

Furniture & cabinetmaking

DESIGN • INSPIRATION • PROJECTS • TECHNIQUES • TESTS • NEWS • EXCELLENCE

Modern Apprenticeships

No longer a thing of the past



WIN
A DEWALT
MEGA KIT
WORTH
£1,899!
SPONSORED BY

**REAL
DEALS**
FOR YOU

Practice makes perfect

Design and build better boxes
with Matt Kenney

Playing to the gallery

Create decorative upstands with
mitred dovetails and mouldings

Special effects

How to add colour and
patina to your hardware

Hammer®

The obvious choice!

Plane sailing...

...It's absolutely amazing!

Linda Seymour - Indigenous Tree

HAMMER - A range of over 20 machines
for the keen and professional woodworker.

FELDER-GROUP UK

Unit 2, Sovereign Business Park, Joplin Court
Crownhill, MK8 0JP MILTON KEYNES
Tel. 01908 635 000 info@ukfelder.co.uk

www.ukhammer.co.uk

📞 Request your free catalogue now!

*Comes with a variety of
cutterblock options*

Indigenous Tree's Woodworking Machines

Hammer A3-31
Planer-Thicknesser

Hammer K3 Winner
Panel Saw

Hammer N4400
Band Saw

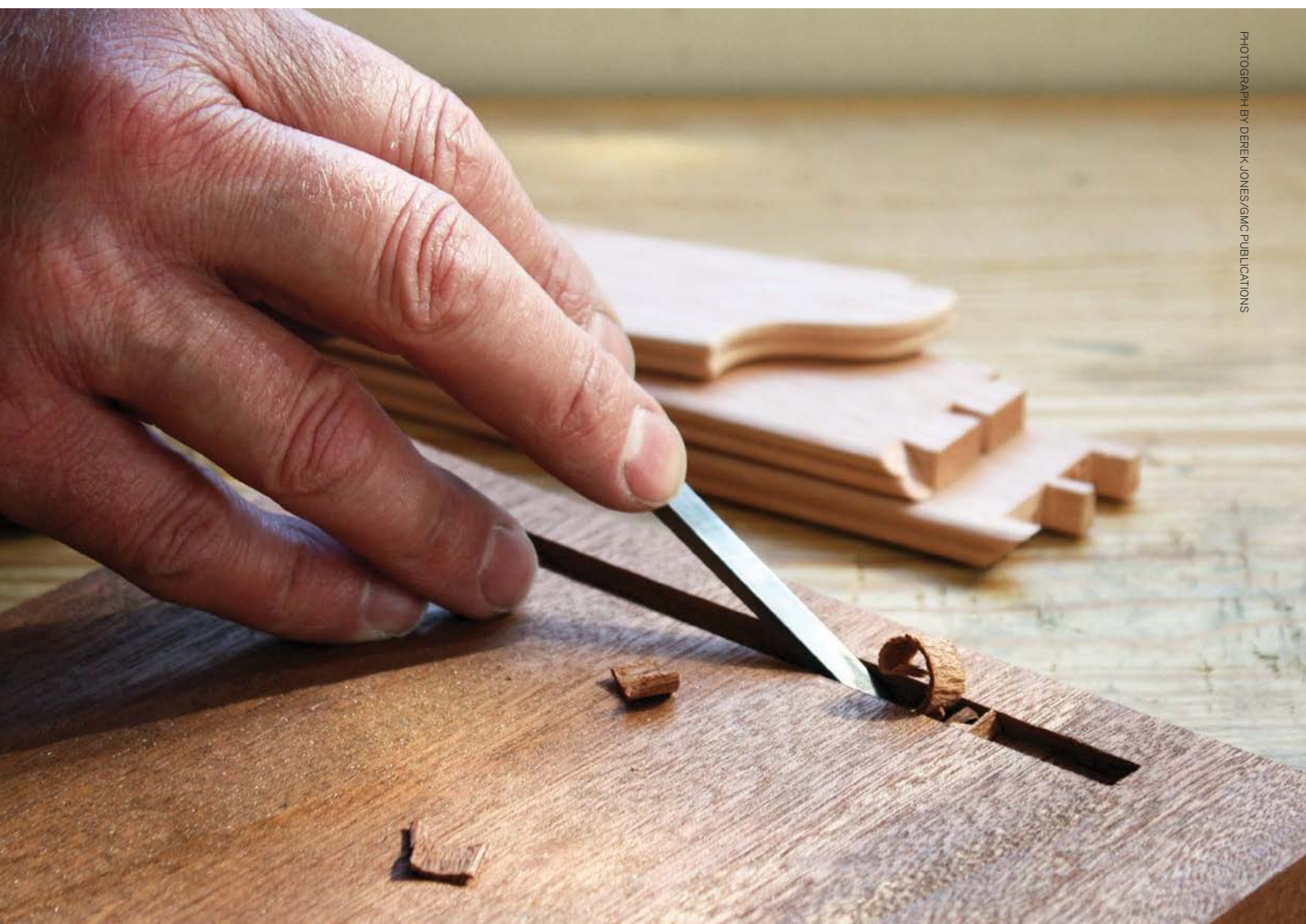


HAMMER,
For the highest requirements
of price and performance



Welcome to...

...perfection, flaws and all



PHOTOGRAPH BY DEREK JONES/GMC PUBLICATIONS

I was reminded recently of a quote that alludes to perfection being more of a quest than a destination and it got me thinking. Surely, before we can even consider perfection as a concept shouldn't we have a clear picture in our mind of what the destination will look like when we get there? Perfection, like time and speed is of course a relative concept that is never the same two days in a row, something that Greek philosopher Heraclitus pointed out when he said 'no man ever steps in the same river twice, for it is not the same river and he is not the same man.'

So what if, and stay with me on this for a minute, the desired perfect result is an outcome that's less than perfect, i.e. with flaws, does that still make it perfect? You'd probably

never guess it from this preamble but these are some of the issues that make handtool work so important, especially when it comes to the feel and finish of an object. And as they have on occasion even kept me awake at night I make no excuses for covering what will be familiar ground for some readers, the making and use of a scratch stock this month. These perfectly imperfect devices are about as much fun as you can have in your workshop and in most cases won't cost you a penny.

Good design might be summed up as displaying an acute awareness of the outcome of good hand-eye coordination and we have an extract from Matt Kenney's recent book *52 Boxes in 52 Weeks* to help you hone your skills in that department. Small and

perfectly formed these boxes may be, Matt's observations also transfer into other areas of the craft and are well worth putting into practice. Equally informative is our new four-part series from Steve Cashmore about the wonders of the WoodRat. A compact and versatile milling machine for wood is how Steve describes it, which when you put it like that makes me wonder why we haven't featured it more often. So something old, something new(ish) and something borrowed for this issue.

Derek Jones

Derek Jones
derekj@thegmcgroup.com

Contents

Issue 272 July 2018



Don't forget there are plenty more articles and discussions to be found on the Woodworkers Institute & Forums
www.woodworkersinstitute.com



Woodworking is an inherently dangerous pursuit. Readers should not attempt the procedures described herein without seeking training and information on the safe use of tools and machines, and all readers should observe current safety legislation.

Competition sponsored by:



Projects & Techniques

28 Designing boxes

In this extract from *52 Boxes in 52 Weeks*, Matt Kenney introduces the principles of good box design

36 Not just a dovetailing jig

Steve Cashmore explains the basic working principles of the WoodRat

44 Playing to the gallery

Derek Jones demonstrates a few techniques for adding a period-style gallery to your worktops

62 Precision Instruments

Dan Schwank demonstrates his method for producing batches of accurate winding sticks

Design & Inspiration

8 Anatomy of the Japanese plane

We get an overview of the plane in this extract from Scott Wynn's *Discovering Japanese Handplanes*

22 Building a woodworking business, one risk at a time

Anselm Fraser, principal of The Chippendale International School of Furniture, discusses the pros and cons of risk taking

24 The evolution of apprenticeships

Anne Guillot explores the long and rich history of apprenticeships

48 Under the hammer – The Oak Interior sale

We look at the top-selling chairs from Bonhams' recent auction

54 Special effects

Derek Jones looks at a few techniques to help tone down the appearance of new hardware

58 Auctioning woodworking tools in the digital age

John Adamson reports on the latest developments at the David Stanley tool auction

70 Out & about – Harewood House

This month we visit Yorkshire to see one of Thomas Chippendale's most important commissions

74 An airbrush with the past

Derek Jones dips into *F&C*'s archives to showcase the work of Roswitha Lentge and Jeff Smith

Your F&C

1 Leader

Derek Jones welcomes you to this month's issue of *F&C*

4 Meet the contributors

Find out more about the authors behind this issue's articles

13 Competition

WIN a DeWalt Mega Kit worth £1,899

15 News & events

A round-up of what's going on in the world of furniture

20 Social media dashboard

A round-up of the best from the online world

66 Kit & tools

We bring you a selection of the best tools and products to add to your workshop

73 Subscribers

Get *F&C* delivered direct to your door and save up to 30%

80 Next month in *F&C*

Get a peek at what we'll be bringing you in issue 273





Meet the contributors



John Adamson

John began his publishing career as a graduate trainee at Cambridge University Press. He later set up a small publishing house in Cambridge under his own name devoted to highly illustrated books in the decorative arts. He is the publisher of David Russell's book *Antique Woodworking Tools*.

Web: www.johnadamsonbooks.com



Steve Cashmore

Steve is a radio communications engineer who graduated from Plymouth University in 1992. During his engineering apprenticeship prior to university he gained metalworking skills in the machine shop (City & Guilds). In 1997 he became interested in furniture-making and woodturning as a hobby, and has since attended various short courses with Peter Sefton, David Savage, Michael Scott, Adrian Marks, Colwin Way and West Dean College.

Instagram: @steveswoodcave

YouTube: www.youtube.com/c/StevesWoodCave



Anselm Fraser

Anselm is the School Principal and Senior Lecturer at The Chippendale International School of Furniture, one of the leading furniture schools in the world. He set up the school in 1985 and has been designing and making furniture for over 40 years.

Web: www.chippendaleschool.com



Dan Schwank

Dan is a tool and die maker who became introduced to furniture making in 1994 by his father-in-law. Dan is primarily self-taught, although he has taken a few classes devoted to 18th-century furniture styles and construction techniques, and also in plane making. His approach is a combination of both modern machinery and traditional hand tools, using traditional tools where it is appreciated the most, or is simply the best method of getting the desired result.

Web: redrosereproductions.com



Guild News

This month's issue includes an extract from *Guild News*, which is sent to all members of The Guild of Master Craftsmen. For more information about membership or to have your work featured in *Guild News*, visit the website.

Web: www.guildmc.com

F&C reflects the interests and aspirations of our customers with some of our best articles coming from readers.
If you'd like to propose an idea for an article drop me a line at: derekj@thegmcgroup.com

EDITOR Derek Jones
Email: derekj@thegmcgroup.com
Tel: 01273 402843

DESIGNER Oliver Prentice

SUB-EDITOR Jane Roe

GROUP EDITOR - WOODWORKING Mark Baker
Email: markb@thegmcgroup.com

SENIOR EDITORIAL ADMINISTRATOR Karen Scott
Email: karencs@thegmcgroup.com
Tel: 01273 477374

ILLUSTRATOR Simon Rodway

ADVERTISING SALES EXECUTIVE
Russell Higgins, Email: russellh@thegmcgroup.com

ADVERTISEMENT PRODUCTION & ORIGINATION
GMC Repro Email: repro@thegmcgroup.com

Tel: 01273 402810

PUBLISHER Jonathan Grogan

PRODUCTION MANAGER Jim Bulley
Email: jimb@thegmcgroup.com
Tel: 01273 402810

PRODUCTION CONTROLLER
repro@thegmcgroup.com

MARKETING Anne Guillot

SUBSCRIPTIONS Helen Johnston
Tel: 01273 488005, Fax: 01273 478606
Email: helenj@thegmcgroup.com

PRINTED IN THE UK
Stephens and George Print Group

DISTRIBUTION Seymour Distribution Ltd
Tel: 020 7429 4000

Furniture & Cabinetmaking magazine (ISSN 1365-4292)
is published every four weeks by Guild of Master Craftsman Publications Ltd

SUBSCRIPTION RATES (includes p&p)
UK Europe Rest of World
12 issues £51.00 £63.75 £71.40
24 issues £102.00 £127.50 £142.80
US subscribers visit www.lightningpublications.com for subscription rates in USD \$.

Cheques made payable to GMC Publications Ltd
Current subscribers will automatically receive a renewal notice (excludes direct debit subscribers).

Post your order to: The Subscription Department,
GMC Publications Ltd, 166 High Street, Lewes,
East Sussex BN7 1XU Tel +44 (0)1273 488005,

Fax +44 (0)1273 402866 Email: pubs@thegmcgroup.com
Website: www.thegmcgroup.com

Views and comments expressed by individuals in the magazine do not necessarily represent those of the publishers and no legal responsibility can be accepted for the results of the use by readers of information or advice of whatever kind given in this publication, either in editorial or advertisements. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the Guild of Master Craftsman Publications Ltd.

© Guild of Master Craftsman Publications Ltd. 2018

Problems finding F&C? Call Jonathan Grogan, our Publisher, on 01273 477374. Alternatively, save up to 20% on the cover price by subscribing. Visit www.thegmcgroup.com/publications

The perfect connection. Now even more versatile.

The new unit and furniture connectors for the
DOMINO DF 500 joining machine.



Produce connections on corners, sides or using rows of holes in record time with the new DOMINO unit and furniture connectors and release them again whenever you need to. With a high degree of compensation for tolerances and a high level of stability, smooth construction and dismantling is guaranteed both in the workshop and on customer premises. And best of all: there's no need for positioning aids or additional specialist machines – with your DOMINO DF 500 joining machine you can get started straight away.

Experience the inimitable flexibility, speed and efficiency for yourself.
Contact your specialist retailer or visit www.festool.co.uk

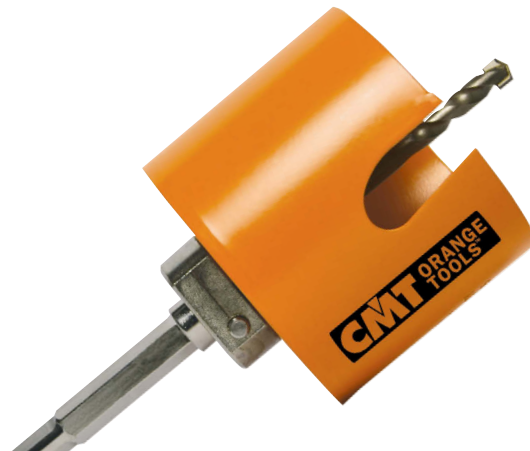
FESTOOL
Tools for the toughest demands



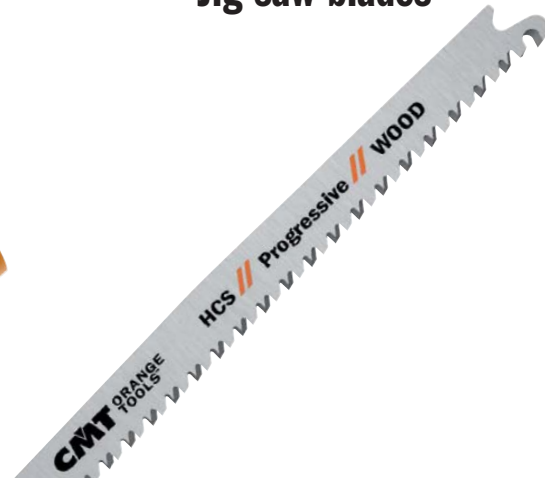
Saw blades



Hole saws



Jig saw blades



Sabre saw blades



Tools with bore & knives



Router bits & sets



THE WIDEST TOOLING RANGE



For more information and to find your nearest stockist
please visit www.tomaco.co.uk

TOMACO

THE TOOL MARKETING COMPANY

DISTRIBUTORS OF QUALITY PRODUCTS



Chisel and plane iron sharpener - take anywhere and sharpen in seconds.

narex[®]

Quality range of woodworking hand tools made in Europe.



A quality range of professional Drill bits and accessories from Germany.



A quality range of professional tools and accessories.



Range of the toughest tool bags with a 5 year downtime warranty.



Quality cutting tool range which includes Router cutters, Spindle Moulding, saw blades, holesaws and many more from Italy.

FOR YOUR NEAREST STOCKIST VISIT

www.tomaco.co.uk



Anatomy of the Japanese plane

We get an overview of the plane in this extract from *Discovering Japanese Handplanes*

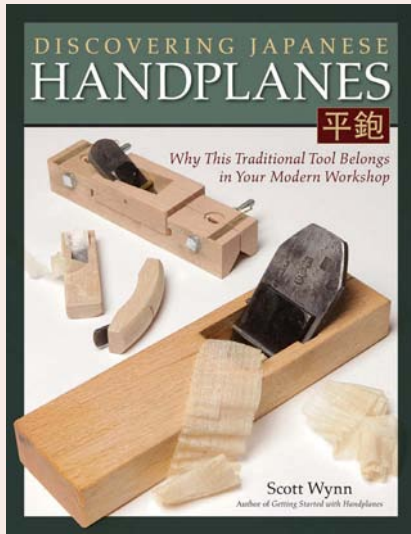
The blade is the heart of a Japanese plane; in contrast to a Western plane, often a complex and weighty construct of machined metal where the cost of the body is 10 times the cost of the blade or more, in a Japanese plane the blade may be 10 times the cost of the body, and sometimes much more.

Traditionally, the blade is forge laminated and, on any plane of quality, hand-forged. This is something you will not find on a contemporary Western plane of any quality. The hand-forged blade is what sets the Japanese plane above its overelaborate competitors. Its production is the result of nearly 1,000 years of metallurgical

tradition. Much of the Japanese plane's ability to cut cleanly comes from this singular ability of the blade to get incredibly sharp, and to shear without tearing. This blade, at an appropriate angle and combined with a fine throat and/or a well-set chipbreaker, will smooth the most difficult of woods.

Discovering Japanese Handplanes

By Scott Wynn, published by Fox Chapel, £14.99, available from: www.thegmcgroup.com



Only two components constitute a complete plane: the blade and the wood block that holds it. Or four if you add a chipbreaker and its retaining pin. The plane's conceptual simplicity, however, belies its great sophistication and structural refinement. The blade itself is thick and wedge-shaped and fits into a precisely cut escapement in that block of wood. (Contrary to a popular misconception, except in the occasional specialty plane and some new, modern variations, the chipbreaker is not traditionally used to wedge the blade into position.) However, many nuances to the shape of the blade and details of the block that are not readily apparent must be attended to when setting up the plane. Besides the blade being wedge-shaped, the top face of the blade (the side opposite the bevel) is hollow ground. Much of this hollow is formed at the forge, so not much steel is removed when the blacksmith finishes it on the grinder. This hollow makes flattening the back of the blade easier, something that all blades (not just Japanese blades) must have done to them when they are first sharpened. I am always thankful the hollow is there because

the steel of the laminated blade is so hard.

The blade is also concave along its length on the bottom (bed side) and the plane bed must be made convex and fitted to this bevel side of the blade (and since most blades are virtually handmade, this is a custom fitting). This shaping of the blade and body is done to reduce lateral shifting of the blade during use.

The blade is also tapered across its width, being slightly narrower at the edge than at the top. This is to allow room for lateral adjustment, while still maintaining a good grip on the blade.

The blade angle most commonly available is about 40°, or more accurately 8 in 10 (the Japanese use a rise and run based on 10 rather than degrees. This explains some of the odd degree settings sometimes encountered.) Some suppliers will have planes with 47.5° (11 in 10). On rare occasions you might encounter 43° (9 in 10). The Japanese believe a really sharp blade is more effective than use of higher blade angles, though mainly I think it's because the vast majority of their market works softer woods. The advent of 47.5° blade angle was largely a result of one of the American suppliers requesting it from the maker for his American market. I also think the Japanese woodworker does not hesitate to make his own planes at whatever angle he thinks he needs; up until the 1930s all craftsmen made their own planes, buying the blade and the block separately.

While recently some planes have been made available with alloy and even high speed steel blades, often aimed at the less experienced or the home owner, and there have been some experiments with high speed steel for use in difficult woods, the vast majority of blades you will encounter will be basically fine-grain carbon steel. The two most common types are what are called white steel and blue steel (or white paper steel and blue paper steel). They derive their name from the color of the identifying paper label applied by the steel maker (usually Hitachi). Both have carbon in the 1% to 1.4% range with 0.1% to 0.2% silica and 0.2% to 0.3% manganese. Blue paper steels technically are alloy steels with 0.2% to 0.5% chromium and 1% to 1.5% tungsten, with up to 2.25% tungsten in the super blue steel.

The tungsten makes the blue steel harder to forge but increases its wear resistance when cutting difficult woods. On the other hand, adding tungsten widens the critical temperature range needed for hardening the steel, and makes this step a little easier for the blacksmith. In contrast, some white steels are fussy about their hardening temperatures. White steel is easier to sharpen, and takes the keen edge necessary for soft woods.

The difference between white and blue steel is subtle. A Japanese woodworker I know makes an enlightened distinction between the two. He describes white steel as having a sharp, angular grain structure, and blue steel as having smaller, rounded grains. This allows the white steel to be sharpened a nuance sharper, but under harsh conditions or with difficult woods white steel's grain structure breaks off a little quicker and in

JAPANESE-STYLE SMOOTH PLANE

This blade has harder pieces of steel inlaid into the top and corners to reduce mushrooming from being adjusted with a hammer; Independent chipbreaker; Tapered blade wedges into custom-fit bed and abutments; Cross pin to wedge chipbreaker



The traditional Japanese blade is always laminated with hard edge steel and softer backing steel. If you look closely at the backing steel here, you can see some layering and variations that reveal its handworked origins



slightly larger clumps. For that reason, dealers often recommend blue steel for working hard, abrasive, or difficult tropical woods.

Both white and blue steel are too hard to use for the whole blade; it is too susceptible to shock and prone to cracking during use (it is also too expensive). It would also be too difficult to sharpen a blade made entirely of such hard steel. Instead, a thin layer of it is forge-welded (laminated) to a back of softer steel that has more tensile strength. The

combination is better able to absorb shock without breaking.

The backing steel used for these blades is a low-carbon, softer, and more flexible steel. It is basically wrought iron with impurities: before the mid-nineteenth century, smelting techniques allowed the inclusion of impurities, which in the grain structure appear as strands, somewhat similar to the glass in fiberglass. The impurity increases the steel's flexibility and resistance to breaking—both desirable

qualities. However, because the smelting process improved after the 1850s, steel produced since then lacks these impurities. Scrap iron produced earlier is highly coveted by Japanese blacksmiths who stockpile these treasures, such as pre-1850 anchor chain, for future use as backing steel in laminated blades.

The chipbreaker

The best chipbreakers are also laminated,

A primer on steel

The key to understanding edge steel is in its anatomy. For the needs of the woodworker, three characteristics define steel's anatomy—grain, structure, and hardness

Grain

For woodworking hand tools, the grain of the steel is the most important characteristic of a blade. Ordered, repetitive arrangements of iron and alloy atoms in a crystalline structure comprise steel. The crystals can be small and fine or large and coarse. They can be consistent in size (evenly grained) or vary widely, with odd shapes and outsized clusters in among the rest. The steel's grain affects how finely the blade sharpens and how quickly it dulls. Generally, the finer and more consistent the grain, the more finely it sharpens, the slower it dulls, and the better the blade performs.

Grain is a function of the initial quality of the steel used, the alloys added, and how the steel is worked or formed. In addition to the average size of the crystals, the initial quality of the steel may include impurities, called inclusions, which may persist throughout refining. Inclusions add large irregularities to the grain. Irregularities sometimes are used to good effect in swords and perhaps axes, but except for the backing steel on laminated blades, impurities are a detriment to a plane blade. Sharpening impurities out to the edge causes them to break off easily, causing chipping and rapid dulling of the edge.

Alloys change the texture of the grain. They may be part of the steel's original composition (though usually in small amounts), or added in a recipe to increase the steel's resistance to shock and heat. Alloys often coarsen the grain, so there is a trade off. While the edge of an alloy blade may be more durable, especially under adverse working conditions, it may not sharpen as finely as an unalloyed blade. To shear wood cleanly, no other attribute of an edge is more important than fineness of the edge.

Structure

Structure, the second most important aspect of a woodworking blade, results from changes in the original composition of the steel because of heating it and changing its shape with a hammer (or rollers), often called hot work. Heat

causes the crystals of the steel to grow. Hammering steel when it is hot causes its crystalline structures to fracture and impedes growth as the grains fracture into smaller crystals. Before being hot-worked, the crystals of steel are randomly oriented, and frequently inconsistent in size. Through forging (repeatedly re-shaping with a hammer while the steel is hot), the grain aligns and knits together in the direction of the metal flow. Proper forging increases grain structure consistency. When exposed at the edge through sharpening, crystals consistent in size and orientation break off one at a time and dull the blade, rather than breaking off randomly in big clumps. The consistency of the crystals allows for a sharper blade that stays sharp longer.

The techniques used in preparing steel for woodworking tools are hammer forging, drop forging, and no forging. Hammer forging, where repeated hammer blows shape the steel, is the most desirable because it aligns the grain particles (or crystals) of the steel. It is a time-consuming, skillful process and therefore expensive. If improperly done, hammer forging stresses the steel, reducing, rather than increasing reliability. With the general decline in hand-woodworking skills during the last century, and the increased reliance on power tools, the discriminating market that would appreciate the difference forging makes has shrunk considerably. As a result, hand-forged tools are not commonly manufactured or available in the United States, but are still the prevalent method of producing plane blades, chisels, and other edge tools in Japan.

