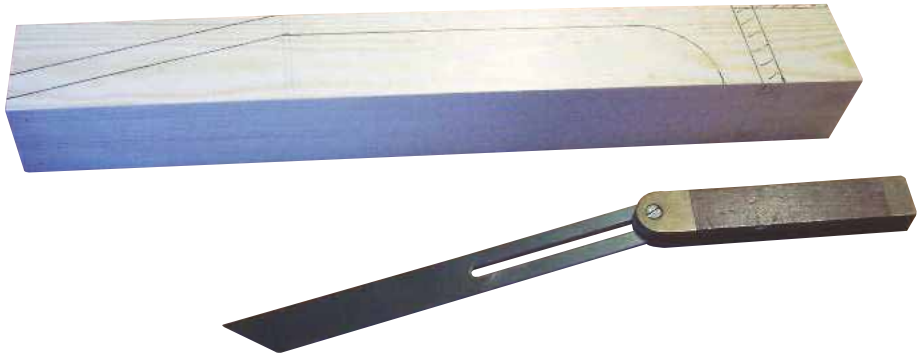
9 Gabling the tops of the braces



10 Attaching the soundboard to the soundbox

11 Fitting tentellones

12 Laminating the head and neck



13 Head and neck outline scribed onto billet

which were cut to 6mm wide × 16mm deep. These were attached to the inside of the soundboard, so they just missed the inside edges of the soundhole and ran diagonally lengthwise, just shy of the spruce ends. A simple cross halving joint cut at an angle made for a strong central point to the braces (**photos 6** & **7**). When making acoustic and classical guitars, it's normal to scallop the brace ends, then to gable them along the remaining length, so I couldn't resist staying with that tradition. Even though the braces aren't visible when the soundbox is closed, they look much more elegant when this is done, and it's part of the satisfaction gained by a luthier during any build of this kind (**photos 8** & **9**).

Moving towards three dimensions

The next task was to attach the soundboard to the soundbox edges, first by gluing and cramping, then by attaching 'tentellones' into the inner edge of the sides. These are small triangular pieces of spruce measuring 15mm high × 6mm deep × 7mm wide. They've been used in classical guitar making for centuries and create a very strong but lightweight strengthener to the join. Each tentellone was placed using tweezers and a small amount of Titebond adhesive. No clamping pressure was required here as air pressure sufficed. Just before this operation, however, I needed to take a 4cm wide piece out of the heel end spruce board and down through the full depth of the end; this formed the location for where the neck would be joined later as the build progressed (**photos 10** & **11**).

Making the neck & headstock

While the adhesive cured inside the half completed soundbox, I could then move on to making up the head and neck. As mentioned earlier, I used several pieces of pine shelving from a previous project and glued them into a billet measuring 54mm long × 7.5mm wide × 7.5mm deep (**photo 12**). Along one of the faces of this billet – i.e. one that didn't show the laminations – I could then mark the outline of the head and neck, as well as the 'slipper heel' joining method for the soundbox to the neck (**photo 13**). The 170mm long headstock needed to tilt back 14°. At the opposite end, I set about removing a portion of the soundboard's thickness to allow both to sit in the same plane. Next, I cut two slots, which would allow for wedges to be put into place once I was ready to attach the neck to the soundbox. The bandsaw does most of the work here (**photo 14**), though some careful chiselling is required from time to time. As most guitar necks are made from very strong timbers, and here I was just using pine, it was

14 Cutting out the head and neck with a bandsaw

15 The truss channel in place

16 Cutting wedge slot edges

17 Wedge slots chiselled out

18 End-grain sealed

19 Headstock veneer under preparation

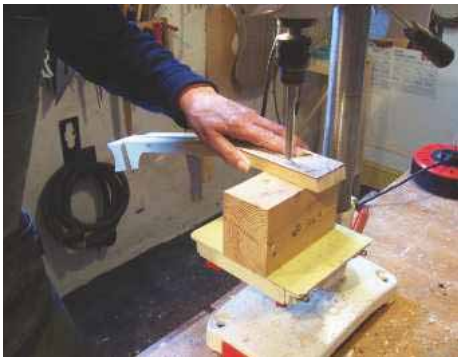
20 The headstock veneer being glued into position

21 The headstock shape marked out

therefore necessary to fit a steel truss rod. Several types are available, some of which are adjustable, but in this case, a single stainless steel bar measuring 100mm wide × 100mm high × 320mm long was sufficient. Such rods were fitted into Martin guitars for many years. To accommodate the rod, I cut a slot into the centreline of the top of the neck billet,10mm wide × 10mm deep, to give an exact fit (**photo 15**). The rod was held in its housing with epoxy resin. The wedge slots need to be sawn at a slight taper and the bottom chiselled out flat (**photos 16** & **17**); this ensures a tight fit can be established once the wedges are tapped home. As before, this method has been used by luthiers for hundreds of years.

As the 'slipper' section of the neck had exposed end-grain, it was therefore important to seal this with varnish, such as a polyurethane. Otherwise, if the neck expands or contracts due to changes in humidity, the fingerboard can become detached (**photo 18**).

Almost all guitars have a veneer attached to the headstock's face, and I chose some pieces of padauk and put in an ebony inlay along the centre. I made up the veneer using a simple jig, which uses wedges to push the two halves together with the ebony along



22 Drilling out the string slots

23 Drilling the machine head roller housings

24 The jigsaw removes waste from the string slot

25 Shaping the headstock

26 Carving the heel

27 The head and neck are starting to look elegant

28 The partially completed soundbox ready to receive the neck

29 A dry fit of the neck

30 The profile of the back is marked onto the heel

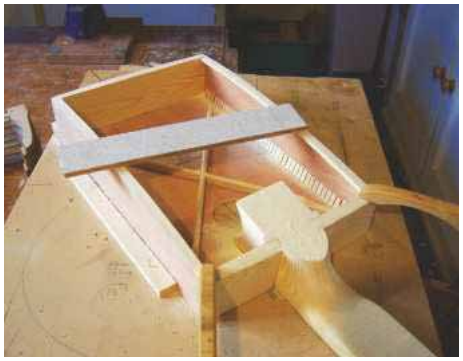
31 Once the neck is fitted, the heel is sanded flush

32 Bending the back linings

33 The back linings are glued into place

the middle (**photo 19**). Next, I thicknessed the veneer to around 2mm and attached it to the headstock with Titebond and clamps (**photo 20**). To be able to clearly see the outline of the headstock and string slots, I always cover the area with white masking tape, then transfer the design to that. Each maker will have their own 'signature' headstock design, unless they're copying the work of other makers. Mine is simple and has now appeared on more than 200 of my instruments (**photo 21**).

The pillar drill is invaluable in drilling out the string slots and tuner barrel holes, as a 90° angle is vital here. Without this accuracy, the tuners can become very tight and difficult to use (**photos 22** & **23**). Using a jigsaw, once I'd opened up the string slots (**photo 24**), I proceeded to shape the head and heel using a sharp chisel and Japanese marking knife (**photos 25** & **26**).



34 The linings are sanded flush with the sides' edges

The neck and head were now beginning to look reasonably elegant (**photo 27**).

Fitting the neck to the soundbox

To fit the neck to the partially-completed soundbox, I needed to make it fit into the housing, which I cut down through the spruce end nearest the heel. After cutting out the wedge housings from the heel, I had to ensure this slot had the width of the central part remaining. The part-completed soundbox could then be fully braced and was now ready to receive the neck (**photo 28**), which I dry-fitted with wedges to ensure everything lined up and that I'd managed to achieve a tight fit (**photo 29**). Before the back could be put into place, however, I had to shape the heel to the same contour as the edges of the sides. I marked this contour onto the heel (**photo 30**) and removed the waste with a sharp chisel. Once I'd glued the wedges in place, the heel could then be sanded flush to the sides of the instrument (**photo 31**). A further task was to extend the back's gluing surface so that it was wider than the 4mm ply; this was achieved by attaching spruce linings, which I bent to the same curve as the sides. The bending iron comes in handy here (**photo 32**), though if the linings are soaked overnight, they can usually be bent by hand and glued into place once they've dried out (**photo 33**). The linings could then be sanded flush with the edges of the sides (**photo 34**).

SUPPLIERS

The Guild of American Luthiers – for a working drawing of a Malagasy kabosy – **www.luth.org**
Stewart-Macdonald – timber, tools & fretwire – all things necessary for guitar builders – **www.stewmac.com**
Strings Direct – every type of string required – **www.stringsdirect.co.uk**
Touchstone Tonewoods – as for Stewmac but without 20% import charges – **www.touchstonetonewoods.co.uk**

NEXT TIME

In part 2, Shaun creates the fingerboard, fits the frets, makes the rosette, attaches the strings, makes the top nut and bridge, before assembling the completed instrument

LETTERS

★LETTER OF THE MONTH

Using the simple butt joint, you can achieve a result that's both elegant and beautiful

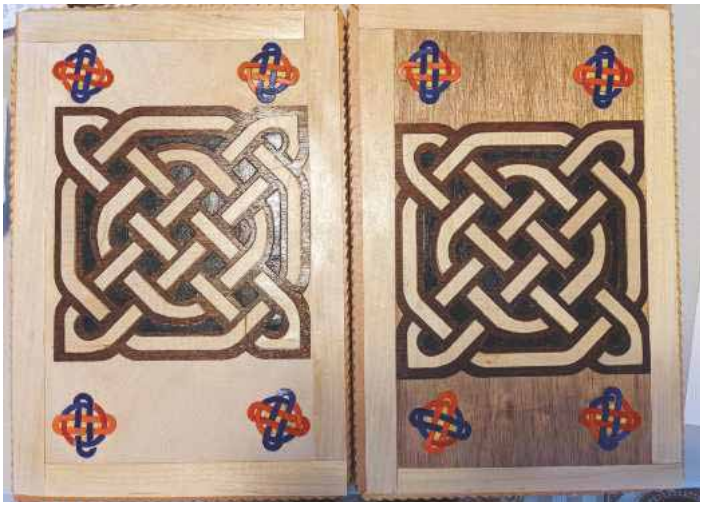
THE HUMBLE BUTT JOINT

Hi Tegan,
I recently built the basic box shown here using a butt joint construction, and wondered if readers of the magazine might be interested in finding out about the creation of such a piece? But how or why, that's the question. Basic woodworking starts with the simple butt joint, and for far too long now, YouTube has overshadowed the basics of what we should be practising, especially among young woodworkers.

