Furniture &cabinetmaking

Issue 265 ▪ Winter 2017 ▪ £4.75

DESIGN ▪ INSPIRATION ▪ PROJECTS ▪ [illegible]UES ▪ TESTS ▪ NEWS ▪ EXCELLENCE

The only way is...

...authentic. How to make 18thC cross-grain moulding the right way

John Makepeace

Beyond Parnham, the man, the maker and the legacy

Chinese puzzle

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Panel Saws

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K3 winner comfort

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A3 41

A3 31

A3 41 A

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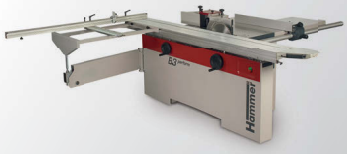

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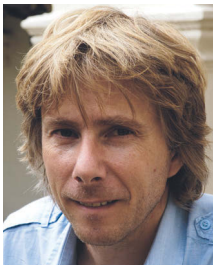

Welcome to...

... auction inspiration

It's around about now that I usually steer you towards content in the magazine, which is pretty much what you'd expect to find here on page three. However, if you're not following us on Instagram there's another rich seam of content that you're missing out on that's absolutely free and by way of an introduction, here's a short example of what you might find. Regular readers will know that I can't resist a good auction although it's got nothing to do with buying and selling, honestly. Auctions are like pop-up museums with a different display each month, or if you're lucky, each week in my hometown, and as such they provide the student of furniture design with an endless supply of ideas and inspiration. Take this table for example; an inlaid coromandel and rosewood occasional table by J Lamb, Manchester. Lamb were a firm of cabinetmakers producing work to an exceptional standard from the mid-1850s to the turn of the 20th century. Their output is mainly associated with the Aesthetic Period (the precursor to the Arts & Crafts movement) and may not be to everyone's taste, but the quality of craftsmanship is just breathtaking. At least two other people thought so as well because the hammer eventually came down at £9600 on this lot, 24 times the estimated value. If location, location, location is the property buyer's mantra then quality, quality and more quality has got to be the maker's.

Of course, in the art world provenance always helps and the Lamb table just happened to be extremely well connected. In this case, what you know is just as important as who you know.

Our first feature this month is the story of Parnham, which in all probability will appear in the sales literature of future auctions. Founder of the college, John Makepeace, is arguably the grandfather of contemporary cabinetmaking whose radical approach to teaching the subject is as relevant today as it was 40 years ago. I only hope that in 200 years time when they add a statue of his likeness to the outside of a building they don't make him look quite so dour as Thomas Chippendale on the Exhibition Road façade of the V&A.

A number of readers got in touch to say how much they enjoyed our interview with Jim Broughton back in *F&C* 258 so this month we're pleased to be welcoming him back to demonstrate the traditional method for replicating cross-grain mouldings. Jim has just recently been elected as the Chairman of the British Antique Furniture Restorers Association (BAFRA) so brings a wealth of information to these pages. So you can sit back and relax, safe in the knowledge that you're in good hands.

Coromandel and rosewood occasional table by J Lamb, Manchester, sold at a local auction house for £9600

Derek Jones
derekj@thegmcgroup.com

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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.

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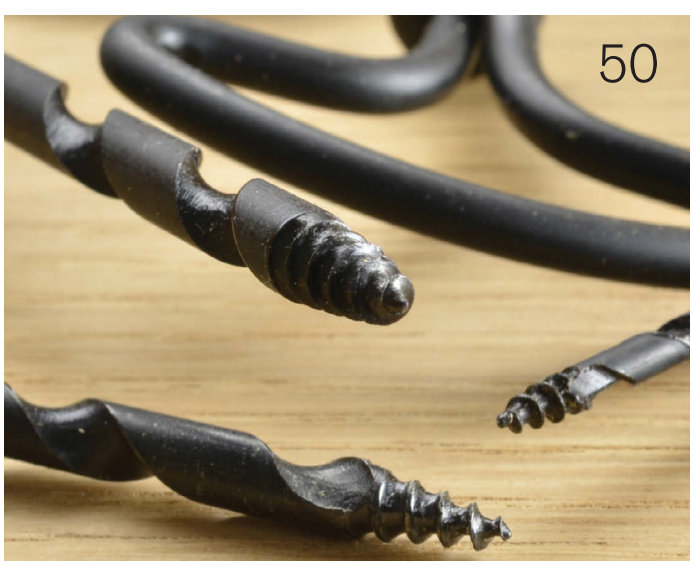

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Meet the contributors

John Adamson

John began his publishing career as a graduate trainee at Cambridge University Press and afterwards worked in the Press's marketing department as European sales representative, then publicity manager and lastly as export sales director. He then served as head of publications and retailing at the National Portrait Gallery in London before setting up a small publishing house in Cambridge under his own name devoted primarily to highly illustrated books in the decorative arts. He is the publisher of David Russell's book *Antique Woodworking Tools*.
Web: www.johnadamsonbooks.com

Kieran Binnie

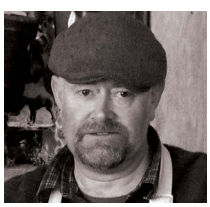
Kieran's passion for woodwork started at the end of law school when he enrolled at the Totnes School of Guitarmaking. His focus has since expanded to include furniture making as well as lutherie. Kieran writes a regular blog at www.overthewireless.com, and is currently researching and writing a book for Lost Art Press about Welsh Stick Chairmaker John Brown.
Web: www.overthewireless.com

Tatiana Baldina

Tatiana is a professional woodcarving artist with a degree in Applied Fine Arts from the Volga Regional State University in Russia. She specialises in chip carving on basswood and draws inspiration from her own life, nature and music. She has been carving ever since she visited a woodcarving studio in 2008 and was so struck by the craft that she was inspired to try it for herself. She has created hundreds of original pieces, as well as working for companies that produce wooden home décor. She lives in Zhigulevsk, Russia.
Web: www.etsy.com/uk/shop/FancyChip

Jim Broughton

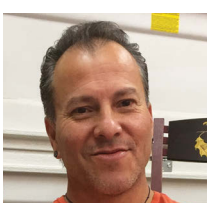
Jim is a highly experienced conservator with more than 35 years at the bench. He has an excellent reputation for quality craftsmanship and a meticulous eye for detail. He is an accredited member of the British Antique Furniture Association (BAFRA). He also has the privilege of serving on its committee.
Web: alexandergeorgeantiques.com



Theo Cook

Theo completed a five-year apprenticeship at Edward Barnsley Workshop and also spent a year at the prestigious College of the Redwoods in the USA. He worked at Senior and Carmichael gaining several awards including Guild Marks from the Worshipful Company of Furniture Makers. He now teaches at Marc Fish's Robinson House Studio.
Web: www.marcfish.co.uk

Ramon Valdez



Ramon works full-time as a production manager in his brother's cabinet, countertop and fixtures shop in New Mexico. As well as making gallery quality furniture in his spare time, he has taught marquetry classes at his local college. Ramon is the man to go to for the best time-saving tips and ingenious short cuts.
Web: www.ramonvaldezfinefurniture.com
Instagram: @ramonartful

David Waite

David has been involved in scientific research for over 20 years prior to enrolling on a one-year designer/maker course at Waters and Acland. Over the coming months he will be writing a series of short articles for *F&C* capturing his observations and experiences to try and become a professional and setting up his own fine furniture making business.
Web: fourlimes.design

Oliver Waters

Along with William Acland, Oliver Waters is co-owner of the Waters and Acland Furniture Workshop and School. From their Lake District workshop, Waters and Acland produce Guild Mark quality commissioned furniture while teaching a small number of budding designer makers each year. The motto of 'perfection in the making' guides everything that is produced and taught within the workshop and school.
Web: www.watersandacland.co.uk

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Beyond Parnham

James Fenton reflects on the 40th anniversary of Parnham College and its impact on the world of contemporary design

The autumn of 2017 marks 40 years since Parnham College first opened its doors to students. Founded by John Makepeace OBE, this educational phenomenon turned current design and woodcraft pedagogy on its head, creating a seismic effect across international contemporary design ever since. Celebrating the milestone anniversary, John Makepeace, winner of the 2016 Prince Philip Designers Prize, this September released *Beyond Parnham*, an exclusive 180-page book detailing Parnham College's innovative vision and cultural legacy, revealing highly personal reflections from the designer-makers and esteemed tutors who trained them. Combining the art, craft and business of furniture-making in one immersive two-year residential course, Parnham College inspired an approach to design never before seen and one which ignited the careers of its illustrious alumni.

PHOTOGRAPHS COURTESY OF JOHN MAKEPEACE

The limited-edition book weaves together the shared history that took root and the values instilled that continue to flourish across the world of contemporary design. Rich in anecdotes, photographs and abiding affection, *Beyond Parnham* highlights the human-centred approach to fine craftsmanship, the spirit of the educational phenomenon that nurtured it and how the individuals were inspired with an unprecedented expression of design innovation that has shaped their careers ever since. The teaching of fine craftsmanship, the foundations of design and the ignition of entrepreneurship were given equal educational weight at Parnham College.

Holistic approach to learning

Understanding the concepts of originality and innovation were at the centre of the training and John understood early how it permeates all areas, saying, 'Original thought flows through all aspects of life. The zeitgeist that flourished at Parnham College came from encouraging innovative thinking across all disciplines – this was the lightning in the bottle.' Alongside this, the belief that British design and woodcraft education at the time was inadequate to enable a generation of successful designer-makers to push the boundaries of the medium, formed the philosophical cornerstone of Parnham College. The integrated triadic approach to study enabled students to thrive in practice; it gave them the theoretical and artistic skills, the practical knowledge of the medium of wood and the business acumen to support themselves and make a living from their work. The impact on the world of contemporary design is proven through the work of celebrated alumni such as Sean Sutcliffe of Benchmark, Konstantin Grcic, Wales

& Wales, Sarah Kay, David Linley, Nina Moeller and many others. Of her experience as a Parnham student in 1996, Sarah Kay, who formerly ran an award-winning design partnership with another graduate, Andrea Stemmer, and now works independently, says, 'A high percentage of my year were in our late 20s/early 30s and had left different careers behind. In terms of my being a woman, it made no difference whatsoever, we were all treated the same. Parnham was extraordinary.' The creation of Parnham College was one of those rare educational wonders where a superb vocational education was on offer: advanced design and craftsmanship skills taught by experts in a stunning environment.

The success of Parnham College also hinged in great part on the formidable tutors and dedicated staff that worked there. David Linley, furniture maker and chairman of auction house Christie's UK, puts this influence in no uncertain terms when he states, 'I owe my career to the many people who John Makepeace brought together to revitalise the modern Arts & Crafts Movement.' These included the notable principal and longstanding contributor to *F&C*, Robert Ingham – a driving force at the College, and tutors such as Greg Powlesland, Alan Deal, Guy Martin, Andy Christian and Chris Rose. Of his own experience, Powlesland, who originally came to Parnham to give a guest lecture on ancient North American woodwork and later took up the post of design tutor, said, 'Teaching highly motivated and fascinatingly diverse students was a privilege – an education for student and tutor alike.' Former head of student house, Judith Russill echoes this: 'Coming to Parnham was a revelation and education – my eyes were opened to the joy and excitement of beautifully designed and crafted furniture.'

Essential insight

Guest speakers were essential to the students' continued learning. In Makepeace's view, 'Radical innovation stems from research and the cross-fertilisation between different spheres of knowledge.' To this end, leading designers, artists and makers were regularly brought in to give lectures. The range of speakers, such as Step Haiselden who introduced the students to the basics of engineering and Paul Spooner, who made automata, played a major part in the Parnham College narrative. With nearly 22 years' experience at the interface of industrial design and design strategy for companies like Boeing and IBM, Juliane Trummer is a prime example of the success of this multi-disciplinary strategy and the reach of Parnham College's influence beyond woodcraft. Now VP of Strategy and Design at Mormedi, she credits Parnham as the basis for the many things she has been able to do in her career, 'Its pedagogy based on self-motivation made me feel like finally being in the right place'.

A much bigger picture

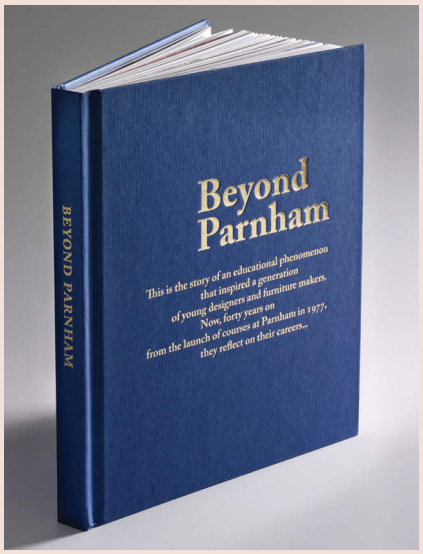
Parnham House, with its 14 acres of grounds, was not the right location for John's longer term plan – inspired by his growing interest in forestry, he wanted to re-integrate the growing of wood with its sustainable use. He believed ardently that the potential of wood as a material had been severely neglected, 'Apart from its environmental credentials, wood too often is regarded as having had its day rather than being a material of the future. As a student I learnt traditional methods of construction, which had changed little over two centuries. The rebel in me could not accept these constraints were still relevant.'

In 1983 he bought Hooke Park to create a new educational campus. This 350-acre forest, four miles from Parnham, became a centre for research and education uniting science and art with a renewable resource. Students learnt to understand the nature of forest produce in order to design and manufacture structures and products that exploited its best properties. The buildings for the campus expertly demonstrated this and a team of structural engineers, architects, material scientists and chemists were brought together to work on pan-European research projects, developing new technologies for the improved utilisation of thinnings. The finished structures married material science and sophisticated engineering to inventive architecture and traditional craft skills, producing a significant influence on design around the world ever since. He says of his work, 'As an artist, designer and maker, I seek to devise solutions that connect an organic renewable material to physical and psychological needs.' John's award-winning work represents a meeting of classic and modern, embodying craftsmanship of the highest standard. Each piece of furniture, stand-alone or as part of a collection, is highly original and quintessentially English. He continued, 'I am constantly searching for more eloquent concepts for furniture. My objective is to achieve freer, lighter, stronger and more sculptural forms expressed in each unique commission.'

Prototype house interior

Plymouth University graduation chairs

Five of John Makepeace's Trine chairs



Beyond Parnham

This stunning, limited-edition book gives a unique insight into the extraordinary phenomenon that Parnham nurtured. The personal insights of 100 alumni, now in a variety of senior design related fields, convey a heart-felt appreciation of the role Parnham played in their lives and their work since. Curated by John Makepeace OBE, FCSD, FRSA and founder and director of Parnham College.

Privately published ▪ Limited edition ▪ £35.00 plus £5.00 P&P (overseas postal rates apply)

For information about *Beyond Parnham* and to order your copy, please visit: www.beyondparnham.com

***Beyond Parnham* is an exceptional resource both for professionals seeking complementary talents and for those who appreciate design and fine craftsmanship**

A designer with a rebellious streak

John's iconic work is represented in numerous collections including the Victoria and Albert Museum, London, the Fitzwilliam Museum, Cambridge, the Museum für Kunsthandwerk, Frankfurt and the Arts Institute, Chicago. He now works to commission, undertaking exclusive projects each year. His unconventional approach to making furniture has been a constant throughout his career, 'I have a strong rebellious streak – as an artist, designer and maker.'

Born in 1939, John became enchanted with wood at an early age. Curiosity about how things were made meant he was constantly taking things apart or whittling away at wood scraps. He began carpentry classes at the age of six and became fascinated with a nearby cricket bat factory that he frequently visited. Aged 11, he went to a furniture workshop with his mother and the quality he saw helped determine his ambitions. Though he had plans for university and a career in the Church, the young Makepeace reviewed this career path when his father died and became focused on the idea of a career as a furniture maker. Aware of the superb furniture being made in Scandinavia, John travelled there to see work by the great Danish designers of the day: Hans Wegner, Arne Jacobsen and Finn Juhl. For the first time, John saw work combining innovative design with technical prowess.

While an apprentice under Keith Cooper, he was told not to expect to make a living out of furniture making. This must have ignited his self-confessed rebellious streak, as the young craftsman promptly set up his own workshop. John soon earned national acclaim for his retail products for Heal's, the Centenary Dining Room for Liberty's and winning design competitions, including an *Observer* challenge to design the perfect modern kitchen.

Prior to this, John's curiosity about architecture had intensified in the late 1960s, designing 'total interiors' for both offices and

The Eighteen chest. This piece is a play on the number three: the bottom drawers are three times as deep as the top ones, and the wide drawers three times the width. Made in burr elm and cherry, with cedar linings, hornbeam runners and bronze handles

accommodation for fellows and students at Oxford colleges. He also came to recognise that creativity is not the preserve of artists but permeates all disciplines, not least business management.

Winning the *Observer* design competition in the mid-60s, allowed John to use the £600 prize money to travel to Africa to study the traditional mud buildings of Nigeria and Morocco.

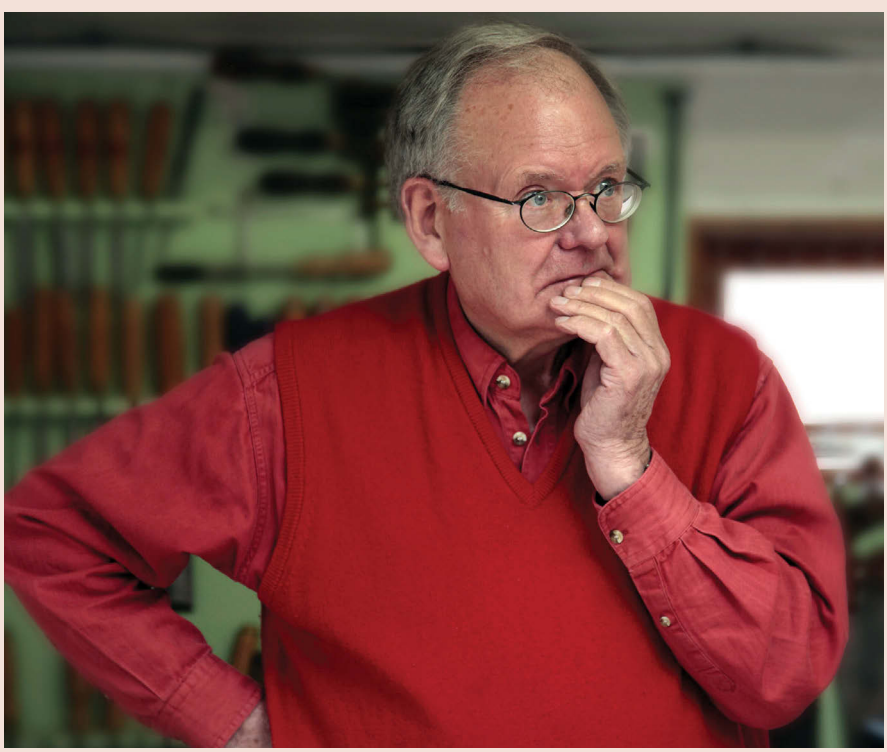
The 1970s saw him become a founder trustee of the Crafts Council. The Council's aim was to support and promote the work of artist-craftsmen, but John became keenly aware of the inadequacies in current training and wanted to develop an educational model that would integrate design and making skills with those required to run a business.

In 1976, John bought Parnham House in Dorset. The 80-roomed Tudor manor house was to achieve three objectives: to provide larger studios for the growing team he employed, to establish separate residential, workshop and teaching facilities for aspiring furniture makers, and to open the historic house to the public with exhibitions of contemporary art and design.

Forum table and chairs made for an informal meeting area for the Directors of Boots plc. Made in yew and bog oak, with cast aluminium and leather

John Makepeace

Over the course of his career John has been recognised for achievements in design and furniture making. In 1988 he received an OBE for services to furniture design. On the bestowal of this prestigious honour, John said, 'It is unheard of for a furniture maker to receive an OBE, I'm of course thrilled, but it is a reflection of our work at Parnham and the team here.' Many more accolades have followed over the years and in 2016 John won the Prince Philip Designers Prize in recognition of his outstanding contribution to design, having received the Special Commendation in 2010. Adding to this, The American Furniture Society presented John with a Lifetime Achievement Award in 2002 and also the Society's Award of Distinction and the first Lifetime Achievement Award from the Worshipful Company of Furniture Makers.



Although he hasn't sought the limelight, John Makepeace has been singled out for numerous honours

Hard work at the College

In the summer of 1976, John's studio and workshops were operational in their new premises and in September 1977 the first cohort of students started their course. The College prospectus contained both a warning and a promise. 'While you are at Parnham you will be required to work hard. The minimum amount you can anticipate being in the workshop is 8am until 5.30pm. The day is extended until 9pm three evenings per week with the addition of a forum on Monday, drawing class on Tuesday and computer class on Wednesday. Fridays are spent in the classroom alternating between Wood Science and Design Culture sessions. One full day per month concentrates on business analysis and understanding what is involved in running a successful business of your own.'

Through the 1980s and 90s, while directing the College and running his own studio, John Makepeace addressed some of forestry's most pressing economic concerns and explored its environmental potential. He brought together foresters, chemists, material scientists, structural engineers and designers to research and develop sustainable new technologies and building systems. The award-winning buildings that resulted at the Hooke Park campus are proof of the highly successful multi-disciplinary collaboration.