Drop forging verges on die cutting. A large mechanized hammer called the punch drops on the heated blank, smashing it into a die (mold), giving the tool blade its rough shape, often in just one blow. Drop forging imparts a marginally more consistent structure than a blade cut or ground from stock, because the steel often elongates in the process resulting in some improvement in the crystalline structure alignment. Drop forging is a common way of producing chisels in the West.

Drop forging is preferable to no forging at all. No forging is an over-simplification

because all tool steel receives some hot work during reshaping. Bar stock is hot-formed by rolling or extruding the ingot into lengths of consistent cross section. The process rearranges the crystalline structure and the crystals tend to align in the direction of the flow as the steel lengthens. However, the arrangement is not very refined compared with the structure resulting when steel is hot-worked further at the forge. Modern Western plane blades, even many after-market premium blades, are usually ground from unworked, rolled stock.

Hardness

Hardness is a major selling point in the advertising of woodworking tools made from various types of steel. However, as explained earlier, grain and structure are the most important factors in the performance of a blade.

Hardness must be in balance with the intended use of the tool. High-impact hand tools, such as axes, should be softer than plane blades. Otherwise, the edge fractures quickly under the pounding an ax takes. The blades of fine tools for fine work can be very hard, but if their hardness exceeds the ability of the steel to flex without breaking at the microscopic edge, the tool will be next to worthless. It is the task of the bladesmith to produce blades that are in balance.

The Rockwell C (Rc) scale measures the hardness of woodworking blades. This is a unit of measurement determined by the impact of a ball-shaped point into the steel measured in terms of the depth of the resulting impression. Decent plane blades are in the range of 60–66 Rc range. Only some finely wrought steels work effectively in the upper-half of this range, principally high-quality hand-forged Japanese blades, and some high-alloy steels. In carbon steels, Rc 66 seems to be a limit above which the edge breaks down too rapidly in use, though I have heard of a Japanese master blacksmith who has made it a personal goal to develop steel that will hold an edge at about Rc 68. However, his experiments have not been available commercially.

like the blades. And in all but the very cheapest planes, the chipbreaker has at least had its edge hardened and tempered; again, not a feature you will find in any Western plane. Chipbreakers do get dull, especially when they are repeatedly set close to the edge for difficult work. The Japanese chipbreakers extend the time between required maintenance; they are also easier to make sharp and crisp and to use set right down to the edge without wearing out or leaving gaps that catch the chip. The chipbreaker has two ears on the top end which are bent or straightened slightly to give the right amount of wedging action against the cross pin. The ears also provide adjustability for the wedging action of the chipbreaker, so it contacts the blade tightly and securely.

The dai

The block of wood that holds the blade—it's a single block, not a laminate—is called the dai. It's a very dense oak, called kashi either white or red, though one reliable source (only one) says it is a type of cherry; perhaps this discrepancy may be due to a confusion over scientific names. White kashi is generally preferred as it tends to be denser and heavier, but I have experienced pieces of red kashi dai that were far denser than almost any wood I've worked; my chisel almost bounced off one piece I worked with. The trees are 40 to 70 years old and are felled between late December and early March; trunk diameters are from 30cm to 50cm. Until the 1920s the blanks for the dai were split, giving material that last better and is resistant to warping, but now it is all sawn to size. The dai-maker buys his blanks from the sawmill and stores them for two to three years before fitting blades to them. Incidentally, the dai-maker has no part in the production of the blade or chipbreaker; that is another trade.



FINE JAPANESE BLADE AND CHIPBREAKER BY BLACKSMITH MIYAMOTO MASAO

If you look closely at the edge of the chipbreaker, you can see the color difference that distinguishes the edge steel from the backing steel

He merely fits them individually to the block.

The whole concept of the Japanese plane with its wedge-shaped blade is based on the resiliency of the wood block that holds it. The wood must not give too much as this may result in blade chatter or the blade losing its adjustment. But it must give some—just the right amount—or the blade would not be adjustable. If you're making your own planes, finding a substitute for the woods traditionally used in Japan is tricky.

The plane is meant to be pulled rather than pushed, and the Japanese apparently are virtually the only woodworking culture where this is true. Many woodworking traditions have a few pulled tools, but not even their Asian neighbors, from whence their tools were

derived, have major planes that are pulled. This may have evolved because the majority of Japanese craftsmen sit while they work, the cabinetmakers and furniture makers using an inclined planing board set on the floor. The board has a stop on the near end and slopes toward the user, allowing an efficient, ergonomic movement. On a wide piece, the work is shifted along the stop with the foot in between strokes of the plane. (See *The Workbench Book* by Scott Landis, Taunton Press, 1987, for more details on Japanese benches and working style.)

Reliability

Japanese planes have a reputation for having to be tuned a lot. I have not found them to move any more than any other wood plane, but, because I expect a high degree of performance from my planes, I always check them before using. You can greatly reduce maintenance by proper storage.

When you are done using the plane, or at the end of the day, whichever comes first, always fully loosen the blade and then gently tap it and the chipbreaker back in just enough to keep them from falling out when you pick the plane up. Store it in a drawer or cabinet closed off to reduce temperature and humidity swings. (It is always a good idea to keep your shop at a consistent humidity as best you can year round, anyway.) Traditional houses and workshops in Japan were wide open to the air with only a hibachi for heat. Without central heating, and both summers and winters being humid, wide swings in humidity were unknown. (For that matter, the same was true in Europe until barely 30 years ago.) **F&C**



HOW TO HOLD THE PLANE

The Japanese-style plane is normally pulled in use, though it can, of course be pushed, and the smaller planes are surprisingly comfortable when used like this. I sometimes push the plane on the jobsite when holding is awkward and I have to remove a lot of wood. Here, a Japanese-style compass plane, its sole shaped to a gentle curve, smooths the sweep of a bench seat

DEWALT®



NEW



HIGH PRECISION NAILING

The newly designed compact nose is 80% smaller than previous tools for improved access and visibility, ensuring that the fastener is driven with precision.

The innovative nose also detects the nailing surface minimising marking on the wood and making tool operation quick and effortless.



32-64mm

15 GAUGE FINISH NAILER
DPN1564APP-XJ



25-64mm

16 GAUGE FINISH NAILER
DPN1664PP-XJ



15-50mm

18 GAUGE BRAD NAILER
DPN1850PP-XJ

ALSO NEW: PORTABLE, SUPER QUIET, HIGH PERFORMANCE TWIN OUTLET COMPRESSOR DPC10QTC-GB

- Almost half the noise of other DeWALT compressors
- High performance: 13.8 bar operating pressure
- Oil free pump and roll cage design for improved durability



WIN A DEWALT MEGA KIT

**WORTH
£1,899**

**EXCLUSIVE
READERS
COMPETITION**

SPONSORED BY

**REAL
DEALS
FOR YOU**

www.realdealsforyou.com



PICTURES COURTESY OF REAL DEALS FOR YOU

THIS FIRST PRIZE WORTH £1,899 INCLUDES

- 18V XR Brushless 3-Speed Combi Drill
- 18V XR Brushless 1/4" Impact Driver
- 18V XR Brushless 3-Mode SDS Hammer Drill
- 18V XR Brushless Multi-Tool
- 18V XR 165mm Premium Circular Saw
- 18V XR Angle Grinder
- 18V XR Compact Reciprocating Saw
- 18V XR Handheld LED Work Light
- 14/18V TOUGHSYSTEM™ DAB Radio
- 10.8-18V Li-Ion XR Jobsite Dual Port & USB Charging Station
- 18V 5.0Ah Li-Ion XR Slide Battery Packs (x4)
- ToughSystem™ DS150 Toolbox
- ToughSystem™ DS300 Toolbox
- ToughSystem™ DS400 Toolbox
- ToughSystem™ Heavy-Duty Trolley

PLUS FIVE RUNNER-UP PRIZES



**A Faithfull
7 piece carpenter's
tool set
(supplied in a carry bag)
EACH WORTH OVER
£130!**

To enter the competition and see full terms and conditions go to:

WWW.WOODWORKERSINSTITUTE.COM/C/COMPETITION

Password: FCWIN18

Closing date for entries is 31st July 2018

C300

high performance combination woodworker



The C300 Universal Machine is the latest addition to the iTECH family. It has been designed to have industrial quality features combined in a size intended for the small professional workshop or home user.

This industrially rated machine features a panel scoring saw, sliding table with large support, surface planer, thicknesser and spindle moulder in one neat package.

The cast iron construction, accurate cross cut fence and superb build quality put this machine in a class of its own.

£4499

Inc VAT

Technical Specification:

Motors	3 x 2.0 hp
Planing width	300 mm
Thicknessing Depth	220 mm
Cutter Block Diameter	70 mm
Depth of Saw Cut	80 mm
Sliding Carriage	1250 mm
Saw Blade Diameter	250 mm
Scoring Saw Blade	90 mm
Spindle Moulder Shaft	30 mm
Spindle Moulder Max Diameter	160 mm

News & Events

Contribute to these pages by telling us about matters of interest to furniture makers.

Call Derek Jones on 01273 402 843 or email derekj@thegmcgroup.com

Please accompany information with relevant, hi-res images wherever it is possible

The Furniture Makers' Company announces Design Guild Mark 2018 holders



ABOVE: The Aphelion Console table designed by Byron and Gómez for Benchmark RIGHT: The Edge Executive Desk designed by PearsonLloyd for Modus Furniture



PHOTOGRAPHS COURTESY OF CHERILL SCHEER & ASSOCIATES

Twelve designs representing both the domestic and contract furniture market have been awarded the prestigious Design Guild Mark in 2018. The Design Guild Mark is awarded by The Furniture Makers' Company in order to drive excellence and raise the profile of British design and innovation. Now in its tenth year, the Mark recognises the highest standards in the design of furnishings in volume production by the finest designers working in Britain, or British designers working abroad.

The Design Guild Mark 2018 award

recipients are as follows: The Hugo Settee, designed by Ian Archer and manufactured by SITS; Aphelion Console by Byron and Gómez for Benchmark; Mozaik by Mark Gabbertas for Allermuir; AXYL by Benjamin Hubert of Layer for Allermuir; Thinking Quietly by Jones & Partners for Thinking Works; Magnetic Copper Cube by Paul Kelley; T1 Chair by Rodney Kinsman RDI for OMK 1965; Manta by Lyndon by Boss Design; Group by Philippe Malouin for SCP; Famiglia by PearsonLloyd for Allermuir; Edge Executive Desk by

PearsonLloyd for Modus Furniture; and Race Antelope Chair by Ernest Race for Race Furniture Limited.

The Design Guild Mark is judged by a panel of leading industry professionals. Each member of the panel is from the furniture, hospitality, commercial, retail, or media industry. Judges must ensure that each piece of furniture meets the criteria of: excellence in design, materials, manufacture and function.

Contact: The Furniture Makers' Company
Web: www.furnituremakers.org.uk

Ecotricity forms new partnership with the National Forest

Energy company Ecotricity is joining forces with the National Forest to support the development of England's first large-scale forest to be created in a thousand years and encourage people to switch to green energy. The National Forest has been transforming 200 square miles of central England for over 25 years, demonstrating the power of trees to transform lives, the landscape and the economy.

As part of the new relationship, Ecotricity will sponsor the National Forest's first ever Timber festival, which takes place from 6-8

July, a place where 'music, forests, art and ideas' will come together in the heart of the National Forest. A new signup offer has also been created which will see a donation of up to £60 to the National Forest for everyone who switches their energy supply to Ecotricity. The two organisations have also agreed to work together to explore the possibility of renewable energy at the Forest.

Contact: Ecotricity & the National Forest
Web: www.ecotricity.co.uk & www.nationalforest.org



The National Forest changes landscapes through its tree-planting schemes

Rycotewood students exhibit at RAF Museum



The seating was created as part of the RAF's Centenary Project

Students from Rycotewood Furniture Centre in Oxford have been working alongside the RAF Museum in Hendon to develop public seating concepts for the RAF Centenary Programme. The exhibition includes concept models set alongside their original sketchbook designs.

The main aspect of this project was for students to find something within the museum that inspired them, whether it was the aircraft itself, the people behind the RAF or the grounds and local area. The museum gave a series of presentations about the RAF's Centenary Project and students were then free to wander the hangars, sketch and explore what intrigued them.

The project was facilitated by The Furniture Makers' Company.

Joseph Bray, Programme Leader at Rycotewood, said: 'It has been an ambition of mine to integrate live projects during each



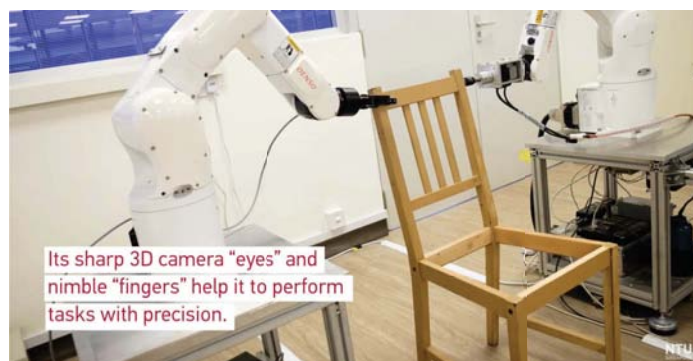
PHOTOGRAPHS COURTESY OF THE FURNITURE MAKERS' COMPANY

year of the Furniture Design and Make degree and this exciting collaboration has made that possible. Students learn so much more when working with partners in industry and responding to a brief set by a third party, in this case the RAF museum. The opening of the exhibition allowed everyone involved to come back together and give feedback on individual concepts. The event was a great opportunity to celebrate their creativity and craftsmanship.'

More information is available at www.rafmuseum.org

Contact: Rycotewood Furniture Centre & The Furniture Makers' Company

Web: www.cityofoxford.ac.uk/our-courses/furniture & www.furnituremakers.org.uk



Robots assemble Ikea chair

A group of engineers in Singapore have programmed robots to assemble a flatpack chair from Ikea. The team at the Control Robotics Intelligence Group based at Nanyang Technological University completed the project as part of their work on robotic manipulation. Fine robotic assembly, in which the parts to be assembled are small and fragile and lie in an unstructured environment, is still too difficult for industrial robots. CRI Group is developing hardware and software to address these problems. Two industrial robot arms fitted with grippers and force sensors assembled a Stefan chair from Ikea. The robots completed the job in 20 minutes and 19 seconds, half of which was spent planning moves. According to Ikea, a person typically takes 10–15 minutes to complete the same job.

Contact: Control Robotics Intelligence Group
Web: www.ntu.edu.sg

Rise in raw materials prices

A report by the British Furniture Manufacturers Association (BFM) has revealed that the cost of materials supplied to furniture manufacturers has risen noticeably over the last 12 months, and although they are beginning to ease, according to official figures, average input costs still exceed 4%. The BFM tracks prices of TDI, polyol flexible, MDI, logs, veneers, composites, soft and hard woods, fibres, leather hides, packaging and wire. The full report is available to BFM members.

Contact: British Furniture Manufacturers Association
Web: www.bfm.org.uk

Designer-maker talk

Jeremy Broun and Andrew Lawton, both members of the Northern Contemporary Furniture Makers, delivered a joint talk entitled 'Product or Service' at the recent Members Day of the Society of Designer Craftsmen, Britain's oldest craft organisation, which is celebrating its 130th anniversary this year. Jeremy put the case for designer-makers creating individual and innovative products for direct sale and Andrew outlined the pros and cons of providing a design and making service. Jeremy and Andrew are now planning to take their talk on the road to colleges and other interested parties.

Contact: Northern Contemporary Furniture Makers
Web: www.northernfurniture.org.uk

Events

Information correct at time of publication, check websites before planning your visit

**EVENT
OF THE
MONTH**

Timber: The International Forest Festival

Timber is a brand-new camping festival exploring the transformative impact of forests and celebrating woodland culture in all its forms. Artists, musicians, scientists and thinkers from across the world will dive into the poetry of nature, explore what forests and woodlands can mean to us and our relationship with nature.

The event will be held at Feanedock, a 70-acre woodland site on the Leicestershire/ Derbyshire border. The event programme includes talks, music, fire gardens, art installations, guided night-time walks and farmers' market stalls.

When: 6–8 July

Where: Rawdon Road, Moira, Swadlincote DE12 6DQ

Web: timberfestival.org.uk

PHOTOGRAPH BY ANDREW ALLOCK, COURTESY OF THE NATIONAL FOREST



INSET PHOTOGRAPH BY THECRAFT, COURTESY OF THE NATIONAL FOREST

Macmillan Nurses Charity Workshop Open Day

Held at Richard Arnold and Oliver Sparks workshops in Market Harborough, this event comprises displays and demonstrations of hand tools and a chance to donate your unwanted hand tools and associated paraphernalia for a very worthy cause. There will also be an international online charity auction of special items. At last year's auction Daniela Wilms (pictured) was the winning bidder for a place on any of Derek Jones' weekend woodworking courses held at Robinson House Studio. The same prize will be up for auction again for any weekend course held in 2018. For further details, follow @jim.n.alfie on Instagram.

When: 9 June

Where: 7 Dallacre Farm, Wilbarston, Market Harborough LE16 8FE

Instagram: @jim.n.alfie



Record Power Road Show & Sale

Yandles is hosting a Record Power Road Show where there will be exclusive show deals, demonstrations, expert advice on Record Power and Startrite machines and 15% off timber and turning blanks.

When: 13–14 July

Where: Yandles, Hurst Works, Hurst, Martock, Somerset TA12 6JU

Web: www.yandles.co.uk

Interior Worlds: Thomas Chippendale at Nostell

This exhibition explores how Chippendale helped create bespoke interiors and objects for his ambitious client Rowland Winn (Nostell's owner) in the opulent state rooms. The exhibition explains how individual pieces of furniture were created, sourced and transported, opening up a vibrant 18th-century world of social ambition, entrepreneurship and global trade.

When: 13 July–28 October

Where: Nostell Priory and Parkland, Doncaster Road, Nostell, Wakefield WF4 1QE

Web: www.nationaltrust.org.uk/nostell-priory-and-parkland

Peter Sefton Furniture School Open Day

Peter Sefton's annual Furniture School Open Day gives visitors the chance to meet Peter and see professional demonstrations by experts in skills such as French polishing, tool sharpening and joint cutting. There will also be trade stands where you can get expert advice on buying tools from the school's tool shop.

When: 14 July

Where: The Threshing Barn, Welland Road, Upton Upon Severn, Worcester, Worcestershire WR8 0SN

Web: www.peterseftonfurnitureschool.com

Manchester Furniture Show

The newest trends in upholstery, cabinet and dining, beds and bedroom furniture, occasional, mirrors, art and decorative accessories will be on display.

When: 15–17 July

Where: Manchester Central, Windmill Street, Manchester M2 3GX

Web: manchesterfurnitureshow.com

Home & Gift Harrogate

Home & Gift showcases thousands of new brands and products, including design-led and traditional homeware and interior accessories, jewellery, fashion products and more. This year's show will include a new section called Made, exhibiting handmade products.

When: 15–18 July

Where: Harrogate Convention Centre, King's Road, Harrogate, North Yorkshire HG1 5LA

Web: www.homeandgift.co.uk

Woodfest Country Show

Woodfest showcases a variety of wood-related activities, crafts and forest industries. There will be demonstrations of pole climbing, chainsaw carving, axe racing, wood chopping and logging skills, plus the WoodFest Rocks music festival, an arts and crafts market, food stalls and much more!

When: 28–29 July

Where: Pen-y-cefn, Caerwys, Pen-y-cefn CH7 5BP

Web: www.woodfestcountryshow.co.uk

Irish Furniture & Homewares Show

For the fifth year running, this event gives Irish and UK companies in the furniture trade the opportunity to do business in a relaxed environment and provides attendees with a welcome environment to see new products, innovative ideas and avail of exclusive deals and discounts from the businesses on show.

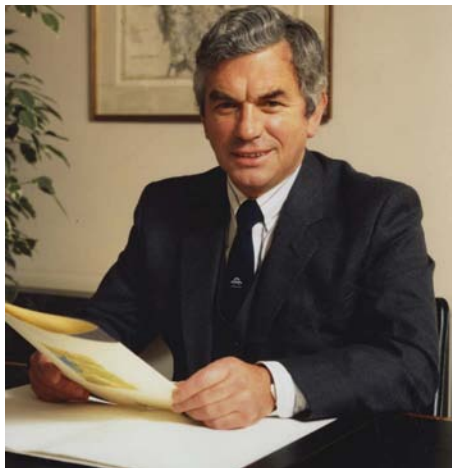
When: 18–21 August

Where: The National Show Centre, Stockhole Lane, Cloghran, Swords, Co. Dublin

Web: www.ifhs-tradeshow.ie

Obituary: David R Russell

David R Russell, a colossus among collectors of antique woodworking tools and co-founder of the Kendal building firm Russell Armer Ltd, has died at the age of 82



Through a lifelong passion for early woodworking tools David Russell built up what was hailed as one of the foremost collections in the Western world. Determined to share the vast knowledge he acquired along the way, he published *Antique Woodworking Tools*, a highly illustrated book that has become a standard work of reference for tool collectors and dealers and indeed for anyone interested in industrial archaeology or the history of material culture.

Over many years David Russell was to be seen at tool auctions in England, France and the USA, bidding for some of the very best tools that came on the market. And when, after publication of his book, he decided to dismantle the collection, he still attended the David Stanley Auctions, taking delight in seeing items from his collection end up in the hands of other collectors and woodworkers.

The younger son of Albert, a worker at Cropper's Paper Mill, and Alice Russell (née Mason), he was born at Burneside near Kendal in what was then Westmorland. He left Kendal Boys' Grammar School at 15 to serve as an apprentice to the Kendal cabinetmaker and joiner Albert Benson in whose workshop his older brother Rodney was already making his mark. One of his first jobs as a young apprentice was working on site with his brother and another tradesman at nearby Sizergh Castle.

'His first love was the foreman's Norris jointing-plane, which he was not allowed to touch however much his fingers tingled,' wrote Huon Mallalieu in *The Times*. 'Seven years later his passion was assuaged, but not extinguished, when he bought his first Norris for £5 in a Sunday antiques market.'

In the intervening years National Service in the Army in Malaya had interrupted his progress and on his return to civilian life David decided to follow a rather different career path by working in the building trade, first in Bournemouth and then in London for

George Wimpey. But his love for fine tools had not waned. 'Before long I had bought another Norris,' he wrote in the preface to his book. 'Now I had a pair. Then I found another. Now I had a collection.'

In 1959 he married Eileen Wray and the young couple went back north in 1960. David and his brother Rodney set up a partnership called Russell Brothers (Kendal) Ltd in January 1961. They bought land in Burneside for four bungalows and did most of the building work themselves.

By 1966, they were employing a staff of 148 and the business had a turnover of around half a million pounds. They had their own coach to bring workers from Barrow.

By the late 1960s, Russell Brothers were expanding their housebuilding from south Cumbria into north Lancashire and building schools in Kendal and Windermere as well as a supermarket and factory. Their biggest single development was the Heron Hill housing estate in Kendal beginning in 1970. At this stage of the company's history it employed a workforce of around 300.

In the early 1970s Russell Brothers responded to an economic downturn by diversifying into building boats and running caravan sites, setting up Windermere Aquatic Ltd and Westmorland Caravans Ltd.

David was a great sportsman: a trophy-winning fell runner in his youth, he later played wicketkeeper for Burneside and Westmorland cricket clubs. He also became active in the social and cultural life of Kendal, one highlight being his involvement in organizing major events as part of the town's 400th Royal Charter celebrations in 1975. In that year David was chairman of Round Table while Eileen was chairwoman of Ladies Circle.

By the early 1980s, now trading as Russells, Armer Ltd, the housebuilding business, which had become David Russell's primary responsibility, had built more than 2500 homes.

In 1985 after a restructuring of the various business divisions, David became sole director and chairman of Russell Armer Ltd focusing on housebuilding. David also continued to run Beetham Caravan Park.

One building project of which David was particularly proud was the high-density redevelopment scheme at Webster's Yard in Kendal, devised in conjunction with the local architect Mike Walford. The project was deemed by Roger Stonehouse writing in *Architects' Journal* to be 'by far the most adventurous' development in Kendal of the late 1980s. 'It is tailored to the nature of Kendal,' Stonehouse concluded, 'rather than wallpapered externally to suit the local style as is the conventional developer's approach.'

Following a heart attack, David sold Russell Armer in 1989 to the Dyke Brothers, a Lake District firm. He retained an ongoing role as an adviser to his old management team and in 1998 the team initiated a management buy-out.

Obligated to take early retirement for health reasons, David bought and oversaw the restoration of a farmhouse in the Dordogne. In retirement he moved to his new French home, where he energetically pursued his interest in woodworking tools and continued gathering together one of the finest collections in private hands. He dedicated many years to researching and compiling a definitive history of woodworking tools, drawing greatly on his own collection. He did so with the help of his assistant Robert Lesage and a professional team he formed around him and with the unflagging moral support and encouragement of his companion Susan Hargreaves. Though not a trained scholar, he had an unerring eye and a remarkable instinct for tools of great beauty or which were milestones in functional development. His book *Antique Woodworking Tools: Their Craftsmanship from the Earliest Times to the Twentieth Century*, with specially commissioned photographs by James Austin, was published in association with Bernard Shapero by John Adamson in 2010 to international acclaim.

Retirement also enabled him to indulge his passion for woodcarving and birds. When some years earlier Alfred Wainwright, the fell walker and Kendal's Borough Treasurer, had let him have two stuffed cuckoos from a discarded display at Kendal Museum as a model to make a carving, David had found he had a natural gift for wielding the gouge. A delicate carving of the cuckoos and many carvings of flowers, leaves and animals ensued. At his French home he carved finials to the newel posts of his staircase in the shape of a squirrel, of a toad, of an ancient Egyptian-style cat, of a cat strumming a banjo, of a mouse and of an owl.