This very joint has been used for hundreds of years, but power tools and computer-controlled equipment have unfortunately meant it's fallen out of favour. I recently built this small box, just to prove the point that using a butt joint can produce a beautiful and elegant result owing to its simplicity, as well as proving we don't always need to make a project such as this using dovetail joints or even box joints. The butt joint can be held together with glue and nails, and yes I did say glue and nails! We honestly need to be teaching the next generation of young woodworkers – boys and girls in their teens – when starting out in a woodwork/cabinetry career that basic skills are the way forward. If you understand hand tool basics as well as those of wood movement bundled in with some basic woodworking joints, then you're on the path to a very successful career. Taking a look at woodworking in the early 1900s, we can clearly see that most chair construction also made use of this humble joint, held together with glue and wooden dowels. Indeed, if we go back even further to the 1800s, and take a look at the construction of a tall case clock, for example, then this very joint was used yet again, glued and nailed with hand-cut nails and in some cases, veneered over to disguise the joints. So, in my opinion, I think we need to take a step back in time and start teaching these simple, straightforward basics to beginner woodworkers, which will allow them to build beautiful furniture without having to rely on biscuit jointers or even Domino jointers, instead using skills that've been shared for thousands of years, with basic hand tools and joints. Doing so, we can hopefully preserve our teaching of this craftsmanship for many more years to come.
Kind regards, **Phil Gaynor**

Hi Phil, and thank you for writing in and demonstrating the simplicity and elegance of the humble butt joint. You make some very valid points, but even better that you're then able to back up your claims with a piece made using this very construction method. I agree that it's imperative for woodworking basics to be taught and for young woodworkers, as well as those newcomers, to realise the importance of these and not rely too heavily on machines to do the job for them. Long may these traditional skills be practised and handed down!
Best wishes, **Tegan**

GOTHIC DESIGN USING A CNC



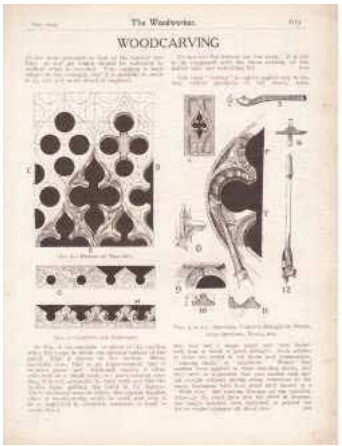
Using a CNC router, Peter created the Gothic design shown here on the reverse of a backgammon board he made for a friend

Dear Tegan,
I was wondering if you'd be able to provide any further information regarding Robin Gates' archive piece from the May 2020 issue, which covered the topic of Gothic design. I'm looking at ways to take some older designs and cut them on my CNC router. Previously, I've made veneered designs like this using a CNC to cut the pieces, which were attached using drafting tape. The photo here shows the reverse of a backgammon board I made for a friend, which features this very design.
Thanks for your help, **Peter Tonnesen**

Hi Peter,
Thank you for your query regarding my archive article from the May 2020 issue. In case it's of any use or further interest, attached are scans of the full article as originally featured in the May 1915 edition.
Best wishes, **Robin Gates**


WOODCARVING

This article in the May 1915 edition looked at the application of Gothic-style carving and tracery on cupboard doors


WOODCARVING

The tools required for this technique are discussed in detail as well as how to fashion these yourself

WRITE & WIN!

We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about the magazine's features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently the new Trend ¼in 30-piece Router Cutter Set, worth over £100. Simply email **tegan.foley@dhpub.co.uk** for a chance to get your hands on this fantastic prize – good luck!

CORONATION MEMENTOES

Hi Tegan, while recently browsing through some old copies of *The Woodworker,* I discovered this issue from May 1953, which marked the Coronation of Elizabeth II. As 2022 also marks a big occasion – her Platinum Jubilee following 70 years on the throne – I thought it may be of interest? Unfortunately, I wasn't able to produce a piece in time for the 6 February date, but I wonder if any other readers did? Certainly, the mementoes depicted here wouldn't look out of place in the home today, but it'd be lovely to see some special Platinum pieces, if indeed any exist. I particularly like the 'Crown Bowl' featured on the front cover of the 1953 edition, and it looks to represent a great exercise in woodturning. Similarly, the cigarette box, which is perhaps a little redundant in this day and age, features some wonderful marquetry detail. Anyway, I hope other readers enjoy this blast from the past and are perhaps inspired to share their own projects. Thanks for a great magazine!
Best regards, **Donald Winter**

The May 1953 issue featured two memento projects to mark Elizabeth II's Coronation

Hi Donald, great work on unearthing this special issue and sharing it with us. I wonder if anyone made these items and if so, whether they still exist or were even handed down? I saw a few different Jubilee projects on Instagram, which various woodworkers had produced, so hopefully those will also be treasured for many years to come. As you say, a cigarette box is a bit of a rarity these days, but even so, it could easily be modified for another use. If any readers produced special projects to mark the Platinum celebrations, do get in touch, or indeed if anyone has made the mementoes shown here, we'd love to see them!
Best wishes, **Tegan**

READERS' HINTS & TIPS

AXMINSTER TOOLS *We share your passion*

Due to major stock issues with the Veritas range, a decision has been made, in conjunction with Axminster Tools, to substitute the original prize for a similar one within Axminster's Rider range. Rider planes represent traditional, quality plane manufacture and feature a ductile iron alloy body, accurately ground sole and carbon steel blade. The new prize – the **Rider No.5⅛in Jack Plane** – is not only versatile, but also perfect for flattening, jointing and general preparation.

To be in with a chance of winning this great piece of kit, just send your top workshop hints, tips or pointers – indeed anything that other readers may find useful in their woodworking journeys – to **tegan.foley@mytimemedia.com**, along with a photo(s) illustrating your tip in action. For more information on Axminster Tools, see **www.axminstertools.com**

ORGANISE YOUR ABRASIVES

I have all kinds of abrasives on hand, just in case I need a specific grit or particular type. As such, my storage for these was a bit of a mess. Since almost all abrasives are A4 in size – the same size as printer paper – I keep it all neatly organised in an inexpensive accordion-style file folder.

I started by taking all my abrasives out of the packaging and sorted them by grit. Each grit has its own slot in the folder, with the front pouch reserved for smaller scraps of various types.

Now all my abrasives are kept in one place, and very accessible. While in the workshop, I can bring out the folder and easily find the particular type or grit required. **Phil Abbott**


An inexpensive accordian-style folder is a great aid for storing abrasives

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FROM CONCEPT TO CURVES

Greig Fensome takes us through the design and making process that resulted in his 'Fold' pair

When approaching a project, the first challenge for any designer-maker is to create a convincing design that satisfies all aspects of the brief, thus meeting or even exceeding the client's expectations. As a relatively new maker, I don't yet have a distinctive style or signature piece with which to entice a client, so have to rely on a persuasive design methodology that can convert what the client wants into an exciting and original idea. Clients don't always have the creative or visual flair to read into a designer's idea – that's why they commission someone to do it for them, after all – but it's up to the designer to be able to interpret a client's requirements into a clear and decipherable presentation.

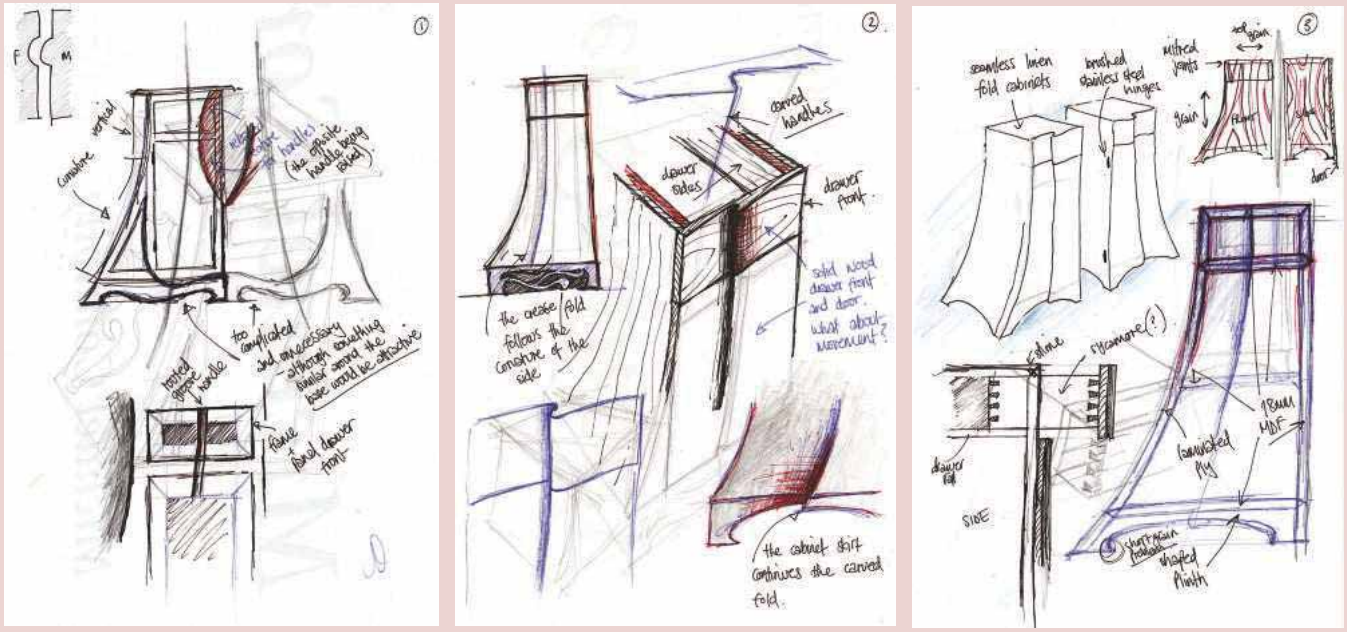
During my time working in a professional furniture maker's workshop, I was lucky enough to receive an enquiry regarding a bespoke pair of bedside cabinets – my inaugural commission outside the immediate friends and family group, and the first real test of my ability to pitch an idea.