John Makepeace has been a challenger of design throughout his career, of this he said, 'The history of British design in the 20th century has largely been shaped by the drive to reduce costs. This has resulted in an impoverishment of furniture as an expressive medium.' With nothing to replace Parnham one has to ask if we're in danger of allowing history to repeat itself. F&C

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News & Events

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

YOUNG FURNITURE MAKERS EXHIBITION BREAKS RECORDS

A record-breaking 120 pieces from GCSE and A Level students through to BA and MA graduates from around the UK packed out the Dutch Church and Furniture Makers' Hall in Austin Friars, London on 10 October.

Sponsored by Axminster Tools & Machinery, Blue Crush Communications and The Furniture Ombudsman, the Young Furniture Makers exhibition was set up over 10 years ago for students to showcase their work, meet potential employers and gain professional advice.

The full list of award winners were:

- The Young Furniture Makers Bespoke Award, sponsored by Festool, was awarded to Freya Whamond for her Bud Chair
- The Young Furniture Makers Design Award, sponsored by Crofts & Assinder, was awarded to Charlotte Lloyd for the Giddy Up Chair
- The Young Furniture Makers Innovation Award, sponsored by Knightsbridge, was awarded to Joe Parker for his Folding Chair
- The KI National School Prize was awarded to George Mannell and Saskia Hawkens
- The DFS Poster Design Competition was awarded to James Grainger at Saint Ambrose College
- The Blum Best in Show Prize (higher education) was awarded to George Mannell
- The Blum Best in Show Prize (further education) was awarded to Charlotte Lloyd

Guest of honour Sebastian Conran, who presented the awards on the day, said: 'I found the student work exceptionally fresh and inspiring, exhibiting extremely high standards of imagination, discernment and craft normally associated with the output of people with many more years of professional experience and expertise.'

We'll have more on the Young Furniture Makers exhibition in the next issue.

PHOTOGRAPHS COURTESY OF THE FURNITURE MAKERS' COMPANY

The Young Furniture Makers exhibition featured a record-breaking number of exhibits

Charlotte Lloyd with her award-winning Giddy Up Chair

Sebastian Conran presented the awards

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

Medals for Team UK at WorldSkills 2017

PHOTOGRAPHS COURTESY OF WORLDSKILLS

The closing ceremony of WorldSkills

Young people from around the world gathered in Abu Dabi for the 44th WorldSkills competition. Taking place from 15–18 October, the event saw competitions in 51 different skills. In the Cabinetmaking competition, the gold medal was awarded to Chin-Hao Cheng of Chinese Taipei, while Sven Bürki from Switzerland won silver and Fabio Serpa of Brazil and the UK's Angus Bruce-Gardner won bronze. Angus said he was 'absolutely thrilled' to win a bronze medal.

Team UK had a successful championship winning 20 medals in total and finishing tenth on the medals table. Dr Neil Bentley, CEO of WorldSkills UK, said, 'Let the bells ring out, let the flags fly – these young people have done the nation proud. If we celebrate Team UK's success and use it to inspire others to follow in their footsteps – the future of the UK is in safe hands.'

Contact: WorldSkills
Web: www.worldskills.org

MADE.COM launches crowdsourcing platform

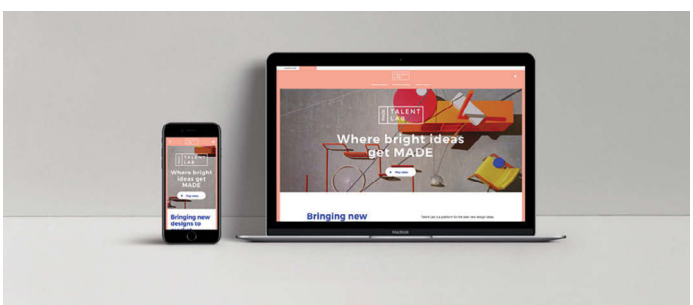
Design retailer MADE.COM has set up TalentLAB, an innovative new crowdsourcing and crowdfunding platform that gives customers access to new designs.

Designers can upload their ideas directly to the TalentLAB platform for the chance to be shortlisted by MADE.COM. Customers can then pledge a small, refundable deposit (£5–30) to register their interest in seeing that product being made. MADE will commit to putting the designs with the most pledges into production and releasing them on the website.

For designers, this is a unique chance to gain access to MADE's vast network of producers across the globe, the Europe-wide catalogue of customers and to the technology which enables distribution to MADE's eight commercial markets.

For the first time, customers will have a real chance to have their say in what goes into production and buy new designs from previously unseen designers. Those who pledge will get privileged pricing of up to 30% off the final sale price via an exclusive window to buy the designs before they are officially launched on MADE.COM.

Contact: MADE.COM
Web: www.made.com



TalentLAB is a new crowdsourcing platform for design

Events

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

Christmas Past at the Geffrye Museum

This annual exhibition features the Geffrye Museum's period rooms decorated in authentic festive style, giving a glimpse into how Christmas has been celebrated in English homes over the past 400 years.

When: until 7 January, 2018
Where: 136 Kingsland Road, London E2 8EA
Web: www.geffrye-museum.org.uk

Beazley Designs of the Year

The annual Beazley Designs of the Year exhibition returns to the Design Museum. This year's furniture nominations include Christien Meindertsma's innovative Flax Chair, IKEA's wedge dowel that makes flat-pack easier to assemble, and the Remolten chair, made from volcanic lava.

When: until 28 January, 2018
Where: The Design Museum, 224–238 Kensington High Street, Kensington, London W8 6AG
Web: designmuseum.org

Linda Brothwell: The Tool Appreciation Society

This major new exhibition from artist Linda Brothwell and The Tool Appreciation Society for Hull Culture and Leisure Library Services explores the significance of craft skills and tools illustrating their value to our social, cultural and economic development.

When: until 10 February, 2018
Where: Hull Central Library, Albion Street, Hull HU1 3TF
Web: www.toolappreciationsociety.com

Courses

Andrew Crawford box-making courses

Andrew Crawford holds weekend and five-day box-making courses at his workshop in Shropshire. The latest course dates are:

14–18 December, 2017
3–4 February, 2018
8–12 February, 2018
24–25 February, 2018
1–5 March, 2018
17–18 March, 2018
22–26 March, 2018
Web: www.box-making.com

Build a Moxon Vice with Derek Jones

There are two chances to join Derek Jones to build his version of the Moxon vice as featured in *F&C* 248. The first is being held at West Dean College in West Sussex, the second at the Dictum Workshop in Munich.

When: 1–4 February, 2018
Where: West Dean College
Web: www. westdean.org.uk

When: 6–8 April, 2018
Where: Dictum, Munich
Web: www.dictum.com

Social media dashboard

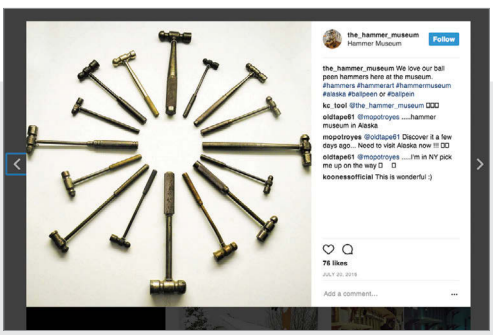
Bringing you a round-up of the best from the online world plus a selection of the latest projects from our readers

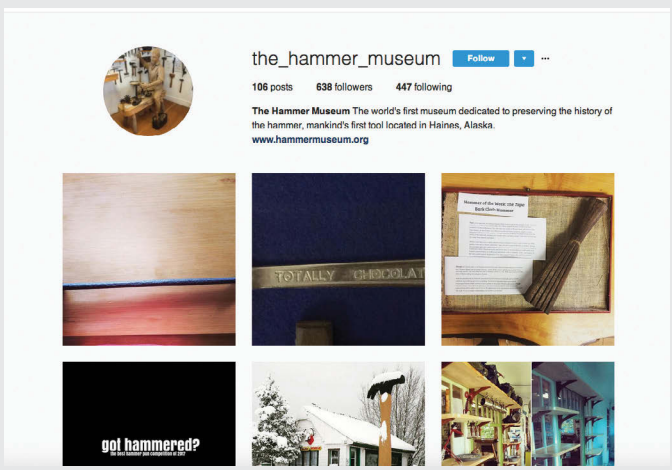
In this section of the magazine we bring together the best furniture and woodworking related content from social media. Here we'll recommend who to follow, where to comment and which online communities to join. We'll also feature readers' letters, comments from the Woodworkers Institute forum and pictures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

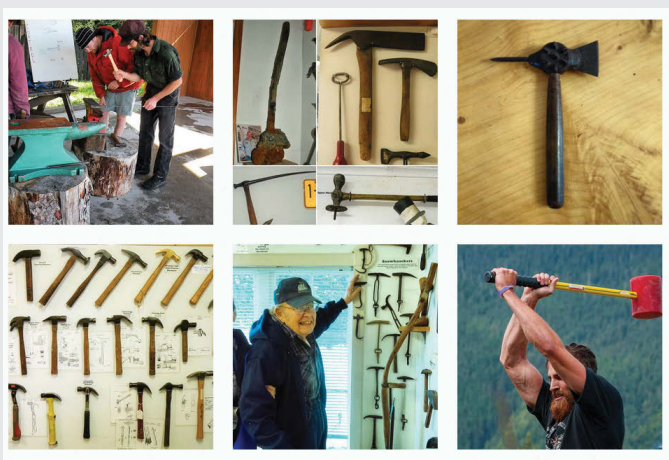
Instagram: The Hammer Museum

This quirky museum is the first in the world dedicated to the history of the hammer, 'mankind's first tool'. It's based in Alaska but if that's too far of a trek for a visit in person, you can view some of the museum's collection of 2000 hammers on their Instagram feed. Examples range from ancient Egyptian hammers to modern tools.

Address: the_hammer_museum



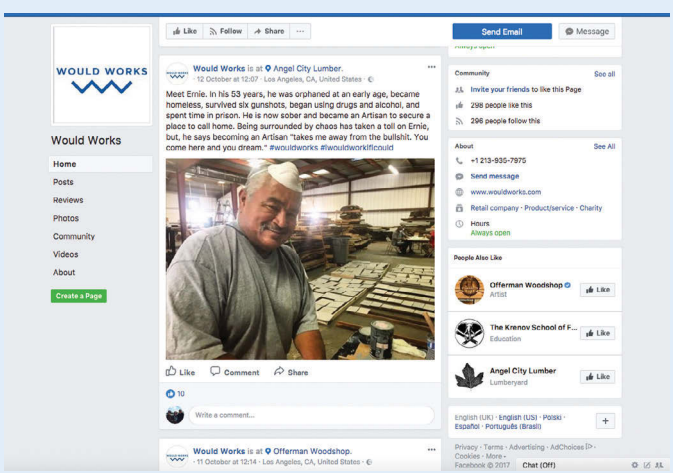


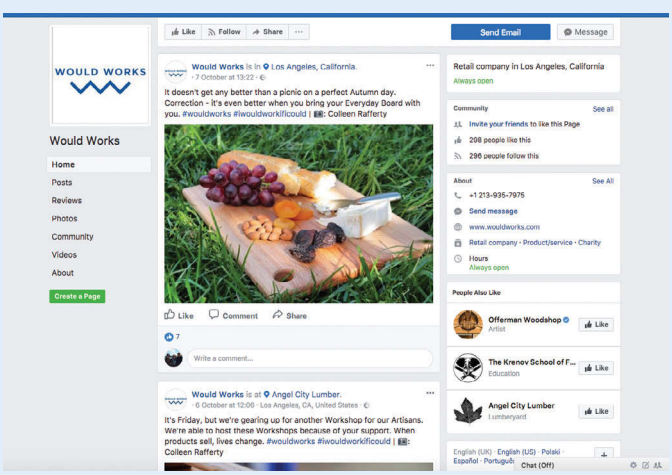


Facebook: Would Works

Would Works is a US charity that provides work opportunities for people who are homeless or living in poverty. Founded in Los Angeles, Would Works creates and sells wood products that are hand-crafted by individuals who have an immediate financial need and are working towards a goal. The charity provides a way for these men and women to finance their goals while also gaining work experience, learning concrete skills and receiving a recent job reference. The charity's Facebook page is regularly updated with news about their latest projects and campaigns.

Address: www.facebook.com/Would-Works-216415171803596/



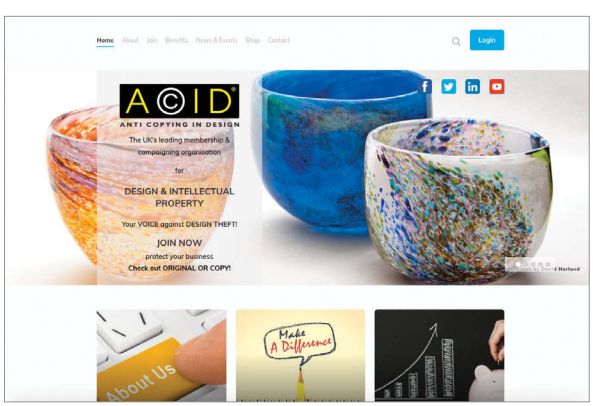


Twitter: Gorringe's

As our Editor extolled the benefits of visiting auctions in this month's Leader, we thought we'd highlight one of *F&C*'s local auction houses, Gorringe's. You can keep up to date with all the antique furniture that passes through their doors on their Twitter account. Maybe you'll even be tempted to put in a bid!
Address: @Gorringes

Website: ACID

ACID (Anti Copying in Design) has recently redesigned its website with a cleaner look, making it easier to access information about the organisation's work to protect designers' rights.
Address: www.acid.uk.com



Projects we love

Here we highlight the latest furniture and woodworking projects from around the world that we think deserve to be shared with our readers. If you're a member of a collective or a student group and would like to see your work here, then submit a story to: **derekj@thegmcgroup.com**

Joachim Froment's Rado Star Prize winning chair

At a special event held during designjunction in September, Rado and designjunction announced the winner of the inaugural UK edition of the Rado Star Prize. The Jury Prize was awarded to Joachim Froment, who impressed the judges with the clever design concept of his 0.6 Chair.

The 0.6 Chair is a robust, long-lasting dining and café chair with an efficient yet simple production process. Using a new process of laminating wood, the chair is composed of a sandwich of wood veneer and carbon fibre that reduces the thickness of the chair to just 0.6cm. By using a mould in two parts, the manufacturing time and the amount of material required are reduced, minimising consumption.

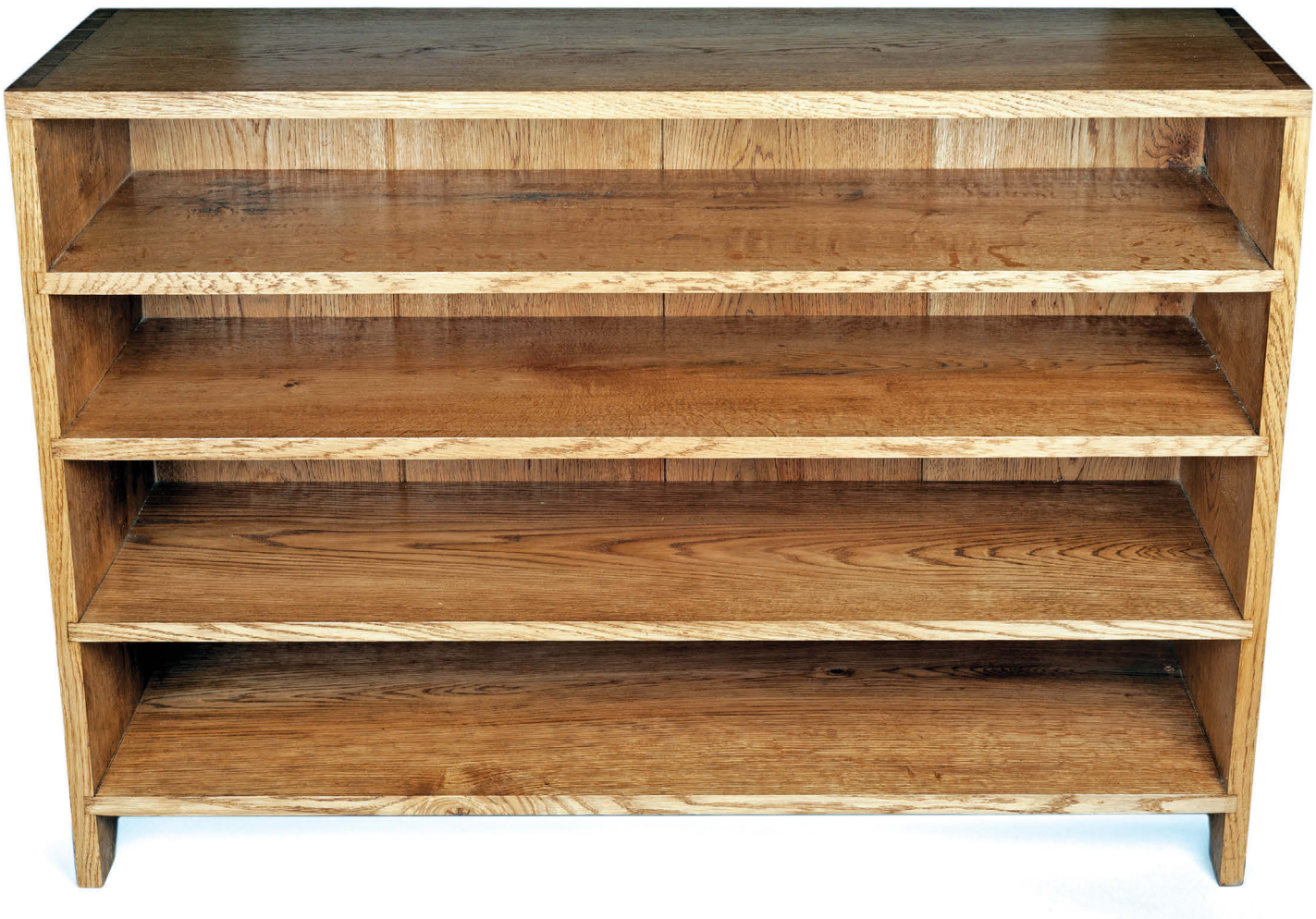
'If you design for people, you have to design from the heart. I'd like to thank Rado for all their support and this amazing experience,' commented Joachim.

Joachim, a design product student from the Royal College of Art, received £5000 and a Rado Ceramica watch as a prize for his winning project. The 0.6 Chair was selected from a shortlist of 10 designs, with each entry responding to the theme 'Design Meets Time'. The theme explores the longevity of products, the sustainability of materials used and the conceptual idea behind the designs.

For more information, visit: www.thedesignjunction.co.uk, radostarprize.rado.com/uk and www.joachimfroment.com

The Policeman's Boot Bench

Dovetails and dados are the cornerstone of traditional carcass construction. Master these techniques and you'll have the skills to build everything from a bookcase to a walk-in wardrobe, or as Kieran Binnie discovered, a boot bench for the village bobby



Last year I was contacted by a client who wanted to commission a side table, incorporating plenty of shoe storage, for their house in London. The house in question is a Victorian terrace, with an original tiled hall floor. Discussing the design with the client, it became clear that they wanted a solid looking but understated piece, which would fit with the period features of their house without looking too dated. The key design criteria the client gave me was that the piece could not obscure the tiled floor, and had to include some kind of detail to draw attention to the tiling underneath.

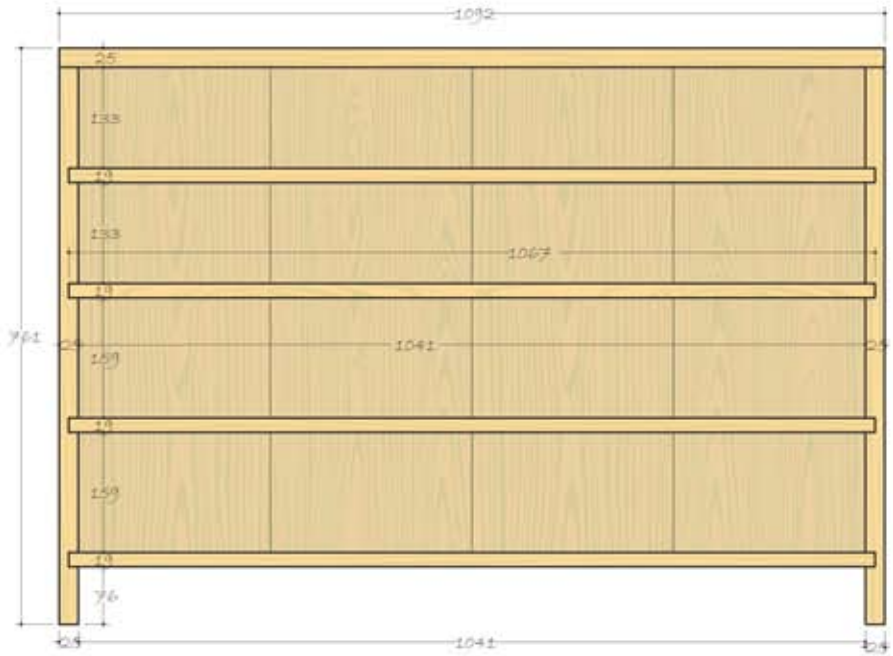
The result was an oak (*Quercus robur*) side table with four shelves, with understated decoration provided by through dovetails, cut nails and a cyma reversa foot detail. I designed the Policeman's Boot Bench so that it can easily be built with a minimal tool kit, focusing on fundamental hand tool techniques. It is also a design that can be readily adapted for specific shoe or boot needs – I've already been asked to build a variation that includes space for Wellington boots and a dovetailed drawer for car keys, post and other hallway clutter.