His love of birds was wide-ranging: whether he was watching nuthatches feed at the bird tray or was standing in awe in his French garden gazing up at the migrating flocks of cranes as they flew high overhead, his enthusiasm was boundless. He built his collections of antiquarian bird books and twentieth-century bird paintings with as much pride as he did his tool collection.

David's wife, Eileen, predeceased him in 2017, but he is survived by his children Craig, Claire and Anne and by 10 grandchildren.

David Richard Russell, woodworking tool collector and builder, was born 23 September 1935; died 21 March 2018.



TA315 TILT ARBOR SAWBENCH

The backbone of any joinery workshop, a sawbench should be powerful, accurate, reliable and simple and safe to operate. The Sedgwick TA315 is designed with this in mind, and offers outstanding value for money. Its strength is in its construction, precision engineering and our insistence on using only the best quality components.

FEATURES INCLUDE:

- ▷ Aluminium Riving Knife Mounted Sawguard with Clear Polycarbonate Hinged Visors
- ▷ Cast iron table incorporating $\frac{3}{4}$ " TEE slots either side of the saw blade
- ▷ 6" Protractor Scale with length stop
- ▷ High efficiency IE2 industrial rated Electro-magnetic Braked Motor
- ▷ Fabricated rear table extension



For further details of this & our complete range of woodworking machinery please visit www.sedgwick-machinery.co.uk, or contact us at:

M. Sedgwick & Co. Limited, Stanningley Field Close, Leeds LS13 4QG

E: admin@sedgwick-machinery.co.uk

Tel. 0113 257 0637

Fax. 0113 239 3412

Social media dashboard

Bringing you a round-up of the best from the online world, plus a selection of the latest projects that have caught our eye

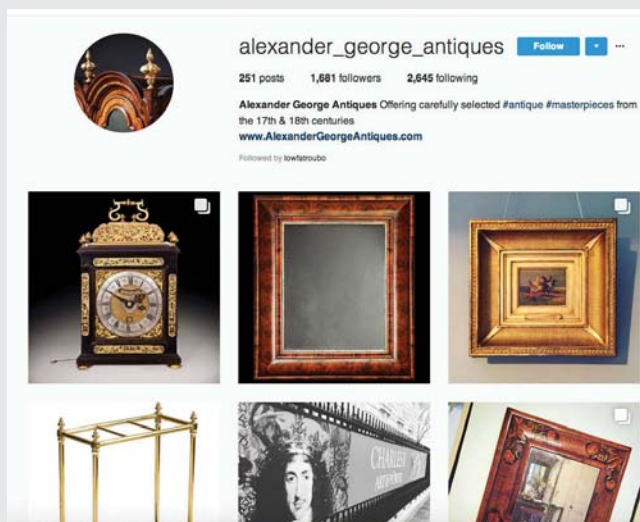
In this section of the magazine we bring together the best furniture and woodworking related content from social media. Here we'll recommend who to follow, where to comment and which online communities to join. We also feature projects we love, readers' letters, comments from the Woodworkers Institute forum and pictures of readers' work. If you'd like to see your furniture on these pages, email derekj@thegmcgroup.com

Instagram: Alexander George Antiques

This Oxfordshire-based firm specialises in 17th and 18th century furniture and you can see some of these gems on their Instagram feed. This is a great way to see close-up details of

antique furniture, something that's not always possible when you visit a stately home or museum.

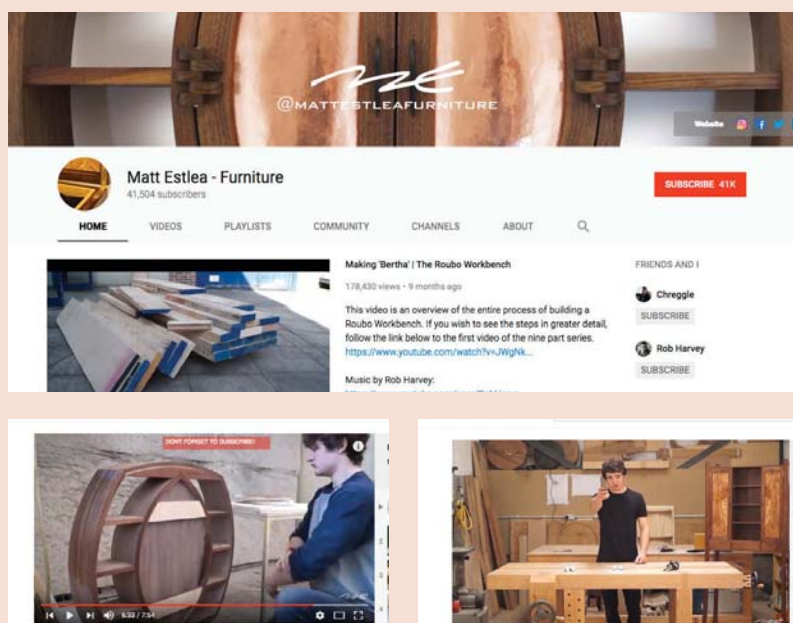
Address: [alexander_george_antiques](https://www.alexandergeorgeantiques.com)



YouTube: Matt Estlea

Matt recently wrote a series of articles for *F&C* about making a practice frame for joints. If you enjoyed those articles (published in issues 269, 270 and 271), you can find more project and technique tutorials on Matt's YouTube channel. Playlists cover subjects such as using chisels and planes, making a workbench or desk, hand-cut joints, and sawing and sharpening techniques. There's also a series of 'Tool Duel' videos where Matt compares tools from different manufacturers.

Address: www.youtube.com, and search for 'Matt Estlea furniture'



Twitter: NEJ Stevenson



Bespoke furniture makers NEJ Stevenson share case studies of their latest commissions on their Twitter feed, as well as inspiration in the form of their online galleries. A great way to gain insight into the making of their unique pieces.

Address: @nejstevenson



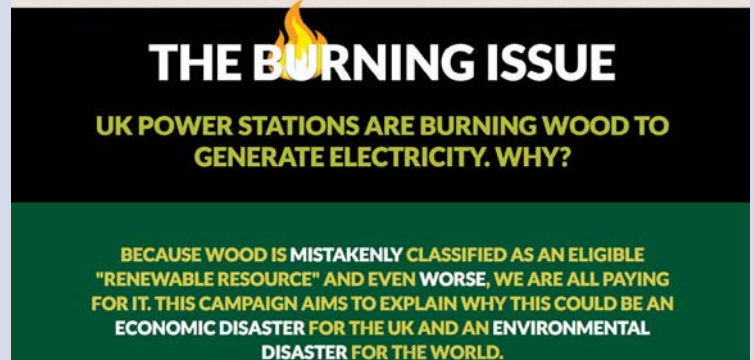
Website: Use Wood Wisely



THE BURNING ISSUE
UNINTENDED CONSEQUENCES
WHY IS THIS HAPPENING?



WHAT CAN BE DONE?
FURTHER READING
SHOW YOUR SUPPORT



As part of its Use Wood Wisely campaign, panel board manufacturer Norbord has set up a dedicated website with information about the biomass debate and government policies, news of the campaign and advice on how to get involved. Information is presented in an accessible way using infographics to communicate the basic facts.

Address: www.usewoodwisely.co.uk



Building a woodworking business, one risk at a time

Anselm Fraser, principal of The Chippendale International School of Furniture, discusses the pros and cons of risk taking

The biggest risk is not taking any risk... In a world that is changing really quickly, the only strategy that is guaranteed to fail is not taking risks.' Or so says Mark Zuckerberg, the founder of Facebook, which, despite recent events, is one of the world's most successful and influential companies. Or to put it another way: nothing ventured, nothing gained – an adage that has been around since the 14th century. It's all about balancing risk and reward.

That balance is a philosophy that I endorse. When I told friends and family over 30 years ago that I was going to open a furniture design school, everyone told me I was mad. That it was too risky a venture. Well, maybe they were right, but what if I'd taken their advice? Would the intervening years have been as happy and fulfilled as they have been? I doubt it, and I'd have spent the last 30 years filled with regret.

The simple fact is that we need to take risks. It's in the human genome to throw a bit of caution to the wind. Without risk there can't be progress, and without progress there is rarely success. That goes for every furniture designer and cabinetmaker trying to make a living from their passion for woodworking. Who doesn't dare, doesn't win.

I see a lot of woodworkers who have learned core skills and, in everything they then do, simply keep to those skills – making simple unpretentious furniture that will sometimes sell, and sometimes not sell. Their great mistake is to think that a comfort zone is a good place to be. It isn't because, in business, there are no safe places. Think Aeschylus, the ancient Athenian playwright, who was killed when an eagle dropped a tortoise on his head. For Aeschylus, and for any business, comfort zones can be anything but safe.

But I also see other woodworkers who recognise that staying still is a recipe for going nowhere. These are the woodworkers who keep learning new skills, and keep applying those skills in new and imaginative ways. More often than not, those same people have the best websites, the most



Setting up The Chippendale International School of Furniture was a risk worth taking

enticing marketing materials – and an edgy philosophy that accepts that the greatest hazard in life is to risk nothing.

However, what successful entrepreneurs do is first define the risk and then actively manage it, following the advice of the Ugandan poet Ignatius Hosiana. 'Adversity is best mitigated by business diversity.' Or, in simple English: don't put all your eggs in one basket. That, to me, sums up the intelligent way to take a risk. Don't risk your entire business on one wacky idea. Test the market, see if it works. If you don't have the particular woodworking skills to turn your idea into a reality, first learn those skills and then practice, practice, practice until you're more than competent. Don't rush into things.

Risk is also about defining the upside and downside. What does success look like? It's about knowing when your risk may be about to pay dividends, or knowing when to cut your losses.

Taking a risk is also about risking failure, and successful entrepreneurs aren't afraid of

that. When I started the Chippendale school I frankly didn't know if it would succeed or not. But I was prepared to take the risk, because the risks seemed manageable and the rewards, in terms of a fulfilled career, would be greater.

It's sometimes said about successful business owners that good fortune has smiled on them. That their success is all down to luck, or to have been in the right place at the right time. In my experience, however, that's rarely the case. Success comes to those who take risks, practise their skills, learn new skills and are persistent. As the legendary golfer Gary Player said: 'The more I practise, the luckier I get.' That ethos applies equally to the professional woodworker or the keen hobbyist. Persistence and practice, coupled with knowing when to take risks, equals success.

Lastly, a quote from the American author John Shedd. 'A ship in the harbour is safe. But that's not what ships were made for.' It's not what woodworkers were made for either. **F&C**

Dowelmax

Tables, chairs, stools, kitchens, bedrooms, desks, bookcases, sideboards, beds, benches, doors, windows, steps, cabinets, **make them all and more with the Dowelmax Doweling Jig**

Dowelmax Doweling Jig -
No need for biscuit jointers, tenoners, morticers, screws, loose tenons etc,
make joints faster, more accurately and stronger with Dowelmax

The ultimate doweling jig for woodworkers!

See us on  and visit:

www.dowelmax.co.uk
for more info, video and ordering.

 **Dowelmax** 

Tel: **01352 781168** or **07773 718758**

Thomas Flinn & Co.

Saw & Hand Tool Manufacturer
Sheffield, England



The UK's last remaining traditional saw manufacturers.

Now also manufacturing Clifton Planes

www.flinn-garlick-saws.co.uk
orderonline@flinn-garlick-saws.co.uk
Tel: 0114 2725387

JOINERY

made simple

POCKET-HOLE JIGS

Triton's new Pocket-Hole Jig range provides a fast and effective way of creating strong, concealed joints. Even with limited woodworking knowledge, the operator can easily create accurate, professional pocket-holes on multiple projects.

POCKET-HOLE JIG 7PCE

The TW7PHJ Pocket-Hole Jig is a fast and simple solution for creating strong joints in wood at both the home workshop and on the building site.



SINGLE MINI POCKET-HOLE JIG

Triton's TWSMPJ Single Mini Pocket-Hole Jig is a compact and highly compatible solution for creating strong joints in materials of any thickness.



DOUBLE MINI POCKET-HOLE JIG

Triton's TWDMPJ Double Mini Pocket-Hole Jig is a highly versatile Jig designed and optimised for creating strong joints in projects at the home workshop or on the building site.



ADJUSTABLE JIG

Triton's TWAJ Adjustable Jig is a highly versatile jig designed and optimised for creating strong joints in projects at the home workshop or on the building site.



MAKING PROJECTS EASIER & FASTER!



Engineered Precision

FIND YOUR NEAREST STOCKIST

tritontools.com    

triton
Precision Power Tools



The evolution of apprenticeships

In this extract from The Guild of Mastercraftsmen's *Guild News*, Anne Guillot explores the long and rich history of apprenticeships

It has been proven that apprenticeships help create a more productive workforce, so it is not surprising that they have existed for hundreds of years. The scheme started back in the Middle Ages, with the first known apprenticeship legislation in the UK under Queen Elizabeth I.

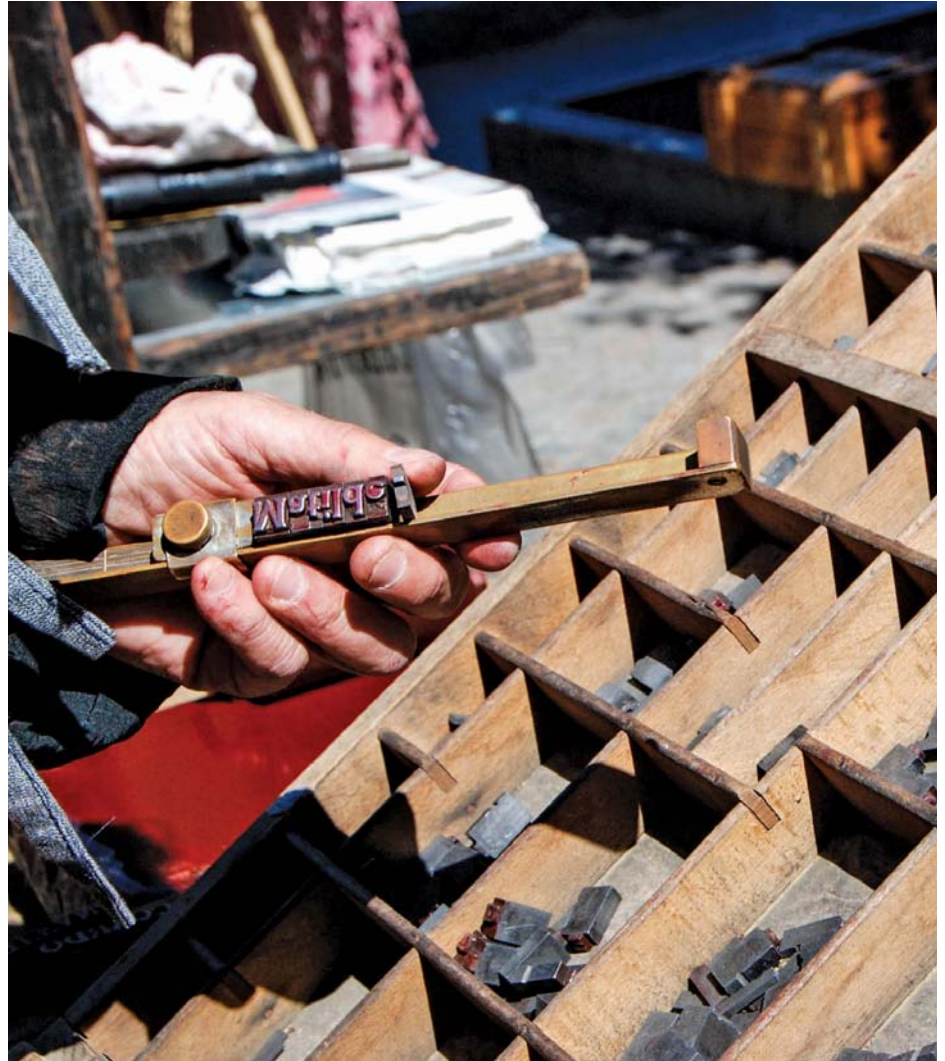
For much of the previous 500 years, employment relations were governed by the traditional master and servant relationship in Britain. However, following the Black Death in the 14th century, the demand for labour grew, so many laws were created as an attempt to regulate the labour market – but with great difficulty. Finally, as a response to a general economic malaise associated with difficult trading conditions, the Statute of Artificers was passed in 1563. The aim of the Statute was to control entry into the class of skilled workmen by providing a compulsory seven-year apprenticeship. It was also one of the first documents to set out terms and conditions for training; the apprentice would live as part of his master's family, until he became a 'journeyman' and could be paid for his labour. Once he could present a masterpiece to the Craft Guild as the evidence of his skills, he would become a Craft Guild Master.

The Craft Guild Master

To win an apprenticeship was a mark of considerable honour. The Craft Guild Master could now set up his own workshop and train his own apprentices. Apprenticeships began in the traditional trades of construction, papermaking and printing – then as the Industrial Revolution developed there were opportunities for apprentices in the more practical trades such as engineering and shipbuilding, while others fell outside the apprenticeship system. The Statute regulated an obsolete apprenticeship framework, so it was finally abolished in 1814 as one of a series of initiatives the British Parliament undertook to support the changing social and economic climate of the 19th century.

The Great Exhibition in London in 1851, later confirmed by the Paris Exposition of 1867, showed that the UK was lagging behind many of its international competitors in terms of technical competence. In 1878, the City & Guilds was founded by the London Institute to develop a national system of technical education to meet the need for new craftsmen, technicians and engineers. A new breed of apprenticeships was created in the 20th century, and the scheme became so popular that by the 1960s, a third of boys were leaving school to become apprentices.

As apprenticeships developed and



PHOTOGRAPH BY ROSA SMITTESTOCK

'Apprenticeships began in the traditional trades of construction, papermaking and printing'

expanded in scope, conditions changed as well; a seven-year term was no longer required and apprentices were paid while they learnt. They also acquired the more theoretical understanding of the technical knowledge by attending evening classes at Technical Colleges, in order to be qualified and get their 'City & Guilds'. After peaking in the 1960s, apprenticeships entered a slow decline and Government policies did not step in to save them through the 1970s and 1980s. But in the last few years, the Government has been keen to ensure that British businesses are more empowered to realise the considerable benefits that apprenticeships can offer. The latest reform, the Apprenticeship Levy scheme introduced in April 2017, is indeed

designed to finance apprenticeships and ultimately boost economic productivity and growth. However, despite the support it can provide for apprentices, many businesses are yet to use it to their full advantage. It's been a long journey from their humble beginnings and the concept of apprenticeships has evolved over the years.

But if today's apprenticeships are quite different, they are still rooted in their founding principles. With Brexit potentially restricting British employers' flexibility to access skills from abroad, apprenticeships now have a critical role to play, not only in providing young people with important skills, but also in developing a productive workforce that underpins economic prosperity.

The Building Crafts College, Stratford

The Building Crafts College in Stratford has been combining apprenticeships with other technical qualifications for many years. Founded by the Worshipful Company of Carpenters in 1893 its courses range across the building trades and associated crafts disciplines. It offers apprenticeships in a number of different subjects including heritage skills and wood occupations, brickwork, building maintenance, wood machining and carpentry.

Len Conway, the principal, has seen a steady increase in the number of students applying for apprenticeships, up 20% on last year. 'It is a popular form of training because it is part of a job. It is the aspiration of most full-time students to obtain an apprenticeship,' he says.

The training is also popular with employers. Len explains why: 'We have grown our apprenticeship numbers steadily in recent years by seeking to meet the needs of our industry but this year the introduction of the levy for larger employers, and their desire to realise some of this outlay, has been a factor.'

Len also believes that employers are coming to value an apprenticeship more than other forms of qualification. 'I think this is the case as they are seen as a formal training programme which is widely recognised, rather than individual qualifications.'

Employers also regard it as providing good value for money when compared with alternatives. Len says: 'Under the new

funding methodology the cost of training an apprentice is either free or at very small cost. Any costs to an employer stem from employing the apprentice but I think represent good value.'

Each of BCC's apprenticeships offers a mix of practical and theoretical study. The carpentry apprenticeship, for example, features basic building construction, first and second fixing, structural carcassing and woodworking machines, split between workshop and classroom. Other courses have a similar blend.

Apprentices attend college mostly on a block-release basis. These are usually two-week, five-day-per-week blocks amounting to 10 or 12 weeks per year. Apprenticeships are normally achieved over two years for level 2 with a further year for level 3 (advanced) apprenticeships. Each course leads to a formal, recognised qualification.

The college website has a number of success stories included. One of these is Lily Marsh who studied at BCC for a diploma in stonemasonry which has since led her to a full apprenticeship at the Prince's Foundation.

This is an offshoot of the Prince's Trust which aims to advance traditional craftsmanship by the next generation of mastercraftsmen and women. The apprenticeships provide practical experience in sustainable building crafts and are aimed at people who want to develop a career in building conservation.

Words: Janette Wolf



Len is the product of an apprenticeship himself and proud of it, he says. 'I began working as an apprentice carpenter and joiner in Liverpool in 1970. I studied at what was then Liverpool College of Building before moving nearby to Liverpool Polytechnic to complete an HNC in building and became an associate of the Chartered Institute of Building whilst working in building management.'

'After teaching craft students on a part-time basis at the College of Building I moved to London to take a full-time teaching post in carpentry and joinery at the Vauxhall School of Building. During my time there I obtained my degree and became head of the School of Construction before becoming principal of the Building Crafts College.'



Woodworking apprentice using the orbital sander



A masonry apprentice carves a stone finial



Woodworking apprentices using the spindle maker



Apprentices practising taking levels using the laser level

PHOTOGRAPHS COURTESY OF THE BUILDING CRAFTS COLLEGE, STRATFORD

London Design & Engineering UTC

A new kind of education

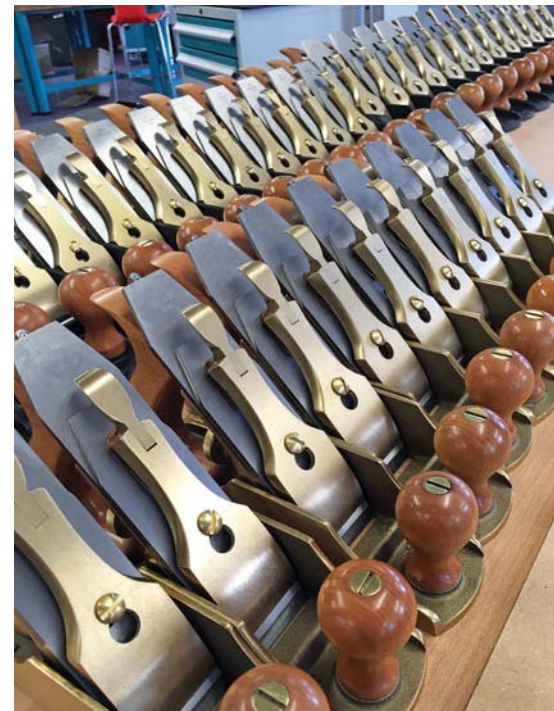
University Technical Colleges (UTCs) are schools for 14–19 year-olds that deliver technical education as well as core curriculum subjects such as science, maths and English. The concept of UTCs was created by Lord Baker and Lord Dearing with the aim of bridging the skills gap by linking industry with education. The Baker Dearing Educational Trust (BDT) was founded to develop and promote the concept of University Technical Colleges and sits at the centre of the UTC network. There are currently 49 UTCs in England each one offering training and education in specific areas of industry. London Design & Engineering UTC (LDE) opened in September 2016 and specialises in delivering a range of pioneering courses across Engineering, Built Environment and Art & Design. The school has what is perhaps the best equipped hand tool woodworking workshop for teaching in the UK, mirroring their technology studios and engineering workshops. Hand tool work, whatever the discipline, is essential to developing solid design and engineering skills and having access to a range of tools equivalent to those found in any professional workshop is crucial to inspiring students. CNC machines are no longer the preserve of large manufacturing companies as they are now a common feature in smaller business across various sectors. LDE is comfortable using traditional concepts and methodology to underpin the latest developments in production. The school teaches robotics, virtual reality (VR) and mechatronics alongside design and engineering to create the schools of the future, today.

In September this year the school will be launching an apprenticeship in fine joinery and furniture making for both levy and non-levy employers. The facilities at LDE are unique in that they can introduce students to old and new technology at the same time without distinguishing one from the other. Learning to complete a task by hand certainly helps to understand the machining process and for a lot of students both methods do indeed represent new technology. Prototyping is an invaluable part of the design process and typically where students get their first taste of making something from scratch. It's therefore important to make sure they are given the best possible chance of creating a quality product. Working with hand tools also encourages students to slow down and learn about the design and build process as a whole and with students from LDE this year being accepted for full apprenticeships with companies like Rolls Royce it's a philosophy that's definitely paying off. *F&C*

For more details about LDE visit:
www.ldeutc.co.uk



Students are encouraged to develop good hand tool skills at every opportunity



Good quality tools not only inspire students; they last a lot longer as well



A fully automated CNC milling machine used for training

Designing boxes

In this extract from *52 Boxes in 52 Weeks*,
Matt Kenney introduces the principles of good box design



I played baseball when I was a kid. Here's what I learned from my dad about how to get better at hitting, base running, catching fly balls, and everything else baseball related: practice. Do it over and over and over until it becomes second nature.

Woodworking is no different. If you want to cut better dovetails, then you've got to get into the shop and cut them. Then cut some more. After that, cut several hundred more. Repeat for several years or a decade. Now you're cutting dovetails like Christian Becksvoort. I've always worked on my dovetails and all the other joinery used in furniture making. It helps, and I've gotten

better. However, there is a skill that I did not practice enough: design. Good design, I believe, is an acquired skill. Sure, it helps if you've got some natural talent, but it's not necessary.

You can still create beautiful furniture of your own design if you work at it hard enough and for long enough. (You should, of course, practice good design over and over. There are some principles and concepts that can help you in that regard.) So, I set a challenge for myself: Design and make 52 boxes in 52 weeks.