After meeting and consulting with the client to get a feel for their taste in interior décor and to gauge their openness for creative ideas, I was able to formulate a brief for the 'Fold' cabinets.

Interpreting a brief

The brief was for a pair of 'his and hers' bedside cabinets with one drawer in each to hold watches, wallets, keys and other small items, in addition to a cupboard with a shelf in each to hold books, magazines and other larger items.

There were two Tiffany bedside lamps on the current cabinets, which would be staying, and the bedroom was full of beautiful fabrics; the other furniture in the room was all antique, Art Deco in style, and made from different shades of dark timber. This was the key information I gleaned from the first consultation – overall, I knew that they wanted the cabinets to exhibit



Having established the brief's parameters and decided to incorporate the folds and curves of fabric into the design, I began to sketch ideas

For a professional maker, this is the key stage of the design process – all or nothing. The client arrives at the workshop and you present your initial concepts with a wide selection of timber samples and hardware brochures where appropriate. Ideally, you'll have work in progress in the workshop so that the client can appreciate the level of quality you, as a maker, are trying to achieve. It's all part of creating a personal experience for the client – after all, they'll play a huge part in the creation of their new furniture.

For the presentation, I usually provide an artistic impression and some technical drawings so that no matter what the experience of the client or their inability to visualise an idea, you've covered all bases and they can clearly see what they're buying into. If there's no showroom to parade your previous work to prospective clients, then you're relying solely on the design to engage the client and secure the job. For me, good design hinges on developing an idea that you might not initially associate with the end product – in this case, a pair of bedside cabinets. Some designers develop ideas based on the influence of other furniture or makers, but in taking inspiration from fabric, the design of the 'Fold' cabinets began to take on a life of its own.

When the client saw these sketches – above – and the detailed drawings associated with them, they started to buy into the idea of what it means to commission bespoke furniture; it's all about owning something truly unique

a good mix of traditional features and contemporary elements.

For me, a brief is something that I continually refer to during the design process and occasionally as a reminder during the making phase. It's really important that all the client's wishes are outlined in this document as you don't want to miss any of their requests; believe me, you'll be reminded of them when you deliver the piece, and they may lead to very costly remedies.

Armed with an initial brief, I started to prepare my design for the bedside cabinets. Basically, I analysed all aspects of the brief and explored matters of functionality, shape and style. Apart from the specifics already mentioned, I knew that the height of the units had to be roughly similar to those of the bed and that it'd be wise to explore darker timber species. Also, could I somehow incorporate the bed's gorgeous fabrics into the design?

Developing a concept

With the brief's parameters set, my ideas could now begin to flourish. Toying with the idea of bed linen as a source of interest – potentially contrasting its fluidity with the rigidity of timber – I thought I could create something quite striking.

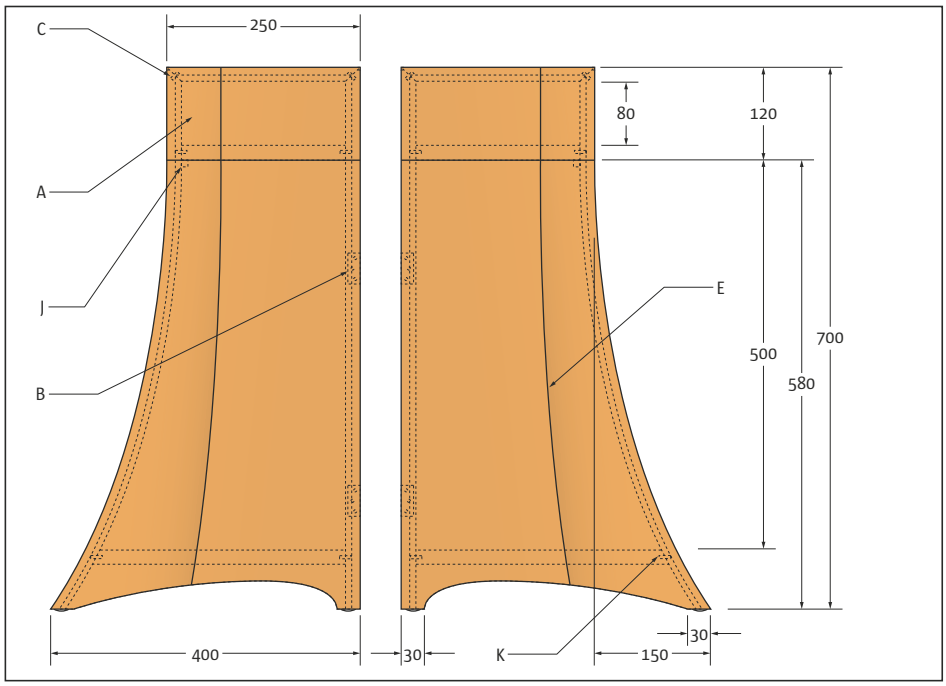


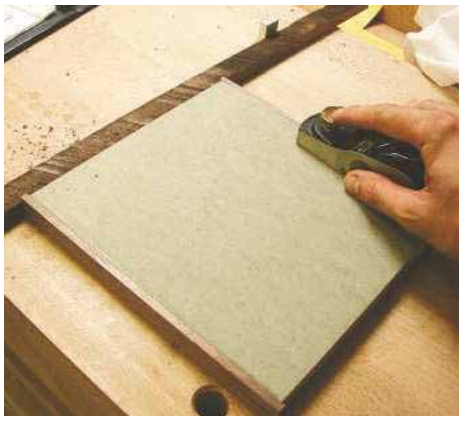
Fig.1 Front elevation

To try and make solid material look as though it's flowing or folding seemed like a very appealing design concept – certainly more fun to draw than square boxes!

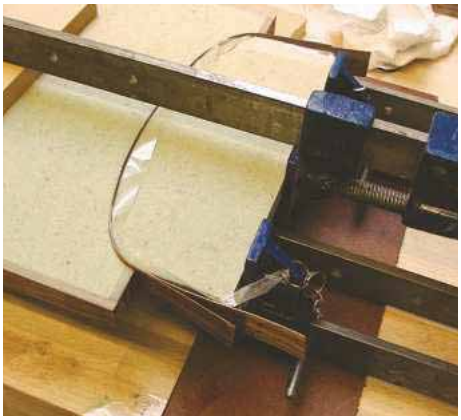
So with pencil in hand, I started to investigate. Having considered the limitations of my making skills – owing to lack of experience more than inability – I arrived at a design that I was very

1 I started by machining 6mm and 3mm lipping for the carcass components

2 I used tape to stick lipping on to the corresponding edges, leaving a 1-1.5mm overhang



3 The lipping was then planed flush



4 Using MDF offcuts, I created curved clamping blocks to laminate 3mm lipping to the edges

5 I created a mould for the carcass' curved plane

6 Next, I glued 1.5mm constructional ply prior to vacuum forming

pleased with. I must point out that although I would be considered a novice compared with more experienced makers, I do make sure that I'm always pushing my abilities to their limits. It can be an expensive way of learning, but it's the only means I have of quickly gaining experience in different aspects of making. In this case, even though the design was a simple one in terms of decorative detail and construction, it still had a sophisticated, challenging edge to it.

Once I'd arrived at an idea, I had to formulate it into a comprehensive set of drawings. At this point my idea was little more than a sketch and, as an architect would rely on a structural engineer's skills, I had to rely on my own as a maker to analyse the technical processes involved in constructing the piece and bringing the sketch to life. Obviously, it's important to keep the design as close to its original concept as possible, but there may be aspects that need changing due to manufacturing constraints. For me, the important thing is to find a solution to any manufacturing problem that doesn't compromise the design. By undergoing this analysis, you get to know the design very well. Even so, I find that by producing detailed drawings I can visualise every aspect of it in 3D, which ultimately leads to an artistic impression of the final piece that can then be presented to the client.

The construction

Building the square top required four pieces of the horizontal timber – sapele in my case. The pieces required rebating to half their thickness and the same depth, so that the shade parchment could later be mounted. At this point, I drilled a 1.5mm blind hole at the mid-point of two inside opposing faces – to take the wire support for the lamp holder on final assembly – before the corners could be carefully mitred.

Seeing as the mitre joint is the most difficult joint to get right, I had to take great care when cutting the 45° ends on each of the pieces. Once done, it could then be sanded to 240 grit. To assemble the top, I made a simple jig consisting of a 6mm-thick base with a square block mounted in its middle. The pieces of the lamp top frame could then be glued together and clamped around the block on the jig.

7 An old rubber bag press was used to shape the laminated ply

8 I shaped the mould to use as a template for the side panel cut-away...

9 ... and used veneer to lip the curved panel

10 Using the cauls as templates, I cut veneers for the carcass

11 The rubber bag sprang a leak, so veneering was moved to a poly bag press

12 I used a panel trim for trimming the veneers

13 A 45° cutter was used to produce mitres for the tops of the sides

14 Biscuits provided an easy solution for fixing the bottom shelf

15 The inside polished faces could then be waxed

It's important that the two previously-drilled holes end up facing one another. To reinforce these rather fragile joints, I made up some small corner pieces from 3mm plywood, glued these into the inside corners, then trimmed them once the glue had set.