Cutting list

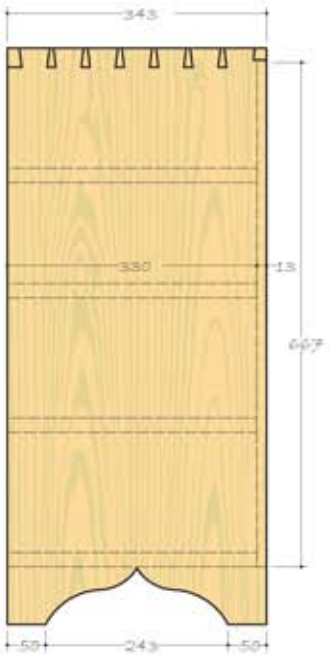
Component	Number	Thickness	Width	Length
Top	1	1in	13½in	43in
Sides	2	1in	13½in	30in
Shelves	4	¾in	13½in *	42in
Backboards	4	½in	10½in	30in *

* denotes oversize dimension, to be trimmed to correct dimension during build

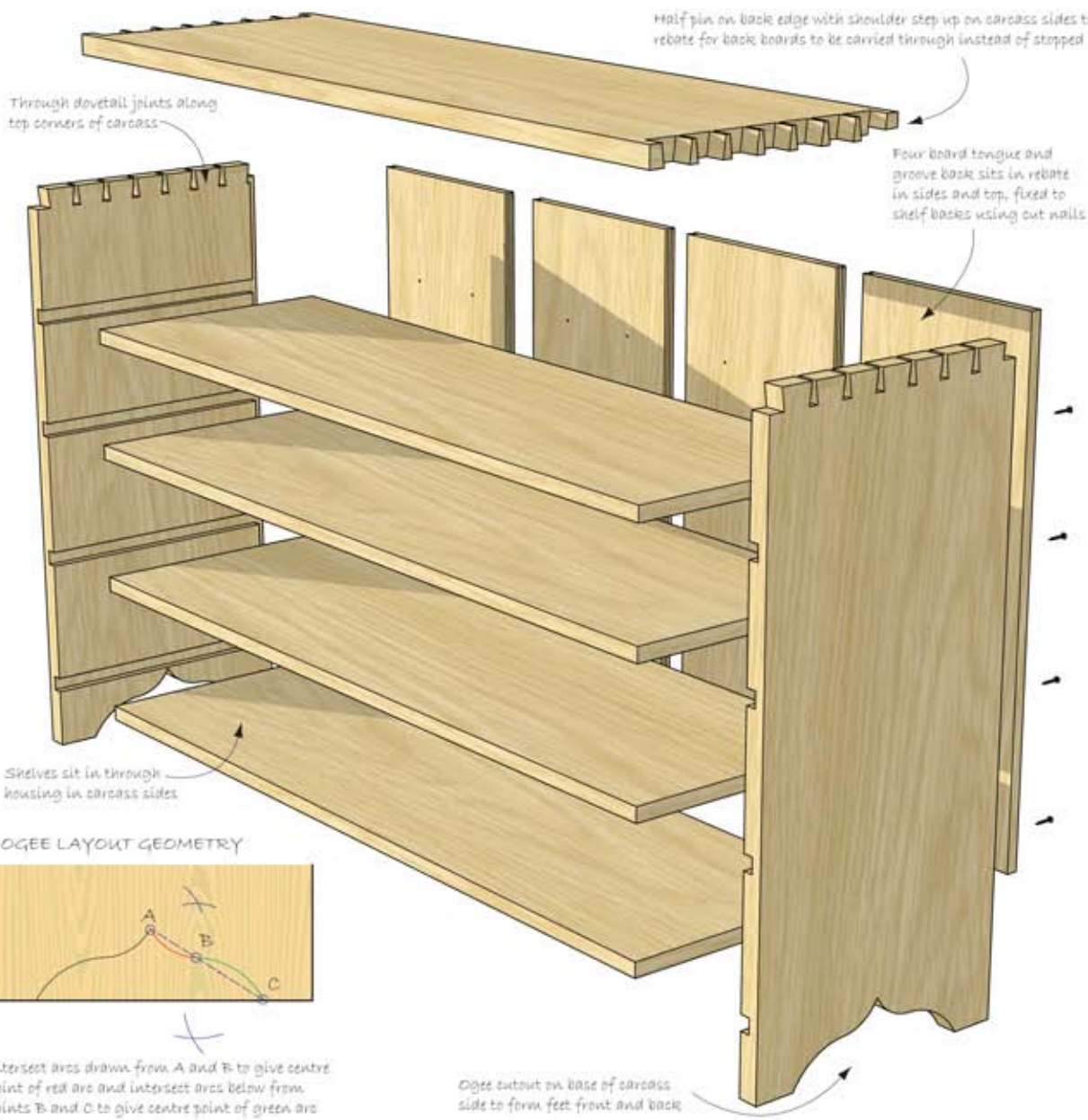
PHOTOGRAPH ABOVE BY GARETH PARTINGTON PHOTOGRAPHY. OTHER PHOTOGRAPHS BY KIERAN BINNIE



FRONT ELEVATION



SIDE ELEVATION



OGEE LAYOUT GEOMETRY

Intersect arcs drawn from A and B to give centre point of red arc and intersect arcs below from points B and C to give centre point of green arc

Stock preparation

First prepare your stock to dimension. If possible, cut the two sides and the top sequentially out of the same plank – this will ensure that the grain and figure of the timber is consistent and flows around the entire piece. Should any movement in the stock occur after assembly it will happen at the same rate thus minimising the risk of splits or other defects. Stock preparation by hand is an article in itself – see 'Coarse, medium and fine' in issue 252 for a detailed discussion on how to go about this.

Because this design uses minimal ornamentation and places an emphasis on the timber and clean workmanship, grain orientation is very important for the final appearance. Make sure that the most attractive grain on each of the shelves is placed on the top front edge of the shelves.

Processing the rough boards with a No.5 plane – traversing the board allows you to take a heavier cut for quicker stock removal

Rebates

Next, cut the rebates in the sides and top. All of these rebates are cut on the internal faces of the casework and will accept the tongue and groove backboards. The top has one rebate, measuring ½in wide by ¼in deep along the underside of the back edge. This can easily be cut with a moving fillister plane or a shoulder plane. The sides are a little more involved. These measure ½in by ½in, but instead of traversing the entire length of the sides (as with the top), these rebates start at the top of the sides and stop at the bottom dado. I cut these by making multiple passes using a large router plane fitted with an edge guide. This method produces clean rebates providing you don't increase the depth of cut too aggressively.

The rebate along the inner rear edge of the top. A moving fillister plane makes easy work of this

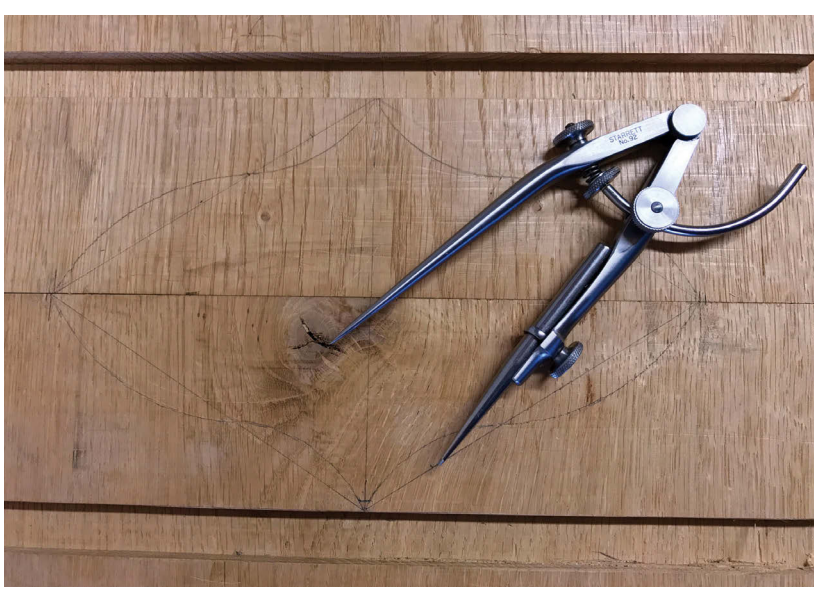
Once the dados are cut, knock out the waste with a chisel and mallet before cleaning up with a router plane

Dados

Once the stock is dimensioned it is time to cut the dados in the two sides. The dados are ¾in wide by ½in deep and are staggered in height to allow shoes to be kept on the top two shelves and boots on the lower two. Lay the dados out using a square and marking knife, measuring from the front edge of the sides. A marking gauge is easier to use on the narrow edge to set the depth of the dado. When you're done, stand both sides on the workbench and hold them together to make sure the layout lines match on the front and rear edges. There are many ways to cut dados, I prefer to cut mine with a backsaw. Before sawing, deepen the layout lines with a wide chisel and a mallet. Then, using the same chisel, create a V-shaped channel by paring into the knife line from the waste side. This will help to guide the saw, as will gently resting two fingers on the toe of the saw when you start the cut. Saw the walls of the dados, and then knock out most of the waste with a chisel and mallet. Clean up the floor of the dados using a router plane, stopping when you hit the baseline marked on the front and back edges.

Feet

The feet are one of the main decorative elements of this piece. Although laying out the right proportions for a pleasing ogee can appear difficult, it is actually very simple thanks to some clever pre-industrial geometry. First mark out a triangle on the interior of the sides – the bottom two corners are the starting points of each foot. The top of the triangle is a hair below the bottom edge of the lowest dado. The transition point of the ogee occurs two-fifths from the top of the triangle, so mark that point on both sides of the triangle. With the transition identified, we need to establish the radius of each curve in the ogee. Place your dividers on the transition point of the left-hand side and set them so they reach the point of the triangle, then scribe an arc from the tip of the triangle towards the left-hand edge of the workpiece. Next, place your dividers on the point of the triangle and scribe an arc upwards from the transition point. Where the two arcs intersect is the centre of the curve – place one leg of your dividers on that point, and scribe a concave arc from the tip of the triangle to the transition point, then repeat on the opposite side of the triangle. The same method can be used to lay out the bottom curve of the ogee, you'll need to butt the ends of both sides together to give yourself sufficient work surface. Once the ogee is laid out, cut the feet to shape with a coping saw, and refine the curves with rasps.

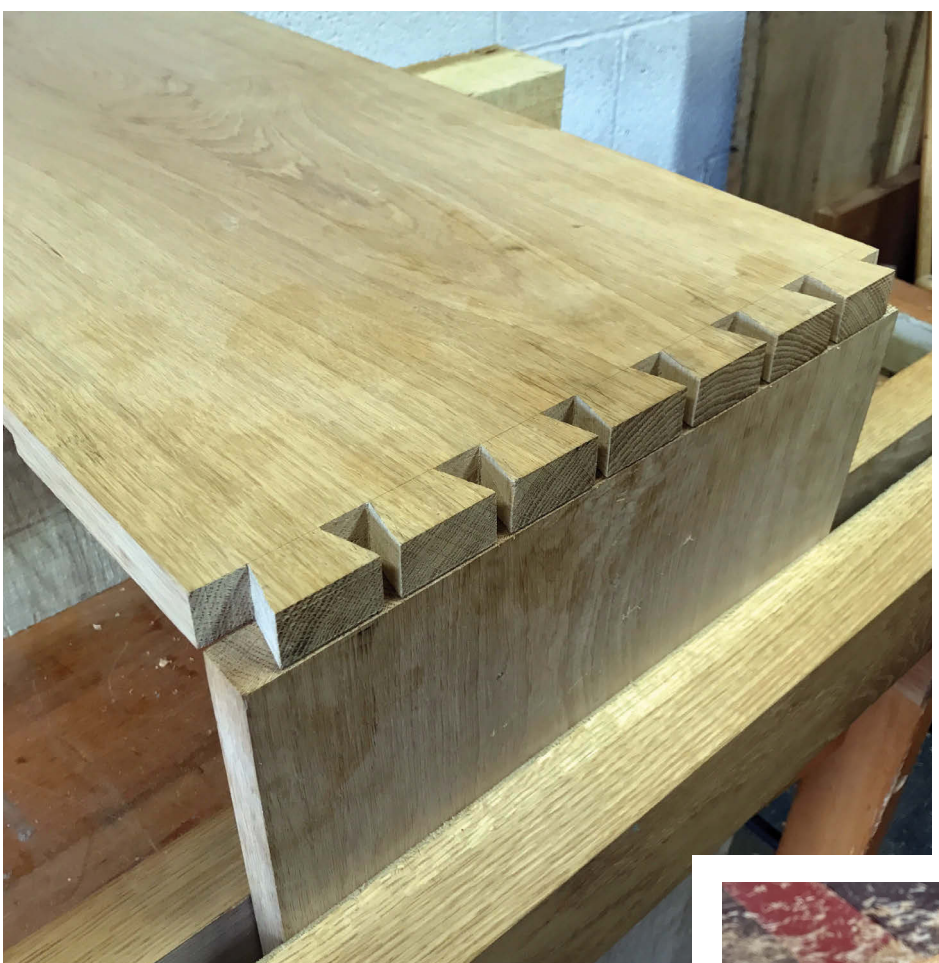


Laying out the foot detail – here you can see the triangular layout lines as well as the cyma reversa

Dovetails

The final element of joinery for the carcass is the dovetails that join the top and sides. The tails are located on the sides, and the pins on the top. I used seven tails per corner, but you can adjust that number depending on what you find most visually pleasing. What is important is to have the pins at each edge of the board a full ½in wide – this is to accommodate the rebate running along the back edge of the sides. The other important detail to remember is that the rear pin is a half pin due to the rebate along the back edge of the top, so take care to lay that out and do not saw too far when cutting the rearmost tail! Cut the dovetails whichever way you prefer – I cut my joints tails first and then laid out the pins.

Cutting the dovetails – you can see the half pin on the far left



With the tails cut, it is time to lay out the pin board

Paring the pins

A small shoulder plane is useful for fine tuning the fit of the shelves to the dados

Pre-finish

Before assembling the carcass, apply finish to the shelves, internal faces of the top and sides, and the backboards. These components are a lot easier to finish before the carcass is assembled, and applying finish now will make it easier to clean up any glue squeeze-out. Tape up the gluing surfaces of the dovetails, dados and ends of the shelves using blue painter's tape, and then apply your finish of choice. I brushed on two coats of a 2lb cut of blond shellac, followed by a topcoat of Liberon Black Bison wax.

Masking the dados and rebates before pre-finishing the interior of the casework

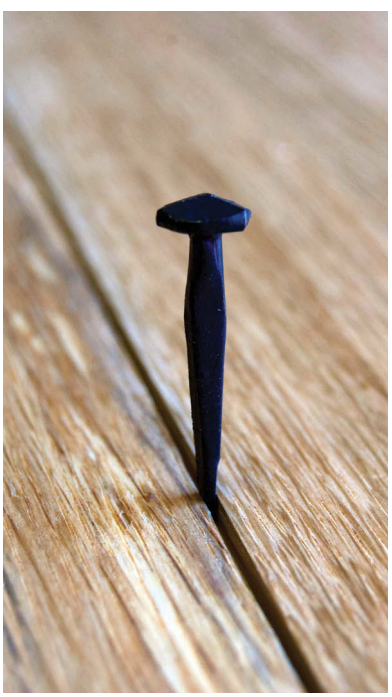
Glue-up

End grain will absorb a lot of glue, so before you start assembling the carcass, size the end grain of the shelves with a light coat of glue. Glue the dovetails first and knock the top and sides together. Next, spread a thin layer of glue in the dados, making sure to coat the sides and floor of each dado, and then slide each shelf home. I use liquid hide glue, because of the helpful open time, ease of clean up, and also because it lubricates joints before it sets. The lubricating qualities are particularly helpful when fitting long dados as on this piece. Push each shelf into the dado until the back edge is flush to the edge of the rebates on the rear of each side. Clean up any squeeze-out using a damp cloth, and then clamp the carcass together using two clamps per shelf – one on the front edge of the dados and one on the back edge.

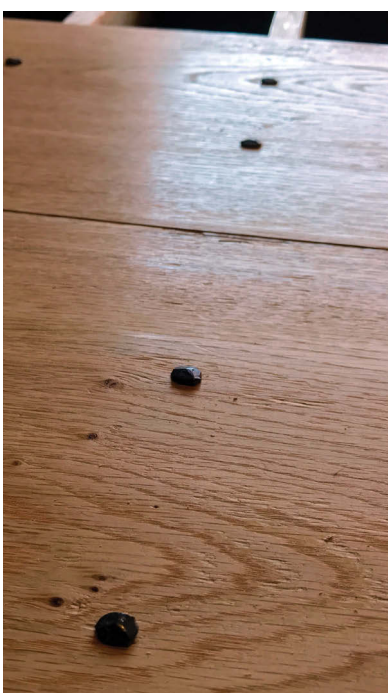
Backboards

Although it is tempting to clean up the dovetails, leave the exterior of the carcass until the backboards are fitted. The four backboards are tongue-and-grooved (I used a Lie-Nielsen No.49 plane to cut this joint), and fixed to the shelves with rose head cut nails. If you have a beading plane, this is an excellent opportunity to add some subtle decoration to the tongue half of each tongue-and-groove joint. Leave the backboards over-length for now, as they will be trimmed to final length once fitted. Before you start to fit the shelves, put a strip of blue painter's tape on the rear edge of each side to mark the location of the shelves – this will help locating the pilot holes for the nails. Fit the outermost backboards first – these should be glued into the rebates on the sides, but left loose in the top rebate. The limited use of glue and emphasis on cut nails allows the backboards to expand and contract with seasonal changes in humidity. Nail the backboards with two nails per shelf. Next, fit the middle two backboards, making sure to leave a small expansion gap between the shoulder of each joint. A straight edge helps to keep the nails in line. Once the four boards are fitted, turn the carcass upside down and trim the ends of the backboards flush with the underside of the shelf – a low-angle plane is ideal for this.

A beading plane adds subtle but effective decoration to the tongue-and-groove joints on the backboards



It is important to leave a small expansion gap between the backboards. I used a cut nail to space my backboards out



Nailing the backboards to the shelves

Clean up

Clean up the exterior of the carcass with a smoothing plane, making sure to plane onto the dovetailed corner to prevent chipping out the end grain. Next, plane the shelves flush with a jointer plane, checking with a straight edge to ensure that the shelf fronts are flat from side to side, and in line with each other from top to bottom. When cleaning up the show face of the dados, skew the plane through 45° to reduce tear-out across the joint. Once the carcass is cleaned up, apply your finish of choice. I used the same combination of blond shellac and black wax as I had for the interior of the casework.

Installed and in use

The foot detail emphasises the client's tiled floor as requested, and the understated decoration provided by the foot detail and visible joinery means that the piece fits in with not only the period details of the house but also the client's modern furniture. I also achieved my personal objective to build a piece that is robust and stylish, using traditional joinery and emphasising fundamental hand tool techniques. F&C

A sharp cabinet scraper is perfect for cleaning up the exterior of the carcass before applying the finish

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Enlightenment and the birth of English proportion

Derek Jones looks at the influences that led to the Golden Age of cabinetmaking

Marble Hill House is on the northern banks of the River Thames, situated halfway between Richmond and Twickenham and is the epitome of Georgian elegance and style

PHOTOGRAPHS COURTESY OF SOTHEBY'S, UNLESS OTHERWISE STATED

It's generally accepted in furniture history terms that the late 18th century is a period of transition, not from one particular style to another or indeed from any single influence but the combination of several events that helped define an entire industry. It's also described as the age of enlightenment, at least in English history books, but metaphorically speaking it's more of a casual stroll along the back roads to Damascus, than one almighty epiphany.

Mahogany chest on chest from the late 1760s displaying all the robust characteristics of the architecture of the day

This walnut marquetry chest on stand ca. 1690 is an English interpretation of a Dutch style. There is plenty of surface decoration but the form itself is restrained and uncluttered

There were some very notable cabinetmakers around leading up to the 18th century, André-Charles Boulle perhaps being the most famous, blazing a trail with extravagant displays of marquetry, inlay and carving. These were, after all, relatively new techniques that favoured the artist and with the best houses in Europe desperate to impress with the latest fashions, there was no shortage of interest. Good taste has always been arbitrary and while the patrons of the day may well have driven the need for style, they were easily seduced by the glitz and glamour of new techniques. Throughout mainland Europe the route to market for even the best cabinetmakers was often through an agent or merchant, who after taking their cut would often leave the maker under-remunerated for their efforts. So in order to remain profitable it was common for makers at the very top of their game to outsource the production of carcasses to workshops specialising in this line of work. The results were typically of a lower quality than the show areas of the finished article. The ground-work of a veneered surface, for example, might easily have been made from badly seasoned timber containing knots and with the joinery that held everything together often lacking finesse. For the most part the influences on style came from outside Britain, from France, Italy, Germany and the Netherlands. And because the upper echelons of society hailed from these regions, over time fashions and tastes began to merge so it's not unheard of to find a piece of Italian furniture, for example, in the Anglo-Dutch style. As far as luxury goods were concerned it's probably fair to say that at the beginning of the 18th century England was slightly behind the curve stylistically, perhaps content with following trends rather than setting them.