What did I hope to accomplish throughout the year? Primarily, I wanted

to jump-start the growth of my design aesthetic, helping it move more quickly toward maturity. Making 52 boxes in 52 weeks also would hone my woodworking chops. So, after a year of near nonstop building, did I meet my goals? I know I refined my technical skills. I was making tighter joints, and applying finishes better than I had before. I also think my design skills improved, and that my aesthetic grew by leaps and bounds.

I should point out that I didn't actually make a box every week. Because I often travel for work, occasionally get corralled into acting foolish in front of a video

camera, and generally have a busy life, there was no way I could do that. Sometimes I knocked out a box in a few days. Sometimes it was several in a week. One box took me eight weeks to complete. As I set out on the challenge, I knew I wouldn't end up with 52 unique boxes. I made several iterations of certain designs, each time changing the wood used for the body or the paint for the lid (or making some other such change), to determine which I liked best.

Or I occasionally modified a design until I came to a fully resolved version of it.

I originally documented the 52 boxes on a blog on my website: www.mekwoodworks.com. You can also find many more photos of my work on Instagram @kenney.matt.

Looking back, I am happy I did this, even though it was tough at times (like when it was below 40°F in my unheated New England shop). Sure, my personal growth

as a maker and designer is satisfying, but perhaps even more satisfying is that many other woodworkers have told me that they benefited from the project as well. It opened their eyes to new possibilities in design and construction. That's wonderful. I am always eager to share my passion for this craft with others, and if it has sparked a passion in at least a few, then I've achieved something far better than what I had set out to accomplish.

On design

A fair amount of time has passed since I completed Box 52, and I've thought quite a bit about what I was up to as I designed the boxes. I don't know if I learned a lot about design in some grand sense while I was making these 52 boxes, but I did figure out a ton about how I design. I gained clarity about what matters to me in design, and about the process by which I design. I also developed some details that are now characteristic of my work. That's what I was after when I started, so I think the project was a success.

Although I am not unique in this regard, my overall goal when designing is to create a harmonious, elegant box, one with quiet beauty. As I work toward this goal, six distinct but related things

occupy my mind: overall proportion, simplicity, ensuring that the details of a box are proportionate to its overall size, developing details as fully as possible, choosing the best wood possible for a particular box, and utilizing color to emphasize the box's design. I'll do my best to explain these goals to you here.

Keep in mind that I'm describing how I design, not how all design happens, and certainly not how you ought to design. Still, these principles are not so tied to my design aesthetic that you couldn't employ them and produce boxes, or furniture, completely unlike mine. In fact, if you were to do this, I would be far more pleased than if you simply made a copy of one of my boxes.



Determine proportions first. Get them right and the box is off to an excellent start, but if they are wrong, the box is doomed

Good proportions are critical

When it comes to boxes (and furniture in general), nothing is more important than choosing a length, width, and height that work harmoniously together. A box should be so well proportioned that a person who comes across it, who stops to look at it and perhaps pick it up, should never even think about how the length, width, and height relate to one another. If you hit the proportions spot on, they step back, becoming a strong but quiet foundation for beauty.

So, how do you get there? A good place to start is with the old design chestnuts of the golden ratio and Fibonacci sequences, but they really are just a starting point. If you rely too heavily upon them, you can end up with boxes that are clunky. I learned this lesson many years ago when designing a box using the golden ratio to determine all of the dimensions. The width and length are great, but the box ended up being too tall. It looks like a little fat toad. I remade the box, making it wider and longer, with the width and length related by the golden ratio, but significantly shorter.

Now I use the golden ratio as a rough guide to determine two of the three dimensions. Which two? That depends on

whether the box will be seen primarily from the top or the front. If from the top, I use the ratio for the width and length, but if from the front, it's the length and height. Still, the ratio is only a starting place. Tweak either dimension to get something a bit more pleasing to your eye, or perhaps more

important, useful for the intended purpose of the box. As long as you are in the ballpark of the golden ratio, or rather on the infield in the ballpark, you'll be fine.

Determine proportions first. Get them right and the box is off to an excellent start, but if they're wrong, the box is doomed.



Make it beautiful, not busy. Push your creativity by eliminating unnecessary ornamentation. Get simple right and you'll have a beautiful box.

Designing in two dimensions

Here's an interesting note about how I design that's related to how I use the golden ratio. I always begin designing a box by considering only the face (top or front) that will be seen first. I work on the proportions, the arrangement of the compartments or drawers, the sizes of the various boxes when making a set of boxes grouped or stacked together, etc. I play with these elements to create a pleasing pattern and proportions. Only then do I move on to the third dimension.

Simple is beautiful

As I developed my sense of proportion, I discovered a wonderful thing: Beautiful boxes don't need adornment. I began to strip away everything that I could, leaving just the proportions, the clean lines, the geometry of the shapes, and the color of the wood. These elements can carry a box. Now I pursue simplicity with a passion. I'm obsessed with making something truly beautiful using as few elements as possible. This limited focus actually makes good design easier, because you don't wander aimlessly through option after option. Instead, you work within the constraints and begin to see new ways to employ them. You become more creative. You master a limited set of design details rather than moving from one to another without ever gaining an understanding of how they can be used to make a beautiful box. Pick one or two elements of a box to focus on, and work them over and over, asking yourself, "How can I use them differently?" This will force you to be creative, and you'll become a better designer as a result.

Make it beautiful, not busy. Push your creativity by eliminating unnecessary ornamentation. Get simple right and you'll have a beautiful box.

Small boxes need small pulls

Many of my boxes are small, but not just in their overall dimensions. Everything about them is small. All the elements of a box—from its length, width, and height to the thickness of its sides and the size of its pull—should fit together harmoniously. Good proportions extend beyond basic dimensions. My smallest boxes have sides that are just $\frac{3}{16}$ in thick, and as the size of the box grows, so too does the sides' thickness. I size pulls in proportion to the box's size as well. This need to make all parts of a box so that they strike a harmony when taken together is often overlooked.

I've seen small boxes with thick sides and big, meaty pulls. It doesn't look right. However, you should look beyond the size of the parts. The grain should be matched proportionally to the box. A short, little box needs really tight grain. If there are just a few, widely spaced grain lines running along the side, or, even worse, some nasty flatsawn cathedrals, the sides will look like a section of a big board. If the grain is tight and straight, then the side will look like it's just a normal board from a little tree. That might seem a bit absurd, but it really does make a difference.

Develop the details

There's more to a box than its overall dimensions and the pull you pop on the lid, and you really can't stop designing until you have considered and worked out everything about it. When I make a box with a lid that fits into a rabbet cut into the top edge of the sides, I think carefully about how wide the rabbet should be, because this determines how thick the top edge of the side appears. I also consider how thick to make the top, because this determines how far the top rises above the sides. These are small things, but they definitely affect the box's appeal and beauty. The goal is for every detail of a box to

be the result of forethought. Think carefully about the joinery. If you are going to use miters, you should have a good explanation for why. Are you going to angle the ends of the pull? Fine. Why? And are they going to angle down or up? Have an answer. This is how you arrive at a fully realized design, at a good design. It's a hard thing to do, because it requires discipline. Like you, I want to jump right into the making, but you have got to resist that urge until you know exactly where you are going and how you are going to get there. This knowledge comes from mapping out all the details beforehand.

Be thoughtful about wood

You know that bin of scrapwood over in the corner of your shop collecting dust? Do not look through it to find wood for your next box. Don't limit yourself to weird offcuts and odd-shaped chunks of funky exotic woods. The species of wood you use, its color, its cut of grain, the tightness of the grain, the size of the pores—these are all things you must consider when picking a board for the box. You must be just as fussy about the wood as you were about the design. It's all of a piece. I never go to the scrap bin. I do have a stack of small boards that I set aside because I know they have the qualities I look for when making a box, but again, I was deliberate about what I set aside. However, I am more likely to buy an 8/4 or 12/4 flatsawn board and rip it into thin boards as I need them, where the edge of the original board becomes the face of the new one. This creates a board that has tight riftsawn grain, and I can control every aspect of the wood I'm using.

Think it through. Don't stop designing until you consider every aspect of a box, right down to grain orientation and the size of the pulls. Be picky. The wood you use to make a box is critical. Take your time and find the right piece, the one that enhances the box's design.

Embrace color

There's no way to slide quietly into this one. I use paint and fabric when I make boxes. They are as important to my design aesthetic as is my use of riftsawn domestic hardwoods (cherry, walnut, white oak, maple, etc.). More than a few grizzled woodworkers have turned their eyes from my boxes because of this. Happily, a great many more have told me that they love the bright colors I incorporate into my boxes. Why do I do it? To my eye the addition of color through paint and fabric gives the boxes an extra shimmer of life. Color adds a touch of modernity to a traditional material and softens an otherwise muscular material just enough to give it a welcoming warmth.

I am particular about paint. I use only milk paint. Unlike latex paint (even matte



Work in scale. Every detail of a box, from grain to pull, should be sized to complement the box's proportions

latex paint), milk paint is not uniform in color. It has a wonderfully variegated color. There's almost a texture to it. This gives it the feel of a natural material. Wood, too, varies in color, even within the same board. Set against the earthy, warm, and organic surfaces of wood, latex paint is out of place.

Milk paint is another story altogether. It's just as organic, so even though there might be a stark contrast between the bright color of the paint and the deep, rich color of wood, the two seem tied to one another. A note about how I use milk paint: It's a traditional material that has been used in furniture making for centuries, but I've always used it in nontraditional ways. I paint a lid, or just the edges of a lid, maybe the feet of a pull. I like to paint the inside surface of a box's bottom, so that when you open the box there's an unexpected pop of color. It also brightens the box's interior. This gives my boxes a modern feel, even though I am using traditional materials to make them.

Soften the inside

Now, about fabric. I first started to use fabric on the inside of boxes several years before I began the 52 boxes project. I like it for the same reason I like to paint the interior surface of a box bottom. It's a wonderful and unexpected splash of color. I also like that it takes the edge off the wood. Wood is a strong and dominant material. Combining it with fabric, often a small floral print, makes it less so.

However, I am rigorous in how I use fabric. First, it must be tight and fitted. There are no cushions beneath it. And the pattern on the fabric absolutely must fit proportionally with the size of the box. A small box demands a small print. If you open a small box and see just part of a very large floral print, something seems off. Open a small box and see a tiny floral print repeated many times within the box, and all seems right. The color of the fabric should complement the color of the wood, too. Stark contrast isn't good. As with all that I do, subtlety rules the day.

I approach the process of making boxes the same way I approach designing them. Keep it simple, clean, and precise. An understated but elegant box should not be difficult to make, nor should it be made sloppily. That, as they say, is the sticky wicket. I've given a ton of thought to how I make boxes, and I've tried another ton's worth of techniques. I think I've finally gotten a handle on it. What I'll show you here isn't anything magical or especially difficult. In fact, it's all fundamental woodworking. The techniques I use to make boxes are elegant, and tremendously versatile. Use them and you're not confined to making boxes that look like mine. What I like most about the techniques I use is that they don't get in the way. They aren't flashy. When I look at a completed box, I don't get caught up by an insanely complex corner joint and a set of wickedly curvaceous legs. I see a beautiful box. That's what it's all about. Make something that evokes this reaction: Wow. That's beautiful. Anything else is unimportant.

Box 36

This box came out of nowhere. As I was finishing Box 35, I was a bit frustrated because the quality of the workmanship is a bit lower than I'd like. There are a few gaps in its bird's-mouth joints. So, I decided to make a box and make it as perfect as I could. For some reason the first thing that popped into my head at this point was a very small ebony box. I thought that if I could come up with a good design and execute it perfectly, then ebony would make the box seem like a little jewel. I don't know if I accomplished my goal, but I really like this box.

For the most part it's a pretty normal box. It's 2in wide and 4in long, with sides that are 2in tall. The top and bottom have shopsawn ebony veneer on the outside faces and fabric on the inside faces. There's some shopmade poplar plywood between the ebony and fabric. The top and bottom are glued into rabbets cut into the sides. I glued up the sides, glued in the top and bottom, and then cut the lid free. And here's where the box takes an unexpected turn. A common approach to keeping this style of lid on its box is to use an insert on the inside of the box. When I was designing this box, I decided not to use an insert. Instead, I thought that I might inlay some thin circles into the front and back of the box. The inlay would be glued into the lid, but not the box, so you could pull the top off, but when the top was on, the inlaid circle would lock into the half-circle mortise in the box bottom and keep the lid in place. I considered several other shapes, too. But, honestly, all of that seemed like a colossal pain to make. So, I thought some more about it.

Here's what I came up with, and it wasn't hard to do. After cutting the lid free and cleaning up the sawn edges of the lid and box, I routed a small rabbit into the lid and

ON EBONY

This is the first time I've ever used ebony for anything other than a pull. It wasn't as hard to work as I thought it was going to be. It routs beautifully. And it doesn't really need a finish. I used only wax on the outside, because when I shellacked the inside, it got too jet black. It looks good with just wax.

box. I then made some strips of maple that were just wider than the "groove" created when I put the lid on the box. I also left the maple a bit thicker than the groove was deep, so that it was just a few hairs proud of the ebony. My plan was to paint the maple, then glue it into the rabbit in the lid. That's what I did. The green strips are mitered at the corners. The strips automatically fit into the rabbit in the bottom and hold the lid on the box.

There's not much else to say about this box, but I do want to explain why I painted the strips that hold the lid on the bottom. I thought about using solid wood and quickly ran through the species I have on hand, like cherry, walnut, apple, mahogany, madrone, white oak, maple, holly, etc. None of them was the right color. And then there's the issue of grain. Ebony's grain is so difficult to see that even a wood with very little grain, like madrone or apple, looks odd against it. I also thought about using curly maple, which can look great with ebony, but the strips are so small that I feared the maple would no longer look curly. Also, ebony is so lacking in variation of color that other woods look odd juxtaposed against it when ebony is the primary wood. So, I decided to go with milk paint. It shouldn't be a surprise that I think it looks great.

One last point about the strips. I left them proud of the ebony for

SPECS

- Ebony
- Custom green milk paint
- Fabric
- 2 x 2 x 4



a few different reasons. First, I wanted there to be a tactile indication of how the lid comes off. When you put your fingers on the lid, you feel the strips slightly and can grasp them to help pull off the lid. Second, it would be damn near impossible to get them truly flush with the ebony. Normally, you'd glue them in place and then plane them flush, but I couldn't do that because it would remove the paint. Of course, you could remove material from the inside

face until the outside was flush, but because a bit of the inside face is exposed and painted, I couldn't do that, either. A third option would be to plane the strips flush to the ebony before I painted them, but then they would no longer be flush after I painted them and you would feel that. So, I intentionally made them proud, and they're proud enough that it's clearly intentional. Good design is always intentional. *F&C*

LIFTING THE LID



1 & 2. Rout a rabbet into the outside edge of the box and the lid



3. Cut strips of maple for the lid rabbet and miter the ends on a tiny miter shooting board



4. Glue the first strip into the lid rabbet



5. Fit the last strip into place

52 Boxes in 52 Weeks

By Matt Kenney,
published by The Taunton
Press, 2018, £21.99
Available from:
www.thegmcgroup.com

52
BOXES
IN 52 WEEKS

IMPROVE YOUR
DESIGN SKILLS
ONE BOX AT A TIME



MATT KENNEY

LOVED IN THE INDUSTRY, CHOSEN BY PROFESSIONALS



EVERYTHING YOU NEED TO DELIVER!



S 45 n

A small Band Saw with great capabilities that is perfect for either the joinery workshop, schools, furniture restoration or renovation



SC 3 CLASS

Robust, professional and a precise circular saw



CU 300 c

Universal combined machine that offers the best value for the everyday workshop



FS 41 elite s

Heavy duty, compact and created to meet all planing demands of workshops



T 55 W elite s

A Spindle Moulder with great versatility for many tasks



ECO 300 D

An efficient low cost dust extractor

SCM Group UK

Tel. +44(0)115 9770044 - scmgrouppuk@scmgroup.com - www.scmwood.com



is more

Free Oak Blanks with Hamlet Woodturning Tools

see website for details*



The Ultimate Woodturning Lathe

ProEdge
Sharpening
System
From
£269.00
inc. VAT



hapfo
Made in Germany



www.toolsandtimber.co.uk
you can order online now

hamlet
CRAFT TOOLS
Sheffield, England



STAINLESS BOTTLE STOPPERS

Bottle Stoppers made
from food safe
stainless steel, **FREE**
Blank included

Flexcut

pfeil

Robert Porly

WE ARE EASY TO FIND:
1 1/2 miles from the M6, J40.
Take the A66 towards Keswick,
turn left at first roundabout,
follow the Brown Signs to
The Alpaca Centre.

G&S SPECIALIST TIMBER

The Alpaca Centre, Snuff Mill Lane, Stainton, Penrith, Cumbria CA11 0ES.
Tel: 01768 891445. Fax: 01768 891443. email: info@toolsandtimber.co.uk

Open 8am to 5pm daily.
10am to 5pm Saturday.
Closed Sunday.

* Terms & Conditions apply.

Call us
01296 481220

osmo[®]

Learn more
osmouk.com



ITS
CHILD'S
PLAY

WOOD WAX FINISH: Highest quality colour and protection

✓ MICROPOROUS | ✓ NATURAL | ✓ OIL-WAX BASED | ✓ DURABLE | ✓ HIGH COVERAGE



Only a bad workman blames his tools

Come and learn to be a skilled craftsman at Britain's
original boatbuilding college. For more than 40 years we've
been offering students world-class training whether you
join us for just a day or a whole year. Don't take our word
for it, our students say it's life-changing.

www.ibtc.co.uk
01502 569 663
courses@ibtc.co.uk

Learn From
The Best™





Join us on Europe's largest woodworking website offering expertise and a vibrant community

- Latest news • Projects
- Reviews • Techniques
- Competitions • Blogs
- Forums • Giveaways



woodworkersinstitute.com - Home of the market leading woodworking magazines



Fish Glue DISCOLORED



Fish Glue is suitable for all applications where high elasticity and very high strength must be combined. One particular advantage is the strong adhesion to wood, ceramic and metal. Application: Soak the gelatine grains in cold water during 2 hours. Then slowly heat up in a double boiler between 50° and 60° C.

www.kremer-pigmente.com

The **Fish Glue (#63080)** is available in 100 g, 1 kg, 10 kg and 20 kg.

Not just a dovetailing jig

Steve Cashmore explains the basic working principles of the WoodRat



PHOTOGRAPHS BY STEVE CASHMORE

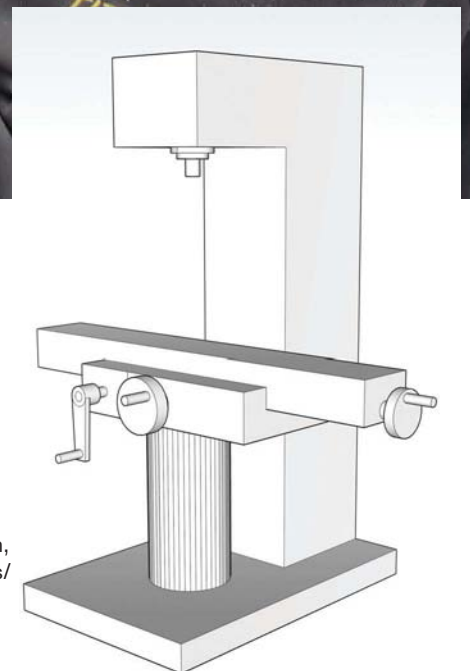
The WoodRat has been around for quite some time but is often misunderstood by many folk, who take one look at it and then run away! So I'd like to try to remove some of the myths. I bought my WoodRat WR900 around 18 years ago and I chose it simply because it could make a cut in your workpiece where you wanted to make a cut and, more importantly, unrestricted by constraining templates and guides. Also, it is not limited to just cutting dovetails or tenons/mortises like other well known routing jigs on the market, as we shall see later. It is in essence an upside-down router table and shouldn't really be called a jig, it's more than that. But how does it work and why is it useful?

The vertical mill

For those of you who don't know what a mill is, it is basically a large floor-standing machine, which is a bit like a massive pillar drill but far more accurate and complex.

A mill usually requires the workpiece (usually metal) to be clamped to the top surface of an elongate horizontal surface or table, which can be moved relative to a rotating cutter mounted perpendicular to the upper surface of the table.

The front offset handle winds the table up/down, the front centre handle winds the table backwards/forwards, the end handle winds the table left/right and the cutter stays at a fixed height during a cut. So the mill can cut a workpiece in three dimensions. Different profiled cutters may be used to mill different shapes into the workpiece.



A typical vertical mill

The WoodRat

In comparison, the WoodRat or Rat, has a main body made from aluminium extrusion, which has an I-beam cross-section for rigidity.

The body is mounted on a homemade mounting cleat which is screwed to a wall or other suitable vertical surface. The body and accessories can be temporarily removed from the cleat when not in use, if space is an issue in your 'shop.

The Rat uses a hand-held router fitted with a router bit or 'cutter'. The router is attached to a router plate which in turn is captivated by a combination of a base plate and two guide rails, the base plate being bolted to the top of the body. The router plate (and hence the router) is slideable backwards or forwards (B/F) as it is guided by the two guide rails, which are screwed to the base plate. Sometimes the guide rails are removed for specific operations, for instance when sliding the cutter B/F at an angle other

than 90° to the face of the Rat body as required.

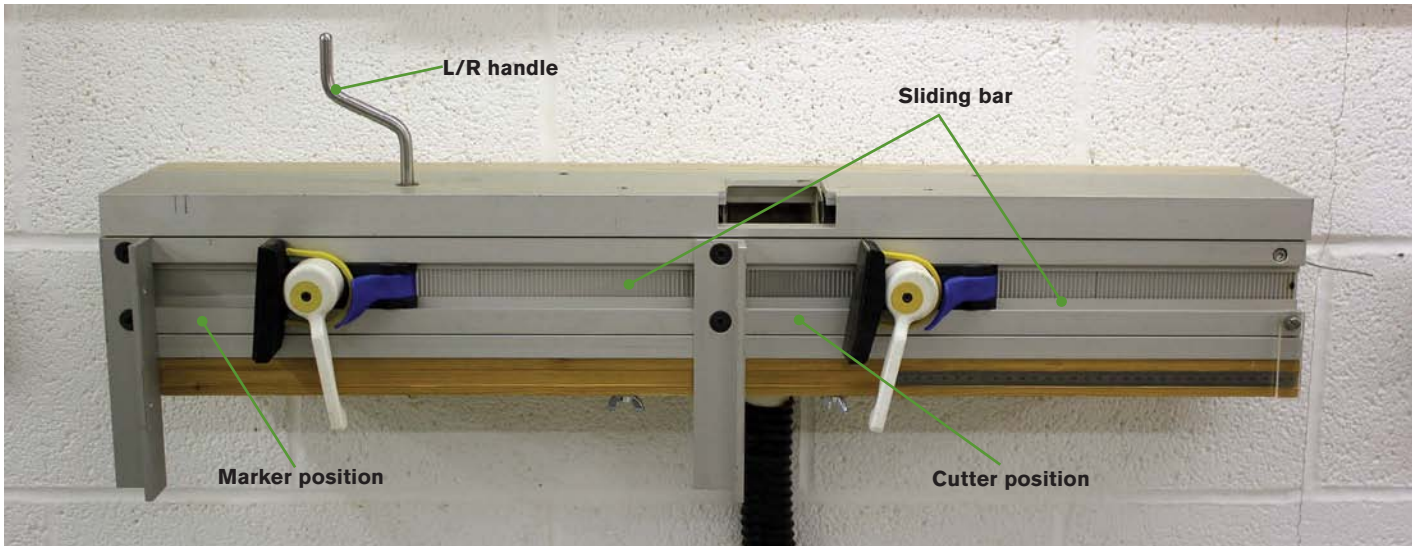
An aluminium sliding bar, which is captivated by the front face of the body, can be wound in the left or right (L/R) direction by a cranked handle situated on top of the body. The sliding bar has two mounting points on its front face, which are for the attachment of two separate camlock vices. The vice at the far left of the bar is called the 'marker position' and the vice at the centre is called the 'cutter position'. Each vice has a camclamp and a fence. The workpiece is usually retained in the cutter position.

When making a L/R cut the user winds the workpiece L/R on the Rat using the handle so that the actual workpiece moves into the cutter. When making a cut in the B/F direction, the workpiece and handle are kept static and the cutter is moved into the workpiece, either from behind

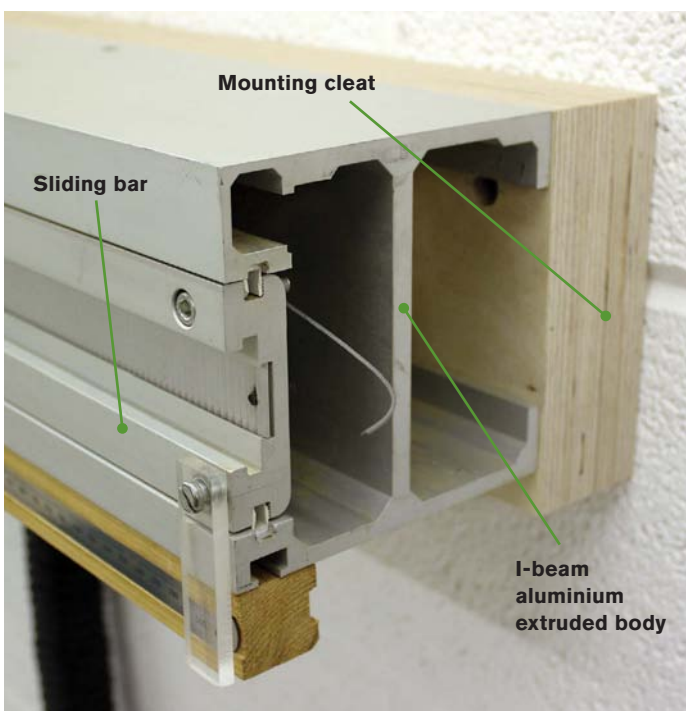
or from in front of the workpiece.