Machining & lipping

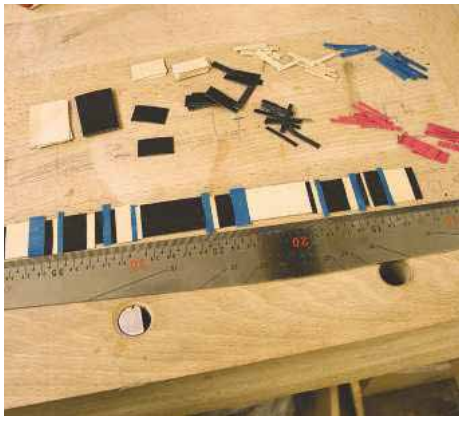
So, with cutting list in hand, and all the timber, veneer, MDF and ply ordered, I set about machining the components. With this project there were a number of cutting stages. The MDF core for the flat planes of the carcass were cut to exact size first, allowing for the 6mm lipping on all edges.

The back panel was cut oversize and shaped from a template to form the falling curve of the cabinet's final front elevation – the same template would be used throughout the construction. Next, I machined the 1.5mm constructional ply for the curved plane, keeping it oversize to allow for more precise trimming after moulding. I also cut sections for the mould, which would be cut to final shape using the aforementioned template. Any spare MDF was kept for later use as clamping blocks for the curved lipping.

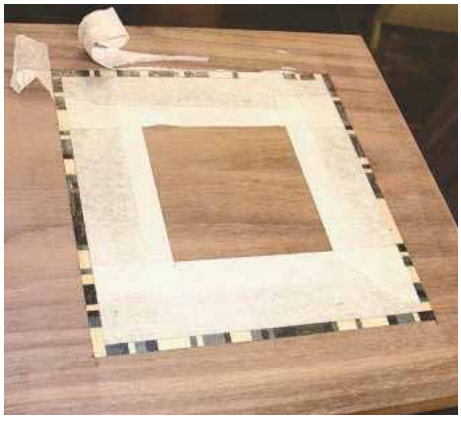
Once I'd machined the 6mm lipping, I started gluing it to the straight edges that required it. Although the top was going to be mitred to the side panels, it was still necessary to add a lipping to the joint edges to strengthen an otherwise weak acute angle; it also meant that the arris could be turned over without revealing the core material. The bottom edge of the side and back panels only needed a small section lipped as the majority of this edge would be later removed.

Once I'd planed and sanded the lipping flush with the surface, I could then shape the bottom curves, which flow around the unit's base.

I clamped 2 × 3mm lipping to these edges, which would ensure they'd fit the tightest curves. With the flat components lipped and ready for veneering, I moved on to making the curved side using a mould and vacuum bag. The mould was a lot longer than the final components needed to be and was disposable, as it'd be used as a template, and therefore cut into and ultimately destroyed. The oversized ply meant that I had enough waste at the bottom edge to screw all



16 I created inlays for the tops using various coloured veneers



17 I then glued the inlays into place using contact adhesive and a veneer roller

18 The next step was to prepare the solid sections for the laminated doors

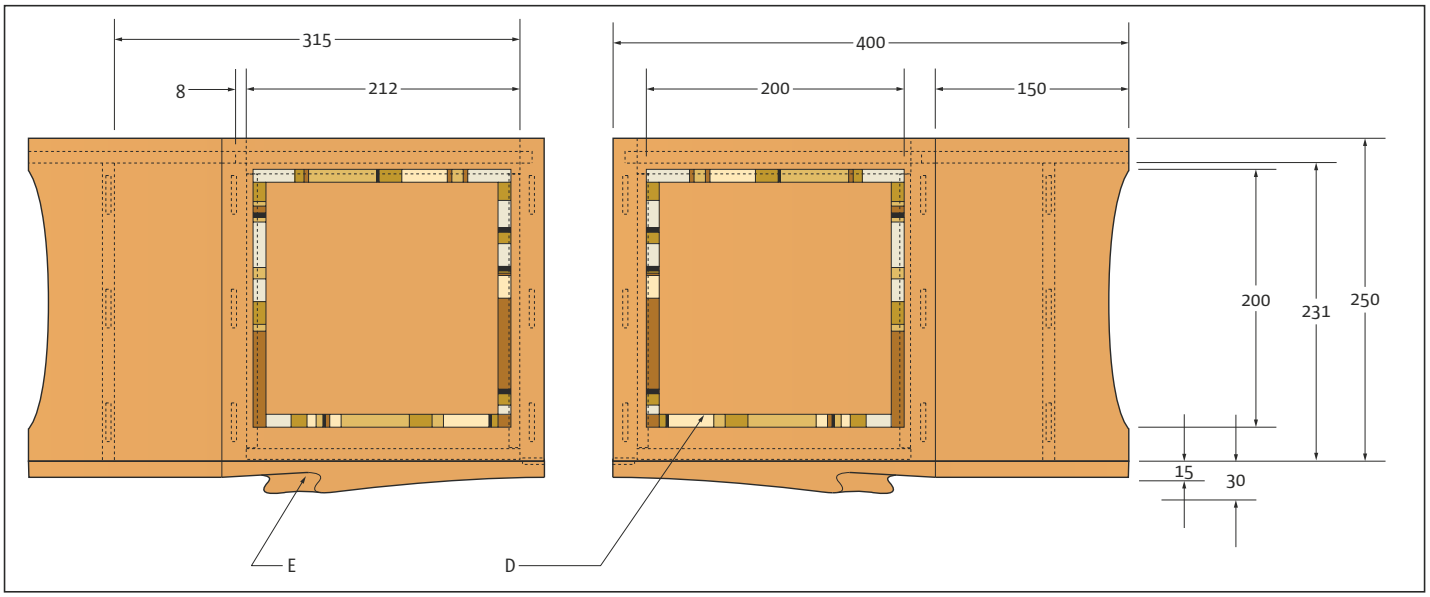


Fig.2 Top elevation

11 layers down, which would prevent the pressure from the vacuum forcing the ply off the mould. I then cut the panel to size on the mould and shaped the bottom edge using a template trim. Once I'd lipped the freshly formed side panel, remembering to install a rare-earth magnet underneath the lip to attract the magnet in the door, all components were then ready for veneering.

Veneering & inlaying

I wanted the veneer's grain to flow around the unit as is conventional in traditional furniture making, so I cut the veneer using slightly oversized templates, which would later act as cauls during the veneering process. After trimming the veneers and routing grooves for the back panel, the carcass was then ready for jointing.

Due to the fact there's no complex joinery in the piece – the top is mitre jointed to the sides, and the drawer shelf and bottom is biscuit jointed – it didn't take long to reach the carcass assembly stage. Before assembly, however, I polished all the inside surfaces using shellac and clear beeswax. With the carcass assembled, it was now time to make and fit the piston-fit drawers – see 'Piston-fitting' sidebar.

The decorative inlays on top of each of the cabinets were designed to mirror one another, one predominantly pink and the other blue – thus 'his and hers'. Using coloured veneers, I created a very simple barcode-style pattern using various widths of veneer. By laying them down onto a masking tape backing, each piece of veneer was held in position while I trimmed and glued them; once the glue had set, I could then peel off the masking tape, et voilà!

The first step in piston fitting a drawer is to ensure the sides fit perfectly...

... by using a shooting board to plane any fine adjustments

PISTON-FITTING

Making a drawer which fits so tightly that you can feel the suction when you open and close it is known as piston-fit, and is a recognised mark of fine furniture making. These bedside cabinets called for just such a mark, but how did I do it?

First I had to ensure that the sides were exactly parallel from front to back – bottom left – then I fitted the drawer sides using a shooting board, and trial and error, gradually working towards a fairly tight but easily movable fit – bottom right. I used the same method to fit the other side, then gradually shot the ends of the false drawer front until I'd achieved a snug fit. The back of a drawer should always be narrower to allow for the drawer bottom to pass underneath and for air to pass over the top.

The completed drawer with cedar of Lebanon to relive the lemony scent

With all parts fitted, I proceeded to cut through dovetail joints for each corner. Once the inside faces were polished and waxed, I assembled the drawer boxes before inserting the bottoms