There's a tradition in the performing arts of serving your time in the shadows before bathing in the warm glow of success, effectively learning your craft from the bottom up. And for English craftsmen working in the Georgian period and what we now refer to as the 'Golden Age' that's exactly what they did. English workshops were more inclined to produce the entire piece in-house, which generally resulted in consistently higher levels of quality throughout. Craftsmen were trained in the finer points of construction while developing a sense of proportion.

A walnut bachelor's chest from the early part of the 18th century. The proportions are square 26in wide x 26in high x 10in deep

What the Huguenots did for us

The heroes in all of this aren't really the designers or the merchants or even the patrons but the makers whose names we'll probably never know and it's these craftsmen that we should be thanking for the position in which English furniture from the mid 18th century was and is held. To understand the working practices of the 18th-century workshop we have to look at the way skilled labour was introduced to Britain before that. As early as 1681 England was the most favoured destination for Protestants fleeing France and the strict regime of the Catholic Church. For the next hundred years a steady influx of refugees made their way to the large cities south of the Wash and benefitted from unprecedented economical growth thanks to a growing empire. Coming from France the Huguenots, as they were known, were already in tune with the arts of which cabinetmaking was one, and many had backgrounds in the most skilled professions of the time such as clock making, weaving, jewellery making and ébénisterie. So as the demand grew for luxury goods England found itself with a ready-made workforce of craftsmen capable of meeting the demand. It's estimated that more than 15,000 refugees, mostly Huguenots, were settled in England at the beginning of the 17th century with as many again trickling in for the next hundred years. By today's standards that may not sound like much but with a population of around 5.5 million people it constituted a gradual but significant shift in cultural affluence.

Form and function

While most of Europe spent the 18th century reacting to successive regimes that for the most part embraced style over substance, English designers were beginning to experiment with proportion. Towards the end of the 17th century most items of storage furniture tended to be more or less square, i.e. as tall as they were wide. This was obviously quite restricting so with a renewed interest in the classics, the architects of the day began to incorporate the new science of proportion in their designs for buildings and interior fitments. Embellishments weren't ruled out per-se but they were considered within the realms of ratios and mathematics and almost without exception placed symmetrically or in an orderly sequence. As the century progressed a general appreciation for form and its relation to function began to permeate the workshop and thus the development of more ergonomically appropriate pieces; the bi-product of which were items that were also aesthetically pleasing to live with. That's not to say that English cabinetmakers did not explore the baroque or rococo styles, Thomas Chippendale for example was no stranger to the floral motif.

When you look at a typical piece of high-quality French furniture from almost any decade during the 18th century there couldn't be a greater contrast to what the cabinetmakers of England were producing. Even the most restrained pieces appearing after the French revolution in 1789 were showy by comparison and it's not until the beginning of the 19th century and the influence of an Empire style in France that we begin to see similar traits in design and execution.

A walnut kneehole desk with double 'D' moulding applied to the front of the drawer dividers and carcass from 1710. The elevation is square, 29in x 29in x 19in deep

More pieces to choose from

The Georgian period (1714–1830) not only saw an expanded market for the leisured elite but it was also the perfect environment to create a new middle class of professionals with money to spend and the time to spend it. Goods that were once only available to the upper classes were now in demand by a new layer in society and the makers of the built environment responded accordingly. For furniture makers this opened the floodgates for new designs catering for everything from games and work tables to necessities like wine coolers! The demand for new items of furniture meant that designers often reached back to earlier details to resolve certain stylistic issues so it's often hard to place with absolute certainty when and where some elements became popular. This isn't helped by certain regional differences, the most distinct being items produced in the major cities compared to items made in the provinces.

One of my favourite pieces of furniture from the Georgian period is the bachelor's chest. There are various hybrids of this form that incorporate either a writing surface or similar device to make living in one room more tolerable. In many ways they are the precursor to campaign furniture of the 19th century and even utility furniture a century later. For the student of furniture design or the budding cabinetmaker they contain a variety of techniques in a relatively small space. There's carcass building, drawer making, moulding to be made and locks to be fitted; all the skills you need, in fact, to make furniture of any shape and size. Other notable developments include the tripod table. Three legs had already been recognised as being sturdier than four for centuries but it wasn't until the skills were developed to project them from a central column that we saw the tripod table emerge. The design led to some interesting developments including revolving tops and flip-up versions and some that did both. Once again this shows an awareness of space and how things can be made to occupy it and remain functional at the same time. One version of the revolving table is known as the 'rent table', presumably designed so the landlord wouldn't actually have to physically engage in the act of taking money. I suspect this is only folklore and the more practical interpretation is that some kind of signature was required from both parties to record a transaction and it was easier to spin the table on rent day than keep shuffling a heavy ledger back and forth.

As we move through the 18th century, printed literature was also becoming more available. Everything from instructions on how to dance to a road map of the British Isles made it to print, so naturally we saw the introduction of furniture to contain and display them. And as there seems no more logical place to put them than in a cupboard built on top of your desk we ended up with the bureau bookcase; a form that would itself morph into display cabinets and entire libraries by the time the Victorians came along.

A walnut double-domed bureau bookcase from the early part of the 18th century. Similar pieces were also finished in red or green lacquer to imitate Chinese traditional lacquer work

A mahogany wine cooler from ca. 1768, displaying all the characteristics of late Georgian sophistication and style. A decade later this item would be dripping in unnecessary ornamentation

This secrétaire press from ca. 1780 is attributed to Gillow's, a company renowned for good design and good craftsmanship

A mahogany breakfront bookcase from 1785. Note the style of the pediment; elements of neoclassicism are starting to appear

A rosewood cabinet on stand of neoclassical design. The reeded legs along with the choice of timber place it firmly at the latter part of the 18th century

Rational thinking

In the decades leading up to the Georgian period, simplicity of construction wasn't really a choice – it was the only option as many of the techniques we now associate with quality cabinetmaking were not yet commonplace. Issues such as the stability of the material in certain applications had yet to be resolved. For example, back boards might be nailed onto the carcass and not contained as loose panels

A West Indian satinwood secrétaire on stand, 1790. All the best elements of style and proportion are contained within this restrained neoclassical example

within a frame and the drawer bottoms might have the grain running front to back and not left to right. And as far as style was concerned no amount of ornamentation was considered too much. It's important, therefore, to understand that if things appeared a little plain thereafter it was a conscious decision to make them that way and for me that's what's so interesting about the 'age of enlightenment'. Having witnessed the excess of the ancien régime it seems English society and the cabinetmakers that furnished it were not in a hurry to make the same mistakes, stylistically or otherwise. In the last quarter of the 18th century we start to see the influence of the neoclassic style in furniture. The finest pieces are typically understated with subtle nods towards classical proportion and design. Panels that would once have been decorated with intricate geometric patterns or copious amounts of marquetry depicting everything from the most recent developments in science to expansive floral bouquets were now being veneered with a single species of timber, albeit with a flame pattern or cleverly book matched. The details were still there, you just had to look a little harder to find them and compared to the exuberant style of the 17th century, neoclassicism was positively minimalist.

Other factors also contributed to the look such as new materials becoming available. Rosewood and mahogany both came with their own characteristics and cabinetmakers were quick to respond to the working properties of both and the stylistic freedom they allowed. Never before had cabinetmakers been able to use a single board 30in wide and 10ft long to construct dining tables or a floor-to-ceiling bookcase. The last two pieces shown here are great examples of the pared-down look; smooth lines, functional but with elements of style. Cabinetmaking had reached its peak and for the first time it seems that the makers were driving the pace of change. F&C

Form and function, 18th-century style

Jim Broughton explains why there's no real alternative to using traditional techniques when it comes to replicating authentic cross-grain moulding

The D moulding was first used on English furniture in what is commonly known as 'first face construction' towards the end of the 17th century. Referring to the practice of applying decorative timbers to the show faces of less attractive timbers, the trend continued into the first quarter of the 18th century culminating in stylistic improvements such as the 'double D' moulding.

Using mainly walnut (*Juglans regia*) or oak (*Quercus robur*) but also and to a lesser extent rosewood (*Dalbergia latifolia*) and kingwood (*Dalbergia cearensis*), sections of solid timber are applied to a deal or other soft wood backing with the grain at 90° to that of the substrate.

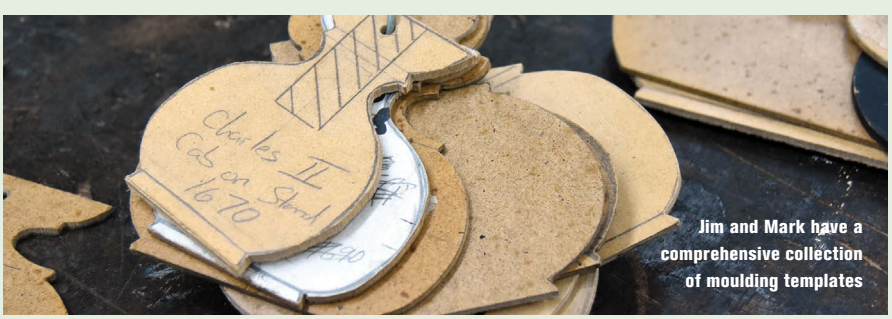
Although considered extremely decorative, the D moulding also had some very practical advantages when applied to the front face of drawer dividing boards. Far more robust than flat cross-banded veneer, it wouldn't chip out as easily when the drawers were being opened. The visual effect of the cross-grain is very pleasing as it frames the drawer fronts with a contrasting pattern. The shape of the D softens the edge between the opening and the drawer front, blurring the junction between the two and letting the cabinetmaker off the hook should he discover his drawers didn't quite line up.

The same technique was used in the construction of top and bottom mouldings applied to a variety of casework such as chests of drawers, writing desks and longcase clocks. Larger in section than the D moulding and to save material, the decorative timber was applied to the deal substrate after it had been chamfered across its entire width to about 45°. Typically an ovolo moulding would be created for the top of a chest of drawers or table and an ogee or reverse-ogee for the bottom.

Sections of deal are chamfered before adding the show wood

Reference material

Jim Broughton and Mark Pargeter of Alexander George Fine Antique Furniture Ltd have many years' experience working with case furniture and clock cases from the 17th and 18th centuries. They have an extensive collection of templates and original sections of moulding to refer to when called upon to recreate a missing moulding so they can reproduce exactly what the original cabinetmaker had in mind.



Jim and Mark have a comprehensive collection of moulding templates

PHOTOGRAPHS BY ALEXANDER GEORGE FINE ANTIQUE FURNITURE LTD

Step-by-step

The 17th-century cabinetmakers had perfected the proportions of the chest of drawers, in my opinion. An average size would be 35in wide and notably deeper than later chests at 23in with a height of 33in. Most cross-grain mouldings follow a similar size and form, ranging from ½–¾ x ¼in for the D mouldings and roughly 1½in high x 1in deep for the bottom moulding. To form the necessary profile of any cross-grain moulding, I use a combination of traditional hollow and round moulding planes, a shoulder plane, pattern maker's gouges and various diameter dowels wrapped with abrasive paper.

A straight edge is planed on a deal board that is equal in thickness to the width of your intended D moulding. It helps if the board is wide enough to be held in the vice. With a board this size you can prepare and use both edges if there are multiple mouldings to be made.

Sections of cross-grain timber are cut into pieces just slightly wider than the thickness of the substrate. These are then trimmed on a shooting board to match. The show wood is then cut or preferably snapped into shorter lengths. Doing so helps to stick them to the board with just a rub joint and without the need for cramps or masking tape. It also helps when we come to the ageing process. We only use traditional hide glue for this.

Traditional hand tools are the best way to create authentic cross-grain moulding

The blanks may be trimmed to length with a mitre plane on a shooting board…

… or snapped into smaller random length pieces

The show wood is glued to the substrate

Shaping up

When the glue is set we start shaping the D moulding with the moulding planes and finish to a very smooth surface down to 400 grit garnet paper. The grain is raised with water at least twice to get a perfect finish like a polished stone. No tear-out is acceptable. When the shaping is complete we then run the moulding through the bandsaw, leaving the show wood attached to a thin veneer (1/16in) of deal. The process can then be repeated on both edges of the deal board if necessary until you have the required amount of moulding. The D moulding is applied to the prepared surface with the deal veneer still attached. It is in effect, part of the finished moulding. Where two mouldings meet at 90°, a 'bird's mouth' joint is used. Where smaller sections of moulding are required we sometimes carry out the shaping with the moulding glued into position on the piece of furniture. This often allows for a more accurate replication of the moulding.

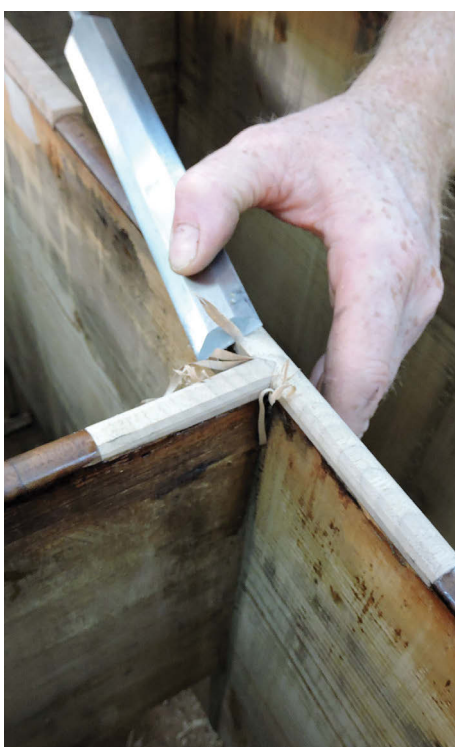
Moulding planes are used to create the profile

A shoulder plane is used to define the square edges

Varying diameters of dowel wrapped with abrasive help to blend the curves

The moulding is cut from the mother board with a small amount of substrate for support

Smaller sections can be shaped up in situ…



…some deft work with a paring chisel is required

Final sanding will achieve the right finish but not the colour

Cut to the chase

Some restorers prefer to use a scratch stock to form their profile but I don't like this method as it tears out the cross-grain and leaves a very unsatisfactory finish that requires large amounts of time-consuming sanding to achieve the desired effect. I do use a scratch stock for the earlier form of long grain scratch mouldings that typically appear on oak joined furniture.

Pattern maker's gouges are perfect for shaping without tear-out

Imperfect principles

I have already mentioned that the smaller sections of moulding will help with the aging process. When you study a piece of late 17th or early 18th-century furniture with cross-grain mouldings, you will see (if the piece is untouched or has been restored sympathetically) the characteristic movement and shrinkage of the mouldings. This is because the wood will naturally shrink across the grain and cause very slight gaps and even high spots. This level of imperfection is good and entirely in keeping with the period as we want to preserve the signs of ageing at all costs.

Finally, when the mouldings have been fitted and glued into place we can then move on to the finishing and aging process; a black art and another story altogether. F&C

Loose sections of moulding will only be made secure and not improved

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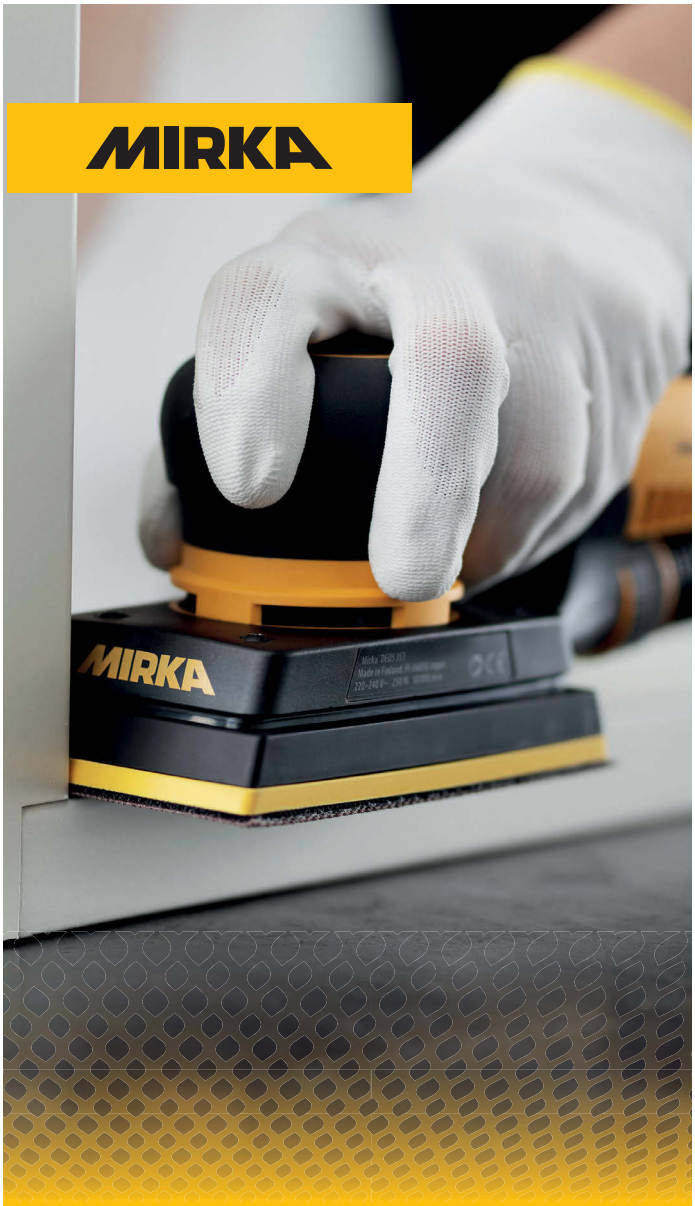

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Laminated serving tray

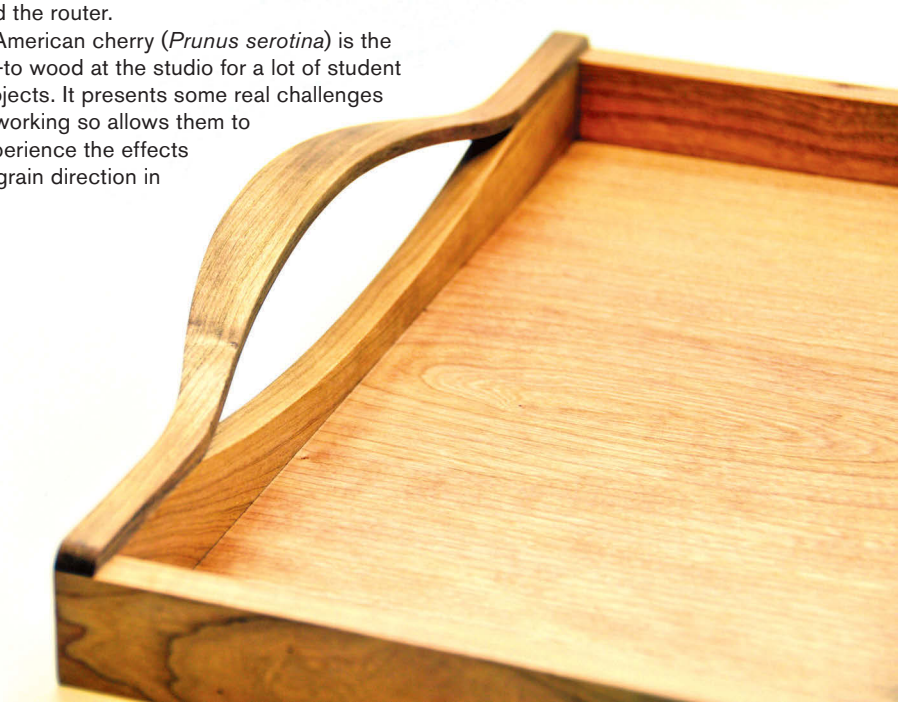
Theo Cook shares one of the Robinson House Studio's student projects

A project Robinson House Studio likes to do with every student is a serving tray, because of the techniques it covers and the variety of skills you can learn from it. In this single project students can cover routing, veneering, laminating, using a spokeshave and sanding. In fact it covers more things than any other project you can do in a week.

It's such a great teaching platform that we've devised a short version and a long version. The 12-week and one-year students make their trays over a two-week period, going into more detail and also learning to use all the machines required to make it themselves. The one-week students have some of the preparatory work done for them by tutor Theo, such as the initial machining of the timber. The shorter course students also use mitre joints at the corners instead of dovetails.

The longer-course students are required to machine their own timber from scratch, which takes more time as they need to learn to use a range of machines safely and accurately. This isn't quite as easy as it sounds, as the individual parts are designed to be mounted into a common jig for further working later in the project. If a piece isn't quite right, it won't fit the jig and the student has no other option than to remake the part. It's a tough lesson but a valuable one. For the short-course students it's not all hand tools either as they get to use the bandsaw and the router.

American cherry (*Prunus serotina*) is the go-to wood at the studio for a lot of student projects. It presents some real challenges in working so allows them to experience the effects of grain direction in relation to sawing, planning and chiselling. And if a longer-course student wants to do something a little different, the base can be veneered with a contrasting wood.