It can also be seen that there is a large aperture on the front and top faces of the body that forms a dust chute for dust collection. A channel is made in your homemade mounting cleat to accept a plastic plumbing pipe for a flexi hose. This dust chute only gives limited dust collection though as often the cutter exits at the front of the workpiece bringing the dust with it, so using the built-in dust port of your router is usually more effective.

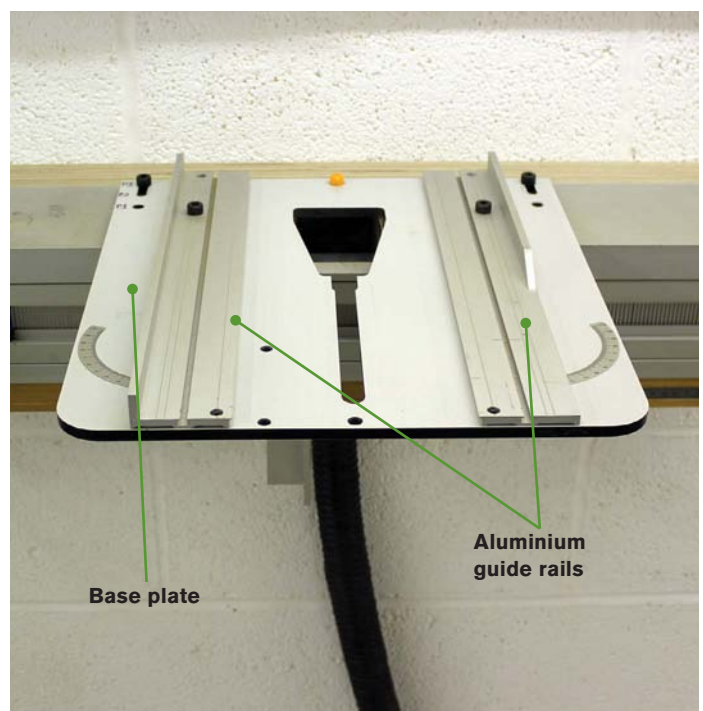
Setting the depth of the cutter is performed by the router's own plunging mechanism. An optional accessory is the 'Plungebar', which makes one-handed cutter depthing really easy on your router. This accessory is great for the Rat, router table and hand-held routing applications. If you purchase a new Rat you will need to drill the router plate to accept your specific router.



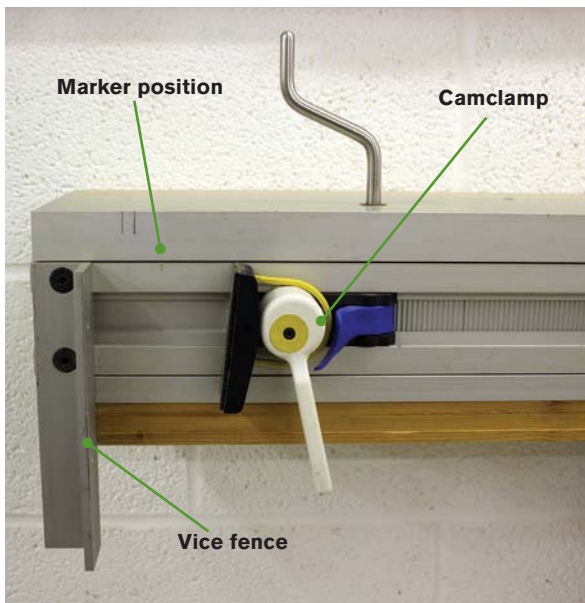
Rat body, sliding bar, marker position and cutter position



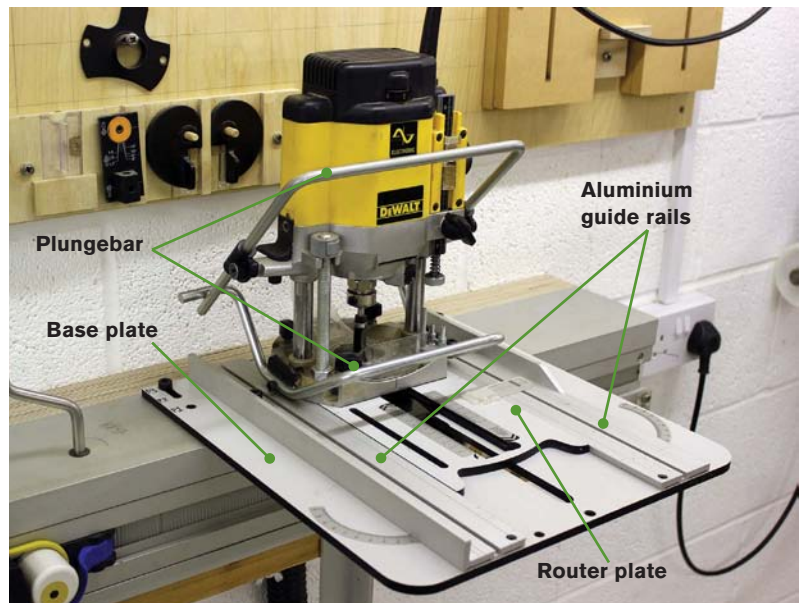
Close-up of body extrusion and mounting cleat



Base plate and aluminium guide rails



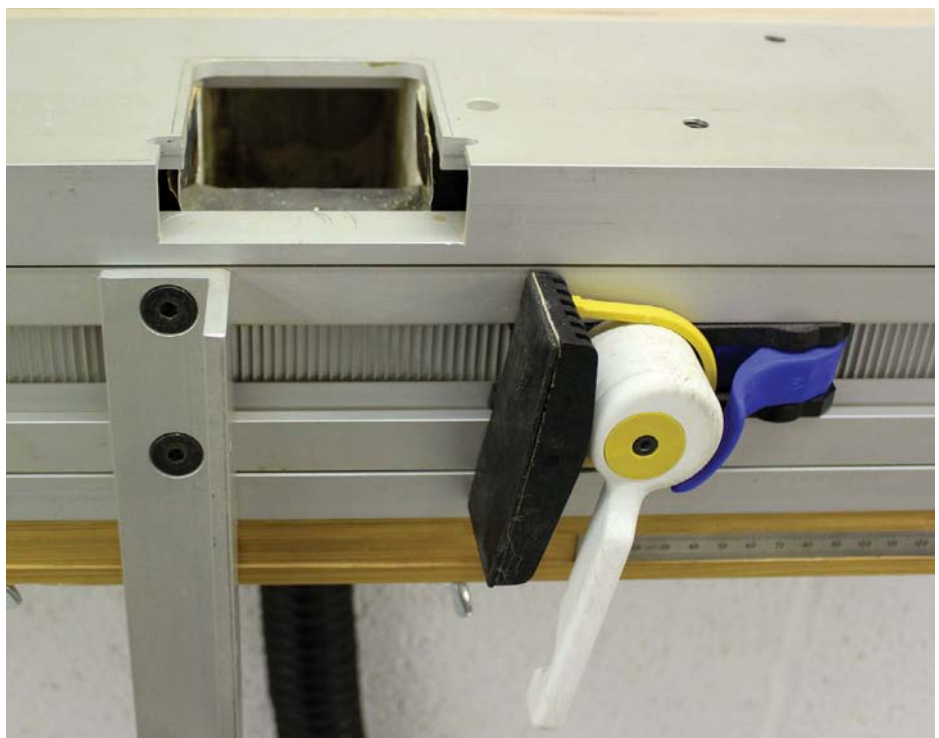
Marker position



Router installed on the router plate

Marker v cutter position

The marker position is a copying or tracing area that is spaced away from the cutter position. Since the marker position vice is attached to the same sliding bar as the cutter position vice, both vices move the same distance when the sliding bar is moved as they have a fixed spacing between them. Whatever is lined up at the cutter position will also line up at the marker position, and vice versa. So this means that if you line up a cutter on top of your workpiece at the cutter position, the same position is effectively transferred to the marker position at the left-hand end of the body. The marker position is therefore used for marking the position of your cutter relative to the workpiece but at the left-hand end of the body. This allows you to easily see where your cutter is going to cut into your workpiece. An offcut, having the same cross-sectional dimensions as your actual workpiece, held in the marker position vice can therefore be used as a template. A template can be made either by marking out some lines representing a joint on the end grain of your offcut in pencil, or by cutting the offcut directly in the cutter position and then transferring it to the marker position.



Cutter position and dust chute

Transferring an outline of the cutter to the marker position

Place your cutter into the router as normal and take any scrap piece of square stock you have in your 'shop and place it in the cutter position vice. The stock only needs to be a bit wider than the width of your chosen cutter. Make sure it is firmly held and pushed up to hit the underside of the base plate.

Plunge the cutter to a suitable depth or use the thickness of a workpiece, lock it at this depth and then cut through the scrap piece in the B/F direction by pulling the router through the scrap. **DO NOT TOUCH THE HANDLE! IT'S IMPORTANT TO KEEP THE SLIDING BAR FIXED.**

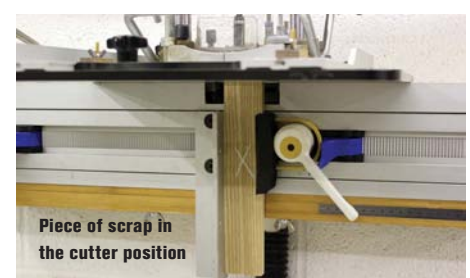
Carefully remove the scrap from the cutter position vice without changing its orientation

(see the X on the face of the scrap in the photos), and now clamp it in the marker position, making sure the end grain is flush with the top surface of the Rat body.

Now use a pencil to mark around the profile which the cutter has made through the scrap piece, and directly onto the front face of the body. If you used a straight router bit then you will have a rectangular marking in the shape of a U on the Rat body. This now shows you exactly where this cutter will subsequently cut.

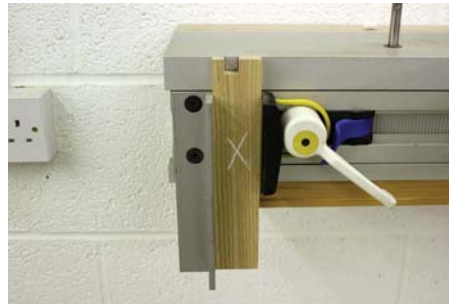
When you put a workpiece in the cutter position and your template in the marker position, you will now see where the cutter will cut the workpiece. Remember though

that the outline of the router bit on the body includes the thickness of the pencil line, the whole pencil marking represents the cutter. This is a key point and must be remembered otherwise you may cut the wrong bit off!

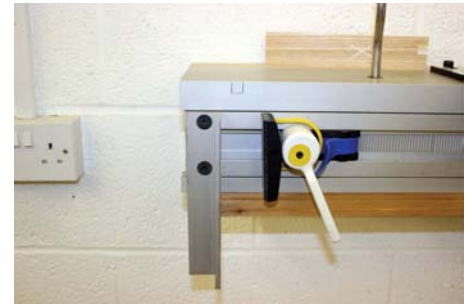




Depthing the cut to the thickness of the workpiece



Scrap with profile of cutter in the marker position and pencilled onto face of Rat



Scrap removed to show profile of cutter pencilled onto face of Rat



A marker position template showing that cutting here will remove the left-hand side of the hatched waste portion



A marker position template showing that cutting here will remove the right-hand side of the hatched waste portion

Benefits of the Rat

One of the benefits of the Rat is that there is little or no tear-out because it is safe to 'climb cut', meaning that the workpiece can approach the cutter in the same direction as the rotation of the cutter. This is normally unsafe on a router table or when hand-held routing, but because the workpiece is clamped in a vice this can be safely performed on the Rat.

Also, as you are looking down on the workpiece, this can be useful to line up the cutter or just to be able to see which part of the workpiece is about to be cut. Normally in a router table you cannot see the part of the workpiece that is about to be cut.

The Rat is very versatile as you are not restricted by template guides like finger templates, so you can cut wherever you want. You are 'guided by eye' by a template placed in the marker position, but it is not restricting you from cutting anywhere on the workpiece. If you prefer, stops can be added to the base plate to restrict movement of the router in the B/F direction, or you can fit digital Vernier callipers or a slimline ruler to make cuts of specific dimensions. A stop system could also be fitted to the sliding bar to stop movement of the workpiece in the L/R direction too.



Climb cutting on the Rat



After climb cutting on the Rat



The clean shoulder cut by climb cutting

Accessories

You can easily make accessories to assist with specific cuts. For example, a vertical table is useful for positioning workpieces to be mortised or for panel raising; a horizontal table is useful when making cope and stick joints or for profiling; a sugar-tong vice is useful for holding round stock; and a mitre box will be needed if you want to hold a workpiece at any angle between 0–90°.



A homemade vertical table with adjustable support and clamps

Endless possibilities

Finally, the Rat is capable of cutting countless different types of joint, for example: dovetails (blind, through, and mitred); comb joints; profiles and grooves (decorative and functional profiles, edge slots, routing circles, pin routing, raised panels, grooving); trenching (housings, sliding dovetails, lap joints, halving joints); tenoning (housings, sliding dovetails, deep tenons, bridle joints); mortising (panelled doors, hinge/lock recesses, dowels). *F&C*



An example of some through dovetails made on the Rat

Next month In the next article we will look at some of these jointing techniques in more detail.

NEW!

Leigh Box Joint & Beehive Jig

Model B975



What's all the buzz about?

The B975 is a multi-purpose box joint jig for making 1/2" and 3/4" box joints on boards up to 13/16" thick, and from 1-7/16" to 17-13/16" wide. Featuring patented joint fit adjustment.

LEIGH



Drawers



Nested boxes

Beehive supers



Call **0800 371822**, search axminster.co.uk/leigh or visit one of our stores for a personal demonstration

AXMINSTER
Tools & Machinery

Axminster • Basingstoke • Cardiff • High Wycombe • North Shields • Nuneaton • Sittingbourne • Warrington



- Solid cast fly wheels 440mm diameter
- Cutting width 420mm
- Cutting height 280mm
- Bonded tyres camber ground and dynamically balanced
- Top and bottom heavy duty bearing blade guides
- Blade tension indicator
- Takes blades from 6mm – 32mm
- Tilting table on rack
- German electrical braking system
- 1500 m/min blade speed
- 100% duty cycle motor
- Manufactured in Italy for consistency and quality

£1999 INC. VAT AND DELIVERY
PLUS FREE HEAVY DUTY WHEEL KIT LIST £144

ACM 440 PROFESSIONAL BAND SAW



01634 572625 | acm.sales@outlook.com
acmuksaws.co.uk

Classic Hand Tools[®]

Pfeil Carving Tools

We hold the largest stock of Pfeil wood carving tools & accessories in the UK.

Over 2000 tools in stock

Pfeil catalogue on request.

Chris Pye Carving Tools
Kirjes Sanding System
Norton Sharpening Stones
Gransfors Bruks Carving Axes
Ron Hock Carving Knives

Flexcut
Arbortech
Abranet Sanding
King Arthur's Tools
Woodcarving Books
Auriou Rasps & Rifflers

NOW IN STOCK - SABURR TOOTH CARBIDE BURRS
1/8" & 1/4" shanks - all shapes • 2" wheels for Arbortech
4" wheels for Angle Grinders

Free catalogue on request.

CLASSIC HAND TOOLS

HILL FARM BUSINESS PARK, WITNESHAM, SUFFOLK IP6 9EW

Email: sales@classichandtools.co.uk

Phone: 01473 784983 Fax: 01473 785724

www.classichandtools.co.uk

DICTUM

**THE
NEW
TOOLS
CATALOGUE**



A UNIQUE ASSORTMENT OF:

Good tools for your workshop, kitchen and garden
Materials such as wood, horn, leather and steel
Tools for finishing, handcrafted products, specialised books
Services as well as many tips and tricks

MORE THAN TOOLS

**ORDER THE CATALOGUE
FOR FREE**

Tel.: +49 (0)9931 4058-902
Fax: +49 (0)9931 4058-800

www.dictum.com



Chalk Style Paint - 20 contemporary colours
Milk Paint - interior & exterior, 26 colours



Dye Stains - 14 colours
Wood Stains - new formulation, 16 colours



Flat Out Flat - a true flat sheen top coat
High Performance - clear & extremely durable
Enduro-VAR - for an oil look & feel



Glaze Effects - 6 translucent colours
Pearl Effects - 5 pearlescent colours



Stain Blocker - white primer
Accelerator & Extender

Over 50 YouTube technique videos
Full range on our web site

See web for shops & online stockists
Trade & stockist enquires welcome



Tel: +44 131 661 5553 info@eurofinishes.com
Unit 13, Peffermill Parc, 25 King's Haugh, Edinburgh, EH16 5UY

www.eurofinishes.com



AIRPRESS
Veneering and Laminating Solutions



Veneer & Laminate all your flat and curved panels with the UK's No. 1 Vacuum Pressing Systems

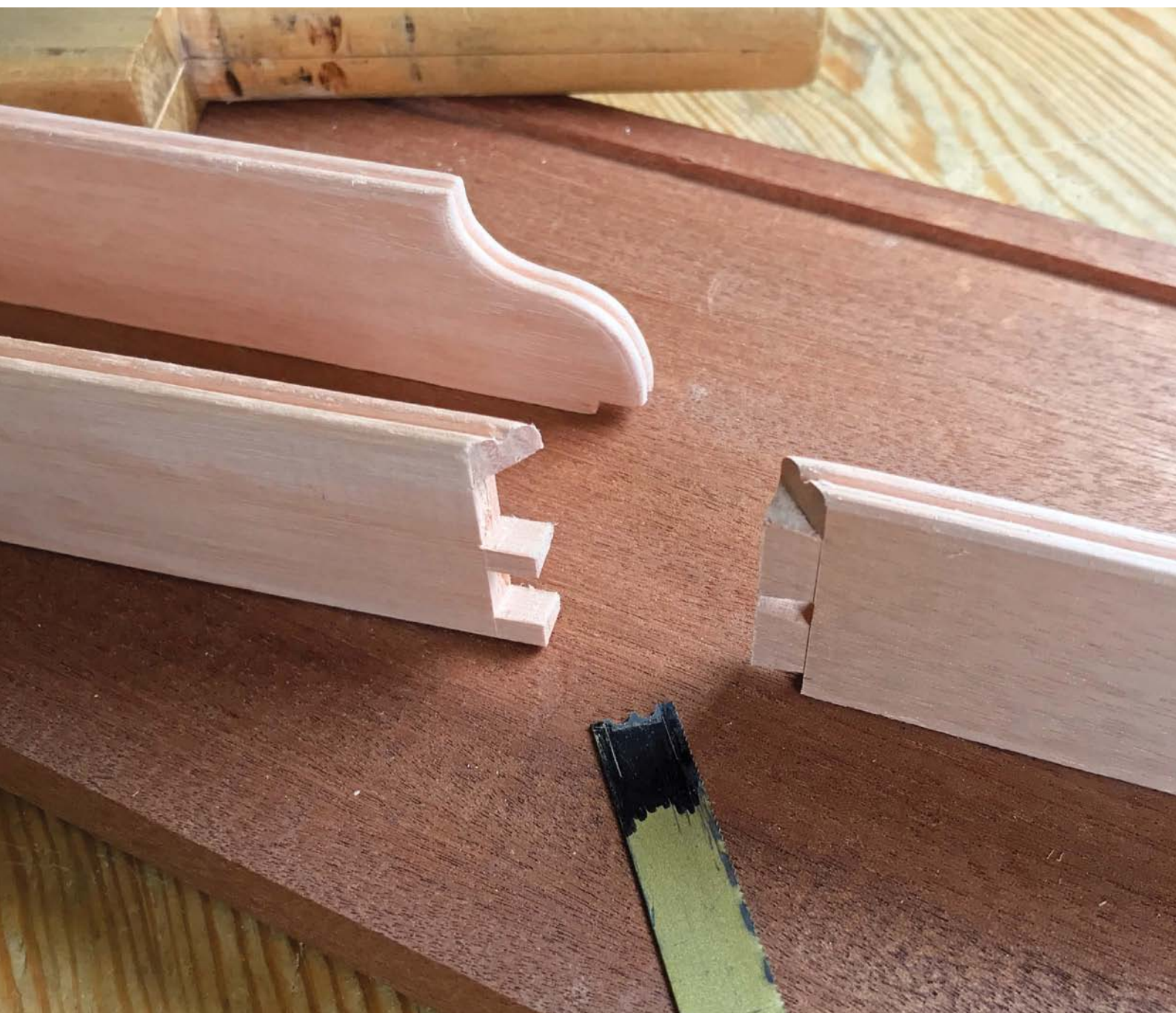


Choose from our complete range of vacuum presses to suit your project

Call us for advice and information or see our full range of Vacuum Press systems on our website
www.airpress.co.uk - Tel: +44 (0)1725 514426

Playing to the gallery

**Derek Jones demonstrates a few techniques
for adding a period-style gallery to your worktops**



PHOTOGRAPHS BY DEREK JONES/OWC PUBLICATIONS LTD

Gallery or up-stand? I'm never sure which term best describes the detail that appears around the perimeter of a worktop or whether if in fact both will do; they are it seems interchangeable when describing their presence in general terms. The only distinction perhaps is when there is reference to fretwork or some form of decorative gilded bronze accoutrement rather than a plain and purely functional detail. If there is a rule or general consensus it might be that an up-stand runs along one edge while a gallery tracks the perimeter along three or more edges. Either

way, in this article I'm going to refer to them as a gallery mainly because the version I'm making incorporates a little decorative detail. With the exception of maybe a small router plane and a round tapered file you should be able to complete this detail with the tools and equipment you already own. Although some steps could be done quicker with an electric router it seems like an awful lot of effort to go to if you just have one set of components to make, and for a period handmade look the results are often too perfect to be convincing.

Cutting a trench

It's usually not practical to fix a gallery in place from beneath the worktop due to the thickness of the material used to make it, so you will have to create a trench or groove in which to glue it. This needn't be that deep and for components that are between 6 and 10mm thick, 5mm should be adequate for a three-sided form. A single rail might benefit from being deeper, or better still consider mounting it into a rebate along the back edge where you can use screws to fasten it in place from behind. It's tempting to use an electric router to cut the trench but it's not nearly as much fun as doing it by hand. Start off by using a marking gauge to lay out the lines. A knife or wheel gauge is best used for this especially if you need to cut lines across

the grain and if the gallery is being laid to run parallel with the edge of the worktop. A mortise gauge will allow you to make both lines at the same time if the distance from the edge is consistent along every side.

With these established you can now define the lines with a marking knife using a metal straightedge if you wish. Clamp it in place if you can and make a series of light cuts rather than one or two heavy ones. You don't need to cut to the full depth of the trench at this point, a couple of millimetres will be enough. Starting with the cross grain trench, use an upturned chisel to gently remove the material between the cut lines. The fibres should come away quite easily and you will find that you don't actually need

to cut right up to the walls of the trench, if anything you want to avoid touching them with the chisel if you can. By rocking the chisel up or down on its bevel you will find an angle that removes a comfortable amount of material at a time. The trick is to find this angle and complete the run in a series of short strokes at the same depth. It's a little bit like freehand sharpening. Every so often use your marking knife to cut the walls of the trench a little deeper and repeat until you have a reasonably consistent level trench from start to finish. The same technique also works along the grain but you will have to pay attention to which way the grain is running as there is a tendency for the chisel to cut deeper than is required.



Two hands are better than one at guiding your knife in a straight line



Rock an upturned chisel up and down on its bevel to find the optimum cutting angle

Flat bottoms

To achieve a consistently flat bottom along your trench you can check progress with a multi square, or if you have one, a small router plane. Unlike their larger counterparts these delicate tools don't always have a screw adjuster to advance the cutter and rely on you tapping the top of the tool with a hammer just as you might with a wooden wedged plane, to increase the depth of cut for each pass. A method that allows for very fine adjustments to be made is to place a piece

of paper over the trench at the end of a pass to raise the cutter off the bottom of the trench and then give the tool a gentle tap to place the cutting tip back on the bottom of the trench. Remove the paper and you will be able to make a cut equal to the thickness of the piece of paper. Continue to run your marking knife around the walls of the trench as necessary. When you're happy with the results you can prepare the gallery components to fit the trench.



A small multi square will help you establish a consistent depth to your trench



A small router plane will do the job of both



Make micro adjustments using a piece of paper as a spacer

Tip: avoid scratches

As with any tools that are designed to run on the surface of your components, keeping the contact area free from dents and scratches will help avoid marring the surface of your workpiece. A little wax on the surface also helps to keep things running smoothly. Be careful also not to let chips or shavings get between the sole of the plane and the surface of your workpiece while you're working.



Keep the sole clean and free from scratches and dents

Small router plane

The small Quangsheng router plane is an excellent tool for cutting accurate housings and trenches. The V-shaped tips are bevelled so you can access the internal corners of sliding dovetail housings as well.

From: www.workshopheaven.com

Price: £59.50



Stock preparation

Scratch tools are one of the easiest and most effective tools to make and don't take too long to put together either. The design is simple enough; just two pieces of hard wood screwed together with a thin piece of hard or spring steel sandwiched in the middle filed to the shape of moulding you want to produce. The cutting tool in this case is a small piece of hacksaw blade. Break off a small section and grind the end flat and square on a grinding wheel. If you don't have engineer's blue in your kit, use a marker pen to coat the tip of the

blade. Using a scribe, capture the thickness of the gallery components on the blade and file your desired moulding profile onto the end of it. A good one to start with is a double bead. You'll have noticed by now that we haven't given much thought to the thickness of the material being used for the gallery components for the simple reason it's not really an issue if you're making it from scratch (no pun intended). You might be constrained, however, for restoration purposes and therefore take extra precautions when marking things out. Use

a round tapered file to create two identical arcs with a square section in between. If your arcs are not identical it's not the end of the world, it just means you will have to run the moulding from the same edge on every component making up your gallery. It's possible to buy router cutters for use in an electric router to produce beads but as I alluded to earlier the results are often too perfect for a convincing appearance. The size of the tooling will also dictate the thickness of your gallery, which may not be to your liking.