19 A template was used to rout the cabinet's integrated handles

20 The door was shaped with an outside curve to match the carcass

21 After a lot of hand sanding, the final door and drawer shapes were finished

22 The final step was to polish the remaining surfaces using a shellac/wax combination

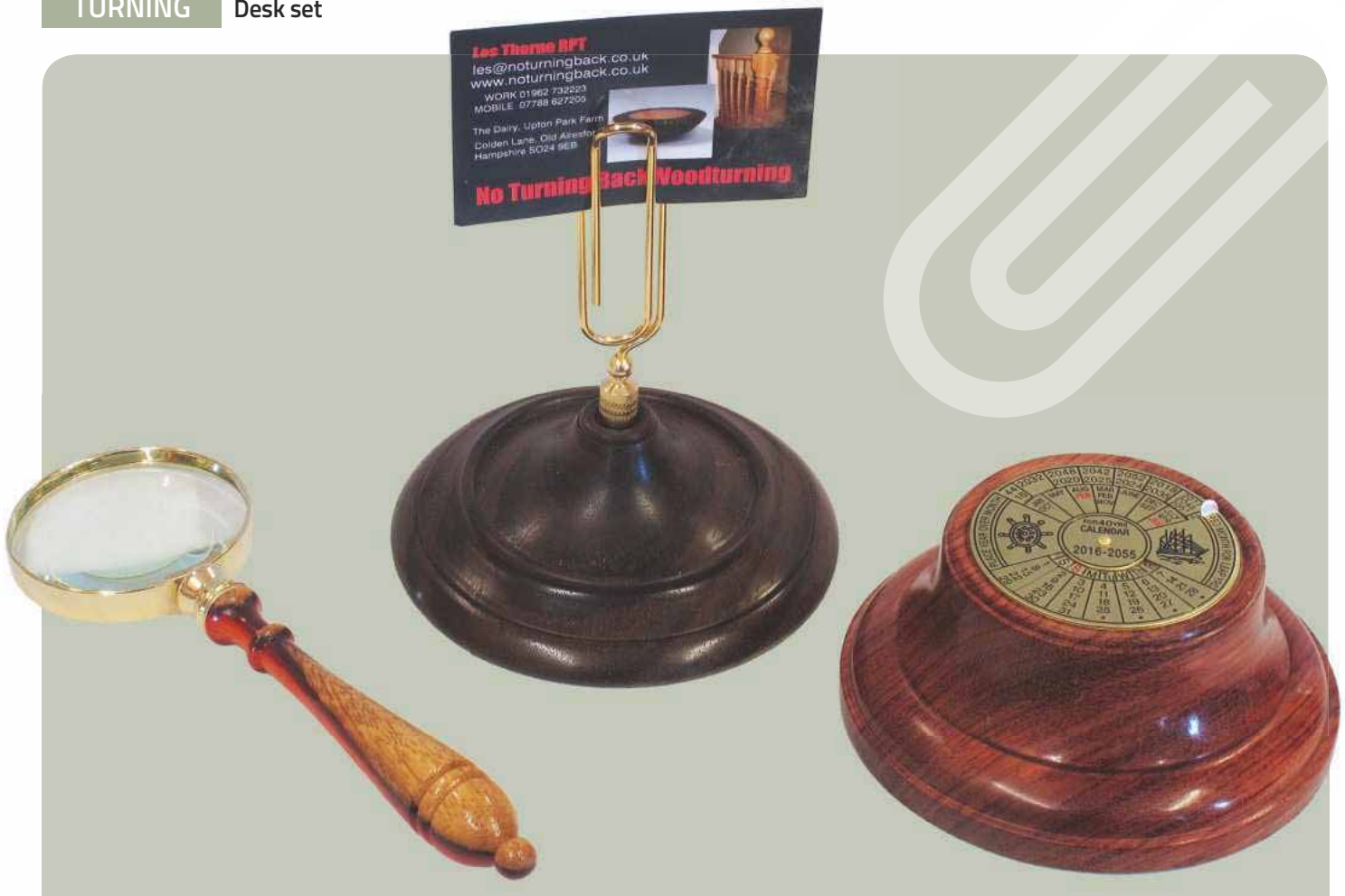
Final touches

Aside from the final polishing and waxing, the last stage of the build was to make the solid door and drawer front. I used two thicknesses of timber for the door where the meeting point of the two becomes an integrated handle, which is made to look like a linenfold. I glued the timber laminae together in a blockboard style and routed the handle using a drawer-pull profile cutter. After much sanding and shaping, I finished the door's surface and cut it to size using a template corresponding to the front of the assembled unit. I made a cut to separate the drawer front from the door, then fitted this to the drawer box. Next, I installed a magnet in the door and covered it with a maple door buffer before polishing and waxing all the unfinished surfaces of both units to a low sheen finish.

I walked away from this project with a satisfied client and an abundance of new techniques under my belt, some that even the most experienced makers may not have used.

Through diligent design, it's possible to prepare for any eventuality in the workshop but bespoke furniture making is in its very nature about learning as you go. I believe that the most successful furniture derives from not only anticipating problems, but knowing how to deal with them successfully without compromising your design. Whether you have the ability to visualise how everything goes together three-dimensionally or, like me, you need to use two-dimensional sketching to understand problems, the result is usually a well thought out solution that can save time, and more importantly, prevent you from making errors. All-in-all, this kind of forethought will help you to develop into a better furniture maker.

23 The completed cabinet pair



TIDY DESK, TIDY MIND

Les Thorne jazzes up his desk by turning three different accessories using a selection of exotic timbers, all of which feature ready-made brassware

In the past, I think I've been a tad dismissive of turners who add ready-made brassware to their pieces – I'm definitely a woodturning snob! However, I've changed my attitude on this matter as lately I've been doing some craft work whereby this type of thing is very sought after, and I've also received some positive feedback from other guys in the workshop, so there must be something going for it.

Many moons ago, my father had a woodturning supplies shop in Hampshire and was a major stockist for a Derbyshire company called Craft Supplies, who've since been taken over by Turners Retreat. A major part of their catalogue consisted of 'add-ons' such as clocks, pen kits, candle cups, etc. My father sold a huge amount of these products to hobbyists and professionals alike. The brassware for these projects came from Axminster Tools and the timber was taken from my exotics collection. I decided to make the various desk components using three different timbers, but if making them for yourself, then other species will also work if you don't have exotics to hand, or if you simply prefer other timbers. These projects require the minimum equipment and tools and are quick to make, so therefore ideal for the turner with limited time.

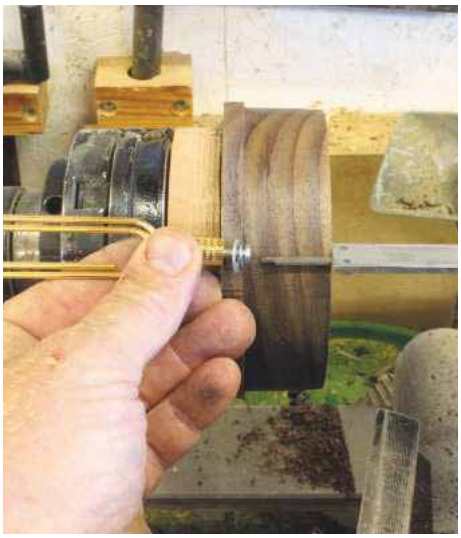
MEMO HOLDER

1 For this project you'll need a memo/letter holder desk kit – which is essentially an oversized paperclip with a fitting screw – plus a piece of rosewood or similar. Here I'm using sonokeling – sometimes known as Indian rosewood – which is a beautiful dark, stripy timber

2 Start by mounting the blank onto a sacrificial piece of wood and proceed to mount it in the chuck. To glue the rosewood onto the chuck, use a good quality hot-melt glue

3 Turn a dovetail recess to suit your chuck – this will form the project's base. My recess needed to be exactly 3mm deep to suit the hardboard plug that'd be put in place prior to covering the base with baize

4 The paperclip is held in place by a screw attached to the underside. You'll need to drill a hole to accept the washer; a sawtooth machine bit is ideal and will cut a clean hole



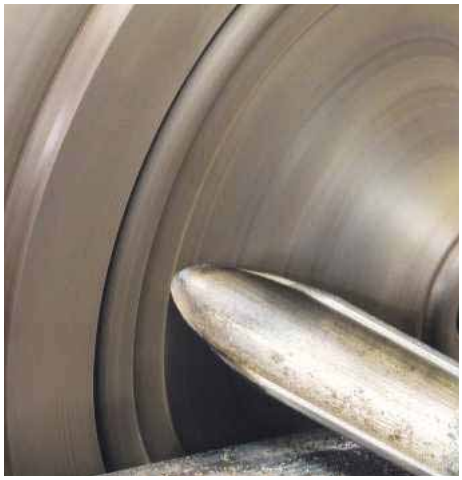
5 The hole for the washer has to go to the correct depth to allow a small hole for the screw. Offer up the screw and use Vernier callipers to measure the depth of the larger hole

6 Drill a small hole for the bolt using a 4mm twist drill. Mount the drill in a Jacobs chuck placed in the tailstock and make sure the drill goes in straight; if it doesn't, it could break

7 You can now put the jaws into the recess and start thinking about the shape. Good cuts are required in order to achieve a quality finish on the rosewood. I tend to use a small bowl gouge for working hard timbers such as this

8 Any small details can be added with a parting tool. A little fillet towards the base makes a punctuation point between two opposing curves on the base

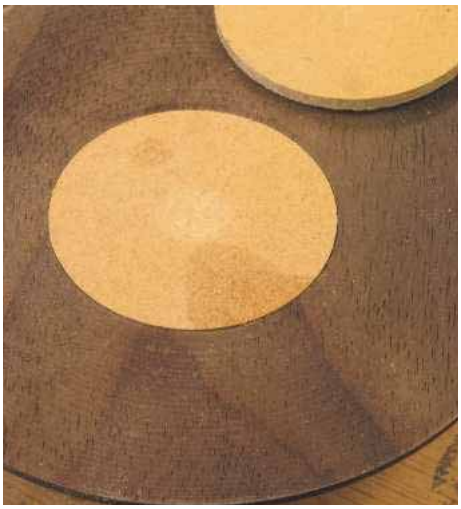
9 I thought long and hard about how to shape the top part where it meets the brass, but in the end I opted for a tiny bead detail. The Ashley Iles beading tool works perfectly on hard, dense timbers such as this



10 Rosewood isn't the easiest timber to sand so it's worth taking your time to achieve as good a finish as possible off the tool. The 13mm signature gouge is used for the final few passes

11 Once the piece is sanded to 400 grit, apply a coat of sanding sealer. Once the sealer is dry, cut back lightly with a fine Nyweb pad. Microcrystalline wax is perfect for this timber; you'll need to let it dry for 20 minutes before buffing

12 Once you've screwed the paperclip in place you need to measure the recess' diameter. Filling this in means that the baize won't sag in the middle, which gives a much more professional result