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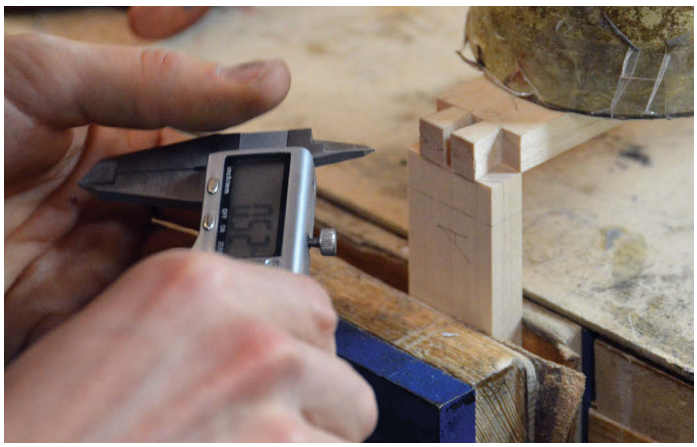
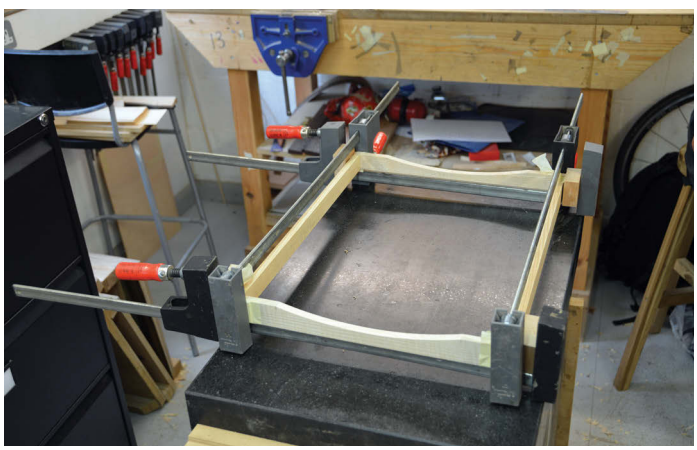
Making the tray

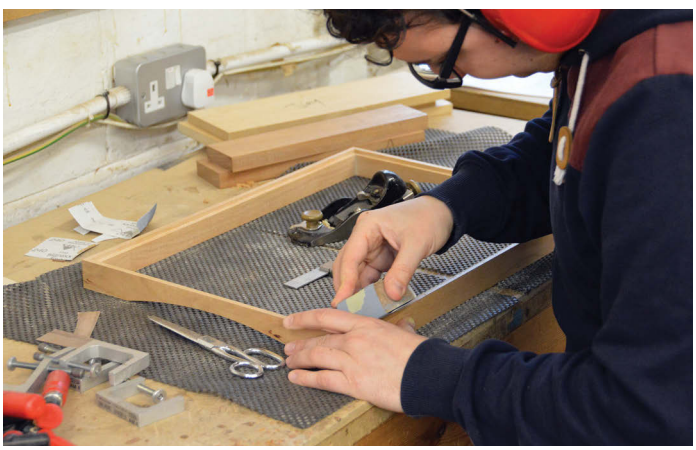


Taking the necessary steps for a clear transfer of information

Glue blocks and spacers are cut in advance to ensure the glue-up runs smoothly



Not every 'shop has a flat granite block to help with alignment



Glue blocks and spacers are cut in advance to ensure the glue-up runs smoothly

The first stage is showing students a cutting list in conjunction with a drawing of the project, so they can select their material and set about machining it. With that complete they'll move on to marking out for their corner joints on the frame section (dovetails or mitres) and set about cutting these. Precise marking and measuring is the key here as the aim is to produce a perfectly square frame. The next step is to set the router table to produce a rebate to accommodate the base board. The router table is like any other machine in that it will cut where the operator tells it to cut so we introduce students to the concept of guiding and supporting a workpiece as it passes over a cutter to achieve a consistent profile. This includes matching the in-feed path to the out feed path while considering how they will move the workpiece and allow for adequate extraction; effectively giving the machine a clear set of instructions. The short sides of the frame have a shallow radius applied to the top edge that forms one half of the handle opening. This is the first piece that needs to fit into a jig for shaping on the router, which introduces the students to the possibilities of forming curves and other shapes in a controlled manner with the same machine.

The top part of the handles is made from laminating multiple layers of 0.5 or 0.6mm thick veneer over a former that is then placed in a vacuum bag press. Depending on which format the students are following, they will either get to make their own former or use one prepared earlier. This is an excellent opportunity to look at various adhesives and experience the different characteristics and suitability of each for this process.

Shaving the handle to fit the frame

Roughing out the shape of the handle on the bandsaw

Ripping up a plywood sheet to make the tray base

Having created a successful handle the students are required to refine the shape with a spokeshave before setting about the task of gluing the frame together. Although mitred corners might be quicker to cut they require a lot more care and attention to glue-up. This in itself demonstrates to students that clamps are sometimes used just to hold components in registration and not force them into place while the glue dries. We use a shooting board to tune our mitres so students can experience creeping up to a perfect fit in tiny increments. This is a great opportunity to demonstrate how much control you can have with just hand tools.

For students that have attended our weekend dovetail course or have experience working with dovetails we can introduce a mitred top corner to their frame. When the clamps come off it's time to attach the handles and sand the complete frame blending in the handles as they meet the sides while also retaining crisp edges to all the flat sections.

The base is the last part to be made and like before it's an opportunity for students to experiment a little. The fast track course will use a single sheet of veneer to cover both sides of a plywood substrate while those on the extended course can consider the merits of book matching and therefore learn about edge jointing veneer. It's important to demonstrate that even though the material is less than 1mm thick it still behaves like wood and benefits from being treated like any other solid component. Whichever route the students take the final stage is the same as the leaves of veneer are glued in place using a different type of vacuum press called a membrane press. Intended for large scale commercial work it is the last piece of industrial equipment the students use to make their trays.

Working through the grits with a random orbital sander

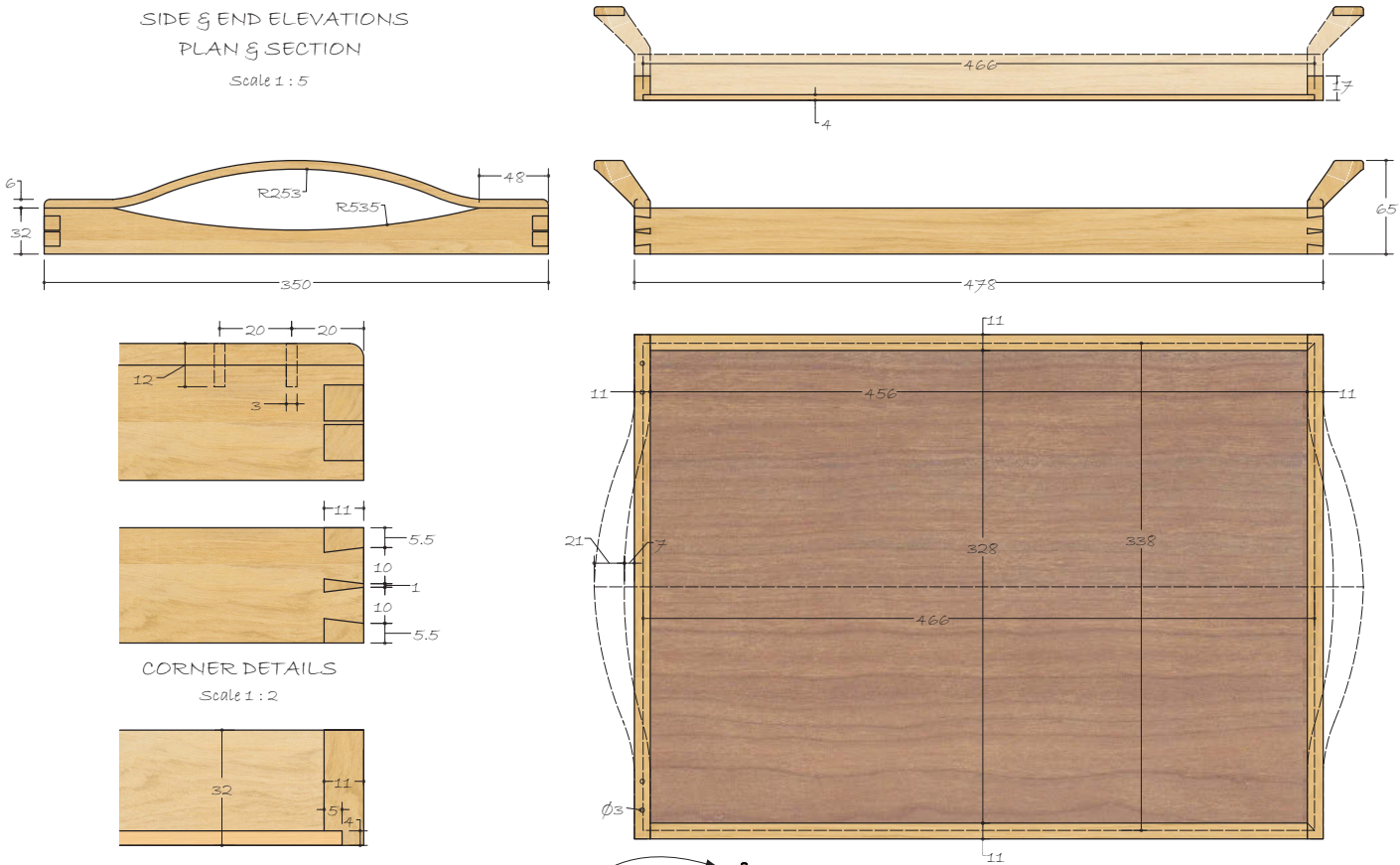
A job well done and lots of skills learned

Before trimming the base to fit the rebate on the frame the panel is sanded with a random orbital sander allowing students to see the progression from a course grit to a fine grit by observing the ring marks of a mechanical sander and working towards eliminating them completely. At this stage we usually have students engrave the underneath of their panels using our laser machine with a message if it's a gift or their name and date. This is more than just a decorative detail as the laser cutter can be used to generate templates or label parts for easier assembly later. The principles are very similar to using a CNC machine but without the complication of learning about tooling. The laser is capable of producing a variety of surface textures and patterns and gets used frequently by our long term students to produce models in the early stages of their designing. Finally, the students use Osmo oil to finish their projects before the obligatory photograph of the maker and his wares. F&C

Cutting list

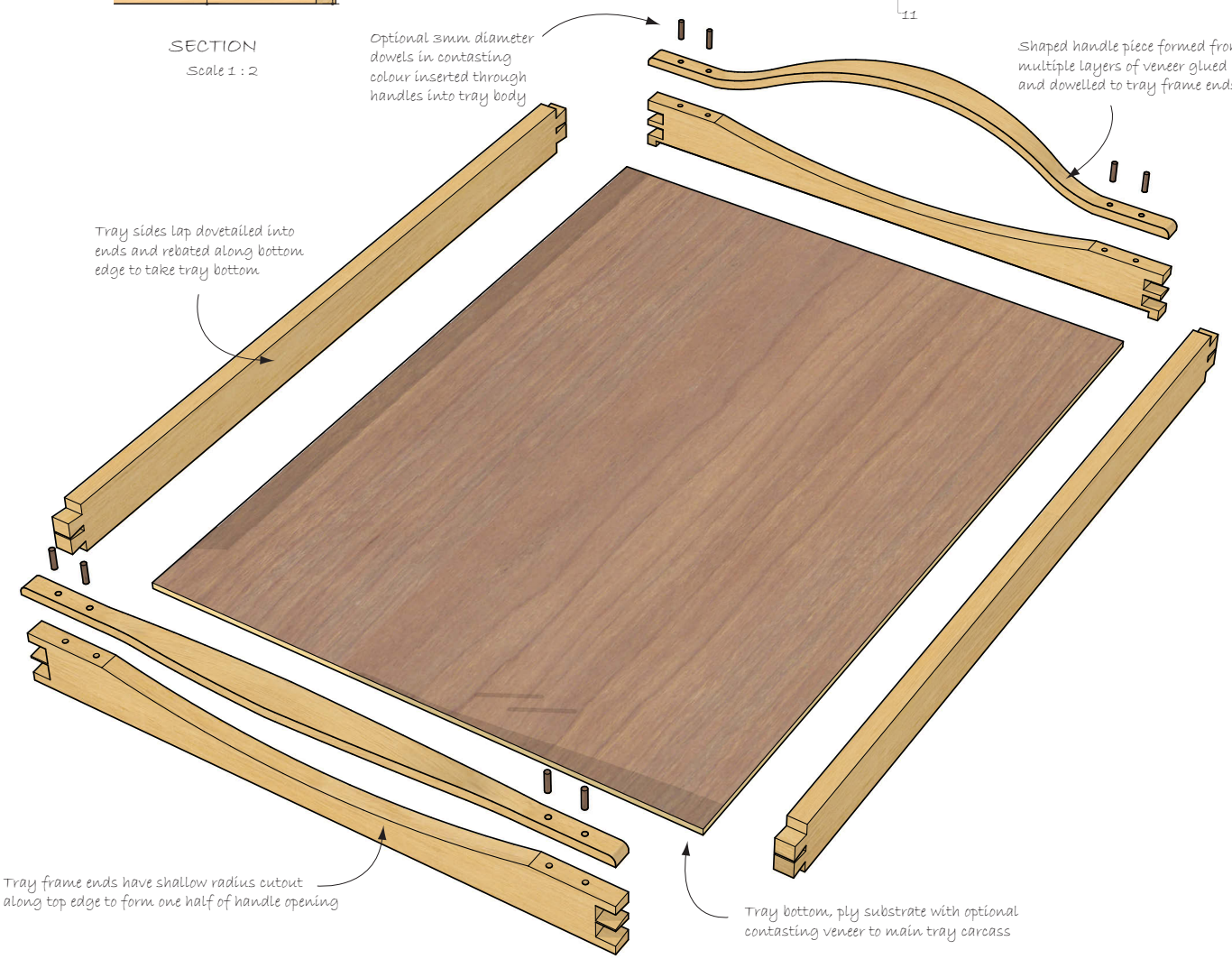
Item	Quantity	Length	Width	Thickness	Material
Sides	10	500	42	One inch left rough	Walnut
Ends	10	370	42	One inch left rough	Walnut
Base	5	480	350	3	MDF
Base veneer	5	480	350	0.6	Walnut/sycamore
Handles	5 lots of veneer needed to make handles 7mm thick				Walnut

SIDE & END ELEVATIONS
PLAN & SECTION
Scale 1 : 5



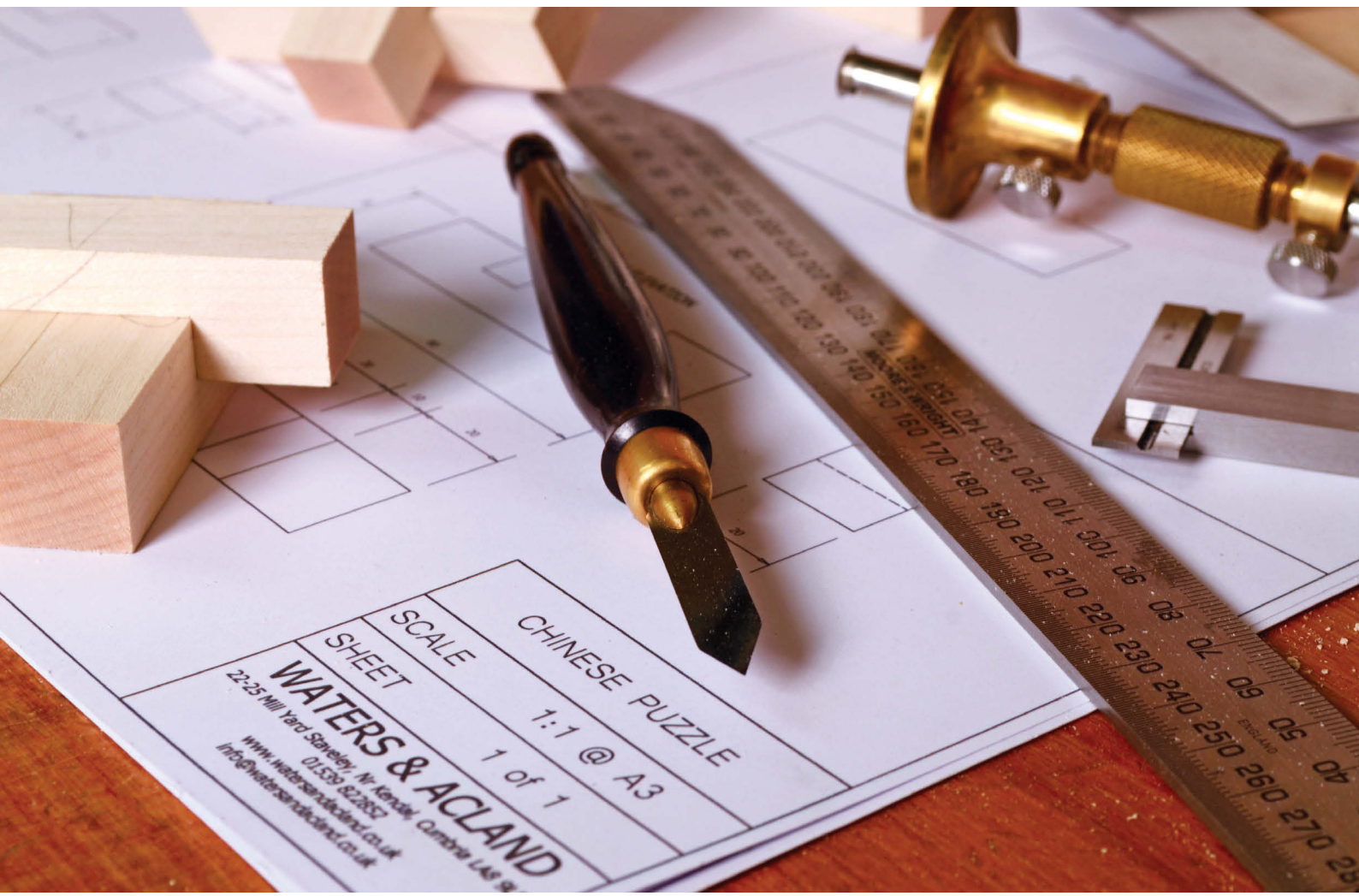
CORNER DETAILS
Scale 1 : 2

SECTION
Scale 1 : 2



Chinese puzzle

Oliver Waters and Jim Cooper share a few techniques for establishing reliable layout lines for crisp joints



Students on a one-year course at Waters & Acland spend the first few weeks mainly focusing on tool preparation and their respective use in combination with a variety of measuring and marking equipment. To develop their skills they are required to build a Chinese puzzle as a precursor to tackling a host of decorative dovetail joints. In this article we'll be looking at why stock preparation is key to establishing lines you can trust and why measurements alone aren't always the best indication of size.

Stage 1

The students are provided with a length of stock machined to a 20mm square cross-section. Their remit is to use the supplied stock to produce all the components necessary to make the Chinese puzzle. Accurate marking-out, cutting and chiselling are essential in order to produce a tightly fitting puzzle. Too loose and the parts won't stay together, too tight and it won't go together at all. The first stage requires the students to produce six blanks exactly 80mm long. It is essential that all the ends of the blanks are square and that they are exactly 80mm long, as the ends will be used as reference for marking out. This is best achieved using a shooting board, making checks along the way with a pair of digital dial callipers. Although only six blanks are required to make the puzzle, students are encouraged to produce a couple of extra ones in case of mistakes later on in the project; itself an excellent habit to get into. The next stage is to mark out all the components, the dimensions of which are shown in the drawing, creating one each of type A and D and two each of type B and C. At this stage the components should be marked out using a very sharp H2 pencil and an adjustable square. These lines will not be used for cutting to, but rather to act as a guide for where and how long the marking gauge and scalpel lines will be. This minimises the risk of unsightly gauge or scalpel lines extending beyond the ends of cut lines and to avoid cutting the wrong side of a line. It is also good practice to introduce the habit of identifying the waste areas with some cross hatching or light shading.

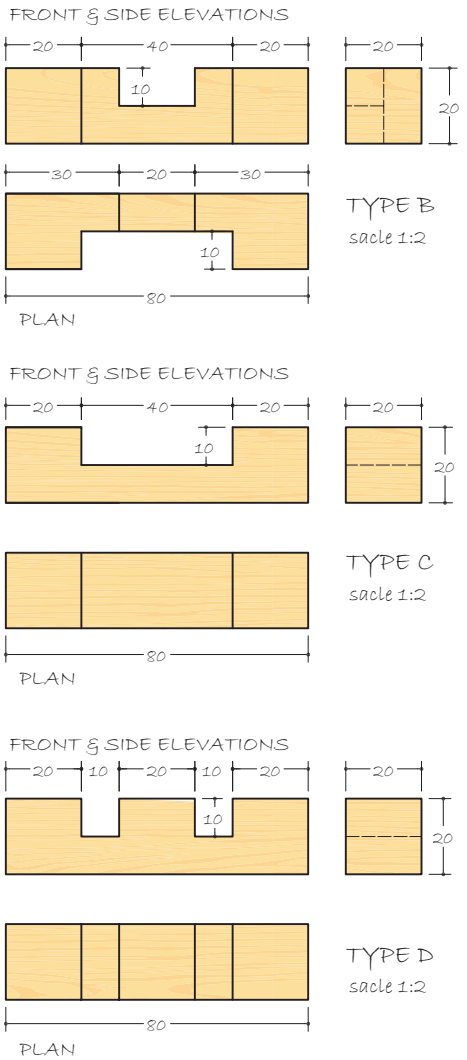
The next stage is to mark all the cut lines using a marking gauge or scalpel. Different techniques are used to do this depending on whether a side or an end of the blank, or a line on another face of the blank, is used as the reference for marking. For cut lines across the length of the component (a,b,c,d,e,f,g,h,i and j), where the end of the component is used as the reference for marking out, a marking gauge is used to lightly mark the centre of the cut line and a scalpel is then used to mark the rest of the cut line, using the marking gauge mark as a reference.