A homemade scratch stock might not be pretty but it will function every bit as well as a shop-bought one



An old hacksaw blade is perfect scratch tool material



Grind a straight and square edge to the end of the blade



Transfer the thickness of the components onto the blade



Use a tapered round file to create the head hollows

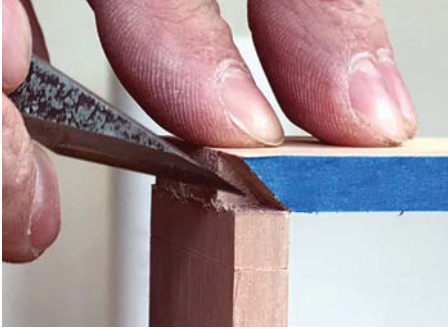


Leave sufficient material between the bead hollows for a more robust tool and to allow for a couple of sharpenings before the tool needs replacing

Mitred top dovetails

The joint most typically used to fasten the corners on a wooden gallery is a basic through dovetail but with a little twist to the half pin and tail on the top edge which are mitred. The joint needs to be cut in its entirety before you can progress with any moulding. You can use a mitre square to set out the mitre or just use your baseline gauge marks to identify the corner-to-corner mark. The mitred pin only needs to be cut down to the baseline on the inside of the component unlike the other pins which are cut down to the line on both faces. It will help if you have a marking knife with a blade that's

less than 45° at the point to transfer the mitred tail to the pin board. Unless you're super confident about sawing to the line don't attempt to cut your mitre straight from the saw, leave a little bit of material to pare away with a chisel so you can creep up to a tight fit. When disassembling the joint, take care not to rock the parts back and forth as this will round over the tips on your mitres leaving a gap on the outside when the joint is put together. And if it all goes horribly wrong, you can take comfort knowing that you weren't the first to make a mistake, as seen on the period example below.



Make sure you can access the gap beneath the mitred tail to complete the transfer to the pin board



Level the top edge and remove any gauge lines before scratching the moulding



Note the repair at the top of this period example

Applying the moulding

You'll find that some woods and mouldings work better if some parts of the shape are defined first by a gauge line. I used a pin-style marking gauge, for example, to establish the groove between the beads on this profile. Hard woods such as oak and ash and soft woods like yellow pine or Douglas fir can be particularly troublesome. The lines of hard resin found in these timbers have a knack of steering the scratch tool towards a path of least resistance, i.e. the soft material, and ruining your day. Other timbers like walnut

and the mahogany used in this example with its tight, straight and consistent structure are generally easier to work. The scratch stock is used in much the same way as a marking gauge by angling it towards the direction of the stroke. This action allows the profile to be cut, or scratched, in slight increments in either direction until the tool won't remove any more material. The blade needs to be set in the tool with the deepest section level with the bottom of the tool holder, in this case the top of each bead. The tool holder is effectively your depth

stop. You'll need to take care not to destroy the mitred corners of course when starting and ending a pass but that's all part of the risk of craftsmanship; nothing ventured etc.

Once complete you can take out any irregularities with a little fine abrasive and prepare to glue the gallery together at the corners using the trench to keep it in shape but not gluing it in place. The internal corners are hard to finish neatly without build up of product so are better done first before gluing the gallery in place.



Use a pin-style marking gauge to establish the groove between the beads



Angle the scratch tool towards the direction of the pass



Leave a generous amount of material for the mitred pin to accommodate the depth of the moulding



Glue the gallery together in the trench before finishing

Room for manoeuvre

You'll need to make allowances for future movement across the grain if you're attaching a gallery to a solid wood worktop. This can be done by cutting your trenches short and leaving a small amount of the side components to extend beyond the end of the trench above ground. *F&C*



UNDER THE HAMMER:

The Oak Interior sale

We look at the top-selling chairs from Bonhams' recent auction

Bonhams' unique Oak Interior auctions include 16th-, 17th- and 18th-century carpenter-made and joined early vernacular furniture, often from single-owner and private collections. Sales include refectory tables, panel-back armchairs, coffers, side tables, chests of drawers, back stools, joint

stools and Windsor chairs, made from a variety of timbers including ash, elm, fruitwood, oak, walnut and yew.

Related works of art, including treen, early metalware (brass, copper, iron, pewter and steel), early carvings in wood and stone, and folk art-related items, are sold alongside furniture in

a sale that caters for both connoisseur collectors and clients wishing to re-create period interiors. Period textiles are also included.

Auctions take place at Bonhams' New Bond Street auction house twice a year. Here, we're focusing on some of the best chairs sold at the March auction.



£40,000

An exceptionally rare joined oak panel-back armchair, made ca. 1530. The back panel is decorated with a Romaine-type portrait with the central roundel framing a female profile bust within a laurel-wrapped wreath, with leaf-and-berry spandrels. The top rail has a broad flat run-moulding, which is repeated on the seat rails. The flat open-arms are on plain rectangular tapering front supports, descending to plain legs, which are joined by rectangular stretchers all round. This remarkable chair is one of the earliest examples of a British joined open-framed armchair. Prior to the beginning of the 16th century, the only available lightweight chair, with an open-base, was principally of X-form or turned, and joined chairs were mainly of heavy construction, with an enclosed-base and arms. This chair clearly demonstrates how the joiner, from around 1520, began to omit panels from a chair's frame, and thereby created the lighter standard joined form for at least the next two centuries: a panelled-back, with open arms and base.



£35,000

An exceedingly rare oak 'Glastonbury chair', possibly made in Somerset and the surrounding area, ca. 1570-1600. Of pegged construction, the back is made of three boards, carved with paired guilloche-filled arches. Each arch encloses a demi-flower above a flower-filled lozenge. The scroll-shaped cresting is line-carved with pairs of downward-pointing leaves and a central 'Gothic' tri-form leaf. The face of each back rail has multiple fine run-mouldings and pyramidal-finials, and the arms have an accentuated raised elbow-rest. The seat is formed of three boards, grooved into side rails with a similar run-moulded top edge. The simple legs form X-form side supports, with a hand-shaped central stretcher of similar rod-form creating the front and rear seat rails. The generic name Glastonbury chair given to this type of late 16th/early 17th-century folding-chair, is believed to originate from a chair reputedly made for John Arthur Thorne, the last Treasurer of Glastonbury Abbey, executed in 1539, the year the abbey was dissolved. The chair is now in the Bishop's Palace, in Wells, Somerset. There are very few genuine Glastonbury chairs in existence, perhaps as few as 13. The recorded examples all have the same basic form, and a remarkably similar design to the back boards, thereby strongly indicating many were produced in one workshop/region. Although a Glastonbury chair has the appearance of a folding-chair, it cannot actually fold. Instead, it is constructed with removable pegs and designed to be taken apart.

£5625

A rare joined oak box-seat settle, made in Yorkshire, ca. 1660. The back is made of five plain panels below four slender carved panels; the two central top panels are carved with a small bearded mask and stylised foliage, the top rail is carved with repeated paired palmette-flowers, with each stem forming a linear shaped border, with tight scroll-carved ears. The uprights are carved with a single leafy-stem above downswept and round-ended open-arms, raised on flattened-ball turned front supports. The boarded seat is hinged to the front and with chip-carved ends, above a panelled base, on extended stile supports.





£21,250

Joined oak and inlaid double panel-back open armchair, made in southwest Yorkshire, ca. 1670. Profusely and boldly carved, the back panel is decorated with stylised foliage, including cross-hatched detail. The cresting rail is carved with paired leafy scrolls and leafy buds, with a chequered chevron-inlaid lower-edge; this chequered pattern is repeated on the inner-edge of the rear uprights, which are also unusually extensively floral-carved. The downswept arms have punched-decorated top edges and pairs of carved tight scrolls to both sides at each end, raised on ball-turned front supports. The boarded seat has an applied deep-moulded edge, the seat rails are also chevron-inlaid, and the front legs are ball-turned.



£7500

A rare panel-back primitive Windsor chair, made in the Welsh Borders/West Country, ca. 1750. This oak and sycamore chair has a curved back formed of two panels beneath an ogee-shaped top rail. The flat arms are raised on pairs of hand-shaped spindles and flat ogee-profiled front supports, and the turned splayed legs are mortised-and-wedged through the saddle-seat.



£4375

An extremely rare pair of joined oak backstools, made ca. 1670. Each backstool has a pair of unusual shaped splats, of double-arched form with a small lozenge carved in the centre. The back uprights have multiple run-mouldings that continue through the inward-facing scroll finials. The boarded seat has an ovolo-moulded edge and the baluster-over ball turned front legs are joined by plain stretchers all round.



£17,500

A large and elaborate painted oak and ash 'primitive' Windsor armchair, attributed to the West Country and made ca. 1730-50. The raked back has 10 hand-shaped spindles, supporting a curved and round-ended comb rail, and with four splayed rear spindles connected to a rear seat wedge. The paddle-shaped arms are supported on four elliptical-turned spindles and a splayed side spindle, and with flat ogee-profiled front supports. The arms are connected to the back by an unusual alternative form of construction, namely, in addition to a low back rail which typically forms the third section of the three-part arm, there is also an additional mid-back rail, with overlapped bentwood sections to each end and jointed through the top of each arm. The hand-shaped splayed legs are mortised-and-wedged through the magnificent broad and thick saddle-seat.



£7500

A harlequin set of 12 oak backstools, made in south Lancashire/north Cheshire, ca. 1680. Each has a rectangular back panel and high arched cresting, each foliate-carved, mainly with oak leaves and daisies, and two with carnations and vines. They all have pyramidal-finials, eight have panelled seats, while the remaining are boarded, and the majority have block and ball-turned front legs, joined by a ball-turned fore-rail, three have columnar-turned legs.

£5000

A rare joined oak panel-back open armchair, made in the West Country, possibly Bristol or Exeter, ca. 1590. The tall back is formed from a single back panel, which is unusually carved with interlaced quatrefoil squares and rosettes within a cable-motif border, below a leaf and strap-work carved arched top rail. The uprights have integral sunken outward-facing scroll carved finials. The punched-decorated open-arms are raised on baluster-turned and stop-fluted carved supports, and the seat board is on run-moulded seat rails with a bicuspid-shaped lower edge. The front legs are also baluster-turned and carved, and the stretchers have a cable-carved design extending over the leg blocks.



£7500

A joined oak double panel-back open armchair, made in Lancashire, ca. 1680. Of wide proportions, each back panel is carved with a large lozenge, filled with a central four-petal flower and a demi-circle to all sides, highlighted with gauge-carved and punched decoration. The muntin rail is guilloche carved, below a double-scroll profiled cresting rail, carved with the initials 'J E S' above a similar flower-rosette and two horizontal lozenge-shaped motifs. The seat boards have chip-carved sides, and the downswept arms are on columnar-turned front supports.

READ **Furniture** & cabinetmaking ANYWHERE



© Shutterstock/kozinsky

DOWNLOAD FROM

ONLY
£2.77

PER ISSUE



mafell

Quality • Innovation • Performance

Beyond all expectation

Deutsche
Qualität
seit 1899



Li
HD[®]
TECHNOLOGY

ready

BRUSHLESS
MOTOR

5.5 AH Li-HD
BATTERY

AIR COOLED
CHARGER

MT55 18M bl Cordless Plunge Saw System

"The Mafell MT55 18M bl plunge saw has so many brilliant features including some that are yet to be seen on other competitor models. It makes this saw not only one of the best on the market, but shows the thought and process that has gone into designing this product which is really a step above the rest. The best feature on this saw is the scribe setting. This is common to others....but Mafell have taken this to another level....(allowing) the cleanest cut possible on the top surface as well as underneath. The premium quality plunge saw....is a joy to use. (It) is one of the best you can buy and I would highly recommend it to professionals especially, due to it's unique features and versatility."

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

SERIOUS?
about woodworking
Then Read This



Patented scoring
function



World's fastest
blade
change



Dual indicator for
precise cutting on &
off rail



2 x 5.5ah Li-HD
batteries included

AVAILABLE IN
110V / 240V
& CORDLESS



Web: www.nmatools.co.uk
Email: info@nmauk.com Tel: 01484 400488

Unit 1, Brookfoot
Business Park,
Brighouse,
West Yorks, HD6 2SD

Special effects

Derek Jones looks at a few techniques to help tone down the appearance of new hardware



As an addendum to the article I wrote last month (*F&C* 271) about fine-tuning the fit and finish of your hardware, this month I'll be looking at how you might go about altering the appearance of these items through the use of chemicals. The term most commonly associated with the process is patinating and there are several brands that carry a range of products to do precisely this; a short list can be found at the end of this article. The primary reason for wanting to change the appearance of hardware is to make it look much older than it is, something that restorers will be familiar with. When such a need arises, there really is no substitute to actually finding and fitting a genuine, correct period example but as you might imagine, that's not always as easy as it sounds. Antique furniture is often either missing its original hardware or

sporting later versions and it takes a dealer with a good eye to spot the difference. In the right circumstances, however, replacing missing parts with new hardware is often the best choice if the work can be identified as such and does not require further intervention or alteration to the groundwork, and it is from this perspective that I will be focussing.

The right precautions

Some of the products used in this article are highly corrosive and are not suitable for disposing in domestic waste after use. Read into this that you cannot just pour them down the sink when you're done. Most local authority waste recycling sites are able to accept hazardous chemicals including solvent-based paints, corrosive chemicals and batteries so as a precaution

it's worth investigating where your nearest depot is located. The handling of hazardous chemicals should only be carried out with the appropriate safety equipment, which includes hand and eye protection and a suitable respiratory mask. It's also worth noting that the immediate work environment may become contaminated with substances that could be harmful to the user and other equipment after the process has been completed. It's therefore important to take extra care when cleaning up afterwards if you cannot create a dedicated space for these procedures. Sweeping up debris during and afterwards should be avoided, a vacuum is the most effective means of maintaining a safe working environment. Good ventilation is also important but should not be considered an alternative to any of the aforementioned recommendations.

Good preparation

The range of products used in this article came from specialist sculpture suppliers tiranti.co.uk. As well as a comprehensive list of products and equipment the company also has an excellent technical department able to answer any questions you may have – a service I made good use of. Where appropriate the products come with a spray dispenser making application easy, others can be decanted and diluted with water to make a bath for immersing the objects being treated. Without exception all of the products require the components being treated to be clean and free from any traces of grease. I used a degreasing cleaner from Shield Technology for this.

The 250ml bottle will make up to 4.5L of cleaning solution. New hardware invariably comes with sharp edges and all the signs of modern mass production so prior to cleaning you may want to carry out any reshaping. These strap hinges, for example, require all the edges to be softened with a file and where possible the edges of the countersinks rounded over slightly. I'll explain why that's important later. Smaller items can be soaked in the cleaning solution and rinsed off in clean water afterwards. Remember to wear gloves whenever handling the items, especially after they have been cleaned as the grease from your fingers can act as a resist to patinating fluids.



The Sculpt Nouveau range comes complete with spray trigger

Where there's muck

A realistic patina is as much about texture as it is colour and although the Tiffany Green is unmistakably green, it does create an authentic looking gunge that can be coloured with a second solution to give the appearance of old fittings.



Build up layers of patina with more than one fluid for different effects



Soften any sharp edges with a file and finer abrasive for an aged appearance



Remove any burrs around holes and countersinks



Use a degreaser to clean the items before patinating and then only handle them while wearing gloves

Working with samples

When you're experimenting with a new technique it's worth considering making samples with other materials as well as your immediate requirements, you never know where it will lead and who knows you may make a wonderful discovery! At worst you'll find out what doesn't work, which is often half the battle. I included a couple of

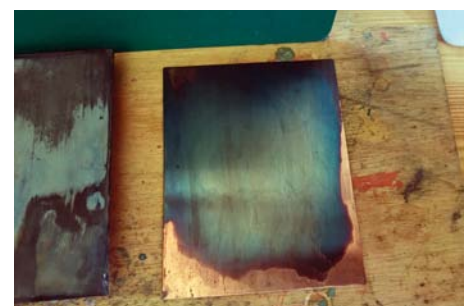
squares of copper as well as ferrous metal samples for good measure. It's a metal that's easy to work and lends itself to a number of decorative possibilities. The products that feature the spray dispenser can be applied to a hot surface to speed up the process but the effects will be the same as a cold application. This typically requires the object to be heated to around 200°C, something that can be done in a domestic oven. I found that the act of spraying created a pattern of its own, whereas full emersion resulted in a more even finish. The success of the finish will to some extent come down to personal taste if you are looking for a decorative effect. As far as recreating a period patina, all of them are effective in their own way. For the ferrous metal I preferred the Haematite bath, which resulted in a flat and consistent colour. The Japanese Brown solution developed into an orange-peel effect that, while not unattractive, is not consistent with the majority of metal fittings used on western-style furniture. The Tiffany Green developed some striking hues of blue and green but again perhaps not a typical representation of what you might see on a piece of furniture.



It's possible to create patterns with the spray application



Complete emersion will result in a more uniform effect



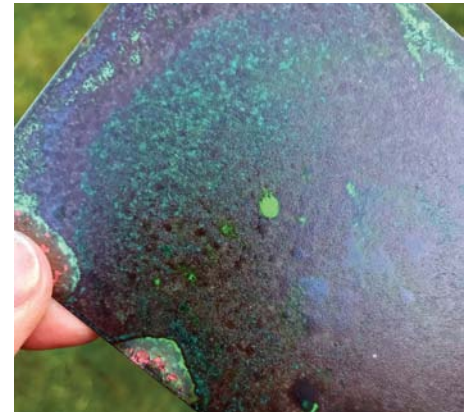
The Antiquing Fluid Black gives a blue tone to copper



Light rust spots can form on ferrous metals after patination



When sprayed onto a piece of mild steel plate the Japanese Brown patinating fluid was quite striking



Tiffany Green can be used to create a range of vibrant colours. Note the two areas where this sample had been handled without gloves after cleaning but before the patinating fluid had been applied

Best for brass

I used two products to patinate a suite of brass hardware, Antiquing Fluid Black and Antique Brown. The Antiquing Fluid was mixed up to use in a bath while the Antique Brown was sprayed onto the surface. As before, the emersion technique resulted in a more even colour. The sprayed-on product pooled away from the sharp edges on the hinges (most noticeably around the countersunk screw holes) on the first application but a second coat seemed to even things

out. I found that a second application creates random tones that add to the overall appearance of age. It's tempting to drop the screws into a bath of the solution but as the heads are the only part visible when in position I found that standing them up on their heads in a shallow puddle had much the same effect. Not much fun if you have a hundred to do but for a dozen or so it's a viable technique.



Note how the fluid recedes away from any sharp edges



A shallow bath is perfect for colouring the heads of screws



A second spray coat will often result in a variegated patina

Low-tech solution for brass

One low-tech solution for colouring brass that came my way courtesy of Jason Thigpen at Texas Heritage Woodworks was to use a bath of vinegar. Place the items to be coloured in a small vessel and the vinegar in a second larger one. Place the smaller one in the larger one and put them both in sealed food bag or similar container and let the fumes from the vinegar do the rest. It can take a few hours but the results are perfectly acceptable and the vinegar can be disposed of easily.

Suggested products

From:

Alec Tiranti Ltd www.tiranti.co.uk
M38 Antique Brown: 8oz/236ml £21.38

Antiquing Fluid Black: 100ml £7.14

Haematite: 100ml £7.44

Patina - Tiffany Green: 8oz/236ml
£16.28

Patina - Japanese Brown: 8oz/236ml
£16.28

Patina - Black Magic: 8oz/236ml
£18.32
Smart Coat Matte: 8oz/236ml £17.30

From:

Shield Technology
Restore Pre-Clean Degreaser: 250ml
£12.75

Finishing up

Unlike genuine patina, forced results are not nearly as robust and may require fixing or coating with a lacquer to protect them. For the steel strap hinges I gave them a light scrub to remove the loose particles and to create a more random appearance before spraying with a matte finish water-based lacquer. The finer the coat the better in my opinion

for furniture fittings. Heavier coats will result in a level of protection suitable for exterior use. While the list of products used in this article are by no means exhaustive they will enable you to achieve some excellent results for prematurely ageing metal fittings and perhaps lead to experiments for creating decorative details for future projects. *F&C*



A combination of spray application and emersion will also give different effects



It is possible to cut through the patination if the effect is too extreme...



...or highlight some areas for contrast



Finish up with a matte lacquer to fix the patina in place

'There's magic in the web': auctioning woodworking tools in the digital age

John Adamson reports on the latest developments at the David Stanley tool auction



£6000

Lot 972: The star of the auction, this Norris No. 11 skew-mouth mitre plane has a rosewood infill and the original Norris 2¼in snecked iron

The success of a David Stanley auction – like that of any other sale – relies upon the principle of supply and demand. Now market forces are also altering the frequency and scope of the firm's tool auctions. With a dearth of top-quality tools being put up for auction in recent months, the firm has decided to make some changes to its auction format and scheduling. There are just no longer enough fine tools available to warrant holding two so-called 'international sales' a year, as well as the habitual handful of general sales.

'Holding only one annual international sale would be problematic,' explains David Stanley. 'It could leave vendors waiting for up to a year to have their items sold.' What he has done instead is create a new cycle in which five or six auctions are held a year,

each of them comprising three sections. First, a sell-and-settle section, where customers bring along items on the eve of the auction and receive payment immediately after the auction, for those items sold. This is followed by a general and modern woodworking tool section, and is rounded off with a section devoted to finer quality antique woodworking tools and those from allied trades, for the benefit of collectors and craftsmen. The David Stanley auction held in Leicestershire on 23 February 2018 was the first to adopt this new format and it proved to be a great success. Ranging from boxes of bargain tools to good vintage tools to the rarefied world of priceless Norris infill planes, there was something for everyone: tradesmen, woodworkers and collectors alike.

Yet such a radical breaking of a routine of some 37 years' standing comes at a price. Will potential buyers travel from far afield for each of these auctions when the choice of high-quality items is perforce less than it was in the old international sales held twice a year? True, two of the top American dealers did make the special journey for the first of the new sales: Jim Bode of Jim Bode Tools (New York) and Patrick Leach of the Superior Works (Massachusetts) both thought the trip across the Atlantic worthwhile. It could hardly be cost-effective though for dealers like these to attend every single new-style sale. There is already talk at the auction house of holding a few top items back so that one auction becomes of greater appeal to collectors and dealers than another.

Online auctions

All this of course presents something of a conundrum to the auctioneers. Luckily, however, live internet bidding through the-saleroom.com comes to the rescue and smooths things out to some degree. David Stanley has already been using the service offered by this self-styled 'leading portal for fine art and antiques auctions' in Europe since his 58th international sale in September 2011, and then successfully extended the service to his general tool auctions from August 2017. Live bidding on the internet has definitely been a great boon all round and has opened up David Stanley auctions to more potential customers worldwide without the need to travel all the way to Leicestershire.

Online searches made through the-saleroom.com for items up for sale can be far-reaching, for they can stretch across the many auction houses now availing themselves of the online bidding service. Better still, the search results are on screen almost instantaneously; there is no longer any need to wait for a catalogue to come in the post. Nevertheless, there has been a negative side to the march of progress: the growing use of the internet led inexorably to a marked drop in sales among potential bidders of David Stanley's own large-

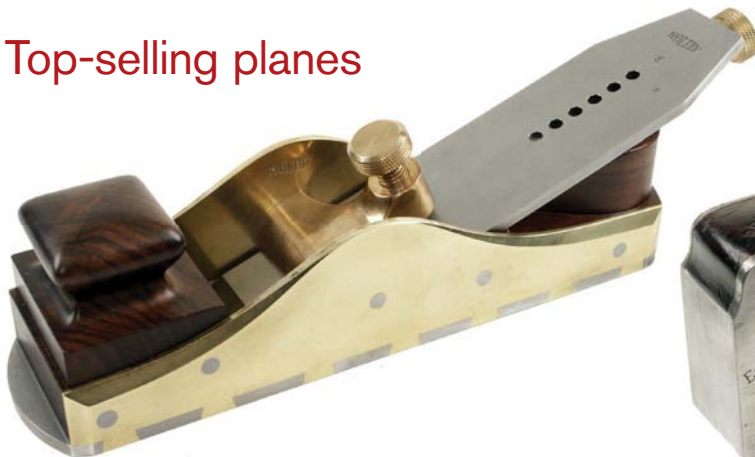
format printed auction catalogues. These catalogues, which accompanied the twice-yearly international auctions, illustrated every lot in colour and gave a description and condition assessment. What is more, they occasionally featured articles about tools and their makers; sometimes there were obituaries of leading figures from the tool world and advertisements for tool books for collectors. Cumulatively and conveniently, these catalogues provided a chronicle of many of the tools as they came on the market, and in the long term have served as an invaluable source of information to tool collectors and historians. Alas, publication of these glossy catalogues has now been halted. All auctions now have an A5 catalogue of the style produced hitherto for the general auctions. It is true that items for sale are still listed by lot number and furnished with a short description and condition code, but there are no longer any illustrations other than of a few items to lend sparkle to the catalogue cover.

The way it now works is to illustrate every lot in every David Stanley auction in colour, online at the-saleroom.com. The images are of a resolution that enables easy zooming in to see more detail and assess the condition

of any lot; when it comes to the better items, there are multiple images available online as well. However, there is a snag: browsing is not the same as it was before. There can be no doubt that this new style of presentation works differently on our brains and memories – and most crucially on our faculty of choice. We have to ask ourselves if the items are as enticing or as easy to find when shown online as they were on the printed page, and if our degree of retention of information about them is still the same. Can we get a feel of the range of what is on offer in the way we could when leafing through the old printed catalogues? On the other hand, might this be mere nostalgia for turning the page?