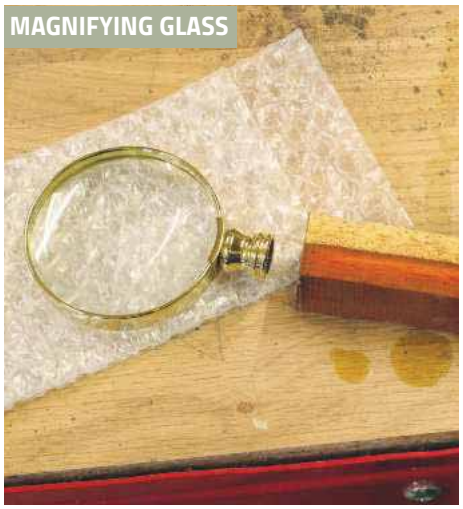


13 The hardboard is turned by jamming it between two pieces of wood, then mounting between centres. Traditional turning tools will cut the hardboard easily

14 Sticky-backed baize is fine for this project. Cut a rough circle around the base, then stick it in place. Make sure there's no wax on the base otherwise the baize won't adhere properly

15 Now the clever bit: use a new piece of 180 grit abrasive and rub the edge of the base where the baize overhangs; this cuts the baize really cleanly and is much better than trying to accurately cut around it with a pair of scissors

16 The completed memo holder should look something like this



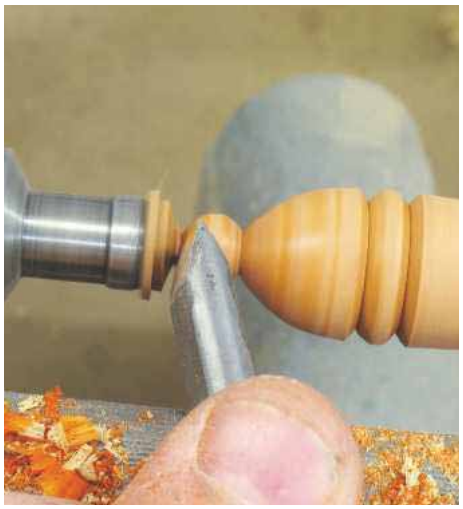
1 What a lovely piece of padauk – I'm so glad I kept it. I have a lot of timber like this that I never throw away. The black line between the red heartwood and sapwood is particularly interesting

2 The only really important dimension on this project is where the timber enters the handle; this needs to be accurate so therefore requires measuring with a pair of Vernier callipers

3 Mount the timber between centres and turn it to the round using a spindle roughing gouge. Transfer the diameter of the required spigot onto the tailstock end of the piece

4 Making handles is all about fine detailing. Take the wood down to the required size using a parting tool, then use a gouge or skew chisel to create the shapes. Sometimes less is more, so I chose not to make the design overly fiddly

5 To maintain as much strength in the handle as possible, try and finish the tailstock end, then work your way towards the headstock. The final peeling cuts are worked the other way using the skew chisel



6 The little ball on the end is a great detail for any small handle. The skew chisel is the best tool for adding this as its thin cutting edge easily fits into the tight groove

7 You can see the problem with sanding many of these types of exotic timbers. The abrasive will clog up unless you're constantly moving it as you go along. Also, too much pressure will lead to a raft of other problems

8 Parting off the work between centres is a technique that requires some practice and should only be attempted once you're confident with it. Always part off at the drive end, never the tailstock

9 If you part off with the skew chisel, there'll be little or no cleaning up necessary on the end. You can see the orange dust on my fingers: protect yourself from this as it can be an irritant

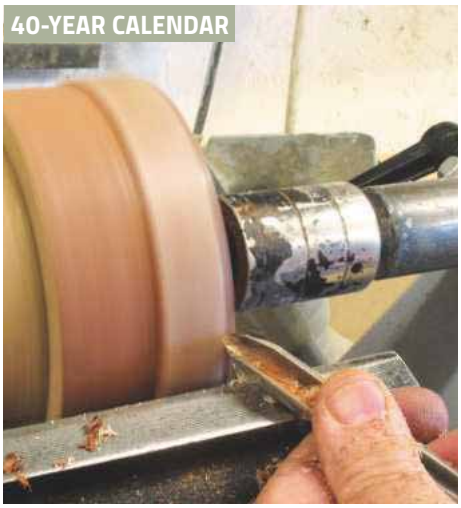
10 I chose to apply a spray lacquer finish on the handle but first needed to find a way to hold it while it dried. As I only had one to complete, I screwed a square of MDF onto the bottom – be careful not to split the handle here

11 After you've applied a few coats of lacquer, mix up some good quality two-part epoxy such as this Z-Poxy. If you find that the product hardens up in the container, sit the bottle in hot water for a minute or so to loosen it up

12 The lathe makes a perfect clamp. The ball on the handle fits into a small recess in the disc, and the tailstock fits into a small hole in the ferrule. Allow enough time for it to really harden up, then screw the glass in place

12 The completed magnifying glass should look something like this

40-YEAR CALENDAR



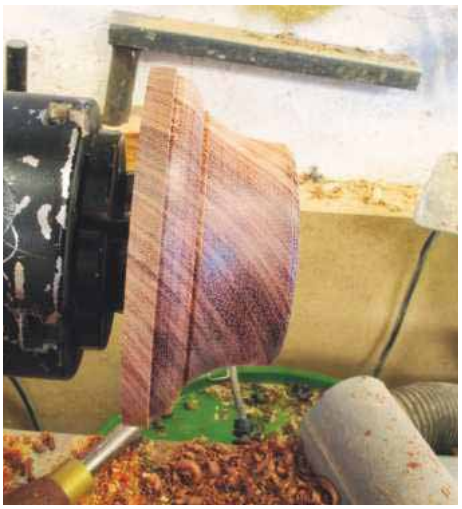
1 Another great piece of timber, this bubinga is really heavy and will allow the calendar to double up as a paperweight. Mount it in the same way as the memo holder, turn a recess and proceed to mount it in the chuck

2 The size of the brass disc needs to be transferred to the top of the bubinga. Use a pair of Vernier callipers to transfer the diameter to the project, but be careful to ensure the callipers don't grab

3 Turn away a shallow recess to accept the disc – I like to keep this as small as possible and it looks odd it if sinks into the top too much. Cut the recess with a 10mm round skew chisel used as a scraper

4 Once again, the transition between timber and brass is all important. I'm carrying on the theme and applying a bead to the edge of the disc

5 I was experiencing a little vibration using the small bowl gouge, so changed to a 13mm tool for extra stability. The timber is very dense and can sometimes cause problems such as this



6 A nice simple shape is all that's required. When you use wood like this it does its own 'talking' – too much shaping detracts from the timber's natural beauty

7 Buffing your work isn't a new thing and will afford you a really amazing finish. I'm using the three-mop system from Chestnut Products; each mop screws onto a chuck-mounted arbor

8 The system is supplied with hard, medium and soft mops, two different compounds and a wax for the softest wheel. Always buff in this position and ensure to hold on tight as if you're not careful, the work can be pulled away from you

9 The completed 40-year calendar should look something like this

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Engine power	1.1 kW
Power	230V
Engine speed	2850 rpm
Maximum working width	152 mm
Maximum Planing depth	13 mm
Shaft rotation	4500 rpm
Knives in the shaft	3
Shaft diameter	Ø62 mm
Pendulum heel angle	0 ° -45 °
Worktable dimensions	1210x185 mm
Diameter of the extraction port	Ø100 mm
Weight	105 kg

MB150 Surface Planing Machine 230v

The Cormak surface Planing machine is solid and has a well-thought-out structure, which gives a lot of possibilities and mechanical processing of wood.

Machine description

Machine task is to give adequate flatness to surfaces to subject them to further processing stages. The high weight of the machine (105 kg net) ensures high stability, which guarantees safe operation without vibrations.

PRICE: £1,080.00 INC VAT

"Just Plane Simple New from CORMAK!!"

CORMAK

PT260S Planer and Thicknesser + Spiral Shaft 400V

The Cormak PT260S planer is characterized by a durable construction, which gives a lot of possibilities of adjusting and processing hard and soft wood in a mechanical way. Changing from a planer to a thicknesser takes a few seconds. Machine weight (175 kg) ensures safe and vibration-free operation. Standard equipped with spiral shaft.

Component for adjusting knives is included in the set.

Please note that machine does not come with drill - chisel attachment as shown.

Motor	2 kW / 400V
Table dimensions	1100x250 mm
Thicknesser table	600x248 mm
Spindle diameter	75 mm
Spindle speed	4000 rpm
Guide tilt	0–45 degrees
Extracting Outlet diameter	100 mm
Number of shafts/dimensions	3 / 250x30x3 mm
Maximum height of thicknesser	180 mm
Maximum thickness of machining	5 mm (planer) / 2.5 mm (thicknesser)
Maximum width of machining	250 mm
Weight	170 kg

Machine description

This planer and thicknesser is a solid and well-thought solution, allowing for wide adjustment and machining capabilities of soft and hard wood. The adjustment itself is relatively simple and transforming planer into thicknesser takes only a few seconds. Its weight (170 kg) provides stability, ensuring safe, vibration-free work with additional anti-vibration feet.

PRICE: £2,050.00 INC VAT

Aries Duct Fix Ltd
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AROUND THE HOUSE WITH PHIL DAVY

I finally said farewell to my very first router the other day. A trusty Elu MOF96, this was one of the single speed models, bought at least 45 years ago. Back in those days, you needed to find a specialist power tool supplier in order to buy one, as I doubt many retailers had even heard of a router. Learning to use this incredible tool at college was exciting and I knew that, at some point, it'd go on to become an essential item in my workshop.