For cut lines along the length of the component (p,q,r,s,t,u,v,w,x,y

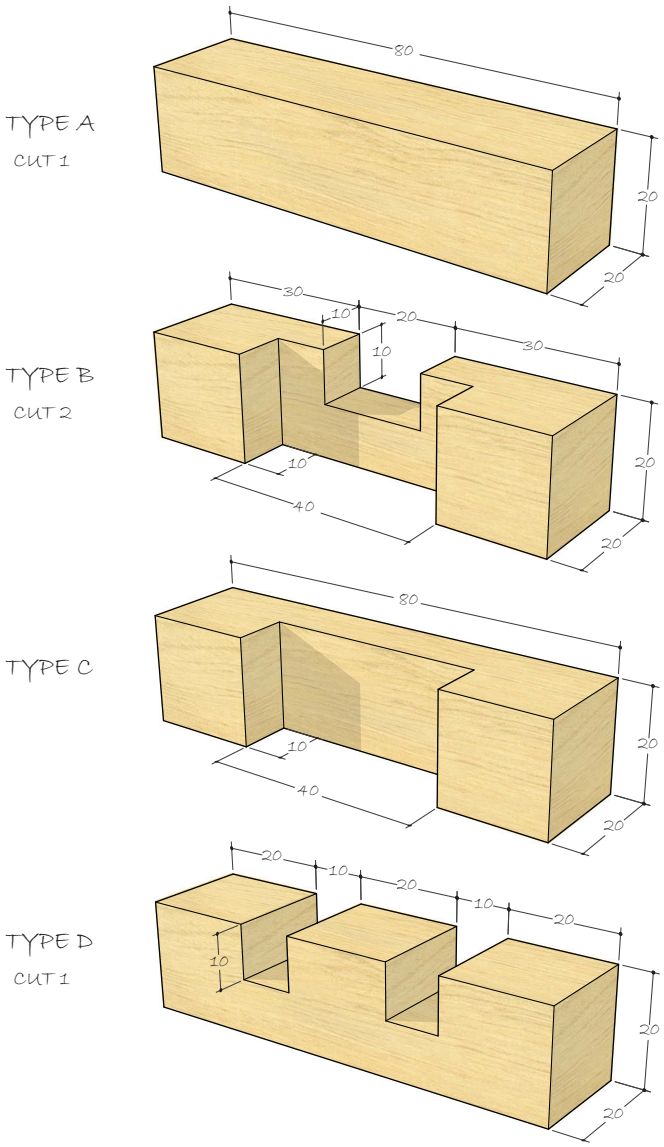
PHOTOGRAPHS BY WATERS & ACLAND

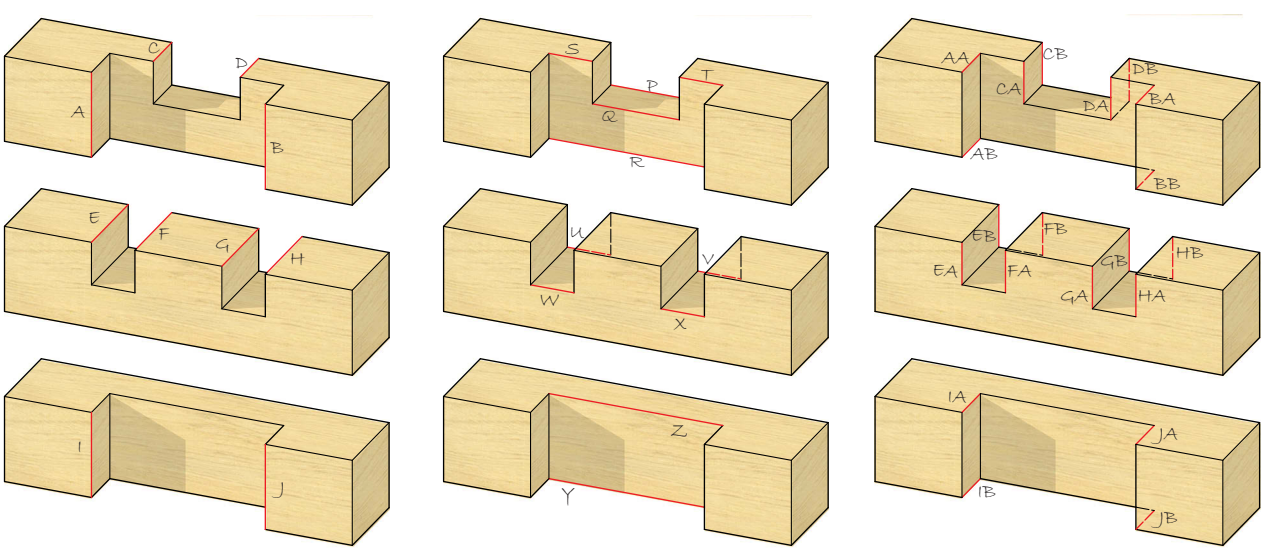
and z), where the side of the component is used as the reference for marking out, the marking gauge is used to lightly mark the cut line over its whole length. For cut lines which are extensions of already existing lines on other faces of the component (aa,ab, ba,bb,ca,cb,da,db,ea,eb,fa,fb,ga,gb,ha,hb,ia,ib,ja and jb), a scalpel is used to extend the line from the existing line to the new face.

Note the two type B components are initially worked to be the same as type D components, and the lines ca, da and q are then marked prior to modifying them to make type B components. The key to successful marking out is accuracy. Good marking gauge and scalpel technique are essential in order to obtain the required level of accuracy.



Type A not shown in 2D due to simplicity





Lines referenced by letters are highlighted in red. Relevant lines hidden in perspective view are shown dashed.

Marking gauge technique

Three different gauge settings (10mm, 20mm and 30mm) are required for marking all the cut lines. If you are using a single marking gauge, the gauge should be set to the first of these lengths (10mm), using digital callipers to ensure accuracy, and all lines requiring this setting then marked (lines p,q,r,s,t,u,v,w,x,y and z). The marking gauge should then be reset to the second length (20mm), once again using digital callipers and all lines requiring this setting then marked (lines a,b,e,h,i and j). Finally, the gauge should be set to the third and final length (30mm) and all lines requiring this setting then marked (lines c,d,f and g). If you have more than one marking gauge it is useful to retain the gauge settings, as this makes it easier should you need to mark additional lines at a later stage, for example if you need to remake one of the components.

Setting up your gauge for success

If you use a knife-style marking gauge it needs to be set up with the bevel on the waste side of the line being marked. This ensures that there is a clear vertical line defining the edge of the waste area. Wheel-style gauges can be similarly orientated. A pin-style gauge needs to be filed to a very sharp point.

Using digital callipers to measure the 80mm component

Scalpel technique

A scalpel blade has two symmetrical bevels. Consequently, when marking a line with a scalpel, the scalpel needs to be held at an angle so that the bevel on the non-waste side of the cut is vertical. This gives a clear vertical line defining the edge of the waste area. The scalpel is used in two distinctly different situations; to extend the small mark made by the marking gauge in the centre of some of the cut lines, and to extend already existing scalpel lines to other faces of the component. In the first case, where the scalpel is used to extend the small mark made by the marking gauge in the centre of a cut line, the scalpel blade should be placed in the centre of the mark made by the marking gauge, with the scalpel blade angled so that the bevel is vertical on the non-waste side of the line. An engineering square should then be placed firmly against the scalpel blade (on the non-waste side of the line) and the scalpel used to extend the line to the required length.

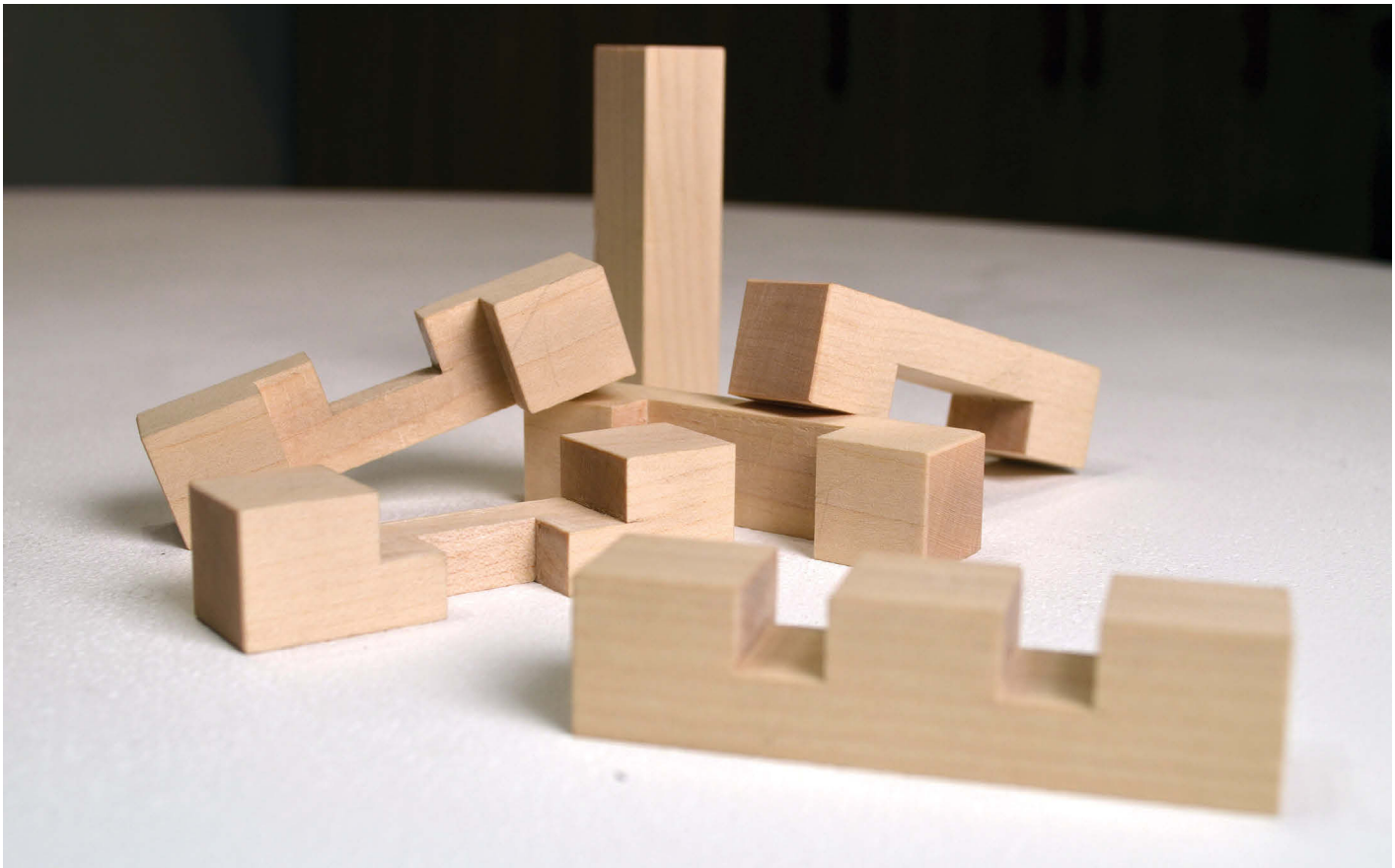
In the second case, where the scalpel is used to extend already existing lines to other faces of the component, the scalpel should once again be angled so that the bevel is vertical on the non-waste side of the line and the blade then placed into the end of the line already existing on the other face of the component. An engineering square should then be placed firmly against the scalpel blade (on the non-waste side of the line) and the scalpel then used to extend the line onto the new face.

Before using the scalpel to mark out the components, it is strongly recommended to practise your technique. Using a scrap piece of the original 20mm square stock, start off by scribing a scalpel line across one of the faces using an engineering square to position the scalpel and angling the blade correctly so that the bevel against the square is vertical relative to the face being marked. Now, extend this line to the other three faces of the component using the same technique. If you have done everything correctly, then you should find that the mark on the fourth face lines up perfectly with the line on the first face. If this is not the case, then you should repeat the exercise until the lines on the first and fourth faces do indeed line up.

Troubleshooting

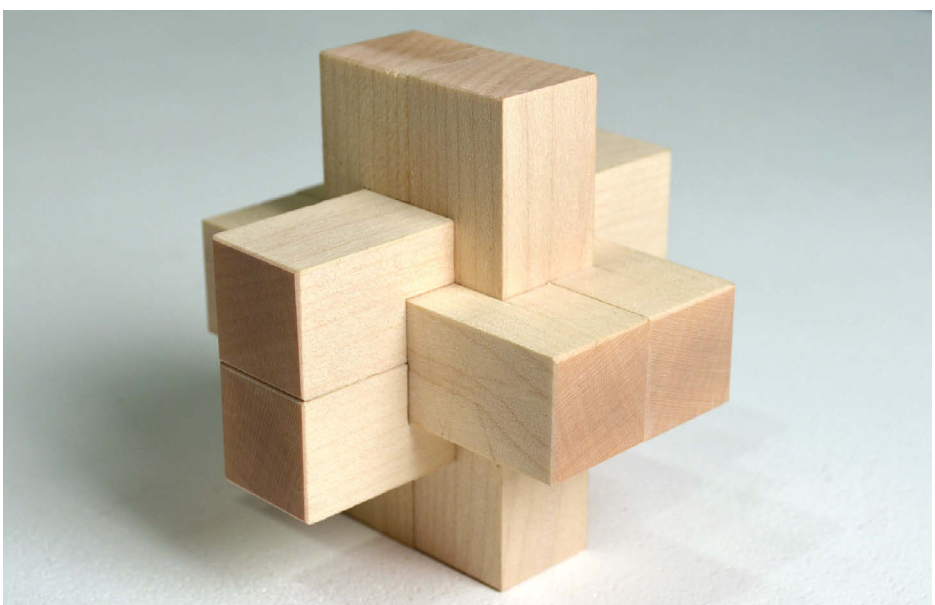
If, after successive attempts, you cannot achieve perfect alignment you may need to check the accuracy of your square or the squareness of your blank.

Shooting board in use squaring end of 20mm component



Cutting out the waste

The next stage is to remove the bulk of the waste material, prior to chiselling to the lines. A dovetail or similar saw should be used for vertical cuts and a fine-bladed coping saw for horizontal cuts. This is your last opportunity to check and identify the waste area. Once again, it is a good idea to practise your technique before starting on the actual components, and if possible in the same material as the finished object. Mark some vertical and horizontal lines and practise cutting 1mm away from the vertical lines (using a dovetail or similar saw) and 1mm above the horizontal lines (using a fine-bladed coping saw). You should also practise moving from vertical to horizontal, ensuring that you remain within the waste area. Once you are happy with your technique, it is time to move on to wasting out the actual components. If you find it easier, you can make additional pencil lines 1–1.5 mm inside the waste areas and use these to saw to.



Completed puzzle, nicely finished off with small chamfers applied to the ends of each component

Chiselling to lines

The next stage is to chisel to the scalpel and marking gauge lines. For each face, start by making relief cuts with the chisel in the waste area some 0.5–0.7 mm away from each of the scalpel lines defining the face. For example, for the face defined by cut lines j, ja and jb, relief cuts should be made in the waste area some 0.5-0.7 mm away from the scalpel lines defining cut lines j, ja and jb. To do this place the chisel on the component, with the bevel side of the chisel towards the waste area, angling the chisel slightly so that the cut is angled away from the non-waste side of the line and then tap the end of the chisel with a mallet.

Next, using a chisel slightly narrower than the width of the face, remove the 'tent' (raised area created due to the angling of the chisel).

The next stage is to make the final cuts to the scalpel lines defining the face. The same process is followed as for the relief cuts. However, this time the blade of the chisel should be accurately positioned in the scalpel lines defining cut lines j, ja and jb.

Finally, once again using a chisel slightly narrower than the width of the face, remove the 'tent'. Once the final cuts have been made to the scalpel lines, it is essential to only use chisels narrower than the face being pared, and to ensure that the edges of the chisel blade do not contact the crisp straight edges that you have just created. You should regularly check for both squareness and flatness of the faces that you are chiselling using the back of a chisel or a square.

At this point, if all has gone well and you have produced components to the required accuracy, then they should now come together to produce a tightly fitting puzzle. F&C

Introduction to chip carving – part 1

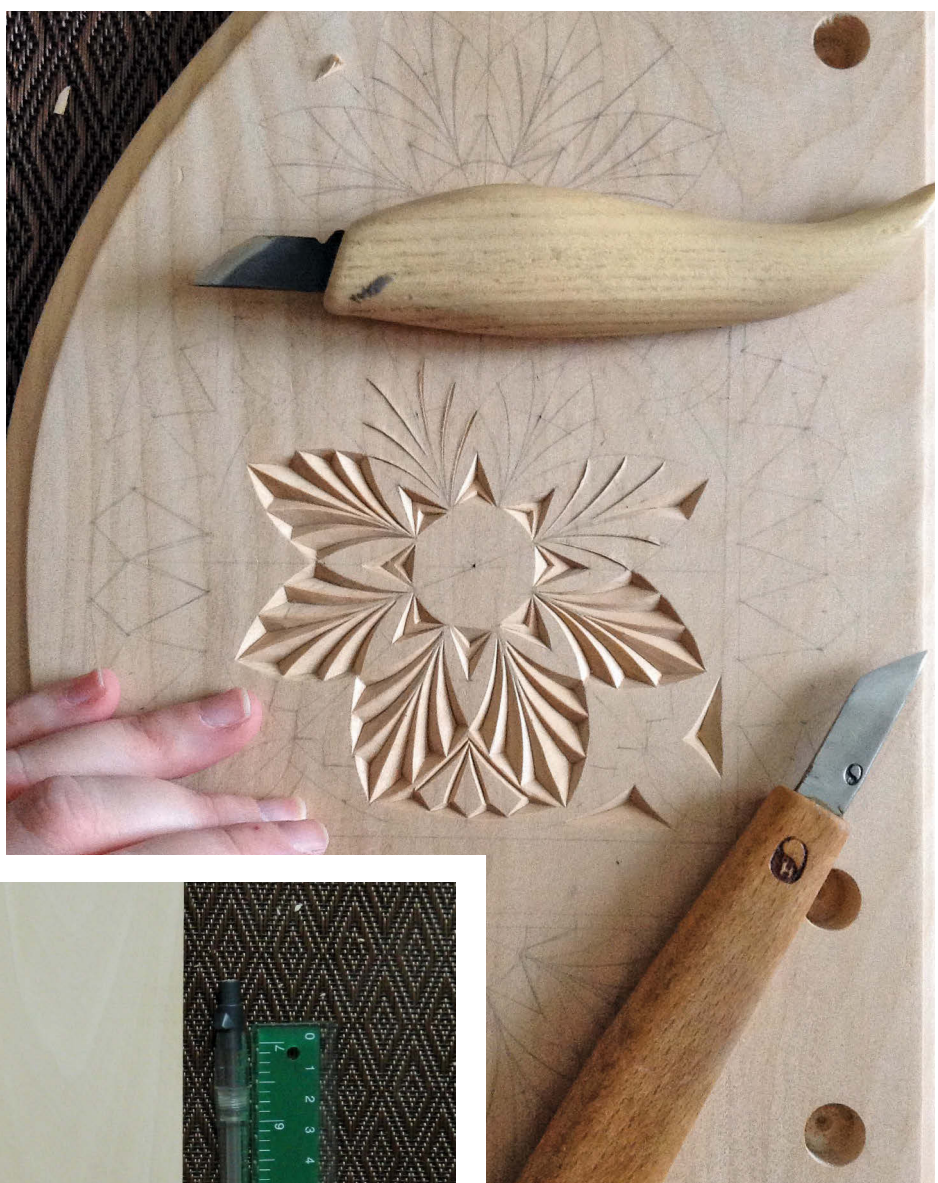
In the first of two articles, Tatiana Baldina demonstrates how to lay out some basic patterns for a chip carving sample board

If you have been carving or working with wood for a long time, then you no doubt remember that you started with the simple but important things, such as observing all safety precautions, learning about wood types, the texture and appearance of the wood fibres, what type of wood to use in your work, how to choose the necessary tools and how to work with them, how to carve simple patterns and so on.

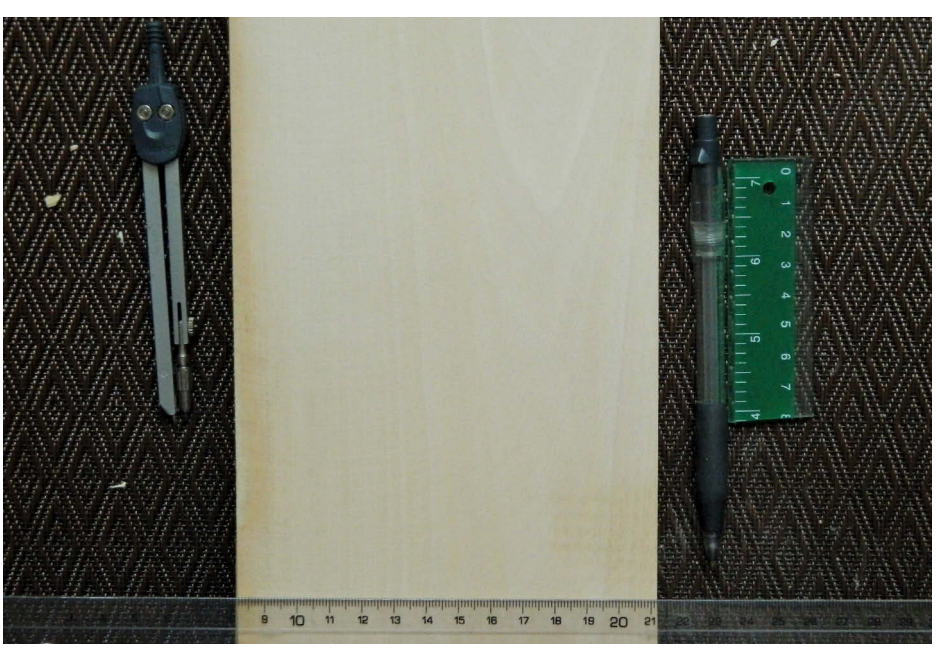
If something seems difficult to you, then try to divide it into simple actions – and then, maybe, you will be able to solve a difficult task. If you look at a complex chip carving design and think that you will never be able to carve it, don't worry! Try to break a complex pattern into the simple elements of chip carving – step by step – and then you will see that the 'complex' pattern is actually made up of many 'simple' ones.