Since bringing out an illustrated catalogue has become no longer viable financially, let us at least see the benefits of the new technology taken a step further. Jane Rees, co-author of *The Rule Book: Measuring for the Trades*, who describes herself as a 'historian of historic tools', suggested to me at the sale that a CD of all the lots with the pictures and text shown on the-saleroom.com website should be made available as a historical record. Moreover, if all this data were made readily and permanently searchable, what a bonus that would be for keen collectors and tool historians.

Top-selling planes



£2400

Lot 844: The Sutherland-based tool-maker and engineer Karl Holtey made this No. 11 gun-metal mitre plane in the great Norris and Mathieson tradition. Like Norris, he made some planes on which the low-angled 2¼in cutter is furnished with a pin-hole adjustment mechanism as here



£380

Lot 726: This malleable-iron shoulder plane is stamped by Edward Preston & Sons, the Birmingham partnership formed by the three sons of Edward Preston Jr with their father. The firm was incorporated in 1898 as a limited company and the EP trademark used from around 1880, so it is likely that this plane was made in the period between those two dates

There were about 1000 lots in the February sale of which 34% were sold through internet bidding, with 60% of lots being sold in the room or to commission bids left with the auctioneer. Of the 218 online bidders who signed in 40% were successful whereas 75% of the room bidders were successful. Woodworking planes there were aplenty; indeed, planes (14 by Norris, the highly sought-after former London maker) took up 18 of the top-selling 25 lots. The special draw of the Norris infill planes recurs at these sales with unerring regularity. Why is it always Norris? Has it to do with scarcity, style, fine craftsmanship or simply a yearning for bygone glories? Take the A11 skew-mouth dovetailed mitre (lot 972) from the Max Ott collection. This plane stole the show, going under the hammer for £6000 (excluding buyer's premium) to a customer in Switzerland bidding online. Few of these planes were ever made, it is true, but on top of that, there is good provenance and the knowledge that items like this hold their value. In amongst the cluster of Norris metal

planes being sold at bewildering prices there was also a modern infill plane exquisitely made by Karl Holtey in which he knowingly followed in the footsteps of Norris: his handsome gun-metal No. 11 mitre plane with adjuster (lot 844) went to an online bidder in Ireland for £2400. As Holtey himself says, he is trying to retire. When he does so and his output comes to a halt, any items from his range of planes out in the marketplace will likely fetch even higher prices.

The former Birmingham manufacturers Edward Preston & Sons pitched their sales at a rather more popular sector of the market than Norris. Their finely wrought shoulder plane (lot 726) is a good example. Although mass-produced it is ergonomically sound and aesthetically pleasing and is representative of the range of English tools that for a time were the direct counterpart to the tools of the Stanley Rule & Level Company in the United States. The shoulder plane sold on the internet to a bidder in the United Kingdom for £380.

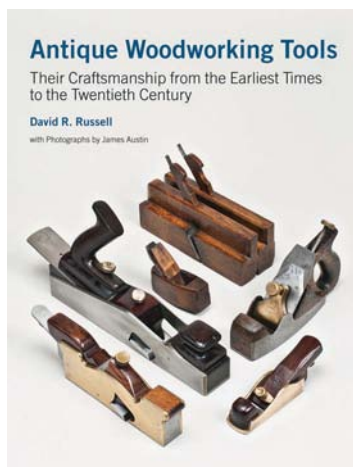
Other tools

It is certain that the appeal of the precision engineering of the elegant steel-faced marking gauge by Holtzapffel & Co. of London (lot 967) must have been one of the factors in determining the sale of this measuring device at more than four times its top estimate of £100 to an internet bidder in Germany.

Although long deemed a good investment by collectors, the Ultimatum brace has seen its price fluctuate somewhat over the years. Nevertheless, with the sale for £380 to a bidder in the room of a brass-frame brace (lot 960) in Ultimatum style with the stamp of Robert S. W. Slack, a small Sheffield brace and bit maker, things are looking up. This buoyancy continued with an early Ultimatum brace by William Marples (lot 961) fetching £340.

For any aspiring Grinling Gibbons there was a true bargain for the taking in the shape of a chest of drawers crammed with good-quality carving tools (lot 579) bought by a US buyer in the room for £460.

Besides watching the revival of old methods and designs for hand tools, one of the fascinations of tool collecting is witnessing technological improvements being made over the years and observing the impact on manufacturers and users of innovative ways of making tools. Today the digital age is not merely revolutionising the appearance and the manufacture of new tools through CAD and computer-aided engineering but also radically affecting the dissemination and processing of all manner of information across a wide range of fields, including that involved in the selling of antique and modern woodworking tools. Writing on the firm's web pages David Stanley justifies the new changes to his auction house's way of working by saying: 'We have to keep up to date with modern technology.' Let us hope he is right.



If you're enjoying our series on tool history you will find more examples of the items featured so far in *Antique Woodworking Tools: Their Craftsmanship from the Earliest Times to the Twentieth Century* (ISBN 978-1-898565-05-5). For more information see www.antiquewoodworkingtools.co.uk



£440

Lot 967: When Johann Georg Deyerlein, John Holtzapffel's business partner, died in 1827, John's son Charles joined the London firm of tool and lathe makers, which was renamed Holtzapffel & Co. This elegant steel-faced marking gauge (now lacking its conical point) was probably made during Charles's tenure of office or that of his son John Jacob Holtzapffel II



£380

Lot 960: This little-used brass-frame brace, with its front and rear filling, revolving handle and swivelling head in ebony, is stamped on the frame with the mark of Robert S. W. Slack of Eldon Street, Sheffield, together with a simplified royal coat of arms (as on some Pasley 'Ne Plus Ultra' braces). The words 'METALLIC FRAME PATENT BRACE' are stamped in an ellipse. The coat of arms on the screw cap on the head probably alludes to that of the Sheffield Cutlers' Company. After William Marples' patent expired in 1863, other makers were at liberty to copy the Ultimatum brace design, and in the period to the turn of the century several firms brought out frame braces modelled on it



£460

Lot 579: Though of uncertain date, this craftsman's kit of 136 good-quality carving tools in a four-drawer mahogany cabinet was probably assembled in the mid-20th century

The next sale by David Stanley Auctions will be held at the Hermitage Leisure Centre, Silver Street, Whitwick, Leicestershire, on Friday 6 July 2018. Full details at www.davidstanley.com

SUBSCRIBE TO OUR OTHER TITLES FROM ONLY £8.93*



From
£17.85*
(6 issues)

Monthly publication



From
£17.85*
(6 issues)

Monthly publication



From
£8.93*
(3 issues)

6x-monthly publication

Save up to 30% on any of these magazines
+44 (0) 1273 488005
www.thegmcgroup.com/offer/woodwork

*Direct Debit price for 6 months subscription, UK subscribers only. Offer expires 30/09/18



Precision Instruments

Dan Schwank demonstrates his method for producing batches of accurate winding sticks

One of the first lessons an aspiring woodworker learns about wood is that it constantly moves. Rough sawn stock that was flat and straight when cut will shrink as it dries, and because the shrinkage is uneven, warpage will occur. This warpage shows up as cupping (across the boards width), bowing (along the boards length), and twisting. Both cupping and bowing are easy to see using a straight edge or by sighting down the length of the board. Twist, on the other hand, is difficult to see by eye. A pair of winding sticks makes it easy to see where any twist may be. By placing one stick at each end of a board, parallel to each other, and sighting across the tops of them, and twist becomes immediately apparent. One common design has inlaid pieces of a contrasting wood on one of the sticks, making it easier to compare the two to each other. The design shown in this article relies instead on two half-moon cutouts. When sighting down the sticks, the light seen under the piece of wood across the top of the cutouts (the bridge) becomes the contrasting visual reference. The strip of wood above the cutouts is also beveled, which makes a nice shadow line to enhance the difference in color. The design is not original to me, but I have developed a way to make these winding sticks as shown here.

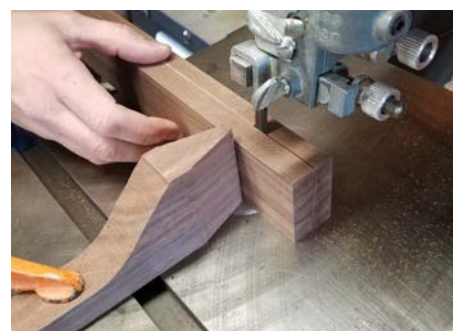
Stock selection

Because the sticks rely on the light coming through the cutouts a dark stable wood is

preferred for a better contrast. Black walnut is my wood of choice, but there are many other woods that would be suitable. Select straight grained and quarter sawn 5/4 stock to ensure the best stability of the tool. Clean up the thickness leaving as thick as possible. (This will be resawn to get a well-matched pair.) The stock should be 2 1/2" wide and cut to 1/2" longer than the finished size. The length of the sticks can vary; 14 to 24 inches is about right, depending on the kind of work being done. Ripping the edge of the stock to get as parallel to the grain as possible is a good idea also.

The bridge is a separate piece of wood that is glued into a rabbet cut into one of the sticks. By marking the end of the stock for reference later, the best grain match can be obtained. A 5/16" strip is ripped off and set aside. In cross section, the finished sticks are 2" tall and taper from 1/2" at the base to 1/4" at the top. Only one side is tapered. This is accomplished by resawing on a band saw with the table tilted, using a single point fence. Leave extra material for cleanup and flattening. After resawing, the sticks are stickered and allowed to acclimate for several weeks before proceeding.

TOP RIGHT: Start with a wide board and rip it to width in line with the direction of the grain
MIDDLE RIGHT: Mark the ends to guarantee sequentially matching components
BOTTOM RIGHT: Re-sawing with a bandsaw is less wasteful than using a table saw



Further preparation

The pieces likely have some bow after resawing which must now be addressed by flattening the original face with either a jointer or long hand plane such as a #7. Next, work the tapered side with the plane to remove the band saw marks. The taper angle is not important; just let the hand plane follow what the band saw established. Once both pieces are done, joint the bottom edges. A long grain shooting board is an essential tool for getting a nice square straight edge. I made one with a stop at both ends so it can be used in either direction, depending on the wood grain. Don't do anything to the top edges yet; we will be doing that after the bridge is installed.

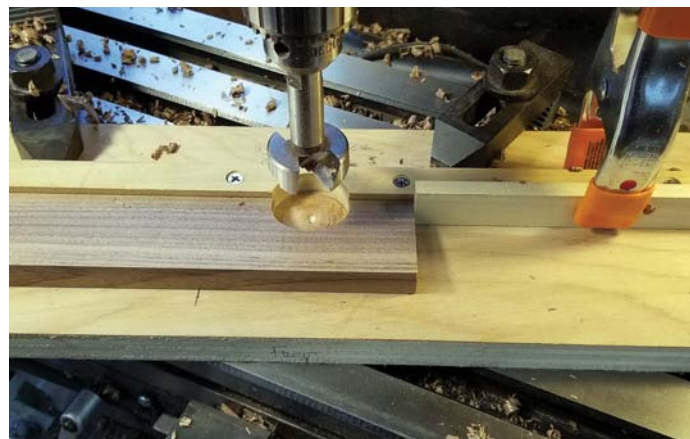
Using a 1 1/2" diameter Forstner bit, the half-moons are drilled into one of the sticks. Locate the holes center lines up from the

bottom edge 1 3/4", and in from the ends 2". The bit will break out of the top of the stick, so a fixture is needed to secure the workpiece and limit tear out. The fixture has a fence for the bit to cut into, and a stop for locating clamped to the fence. This stop will be switched to the opposite side for drilling the second hole. Place the winding stick with the tapered face up, and drill just deep enough to break through the bottom.

After drilling, cut the rabbet. A table saw with a stack dado blade works well. The fence is set at 1 3/4", the same distance as the center line of the holes. Set the blade height to leave about a 1/16" of material at the top. Be sure to keep the workpiece securely against the fence to maintain the position of the bridge in relation to the bottom of the winding stick.



Dimension the sticks with a long grain shooting board



Use a back support and stop to drill the holes

Bridge building

The 5/16" thick strip of wood set aside for the bridge now needs to be ripped to 5/16" width, leaving it square in cross section. This strip is then glued into the rabbet cut previously. Be sure to orient the grain for the best match, using the reference marks placed on the stock when the bridge was ripped off. The bridge is oversize and will project past the surfaces of the winding stick when put into the rabbet. This makes it easier to glue up and is easily planed flush later. Gluing in place is tricky because the bridge must be clamped in both directions to ensure no gap will be visible. I designed a fixture to both hold the bridge in place and distribute the clamping pressure more evenly. It consists of two T shaped pieces of wood and is used to glue two bridges in at a time. The bottom T shaped piece had a couple of cross pieces screwed to it to act as feet and keep it upright. These feet also allow room for the clamps underneath. Avoid getting glue in the area where the bridge is over the half-moon cutouts. Mark the bridge piece while holding it in place to indicate where glue should not be spread. Screw clamps are used for clamping vertically, and spring clamps take care of the horizontal clamping pressure. Use plenty of clamps and alternate them along the length of the stick. The ends of the bridge do not need to be exactly flush because the final length has not yet been cut; there is an extra 1/2" to come off yet.

Once the glue is dry, remove the clamps. The bridge is now planed flush on the back side of the stick. Use a block plane set for a fairly heavy cut to remove the majority of



Prepare the bridge section slightly larger than the rebate



Two T section blocks are used to clamp the bridge section in place



Remove the bulk of the waste with a block plane before flushing off with a jointer

the material, and switch to a smooth or jack plane to finish plane the entire face. The top edge should be planed using the long grain shooting board. Getting both sticks parallel is important for them to be accurate. In fact,

the final width does not really matter as much as parallelism does. I use a dial caliper to measure the width along the length of both sticks and try to get them within .002" along the entire length.

Paring the slopes

The bridges have a ramped surface above the cut outs to create a darker shadow line that is pared on with a chisel. Again, a fixture is used to both hold the stick in place and guide the chisel at a consistent slope. A piece of plywood with both a back and front fence is employed. The front fence is tapered and a wedge with a matching taper is placed between this fence and the stick. By tapping the wedge in place from the side, it will secure the stick in place. The top surface of the wedge is ramped at 20 degrees down to a thickness of 3/16" at the front edge, which will be against the stick when in place. This ramped surface is the guide for the chisel when paring.

Begin by making two vertical cuts tangent to both sides of the circle cut out and perpendicular to the top of the stick, cutting down to the bridge. Pare the ramp in a series of cuts, being sure to check the grain direction beforehand. A skewed chisel will make this operation much easier to do with a better shearing action. Continue deepening the vertical cuts and paring until the bridge is flush with the wedge. Repeat on the second end.



Create a ramp to guide your chisel to cut an even slope



Pare away the inside face of the bridge



A white background or better still natural daylight makes the best indicator

The final task is to trim both winding sticks to their final length. Center the half moon cut outs when doing so. A few passes with a finely tuned block plane on the long edges and a bit of light sanding on the ends to break the edges will have them ready for finishing. I like to use Minwax Antique Oil Varnish, wiping on two coats and removing the excess with a clean cotton rag. Rubbing them down between coats with 0000 steel wool will leave a smooth, silky finish. Avoid using a high gloss finish or using wax since too much shine reduces the effectiveness when sighting down them in use.

In use, a light background is needed; a window works the best. Place the stick with the cut outs behind the solid one and sight across the top of it and under the bridge, comparing the amount of light visible on each side. You will be amazed at how accurately any deviation from flat in the work piece will show up with this design. Many customers tell me it is much easier to focus on the light coming under the bridges than to try to see a contrasting color between the two sticks as in the traditional design. I think you will too. *F&C*

From the classic Precisa 6.0 precision circular sawbench (Precisa 6.0VR with pre-scoring unit) to the flagship Forsa 9.0 (3.2m panel sizing saw) Scheppach offer the perfect choice at competitive prices. Made in Germany since 1927, Scheppach circular sawing machines include micro fence settings to within 1/10th mm; combining excellent depth of cut for ripping solid timbers with a length of stroke to suit your requirements; and a price to match your budget. Sold and supported with unparalleled service in the UK since 1970.

**CAST
IRON
TABLE**
★ ★ ★

BEST MACHINE
FOR HANDLING OF
SHEET
MATERIALS
10' x 5'
★ ★ ★
2.5 x 1.25 m
Forsa 9.0

Forsa 9.0 Package 3



POWERED by a
1.1 HP
MOTOR
INDEPENDENTLY-DRIVEN
SCORING UNIT

Excluding Precisa 6.0



Precisa 6.0 & 6.0VR
Inc Sliding Table Carriage • Table Width
Extension • Table Length Extension

MADE IN
 **GERMANY**

Precisa 6.0 & 6.0VR

1100mm **110mm**

1400 mm
Cutting Stroke

Forsa 8.0

1300mm **107mm**

2600 mm
Cutting Stroke

Forsa 9.0

1300mm **107mm**

3200 mm
Cutting Stroke

Model	Specification includes (as per quoted price)	HP (input) 240V / 415V	Depth of cut & Length of stroke	Price Exc VAT Plus Carriage	Price Inc VAT Plus Carriage
Precisa 6.0-P2	Inc 2m STC + TWE + TLE (as illustrated - excluding pre-scoring)	4.0 / 6.5	110 mm x 1400 mm	£2,995.00	£3,594.00
Precisa 6.0VR-P1	Inc 2m STC + TWE + TLE + pre-scoring (as illustrated)	4.0 / 6.5 + 1.0	110 mm x 1400 mm	£3,450.00	£4,140.00
Forsa 8.0-P3	Inc Pro STC + TWE + TLE + rear support table + clamp + scorer	NA / 6.5 + 1.0	107 mm x 2600 mm	£5,420.00	£6,504.00
Forsa 9.0-P3	Inc Pro STC + TWE + TLE + rear support table + clamp + scorer (as illustrated)	NA / 6.5 + 1.0	107 mm x 3200 mm	£5,575.00	£6,690.00

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

Kit & tools

Having trouble sourcing the right tool for the job? Here's a selection of new and essential equipment for the workshop

All sterling prices include VAT, correct at time of going to press

MINI TEST Tsunesaburo planes

If you've read our book extract this month from *Discovering Japanese Hand Planes*, you'll appreciate how I got sucked into the black hole that is kana nirvana. To date I've managed to steer clear of that particular area of interest under the rationale of 'if it ain't broke don't fix it'. But when the stars are aligned even the most steely of iron discipline can be bent into submission. And so it was that I ended up contacting Workshop



£22.50



0.07mm is a good start but there's a lot more work required before heading out to the 34th national Kezuroukai convention where the record for the thinnest shaving from a hand plane currently stands at 3 microns. That's 0.003mm which is smaller than a blood cell, apparently

Heaven to buy an entry level smoother from their new range of Tsunesaburo planes from Japan.

As Japanese planes go (I'll use the proper name from now on), this range of kana is perfect for the beginner. Unlike a western plane where the blade and body are typically manufactured to marry up nicely when you receive them, kana are not – and for good reason. Partly because of a greater fluctuation in the level of humidity in Japan and because their performance is affected by the slightest movement of the wooden body, it's considered better for the end user to fit and fine-tune the blade to the body themselves. This, by the way, extends to the chip breaker as well as flattening the back of the blade, which is actually the front, and shaping the sole before you can even think about taking a shaving. If it sounds like a lot of extra work to you at this point then it probably is and should be avoided but if, on the other hand, it sounds like a bit of a challenge that might result in some of those transparent wispy ribbons of silky cedar, then for £22.50 this represents a very modest amount of stake money.

Fettling the body requires some deft freehand work with a very fine file or a blunt-end chisel to remove tiny amounts of material from the bed, keeping away from the mouth opening – and by tiny I mean very tiny. This is one of the few times you'll want to see your edge tool produce dust and not shavings. I also made some adjustments to the outside walls of the abutments where the blade is slotted to allow for a little more lateral adjustment than was able, you may not need to. Including flattening the blade, it took me about an hour including taking pictures along the way and then just a few minutes relieving material with a cabinet scraper from the sole in front and behind the mouth, but again not right up to it. The chip breaker was a little more awkward to fit and requires the use of an anvil on which to tap out the ears that bare down on the blade as it's slid beneath the cross pin. Although the chip breaker is not needed for the plane to work it will help to set the plane up for those ultra-thin shavings. I've yet to master that part of the setup and fear I'm already teetering dangerously close to the precipice of Japanese plane tuning. The sudden urge to check my results with a pair of digital calipers suggests I might be closer than I think. The result so far is indeed a great little smoother that will find its way into my travelling kit when it's properly tuned. And let's face it, it won't exactly look out of place in one of my Japanese tool boxes. I need to put a few miles on the clock on this kana before tackling something like a jack or jointer size but as an entry-level toe in the water experiment, I'm happy to be in up to my knees already.

From: workshopheaven.com

280W random orbit sander



Triton Tools has added the 280W random orbit sander (TROS125) to its popular and extensive product portfolio. This powerful tool has a 125mm diameter hook-and-loop backing pad for quick changes of sanding discs and features variable speeds of 7000 to 12,000min⁻¹. The speed is easily changed using an adjustable dial. At 280W, the sander boasts ample power for a variety of sanding tasks and with the appropriate abrasives is capable of leaving a smooth,

flawless finish. Dust is effectively dealt with by multiple extraction holes on the backing pad. There is also a vacuum dust-extraction port that can be rotated 360°, increasing user safety and creating a clean work space. Ergonomic rubber over-moulded grips reduce vibration and increase user comfort, precision and safety. Weighing just 1.75kg, the 280W random orbit sander is light and easy to manoeuvre. Included with the sander are a soft carry case for convenient storage and quick travel, three mesh sanding discs of various grits, a dust bag and a dust-extraction port adaptor for different sanding applications.

From: www.tritontools.com

Bosch Professional 18V drill driver with FlexiClick

Bosch has equipped its latest 18V cordless drill driver with the FlexiClick attachment system to create the ultimate do-it-all tool. Using a range of adapters, the versatile Bosch GSR 18V-60 FCC Professional Drill Driver with FlexiClick can be turned into anything from a screwdriver to a powerful rotary hammer drill. The same system provides great flexibility for work in various difficult situations, including hard-to-reach places. To these advantages, Bosch has also added connectivity and electronic protection features. At just 140mm in length, this drill driver's compact tool dimensions are suited to operation in tight spaces, and with the addition of flexible adapters it reaches even further. Its exceptional application versatility enables drilling in wood, metal and even concrete, as well as classic screwdriving. Adapters are quickly and easily attached to the drill driver using the 'turn and click' motion already familiar to users of keyless chucks. Simply place the adapter on the FlexiClick interface, turn it clockwise, and repeated clicking will indicate a secure connection. Uniquely, FlexiClick adapters can be adjusted without removal from the tool. They offer adjustment through 360°, with 16 different locking positions. A Bosch connectivity module, slotted into the tool, establishes Bluetooth wireless



communication between the drill driver, the user's smartphone and the free Bosch Toolbox app.

From: www.bosch-professional.com

Futura Aqua paints

Ideal for use on wood and metal surfaces inside and outside, the Futura Aqua portfolio of waterborne urethane alkyd-based interior and exterior finishes from TeknosPro provides varying sheen levels with Futura Aqua 20 offering semi-matt, Futura Aqua 40 semi-gloss and Futura Aqua 80 gloss. The paints can be tinted to all Teknos colour shades and also available is the versatile Futura Aqua 3 primer. Package sizes are 0.9, 2.7 and 9 litres. Suited to professionals requiring a hand-applied brush finish that flows easily with few brush marks, it provides a very low sheen top coat and incredibly durable surface. The paints are environmentally friendly with low VOC

levels and can be used for a wide range of applications including interior doors, window casements, cabinets, mouldings, panels, staircase railings and radiators. It is also suitable for use outdoors on primed window casements and doors. The modern pigments used in the paint disperse evenly through the paint and provides excellent resistance to weather and UV rays, and they retain their colour and gloss over time. The paint may be thinned with water and is easy to apply by brush, roller and spray, which makes the application effortless. The surface is dust free after one hour and through-dry after two to three days.

From: www.teknos.com



Logosol four-sided planer and moulding machines



Axminster has recently introduced three Logosol four-sided planer-moulding machines to its range. These compact, multi-head machines enable you to plane and mould timber on all four sides in one swift manoeuvre. The machine is supplied ready to run, you just need to attach a chip extractor. From day one you will be able to produce up to 720 linear metres of wood per hour. In addition to the easy setup, Logosol machines are designed to give you maximum comfort. When you operate the machine, you're in a comfortable working position where the machined timber comes out at waist level. Furthermore, the settings for the different machined products are logical and simple to understand, making it easy to achieve good results straightaway.

Each machine is fitted with planing and moulding mills to enable you to produce superb, finished products in just one operation. The largest model in the range is the PH360. Purpose-built for

professional production, the PH360 is robust and offers impressive performance and quality. Capable of planing widths up to 510mm, the PH360 will manage production from picture moulding to house timbers. There are also two smaller models: PH260 PRO and PH260 ECO. The PH260 PRO is ideal for the home workshop or joinery and construction trade. Although the PH260 is the smaller model, you can plane widths up to 410mm with everything you need to start production. The PH260 ECO is a more economically priced version of the smaller model but still adequate for most building projects.

Prices start from £8157.60 for the PH260, £9537.60 for the PH260 PRO and £13,677.60 for the PH360. Prices may be subject to change without notice.

From: www.axminster.co.uk

TechKut TK41 vertical panel saw

Sagetechn Machinery has added the TechKut TK41 to its range of vertical panel saws. Made in England, the saw has been designed to be easy to operate and the digital display enables the highest precision and accurate cutting. The precision-machined, high quality load bearing rollers equipped with double bearings help the panel to travel on the machine easily and safely. The extra dust extraction unit integrated on the right side of the machine means that the dust emission is at the lowest level. See the website for payment plans.