I can't say the Elu was still going strong when we parted company, as the slider on/off switch was jammed solid. For several decades, the router had been used inverted in a small Elu table, without dust extraction, so it's hardly surprising it looked sad. Hopefully the charity TWAM – Tools with a Mission – will give the MOF96 the TLC it deserves and it'll eventually benefit a new woodworker somewhere in East Africa. For more information on the work they do and how you can donate to this worthy cause, visit **www.twam.uk**

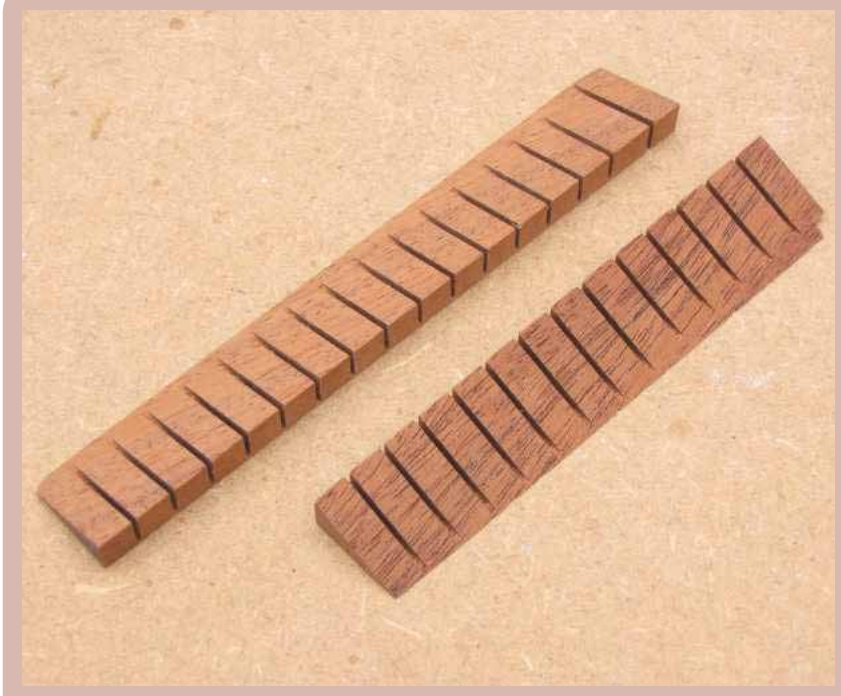
Q&A
WORKSHOP SECURITY

Q I'm considering buying one or two small machines for my workshop, but realise that the building itself could be vulnerable. Although a timber shed, it's well insulated and the exterior has been well maintained. Any suggestions on improving security would be welcome.
A Cotton, by email

A Doors and windows are more obvious entry points than cutting a hole through the cladding, for example. Concentrate on these areas first. Not only fit a substantial padlock, but hidden security hinges on the door – try IronmongeryDirect or Screwfix. One of the most effective devices on my own workshop is the Shed Security Bar, which locks right across the door and prevents forced entry – see **www.a1sheds.co.uk**. Window locks are cheap. You could replace glass with acrylic or polycarbonate sheet, though this is pricey.

Either install metal grilles or rods across the insides of windows, or heavy MDF panels, which can be quickly lifted into place once you've finished working. Alarms can be fitted to doors and windows and a passive infra-red device above the door to illuminate the area if somebody passes in front of the beam after dark, though you may need to adjust this to prevent animals setting it off

The A1 ShedBAR™ Shed Door Security Bar from www.a1sheds.co.uk



Some examples of kerf cutting

Q&A
CUTTING THE KERF

Q I'm thinking about building an acoustic guitar from scratch – what's the best way to bend the linings around the top and bottom of the sides?
E Brown, Newcastle

A Linings increase the gluing area for the top and back of an instrument. As most guitars have decorative purfling around their edges, linings also provide strength where edges will be cut away when routing the necessary rebates.

Start by planing your timber to size, slightly longer than the guitar rib – side. Although tricky without a planer/thicknesser, if planing by hand, make the pieces shorter; they can be butted together when gluing. The easiest way to bend linings is by cutting kerfs on the bandsaw. Stack two lengths and tape together, then feed them into the blade – in effect cutting a series of deep notches. Don't cut all the way through; you should be able to bend a lining easily without it snapping. I advise experimenting on scrap timber first!

INSPIRED BY JAPANESE TOOLS

NIJIHIRO CHISELS

Japanese woodworking tools have been available in Britain for decades, although the Niwaki name is a relative newcomer, conceived by topiary consultant and writer Jake Hobson, who spent several years working in a traditional Japanese tree nursery. An appreciation of oriental cutting and pruning tools and techniques led to the introduction to these shores of a rather unique Tripod Ladder, the first in a growing range of garden products. Renowned for the quality of their steel, Japanese kitchen knives, axes and steps soon arrived, followed more recently by a line of woodworking tools. This includes saws, axes & nata, carving tools, planes, hammers, utility knives and 10 hand-forged bench chisels – from 3mm to 42mm – plus a boxed set of Nijihiro chisels.

I tested a narrow 6mm chisel and a fairly wide 30mm tool, both of which are supplied in splendid decorative cardboard boxes. Polished blades have a single bevel – a tad over 25° – and are incredibly sharp; in fact, they're ready to use with no honing necessary. Blades are from white paper steel – harder – laminated to low carbon jigane steel – softer – for durability. All have distinctive hollow backs – a characteristic of Japanese edge tools. The unfinished white oak handles are tight-grained and silky smooth, creating a lovely grip. Two handle diameters are available, depending on blade width.

Each chisel is fitted with a steel hoop and designed to be struck with a hammer. At £99 for the narrowest chisel, these aren't cheap and the widest – 42mm – will set you back £159, but that's still less than a 25mm Veritas chisel… and if you've never used Japanese tools before, you're in for a treat!

SPECIFICATION

- Hand forged by Imai san at Nijihiro
- Shirogami white paper steel
- Japanese white oak handles
- Made in Sanjo, Japan
- Available to dispatch worldwide

Typical prices: 6mm (125g) – £99; 42mm (265g) – £159
Web: www.niwaki.com

RATING: 5 OUT OF 5

The single bevel is incredibly sharp

The hollow backs are typical of Japanese edge tools

Each chisel is fitted with a steel hoop and designed to be struck with a hammer

The two handle diameters depend on blade width

GENNO HAMMER

This hammer is perfect for use with Japanese chisels or any task in the workshop where a conventional claw or cross-pein hammer would be too heavy. Two different options are available: the 300g model, weighing 410g and measuring 361 × 84 × 22mm, and the 450g model, which weighs 470g and measures 361 × 95 × 25mm. Fitted with a slender, unfinished handle in Japanese white oak, this is wedged into the lacquered steel head in the traditional manner. Octagonal in section, one striking face is flat while the other is slightly convex. An indent underneath helps identify which face is which, though this isn't easy to determine during use.

The extra long shaft means the tool balances nicely, though it could take some getting used to depending on the task. Whether it's adjusting the cutting depth on a Japanese plane, striking a chisel or simply driving home small nails, this is another simple but delightful tool from Niwaki.

The Japanese white oak shaft is wedged…

… into the lacquered steel head, as you'd expect

SPECIFICATION

- Beautifully balanced octagonal section Japanese hammer
- Japanese white oak handle
- Made in Japan
- Available to dispatch worldwide

Typical prices: 300g – £42; 450g – £52
Web: www.niwaki.com

RATING: 5 OUT OF 5

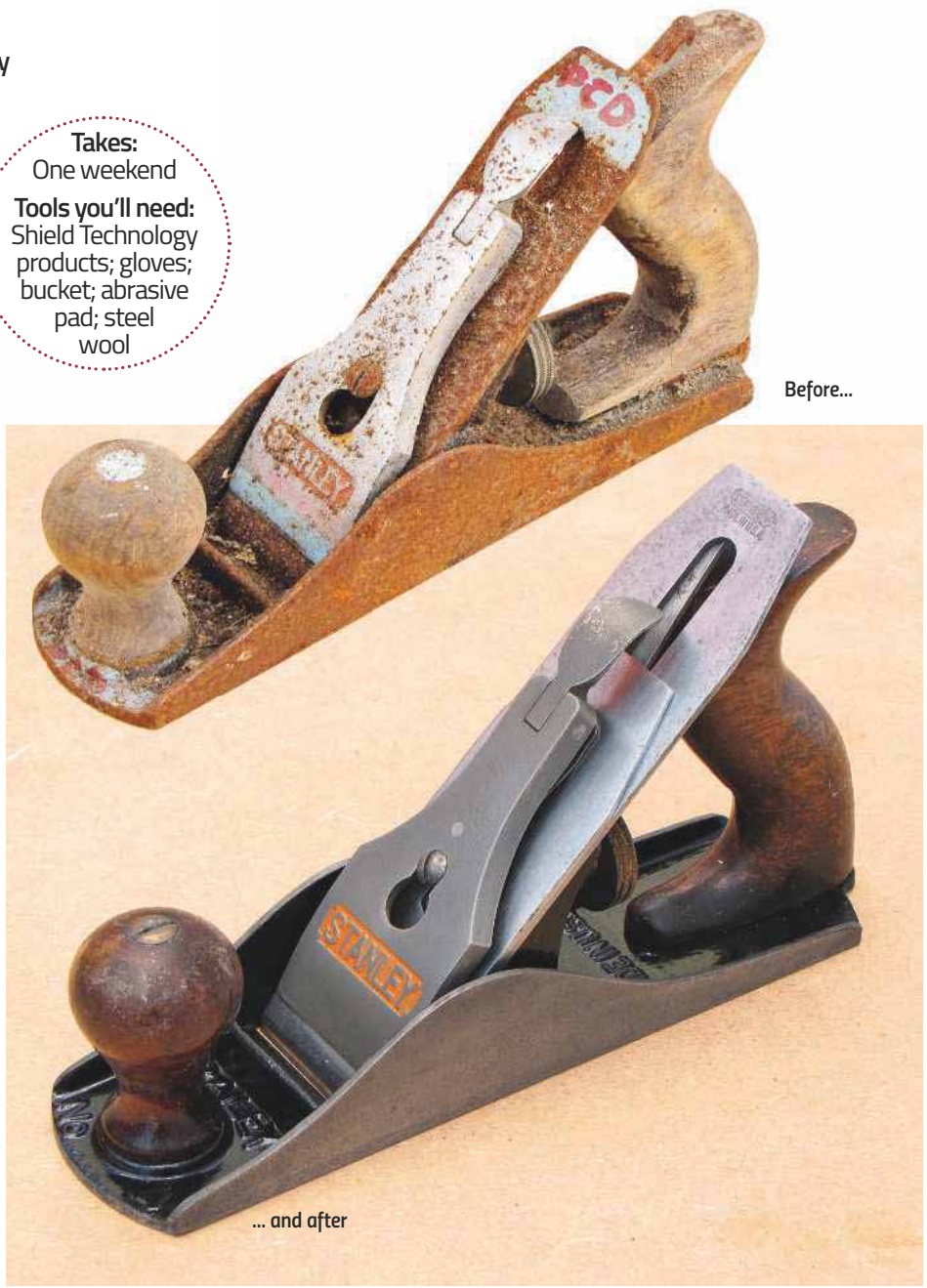
SUMMER PROJECT: TOOL RESTORATION

SAVING STANLEY

Takes:
One weekend

Tools you'll need:
Shield Technology products; gloves; bucket; abrasive pad; steel wool

Phil Davy obeys his conscience and gives a neglected old block plane a new lease of life



Before...