And that's what I would like to talk about in this article – chip carving and its simple or basic patterns – the type of carving I have decided to devote my life to studying.

The article will consist of two parts. In this first part we'll cover the process of drawing the simple patterns of chip carving and multi-level carving, which will be carved out in the second article.



PHOTOGRAPHS BY TATIANA BALDINA



Drawing tools and materials

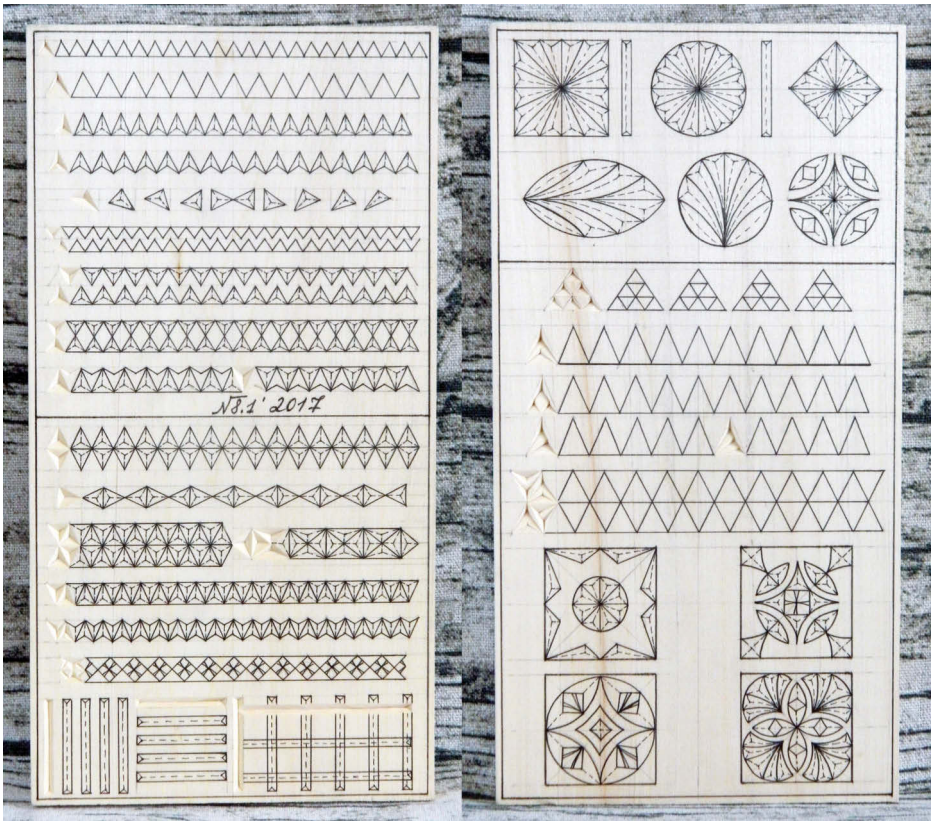
- A basswood board (250mm long, 150mm wide, 15mm thick)
- 0.5mm mechanical pencil with H or HB lead
- Ruler
- Compass

What is a practice board?

Practice is something that you cannot do without in any craft if you want to succeed in it or simply do it at a good level. And different activities have different techniques for practice. For chip carving, there are at least three kinds of practice boards with different levels of difficulty, such as carving the patterns a) against the grain, b) along the grain and c) carving the patterns in different directions. When you take a basswood (*Tilia americana*) board and a carving knife for the first time, you need to practise your carving on the patterns that go against the grain – it's the best way for beginners to start chip carving.

Any type of carving begins with the simplest patterns. Perfecting the technique of carving these simple elements is something that I believe is essential to beginning the study of chip carving.

In terms of execution, chip carving is perhaps the simplest form of carving to generate a variety of surface decoration. The main patterns are two-sided, three-sided and four-sided grooves of various sizes and depths. My practice board has four sections with four different levels of difficulty. You can see these sections on the completely drawn practice board on the right.



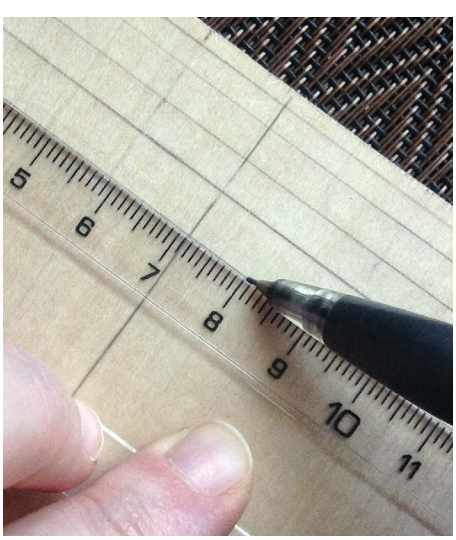
The completely drawn practice board begins with linear geometric or repeat patterns

Preparation

Before you can start drawing the patterns, there is one necessary stage – preparing a basswood board. Many woodcarvers say that it is necessary to grind the surface of the wood before you start carving. I cannot agree with this, since the knife will become dull much easier and faster than if the surface of the wood is not polished before carving goes.

First section of the patterns

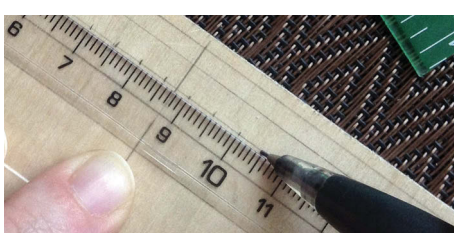
Before laying out the patterns, divide the board in half lengthwise and draw a clear line down the middle of the board. Next, stepping down from the top edge by 5mm, draw parallel lines perpendicular to the centreline to outline each pattern maintaining an even distance between each one. Vary the size of the patterns to gain more experience in layout and carving technique.

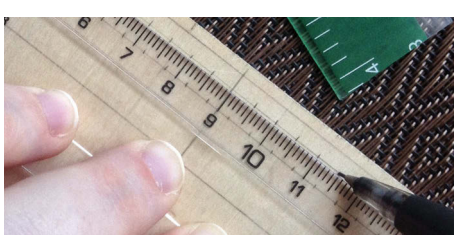


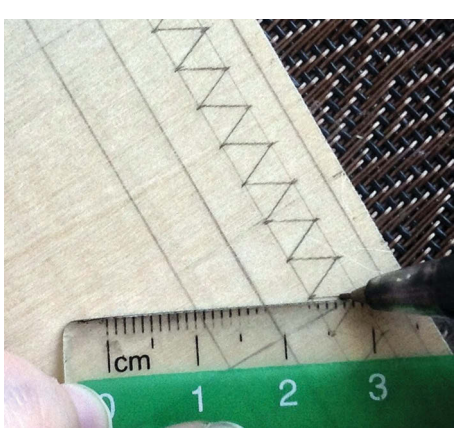
Drawing parallel lines for the patterns

Straight-wall chip pattern

The first pattern to draw is the simplest one in chip carving; a small straight-wall chip. The width between the parallel lines is 5mm and the width of a chip is also 5mm. I prefer not to use additional marks or geometric figures to separate the inner space of the limiting lines. I use dots for plotting and laying down markers then connect them afterwards. Work either side of the centre line as it will help you to maintain an even pattern on the board. Start by placing a dot along the bottom limiting line (the base of a chip/triangle) 2.5mm (equal to a half a chip) either side of the centre line then at 5mm intervals in both directions along the entire base line. Repeat the process on the top limiting line starting from the centre line with an offset of 5mm. Then connect all the dots. Now move on to the second pattern. The width between the parallel lines is 7mm and the width of a chip is 8mm. The offset for the first dots along the bottom line will be 4mm left and right of the centre line then 4mm thereafter. The dots along the top limiting line will be 4mm left and right of the centre line respectively.



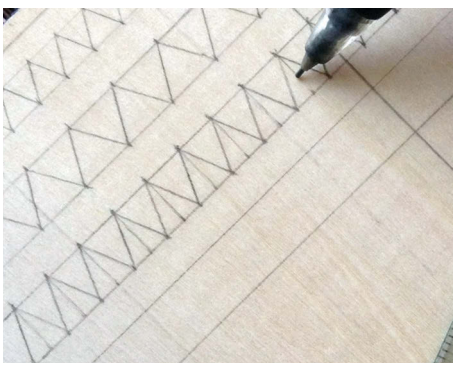




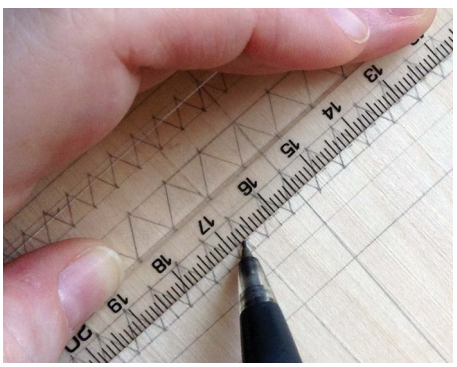
TOP RIGHT: Start with a half chip offset on the bottom line
MIDDLE RIGHT: Use a full width chip offset along the top line
BOTTOM RIGHT: Connect the dots to complete the pattern

Triangle pattern

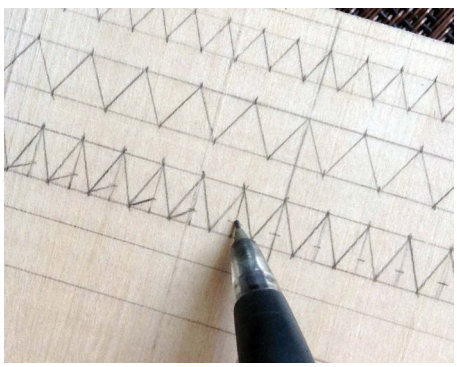
A simple triangle is the next pattern to draw. The parallel lines are 7mm apart and the width of a chip is 6mm. Draw the triangles using the previous technique but this time we're going to add some additional lines that represent the stop cuts for this pattern of chips. Find the centre of each triangle along the bottom line and draw a perpendicular line down from the top of the triangle to meet that point. Then, stepping upwards 2mm from the base of the triangles, mark dots inside each triangle on the vertical lines to identify the deepest point of chip. Then connect the dots at the base of the triangle left and right of the perpendicular line.



Drawing the perpendicular lines for stop cuts...



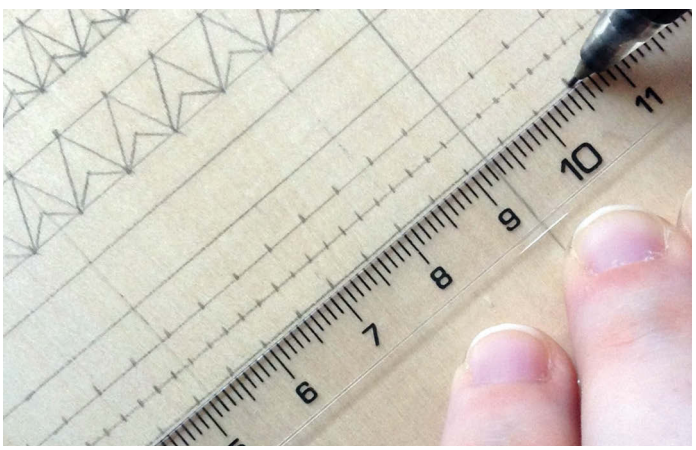
... and dots to find the deepest point of the triangles



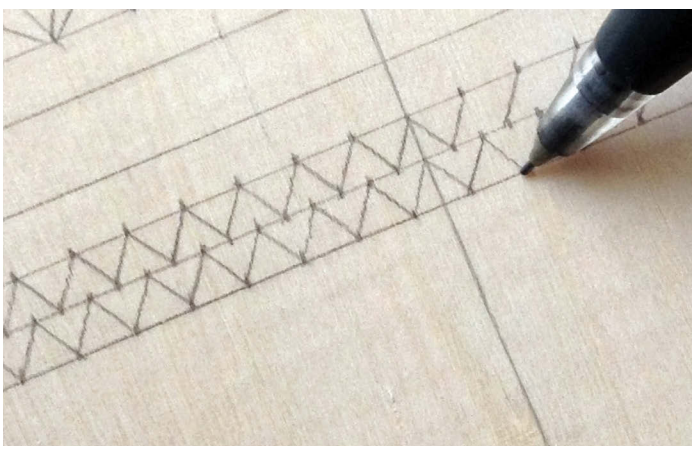
Connecting the dots with the triangles' base

Snake pattern

The next pattern is the 'snake made of the straight-wall chips', as it's called in Russia. The width between the parallel lines for this pattern is 8mm and the width of the chip is 5mm. So, to draw the full pattern, draw a central line between the parallel lines. Then, as shown in the photo below, start marking the dots. For the top line: starting from the central line of the practice board, draw dots every 5mm. For the central line of the parallel lines: start from the centre but make the dots every 2.5mm. For the bottom line: mark a dot 2.5mm (equal to a half of a pattern) on the left side from the central line of the board and a dot 2.5mm on the right side, and then start drawing dots 5mm apart to create a straight-wall chip pattern. Then connect the two identical rows of dots as shown in the picture below.



The grid for laying out the 'snake' uses three parallel lines



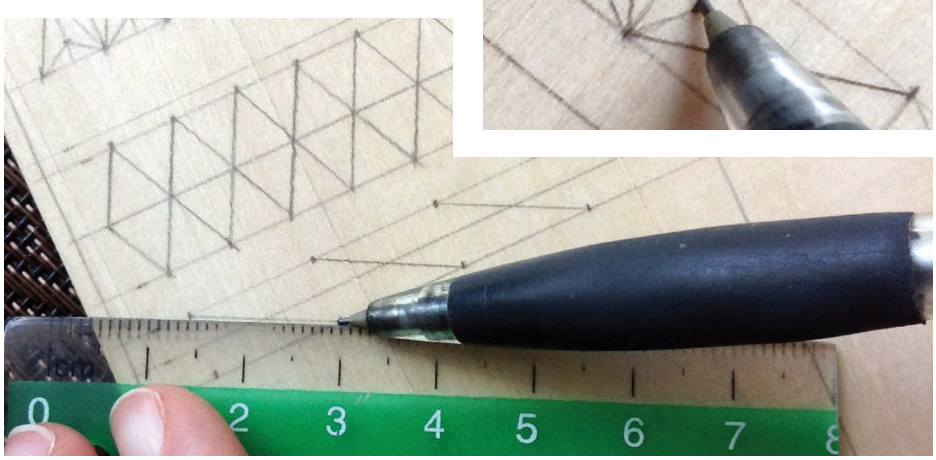
It doesn't become obvious until the dots are joined

Second section of the patterns

The pattern I chose from this section to draw and then to carve is a chain of triangles that are connected to each other by bases. As you can see, this pattern goes along the grain.

Triangle chain pattern

The width between the parallel lines for this pattern is 7mm and the distance between the dots is 14mm (draw an additional central line between the parallel lines in advance for identifying stop cuts). Let's get started with the central line on the practice board: start marking the dots every 14mm on the top and bottom lines, then, connect all the dots diagonally as shown in the photo to the right. Also connect all the tops of the rhombuses with each other. Next, you need to find the deepest point of the triangles: at the base of each triangle, take 2mm steps to the left and to the right of it and mark the dots, then connect them with the bases shown in the inset photo.



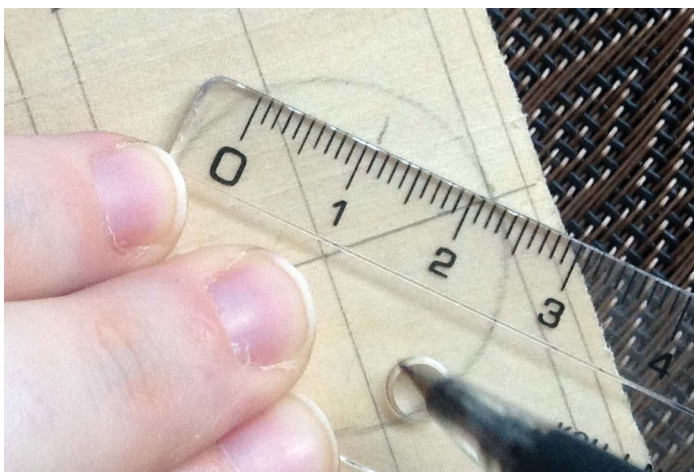
Diagonally connecting all the dots and then (INSET) finding the deepest point of the triangles

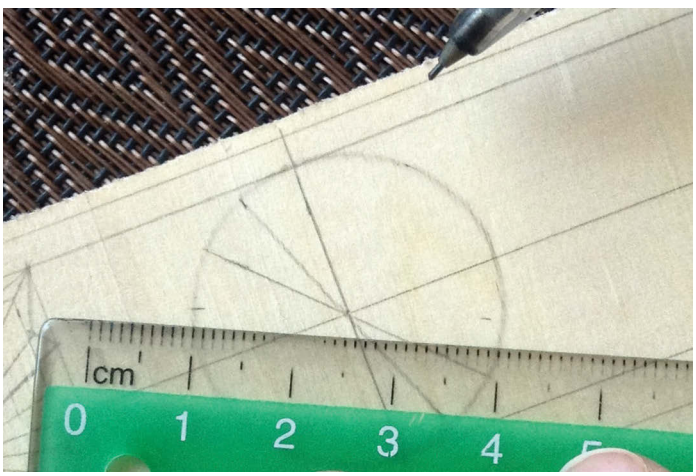
Third section of the patterns

Now we'll move on to a more complex pattern. You might find this tricky to carve because there are chips that go along the grain, against the grain and have different directions on the wood at the same time.

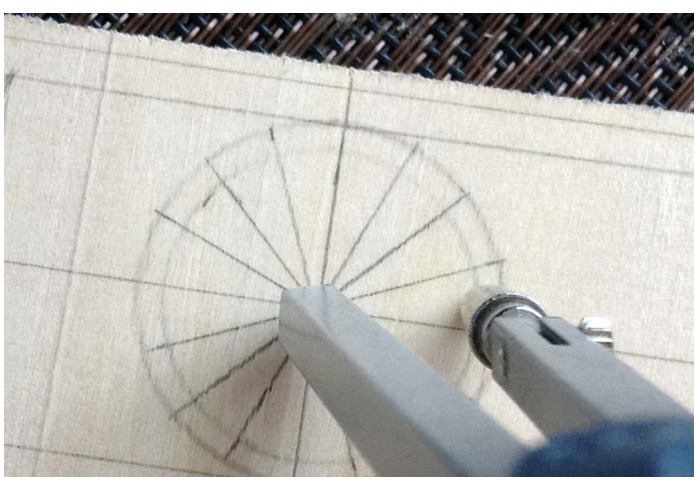
Circle pattern

I chose a circle with 16 three-corner chips for this section. The patterns of this design connect with each other, so you need to control your knife more. The width between the parallel lines for the circle is 30mm, so the radius of the circle is also 30mm. Then find the central lines of the circle, and start to divide these four sections into 16 three-corner chips. Draw a circle inside of this one which is smaller by 2–2.5mm. Then find a centre on the base of each triangle of the smaller circle by eye and connect these dots with the bases. Finally, diagonally connect these dots to create the inner lines for stop cuts.