From: www.verticalpanelsaw.co.uk



Note. The effects of a constantly evolving global market in raw materials and other resources mean that prices can change. Be patient with your supplier and please understand that the prices quoted here are correct at the time of going to press.



*Power,
Performance,
Perfection.*

TREND T5 1000W ROUTER

Compact powerful, variable speed router for light and medium duty applications.

OFFER PRICE

List Price ~~£267.94~~

£149

INC VAT

Watch our Video



goo.gl/xgwLiW

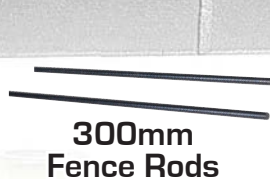
INCLUDES



Precision
1/4" Collet



Micro Adjustable
Side Fence



300mm
Fence Rods



Beam Trammel
Attachment



Clip-in
Dust Spout



20mm
Guide Bush

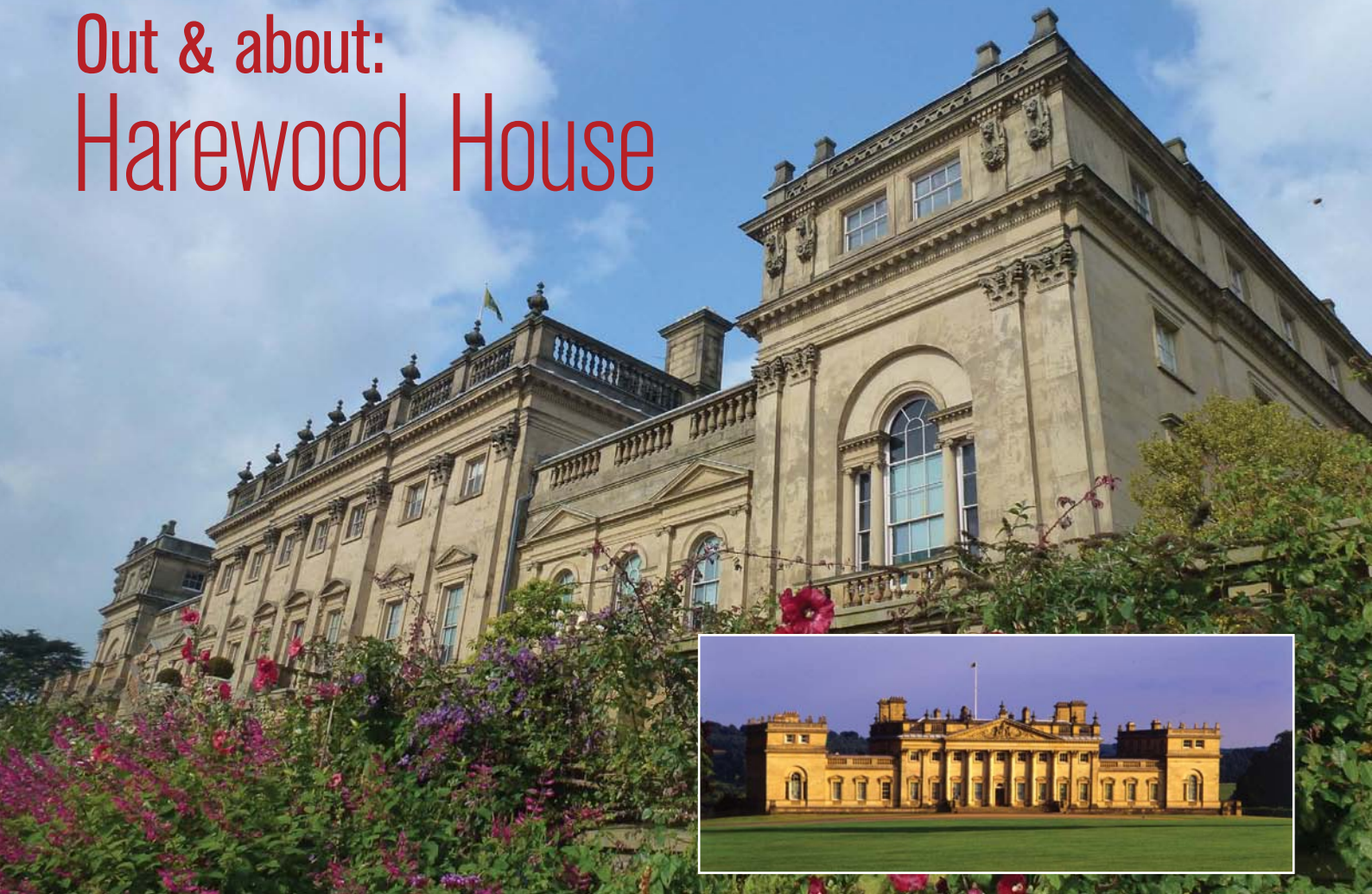
Available from over 350 Trend Routing Centres
& Stockists in the UK & Ireland.



www.trend-uk.com

trend[®]
routing technology

Out & about: Harewood House



This month we visit Yorkshire to see one of Thomas Chippendale's most important commissions

Located near Leeds, Harewood House is one of the Treasure Houses of England, meaning it is one of the foremost historic homes in the country. It contains one of the largest and finest collections of Thomas Chippendale's work – a must-see for *F&C*!

The Diana and Minerva commode

The Diana and Minerva commode was made in 1773 for the State Dressing Room. Chippendale invoiced for the item on 12 November 1773, describing it as: 'A very large fich Commode with exceeding fine Antique Ornaments curiously inlaid with various fine woods & Drawers at each End and enclosed with foldg Doors, with Diana and Minerva and their Emblems Curiously inlaid & Engraved, a Cupboard in the middle part with a Cove Door, a Dressing Drawers in the Top part, the whole Elegantly Executed & Varnished, with many wrought Brass Antique Ornaments finely finished £86.'

The carcass is made of mahogany, oak and pine, and is veneered with satinwood and then inlaid with many exotic woods.



The Diana and Minerva commode made by Thomas Chippendale in 1773



Details of the commode, which is made from mahogany and various exotic woods

History

Harewood House was built between 1759 and 1771 by Edwin Lascelles, 1st Baron Harewood. Lascelles was determined to hire only the best craftsmen for his fashionable new country house; these included architect John Carr, who had designed the homes of several prominent Yorkshire families; fashionable interior designer Robert Adam; England's greatest furniture maker Thomas Chippendale; and visionary landscape gardener Lancelot 'Capability' Brown.

Furnishing Harewood House was the largest and most lucrative commission of Chippendale's career – the entire commission was worth £10,000. He supplied tables, chairs, sofas, beds, commodes, looking glasses, curtains, pelmets, wallpaper, carpets and covers, with pieces of work made for every room in the house.

After the 1770s, the most significant changes to the house took place in the 1840s when Henry Lascelles, 3rd Earl of Harewood, employed architect Sir Charles Barry to increase the size of the building by adding an extra storey to each wing.

Today the house remains in the ownership of David and Diane Lascelles, Earl and Countess of Harewood, and the house and estate are managed by the Harewood House Trust.

What to see

Most of the State Rooms are open to the public, including the State Bedroom, Gallery, State Dining Room and Music Room. As well as Chippendale's furniture, Harewood House owns a fine art collection, including Renaissance masterpieces and works by Reynolds, Gainsborough, and Turner, who visited the house as a young man.

You can also go 'below stairs' to visit the servants' quarters, where workshops, tastings and cookery demonstrations are staged. Harewood's website includes a Servants' Database with fascinating information about job roles and the people who have worked at the house and estate over the centuries.

As well as the house, there are over 100 acres of gardens to explore, a farm and a bird garden featuring Humboldt penguins, flamingos, macaws and cockatoos.

Information for visiting

Address: Harewood, Leeds LS17 9LG

Website: harewood.org

Opening: House and grounds are open March–November, check the website for details

Charges: Freedom tickets (access to house, gardens, farm and bird garden) £16.50 for adults; £8.50 for children. See the website for details of other tickets

Information correct at time of publication, check the house's website before making your visit



Carved giltwood and painted curtain pelmets made by Thomas Chippendale the Younger for the Gallery, the largest room at Harewood House



The State Bed was supplied in 1773 by Chippendale and cost £250. The three mattresses, bolsters, linen and decorative fringes cost another £150, making it one of the most expensive pieces of furniture ever supplied by Chippendale

Chippendale 300



Where else to see... Chippendale furniture

Burton Constable Hall
East Yorkshire, UK
www.burtonconstable.com

Dumfries House
Ayrshire, UK
dumfries-house.org.uk

Firle Place
East Sussex, UK
firle.com

Harewood House
West Yorkshire, UK
harewood.org

Newby Hall
North Yorkshire, UK
www.newbyhall.com

Nostell Priory
West Yorkshire, UK
www.nationaltrust.org.uk/nostell-priory-and-parkland

Paxton House
Shropshire, UK
www.weston-park.com

Weston Park
Shropshire, UK
www.weston-park.com

Harewood House is holding a number of special events to coincide with the national Chippendale 300 celebrations marking the tercentenary of the birth of Thomas Chippendale. The exhibition Designer, Maker, Decorator (running until 2 September) will showcase the remarkable range of Chippendale's work at Harewood House.

The programme will include an innovative, mirrored display of the acclaimed Diana and Minerva Commode on the State Floor, a contemporary response to the work of

Chippendale by artist Geraldine Pilgrim in both the Courtyard and Terrace Gallery, and taking the form of a trail through the house and grounds, the exhibition will showcase the breadth of Chippendale's craftsmanship and activity at Harewood.

Harewood's original copy of Chippendale's famous *Gentleman and Cabinet-Maker's Director* has been returned to the house and will be on display for visitors to see in Princess Mary's Dressing Room on the State Floor.



Harewood will be hosting a special display to mark the Chippendale tercentenary



Harewood's copy of the *Director* will be on display

SUBSCRIBE TO **Furniture** & cabinetmaking

NEVER
MISS AN
ISSUE

**Free early delivery
direct to your door**

**Subscriptions start
from just £19.95**
(pay less than £3.50 an issue!)

by direct debit

+44 (0) 1273 488005

www.thegmcgroup.com/offer/furniture



An airbrush with the past

Derek Jones dips into *F&C*'s archives to showcase the work of Roswitha Lentge and Jeff Smith

We're going back to 1999 and issue 24 for this month's Airbrush with the Past to showcase the work of Roswitha Lentge and Jeff Smith. Both Roswitha and Jeff completed Diplomas in Furniture Craft and Management at Buckinghamshire College before running their own furniture design business in Devon. There's a great mixture of traditional and contemporary design features and techniques in this example that make it interesting to explore. Perhaps not apparent in the Ian Hall drawing is the cocked beading on the drawer; a feature that's hardly ever added to anything other than a reproduction these days or back in 1999 come to think of it. The gothic, or in horology circles 'lancet', shaped glazing bars are also a rare occurrence.

The cabinet is mostly made from solid timber, quartersawn oak for the sides, top, bottom and fixed shelf but a veneered 6mm MDF for the back panel negating the need for a frame and panel construction. The corners of the cabinet at the top are mitred and joined together with biscuits, as are the fixed shelf above the drawer and bottom board.

There are a number of structural details worth noting on this piece. Firstly the sides extend to the ground therefore transferring the entire weight of the cabinet and its contents to the floor, the splays are decorative and attached afterwards. Once again this is a traditional feature that appears on Regency chests of drawers as well as storage and display pieces from much earlier.

The second feature I'd like to highlight is the sliding dovetail spline that is used to attach the cornice to the sides of the cabinet, the purpose of which is to allow the sides to expand or contract without breaking the mitre at the front corner. The spline is dovetail shaped and fixed to the side with screws through slotted holes without the use of glue. The cornice is machined with a corresponding dovetail groove and glued to the spline without transferring any glue to the cabinet side.

Apart from their obvious decorative statement, glazing bars also carry out an important structural purpose and not only to hold the glass in place. In the same way a ledge and braced door will have diagonal braces to prevent the panels from dropping, properly fitted glazing bars will carry out the same function by distributing the weight towards the rails. In the case of this cabinet the bars were made from laminated sections of brown oak to form the front part and a separate laminated section glued into a groove routed in the back to create the T section. The individual sections were incredibly rigid. The bars were glued together to make a single framework while the rest of the door was dry assembled around them on a rod. Mastic was used to secure the glass in place before putting it in afterwards.

Next month

Next month we'll be going back to September 1998 and issue 20 for a closer look at Wade Muggleton's version of a Celtic stick chair.



SPECIAL SUBSCRIPTION OFFER FOR USA READERS



SUBSCRIBE FOR 12 ISSUES

For less than \$75*

SAVE UP TO 38%!

CALL 866-699-6779 (toll-free) OR visit: lightningpublications.com



WATERS & ACLAND
The Furniture School
in the Lake District



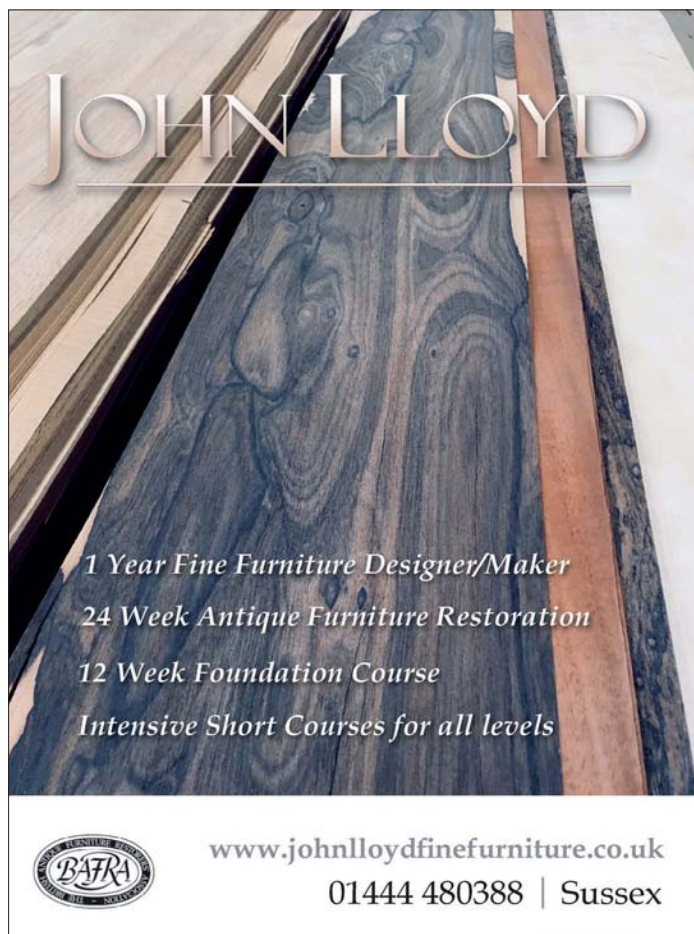
www.watersandacland.co.uk
01539 822852 info@watersandacland.co.uk



robinson house studio
furniture school

*Vortex
Marc Fish*

School Open Day
Saturday 4th August 2018
Newhaven, East Sussex
www.robinsonhousestudio.co.uk



JOHN LLOYD

*1 Year Fine Furniture Designer/Maker
24 Week Antique Furniture Restoration
12 Week Foundation Course
Intensive Short Courses for all levels*



www.johnlloydfinefurniture.co.uk
01444 480388 | Sussex



WILLIAMS & CLEAL
FURNITURE SCHOOL

BE INSPIRED
DESIGN
CREATE

www.williamsandcleal.co.uk
01984 667555



DAVID CHARLESWORTH

**SHARPENING WEEKENDS, TOOL TUNING,
DOVETAILING, DRAWER MAKING AND FITTING**

NEW KNUCKLE JOINT
AND RULE JOINT DVD

www.davidcharlesworth.co.uk
Tel: 01237 441288 Email: davidcharl@aol.com



We have moved to new bigger and better facilities at Megcroft Farm.

Now with even more quality selected exotic hardwood to choose from.

01538 715 060

Furniture Wood • Dimension Blocks & Squares • Instrument Woods • Longbows
Cues • Pen Blanks • Knives • Lumber & Planks • Veneers • Wood Specials

www.exotichardwoodsukltd.com
kirk.boulton@btconnect.com

Exotic Hardwoods UK Ltd
Megcroft Farm, Onecote Road, Ipstones,
Stoke-on-Trent ST10 2NB



W.L. West & Sons Ltd
Selham, Petworth, GU28 0PJ
t: 01798 861611 f: 01798 861633

- Hardwoods
- Wood finishes
- Australian Burrs
- Exotic Timbers
- Woodturning Blanks
- Woodworking Tools
- Fencing, Gate & Decking Products
- Bespoke Garden Furniture

Open: Mon-Fri 8-5

Timber, Tools & Machinery for D.I.Y. • Carving
Woodturning • Furniture Projects
shop@wlwest.co.uk

Off A272 Midhurst to Petworth road opp The Halfway Bridge Inn

www.wlwest.co.uk

D B KEIGHLEY MACHINERY LTD

New and second hand machinery.
Spares, repairs, tooling, blades, router cutters, power tools,
blade and cutter resharpening, glues, abrasives etc.

Vickers Place, Stanningley, Pudsey, Leeds, West Yorkshire LS28 6LZ
Tel: 01132 574736 Fax: 01132 574293
Website: **www.dbkeighley.co.uk**



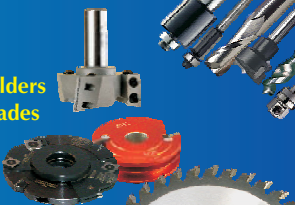
Kendal Tools & Machinery

Try our wood cutting Band Saw Blade Service
Any length, width or tpi
Order online, fast efficient service
www.kendaltools.co.uk Tel. 01539 733774




Router cutters
Spindle tooling
CNC tooling/collets/toolholders
Bandsaw blades, jigsaw blades
Circular saw blades

www.wealdentool.com



Want to find out how to advertise in a magazine that is referred to time and time again by its readers?

Then contact Russell on **01273 402821**
or **russellh@thegmcgroup.com**



weekend and 5-day box-making courses
with **ANDREW CRAWFORD**
smartBoxmaker.com

DAVID STANLEY AUCTIONS

1,000 LOTS OF ANTIQUE & MODERN WOODWORKING TOOLS AT:
HERMITAGE LEISURE CENTRE,
WHITWICK, LEICESTER LE67 5EU
on Friday 6th July 2018
AT 9.30am prompt
Viewing Thursday 12 noon till 6.30pm
& on morning of sale from 7.30am

CATALOGUES £5 FROM DAVID STANLEY AUCTIONS, OSGATHORPE,
LEICESTER LE12 9SR

Tel: 01530 222320 Fax: 01530 222523
Catalogue@davidstanley.com
www.davidstanley.com

TIMBERLINE

Suppliers of fine and rare timbers
Veneers and inlays, tools and sundries
For the craftsman in wood

Unit 7, Munday Industrial Estate,
58-66 Morley Road, Tonbridge, Kent TN9 1RP
Tel: 01732 355626 Fax: 01732 358214
email **info@exotichardwoods.co.uk**
www.exotichardwoods.co.uk



MAIL ORDER

NARROW BANDSAW BLADES
MANUFACTURED TO **ANY** LENGTH
PHONE **NOW** FOR IMMEDIATE QUOTATION
OR WRITE TO US FOR A PRICE LIST

TRUCUT

Spurside Saw Works, The Downs, Ross-on-Wye,
Herefordshire HR9 7TJ

Tel: 01989 769371 Fax: 01989 567360

www.trucutbandsaws.co.uk

When you need a
reliable tradesman for
work on your home...

...choose a member of The Guild of Master Craftsmen.
For a tradesman you can trust - and a job done well.

findacraftsman.com

The only place to list members of The Guild of Master Craftsmen exclusively



South Wales TIMBERMAN Woodworking Supplies



Stockist of Local & Exotic Hardwood Timber & Bowl blanks,



Woodworking Machinery, Woodturning Lathes,

Robert Sorby

Power tools, And much more...



FIDDES & SONS
FOR BEAUTIFUL WOOD



OPEN: 9.00am to 5.00pm Mon - Fri
9.00am to 12.00pm Saturday

Bronwydd, Carmarthen, SA33 6BE

TEL: 01267 232621 / e-mail: mike@timberman.co.uk



Supplying woodturning lathes & accessories to Wales for over 40 years!!



Ockenden Timber

SPECIALIST WOODTURNING & CARVING SUPPLIERS

Est. 1987



Ockenden Timber are leading retailers of specialist woodturning and carving supplies, offering an extensive range of products including tools, finishes, timber and machinery. Thousands of 1st grade timber blanks are in stock and available for delivery throughout the UK and Europe. All turning and carving blanks are produced to the highest standards and subject to individual quality checks.



Timber



Tools & Accessories



Machinery



Finishes



Sharpening



Adhesives



Safety Equipment



Abrasives

Visit our website for more information and to view our full range of products.

www.ockenden-timber.co.uk



Next month in

Furniture & cabinetmaking

ISSUE 273
ON SALE 5 JULY

WORKSHOP JIGS

Create tapered octagonal legs on a router



Machine tech

Box joints and profiling
with the WoodRat
How to work safely
on a tablesaw

Handtool tech

An introduction
to rasps:
Setting up a traditional
wooden plane

Design inspiration

His and Her
furniture part 1
The Hoosier Cabinet



SUMMER SIZZLERS

Available until 31st July 2018 or While Stocks Last.



**Turbo Retractable
Blade Knife Auto Feed**
FAITKRTURBO

£9.99



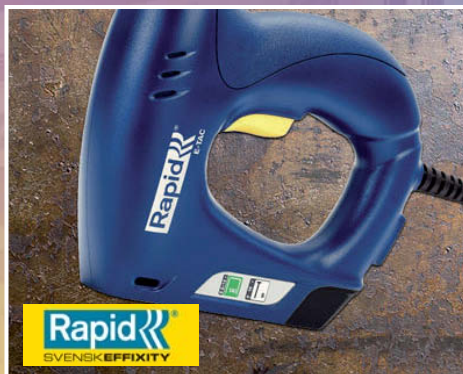
**A1 Plus Tape
5m/16ft x 25mm**
FSCAW5MEHV

£7.49



**Twin Pack of
Handsaws**
JAK88020CTPK

£14.99



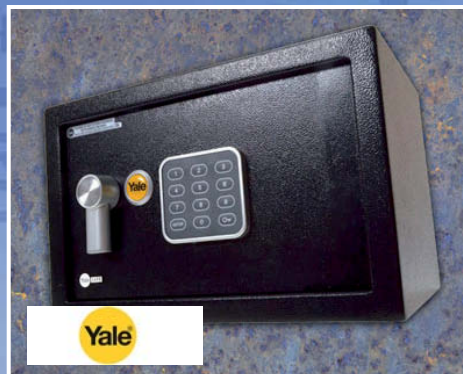
**Etac 240V Electric
Tacker**
RPDETAC

£19.99



**12-Piece Magnum
Screwdriver Set**
STA062202

£34.99



Value Safe - Medium
YALYVSM

£59.99



Flat Forged Hammers
VAUR16FF - 16oz

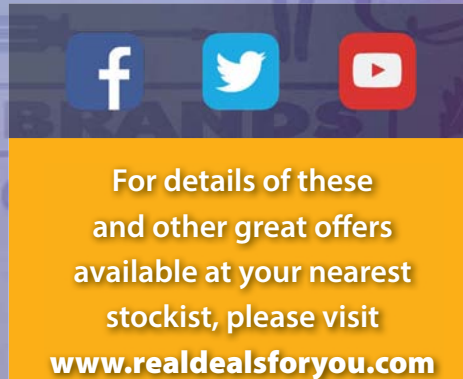
£19.99

VAUR20FF - 20oz

£20.99

VAUR24FF - 24oz

£22.99



For details of these
and other great offers
available at your nearest
stockist, please visit
www.realdealsforyou.com

Coronet Herald Heavy Duty Cast Iron Electronic Variable Speed Lathe



"The Herald lathe looks stunning with a retro feel to a very modern lathe... With large blanks mounted you can use the variable speed control to keep the machine stable and vibration free, and overall it has a very solid feel... Would I recommend this lathe? Yes without a doubt, it's well designed and built to a high standard."

Online Review



Heavy-duty spindle lock and 24 point indexing



Features the latest motor technology to deliver huge amounts of torque from the 750 W output motor



Rotating headstock features accurate angle stops and can swivel 360°



Specifications

Maximum bowl diameter:	533 mm
Maximum between centres:	508 mm
Maximum swing over bed:	355 mm
Spindle speeds:	96-5040 rpm
Motor input P1:	1000 W
Motor output P2:	750 W
Thread:	M33 x 3.5
Taper:	2 Morse taper
Weight:	48 kg
Size:	W870 x D290 x H252 mm



"The new Herald - Sets a new standard"

It surpasses my expectations by a country mile! With its excellent finish, capacity, accuracy and its range of speeds, I'm sure this Coronet Herald has the required credentials the majority of wood turners could ever wish for! The size is ideal for the turner with limited space, has outstanding capacity for its footprint and is very quiet indeed... Record Power most certainly have a winner."

Online Review



ONLY
£999.99
Inc. VAT

BUY SAME TIME +

16011 Cast Iron Bed Extension	£149.99	Save £30
16013 Cast Iron Outrigger	£39.99	Save £10
16015 Tubular Stand	£129.99	Save £20
16012 Bench Feet	£59.99	Save £10

Prices valid until 31.12.2018. E&OE.

RECORD POWER
ESTABLISHED 1909®

www.recordpower.co.uk Tel: 01246 571 020

Over
100
years
Experience • Knowledge
Support • Expertise



Incorporating some of the most famous brands in woodworking, Record Power's roots stretch back over 100 years.