... and after

It's surprising what turns up when you're having a major workshop clear-out. Before replacing the roof a few years ago, a small leak in the old bituminous felt had actually caused a fair amount of damage. One of the sadder victims was a Stanley bench plane, which had been hiding in a box in the corner. It was in a pretty bad state and probably would've been chucked out by many people. I'd bought it some 40 years previously when leaving school and heading for college. Back then we tended to use a No.3 smoothing plane for finer work on musical instruments, though later on for joinery and general woodwork, a No.5 jack soon became my favourite.

Stripping down a bench plane is easy enough, but where do you start when there's so much rust? Not surprisingly, I used a range of Restore products, some of which I've tried previously when working on an old Record vice. Although the Pre-Clean Degreaser isn't essential here, it helps if there's oil or grease to remove first. Next, after soaking items in diluted Rust Remover surfaces will have a grey deposit, which can be cleaned off with fine abrasives and steel wool. When rinsed and dried with a heat gun, the body interior and frog were treated to Hammerite Smooth black paint. Although Restore eliminated surface rust from the chrome-plated lever cap, slight pitting is still visible and inevitable, I guess. Still, the completed plane looks a treat and will be stored more carefully in future!

Also receiving similar treatment – though far less rusty – was an old USA-made Stanley No.4 bench plane, which I bought a couple of years ago. This time I left the handles alone as they appeared to be rosewood and had a lovely patina. The rear tote broke in half when I removed it, having been repaired at an earlier stage in the tool's life. After tidying up the mating surfaces and re-gluing, it was ready to be refitted to the plane.

For more information on Restore Rust Remover and similar products, visit **www.shieldtechnology.co.uk**.

I didn't touch the rosewood handles on the USA Stanley

SHIELD TECHNOLOGY PRODUCTS FOR REMOVING RUST

Typical prices: **Restore Rust Remover 250ml** – £16.74; **Restore Pre-Clean Degreaser 500ml** – £19.95; **Restore Rust Remover Gel 250ml** – £16.74; **500ml** – £24.75; **ProtecTool Wax Polish 40ml** – £6; **100ml** – £10; **200ml** – £14.98; **Workshop Triple Pack (offers a 15% discount)** – comprising Restore Rust Remover – 250ml, Restore Rust Remover Gel – 250ml, Restore Pre-Clean – 250ml; £37.80

Tel: 01472 360 699
Web: www.shieldtechnology.co.uk

1 Rust on this No.3 bench plane was pretty bad following water damage in the workshop

2 After stripping down the bench plane, metal components are dunked in diluted Restore Pre-Clean Degreaser solution

3 Rinse with hot water, then completely submerge tools in Restore Rust Remover for several hours

4 Using an abrasive pad, wash off any grey deposit from metal surfaces, then rinse and dry the various components with a heat gun

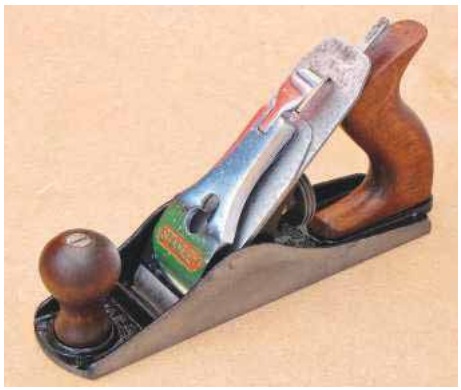
5 Steel wool and fine abrasive paper will help to get those tarnished steel surfaces brighter again

6 Remove old lacquer from handles using a Dremel multi-tool and hand sanding. Bleach wood if surfaces are patchy

7 Apply stain if the handles are beech, which looks too pale when stripped, then apply finishing oil or similar

8 Brush on two coats of Hammerite to painted areas of the plane body – no primer or undercoat is required here

9 Re-assemble the plane and regrind the blade. Apply Restore ProtecTool wax polish or Camellia oil to bare steel surfaces



10 The restored No.3 Stanley smoothing plane brought back to life and honed for workshop use

11 The rear tote on this No.4 plane broke in half when removed. Clean up surfaces and re-glue

12 A USA-built Stanley after similar treatment, which has rosewood handles, rather than beech

Coming up in the next issue...

The Woodworker & Good Woodworking September 2022 edition – on sale 19 August

A LOOK AT LELLÓ

After being announced as the winner of our recent Liberon competition, Ian Burnell takes us into the workshop and unveils the secrets behind the making of his critically acclaimed 'Lelló' cabinet

AXMINSTER TOOLS

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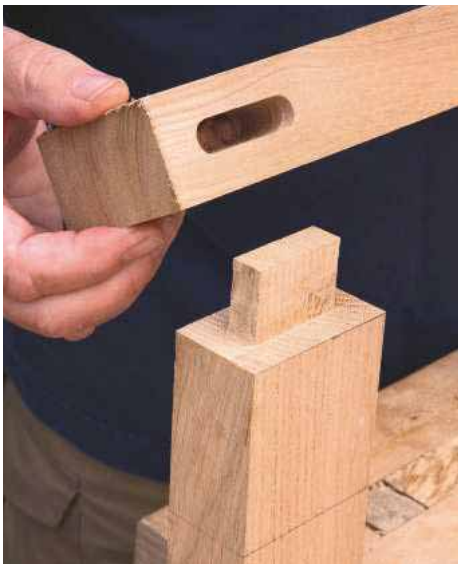

BEGINNERS' GUIDE TO MORTISE & TENON JOINTS

John Bullar moves on to discussing mortise & tenon joints and how they're traditionally used in furniture making, beginning with hand tool methods before looking at a few powered techniques

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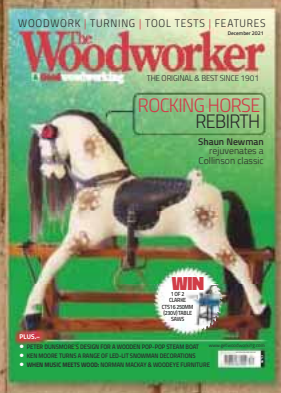

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1) Triton TCB 100 saw table; £85; **2)** Nobex Mitre Saw Champion 180; £65; **3)** Scheppach Deco 402 hobby scrollsaw; £50; **4)** Veritas scraping plane; £40; **5)** Clifton 3110 combination plane; £70 – all in very good condition **01386 430 043** (N.Cotswolds)

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1) Scheppach slide compound mitre saw – as new; £110; **2)** Clarke CBS300 305mm bandsaw – maximum depth of cut is 165mm – supplied with all fences; £150 **07904 433 520** (Gainsborough)

Jet JWL-1442 lathe (Swiss-made) – light use, in good condition, checked by Tewkesbury Saw Co; £500 – buyer collects (165kg) **07583 762 323** (Warwickshire)

Scheppach HM0 Solo planer/thicknesser – 10 × 4in throat with spare knives; new feed rollers fitted; £350 **01237 479 245** (Bideford)

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TAKE 5

Ahead of the deadline for the **Alan Peters Furniture Award 2022**, this month's selection is inspired by the work of the man himself – from curved drawer slips echoing Alan's original design to a letter rack made using old stocks of Devon walnut from his very collection

1 Cabinet in British ash by Charlie (Charlotte Gardner) – **@ccrispdesign** – made as her final piece while studying at Rowden Atelier Woodworking School – **www.rowdenatelier.com**. The drawer features hand-cut dovetails and curved drawer slips inspired by Alan Peters' design, adapted by head maker, Daren

2 'Echoes of Alan Peters' – exploring a few ideas both new and senior on a matched pair of prototype occasional tables, by William Bayliss – **@williambayliss_finefurniture**

3 'Whinlatter Desk' in ash and olive ash, 1,395mm long × 710mm wide × 840mm high, by Thomas Whittingham Furniture – **@tw_furniture** – winner of the Alan Peters Award for Excellence 2013 at the Celebration of Craftsmanship and Design exhibition

4 Letter rack by Colin Norgate RPT – **@colinnorgate** – made using old stocks of Alan Peters' Devon walnut

5 'Lines in the Sand' coffee table in English pippy oak and blued mild steel, by Simon Bulley – **@simonbulleyfurniture** – winner of the Alan Peters Award for Excellence 2016 at the Celebration of Craftsmanship and Design exhibition

Follow us on Instagram – **@woodworker_mag** – for regular magazine updates and posts

For more information on the Alan Peters Furniture Award 2022, see **www.woodomain.com/alanpetersaward2022**

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