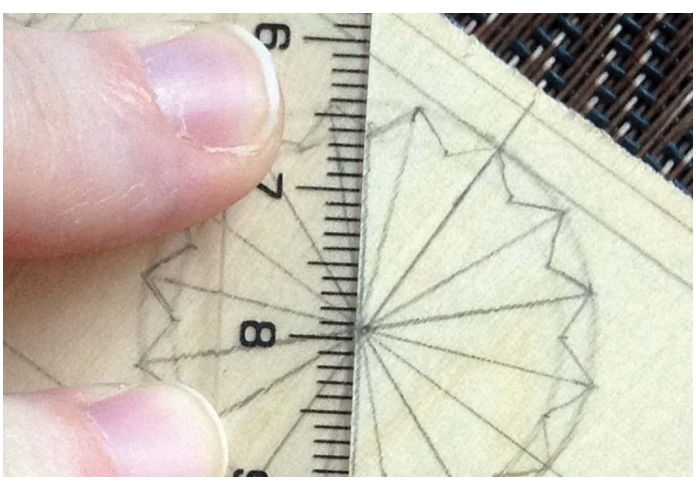




Dividing a circle into 16 three-corner chips



Drawing a smaller circle inside of the bigger one



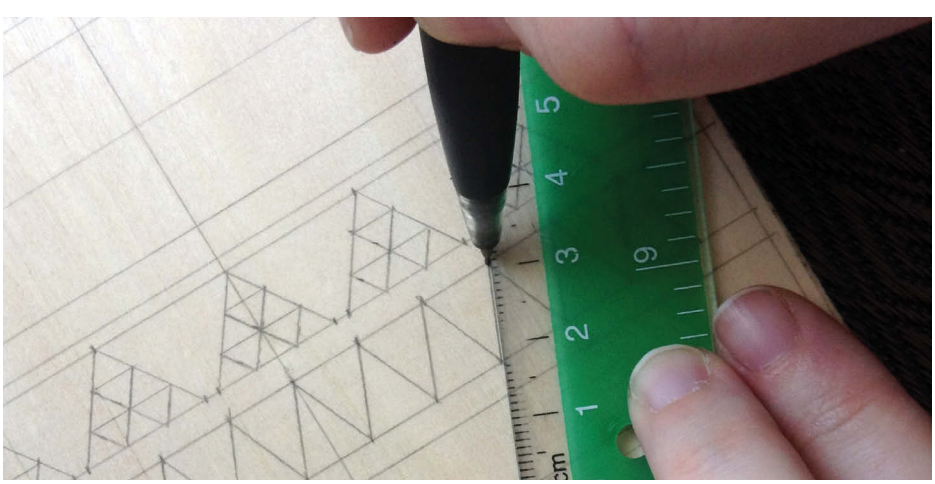
Drawing the lines for stop cuts inside of each triangle

Fourth section of the patterns

The fourth section of a practice board is for multi-level carving. I decided to take one of the basic patterns which is used for creating multi-level carving.

Multi-level carving

The width between the parallel lines for this pattern is 12mm and the width of the pattern is 10mm. To lay it out repeat all the steps for bigger straight-wall chip as described in the first part of this article. F&C



A triangle for a multi-level chip

PART 2: In the next article, Tatiana describes the carving process step-by-step.

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COURTESY OF WORKSHOP HEAVEN

Gimlets galore!

In the latest in our tool collecting series, John Adamson looks at gimlets

David Garrick, the actor and playwright, is said to have been the most portrayed Englishman of the 18th century. In one likeness by Angelica Kauffman, the Swiss artist, we can see a seated Garrick peering out at us. When the actor Ralph Wewitzer was told that the eye of his fellow Thespian could 'pierce a deal board', he quipped: 'I presume, sir, that is what is called a gimlet-eye.' There must have been many who were kept in thrall by Garrick's famously penetrating gaze, captured so strikingly in Kauffman's portrait. But now that the gimlet has been forsaken by many craftsmen the imagery has lost some of its bite and gimlets are seldom found in woodworkers' tool-boxes today.

One of the humblest of hand-held woodworking tools, the gimlet is often T-shaped like a corkscrew but terminates in a very sharp point. It has a shank that ends in a tang fitting into a socket in the head to provide a handle for turning. Nowadays, the gimlet is mostly used to bore small, shallow holes, including those for starting nails and screws. A fine thread at the conical tip draws the tool into the wood as it is turned, without the need to apply much pressure.

History of gimlets

Writing in the late 17th century, Joseph Moxon in his *Mechanick Exercises* outlined the tool's practicality: 'The gimblet [*sic*] . . . hath a Worm at the end of its Bitt. Its Office is to make a round hole in those places of your work where the Stock of the Piercer [i.e. brace or bit-stock] by reason of its own Sholder, or a Sholder, or Butting out upon the work will not turn about.' Diderot and d'Alembert echoed this idea in their *Encyclopédie* in the mid-1700s when they described the joiner's gimlet (*vrille*) as a tool for boring holes when a brace cannot be used.

The French today still use the term vrille for a gimlet, having added a figurative meaning to their word for tendril. Its etymology ultimately goes back to vitis (the Latin for vine). Our English word 'gimlet' seems to have had a former life in the French language: *guimbelet* (1412); *gymbellet* (1534); *giblet* (1549) are all attested, and signified a tool for piercing casks, in other words a kind of wine fret. Alain Rey in his *Dictionnaire historique de la langue française* suggests that the word was a western adaptation of the Gallo-Romance word *wimblequin*, an early form of the modern French word *vilebrequin* (a brace or bit-stock). This is strikingly like the English word 'wimble', defined in the *Oxford English Dictionary* as a gimlet (or an auger or even a brace), and given an Anglo-Norman etymology – and before that a range of cognates in several Germanic languages.

Types of gimlet

Gimlets of all patterns, whatever their application, are essentially augers in miniature – but they have been adapted for working with one hand. Their lead at the tip is in the shape of a cone with a fine thread. The worker is given a fair degree of accuracy as he starts to bore a hole, but needs to bear

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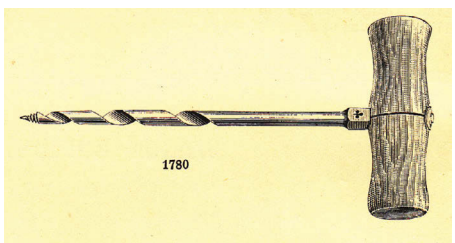
Portrait of David Garrick (1717–1779), painted in Naples in 1764 by Angelica Kauffman

in mind that the point at the end of the thread is very slightly off-centre. The thread acts as a worm as the tip is drawn into the wood. In contrast, ordinary twist drills are much harder to position accurately. The way the hole is cut then depends on the type of gimlet being used.

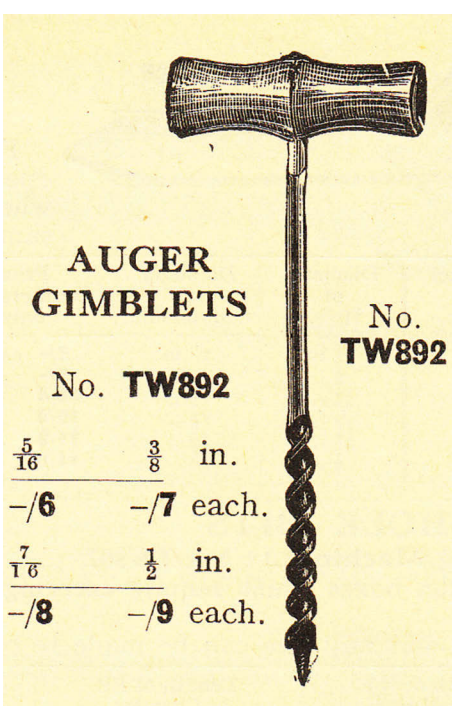
The twist gimlet relies on its threaded tip to start a tapering hole by squeezing the wood while the helical half-round groove that twists around the lower shank serves both to side-cut the wood and clear the waste; it is an ideal tool for making pilot holes for screws or nails.



WILLIAM MARPLES & SONS LTD. 100TH ANNIVERSARY CATALOGUE. 1928

Engraving of a spike twist gimlet with square tang and beech head offered by William Marples & Sons Ltd in sizes from ¼ to ⅝in

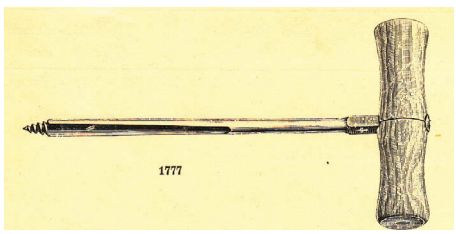
The shell or spoon gimlet (what the great 19th-century tool-maker Charles Holtzapffel dubbed the 'common gimlet') with a side-cutting edge along the length of the stem flute reams a straight-sided 'through' hole. The tool tapers slightly towards the head to avoid friction in the hole. In Holtzapffel's words: 'The principal part of the cutting is done by the angular corner intermediate between the worm and shell, which acts much like the auger … The gimlet is worked until the shell is full of wood, when it is unwound and withdrawn to empty it.'



S. TYZACK, OLD STREET, LONDON EC1. CATALOGUE NO. 679. 1930S

Engraving of an auger gimlet by S. Tyzack, the London tool-makers. Note the old spelling of 'gimlet'

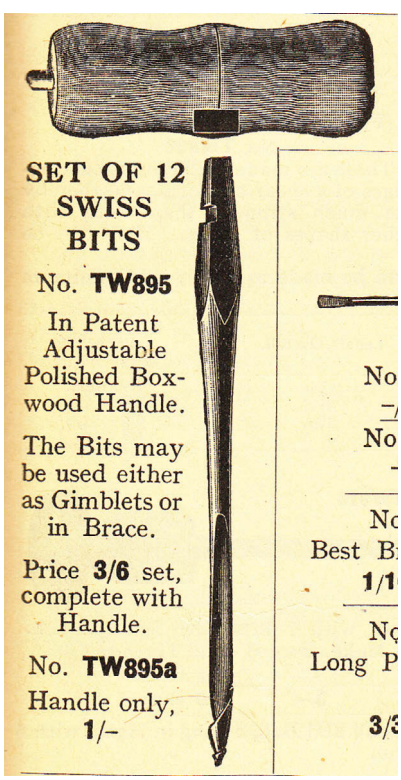
The auger gimlet has two cutting edges forming a double helix. Often the auger gimlet is of the Scotch square-nose pattern with sharp edges to the nose, which in this instance is the bottom of the helix at the junction with the threaded tip. As the gimlet is turned, material is cut from the bottom of the hole and the chips are speedily removed through the helical throat without the frequent need to withdraw the tool from the work. The resultant hole is also straight-sided but smoother than that made with a shell gimlet.



WILLIAM MARPLES & SONS LTD. 100TH ANNIVERSARY CATALOGUE. 1928

An engraving of a beech-handled spike shell gimlet with square tang offered by William Marples & Sons Ltd in seven sizes ranging from ¼ to ⅝in in diameter

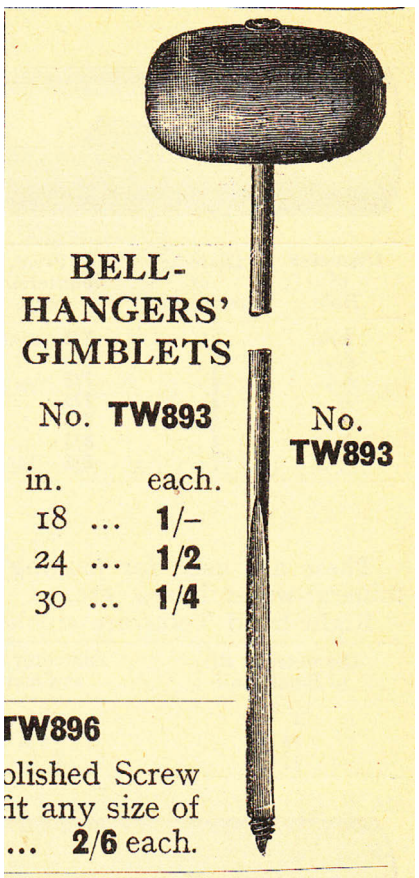
Gimlets have also been manufactured as bits designed to fit into a brace and so are often equipped with a square-tapered tang for insertion in the pad or chuck. There is the huge mechanical advantage here of using a brace, with its greater rotary force applied steadily in one direction instead of the intermittent motion of a gimlet being turned by hand. The Swiss-pattern gimlet bit, or wilk shell bit (as the Scottish makers Alexander Mathieson & Sons liked to call it), has a pod-like shell body with a half-twist tapering off into a screw point, whereas the twist and shell gimlet bits match exactly the patterns of handled gimlets of these types.



S. TYZACK & SON, OLD STREET, LONDON EC1. CATALOGUE NO. 679. 1930S

An engraving of a Swiss-pattern bit by S. Tyzack for use either as a gimlet in conjunction with a boxwood handle or in a brace

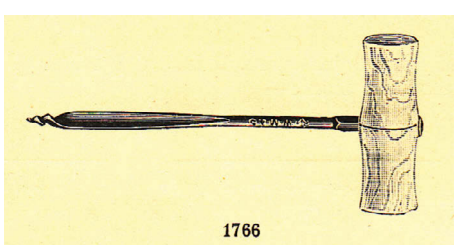
Stemming from these main patterns is a range of specialist gimlets for a variety of tasks. Spike gimlets, for example, are sturdier gimlets of either the twist or shell pattern and are designed to make bigger holes for spikes (i.e. larger nails). In contrast, there are sprig gimlets designed to make holes for small nails with very small heads.



S. TYZACK & SON, OLD STREET, LONDON EC1. CATALOGUE NO. 679. 1930S

Engraving of a bell-hanger's long shell gimlet offered by the London makers S. Tyzack & Son, Ltd in lengths ranging from 18 to 30 in

Bell-hanger's gimlets come with a particularly long shank (some 12–36in long) and are used for making holes in floors and ceilings for the wires of household mechanical bell installations or, more recently, for telephone cables. Spout or gutter gimlets, on the other hand, whether of the twist or shell pattern were made some 9–12in in length and were presumably once part of the kit of the workman installing gutters.



WILLIAM MARPLES & SONS LTD. 100TH ANNIVERSARY CATALOGUE. 1928

The Swiss-pattern square-tang gimlet with boxwood head shown in this engraving from a Marples catalogue h as a shell body with a half-twist tapering off into a conical threaded lead

PHOTOGRAPH BY JOHN JAMES. COURTESY OF DAVID STANLEY AUCTIONS

This wine fret with horn insert in a heavy brass handle was made by the cutlers, edge-tool makers and ironmongers Chaugne, A l'orme Saint-Louis, 30 rue du Tabour, Orléans. A headed and dated invoice held in the municipal archives at Orléans tells us that the firm was active in 1875. The handle may have been used to tap in the spigot

Other kinds of gimlet have long been used in the brewing and wine-making trades. The brewer's gimlet (or spile gimlet), often wittily given a barrel-shaped head adorned with hoop-like rings, serves to bore a vent-hole in the shive or bung of a barrel, which would be stoppered afterwards with a spile or tapered peg. The wine fret is for sampling purposes; it bores a hole in the head of a cask, which is afterwards plugged with a wooden spigot.

Deceptively simple

The remarkable invention of the helical screw is crucial to the way the gimlet works. Long credited to the ingenuity of Archimedes, the first-known mechanical screw, may, according to Stephanie Dalley, the scholar of the ancient Near East, have been known to the Assyrian king Sennacherib (704–681 BC) and put to use to lift water to his palace garden at Nineveh. Not dissimilarly, the spiral groove on the twist gimlet lifts away the shavings as it is turned, as well as side-cutting the hole. The double helix on the auger gimlet likewise makes the shavings rise. We must not forget that the conical worm found at the tip of most types of gimlet also relies upon a thread to penetrate the wood with relatively little effort.

Long used to make the pilot holes for woodscrews, gimlets in earlier times were vital, for early screws, made by hand, were blunt. Making pointed screws by hand was an arduous and expensive task because their thread or worm had to be cut with a special file and were inevitably hard to make perfect. Since lathes could not cut a tapering thread, the first machine-made screws were also blunt and not self-starting. Workmen still had to rely on a gimlet to drill a lead hole. True, the tool-maker had to file the threaded tip of the gimlet by hand, but that required much less work than cutting a threaded tip on every screw by hand. The challenge for manufacturers was to find an economical way of putting a gimlet point at the tip of woodscrews to improve their efficiency.

A flurry of patents in the United States from the late 1830s reflected attempts made by tool-makers to make a gimlet-pointed screw by machine, among whom was Thomas J. Sloan, who patented an effective method on 24 November 1846 ('Making Wood Screws', US Utility Patent 4864), where the thread at the point had the same pitch as on the body of the screw. The American Charles D. Rogers was later to solve how to taper the threaded core into the smooth shank with the thread running out to nothing. The London iron and screw firm of Nettlefold & Son acquired the British patent to Sloan's design (GB 11,991, in 1847) and with Joseph Chamberlain formed a partnership to manufacture gimlet-pointed screws in Birmingham. Chamberlain's son was later to become mayor of Birmingham, and his grandson prime minister.

The handle of the gimlet has varied over time and according to the tool's purpose. At first it was ellipsoid and fitted comfortably in a clenched hand. Many gimlets today are of a T-handle type, but for certain trades in-line handles are used owing to the restricted space in which the gimlet has to be used. One of these is the piano tuner's gimlet. There are also hand-pad gimlets where gimlet blades are fastened in the pad handle, much like a pad-saw blade. Nowadays, wooden handles have often been succeeded by ones in man-made materials. Scotch-eye gimlets come with a hoop at the head to insert a shaped wooden rod for turning. Ring-handle gimlets also exist. For some of these, the wire is gracefully bent round to form the handle. Twist gimlets handled in this style are still made today by firms such as Claude Hamon or Émile Peyron in France, the bent-wire head lending itself to mass-production. Writing in the 1960s, the tool historian William Goodman opined that the gimlet was the last survivor of the auger family still in common use. In today's world of power tools and twist drills, the potential usefulness of gimlets should not be underestimated. Thankfully, modern-day manufacturers of gimlets like Hamon and Peyron, or Star in Japan, are clearly contributing to the hand-tool revival we are witnessing and are helping to bring the gimlet back into wider circulation.

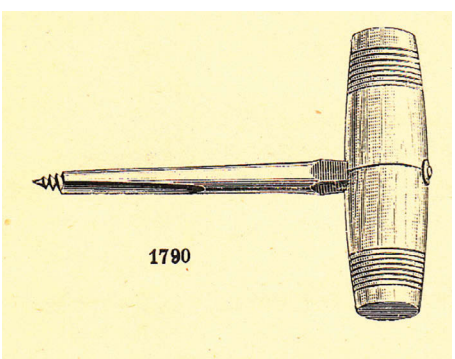
Besides the adventures of Biggles, Captain

PHOTOGRAPH BY JEAN-PAUL MULLER

The worm tip of a French-made twist gimlet from just before the First World War

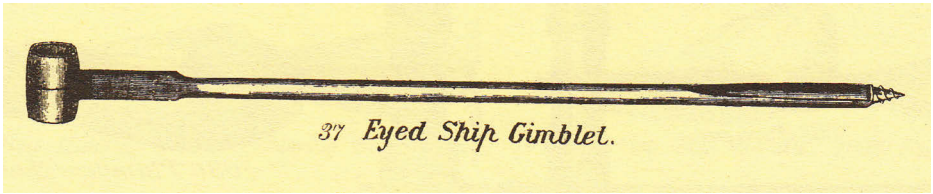
Tips for collectors

1. Gimlets seldom have any great monetary value as collector's items but nevertheless are fascinating in their variety of pattern, size and function.
2. Decorative gimlets seem mostly to be those from the wine-making and brewing industries, where the handles are sometimes very attractive.
3. Ken Hawley and Dennis Watts give a succinct account of gimlets and how Sheffield blacksmiths used to make them until the 1960s in their booklet *Gimlet Patterns and Manufacture*, edited by Tony Waldis and published in 2017 by the Hawley Collection Trust Ltd in association with the Tools and Trades History Society (ISBN 978-0-947673-25-3).
4. Quality gimlets are made today by manufacturers such as Claude Hamon www.traitement-surface-hamon-61.com, Outillage Émile Peyron www.emilepeyron.com in France and Star-M www.starminfo.com in Japan.



WILLIAM MARPLES & SONS LTD. 100TH ANNIVERSARY CATALOGUE. 1928

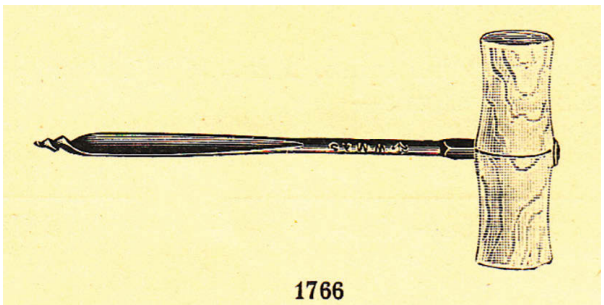
A brewer's shell gimlet by William Marples & Sons Ltd



ALEXANDER MATHIESON & SONS, 1899 CATALOGUE

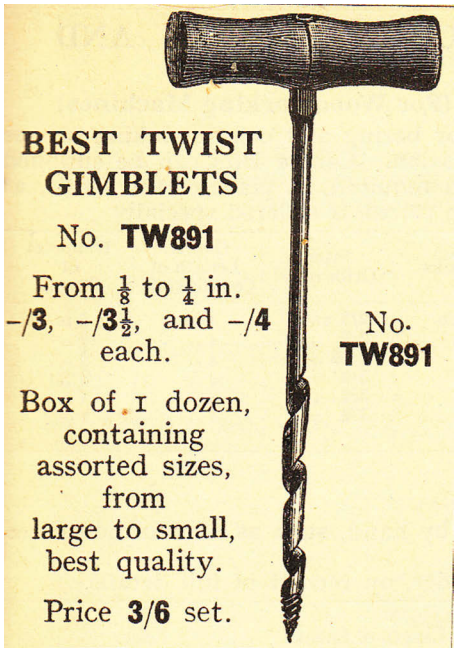
Eyed ship gimlet by the Clyde-based tool-makers Alexander Mathieson & Sons

W. E. Johns wrote another series of books for boys. This was about Captain Lorrington King, the retired leader of a commando troop, who went by the nickname of Gimlet. In a letter addressed 'to every boy who reads this book' and inserted in copies of one of the Gimlet books when put on sale, Johns wrote: 'Gimlet is still on the job – not regularly, but from time to time when something unusual crops up, some nut that cannot be opened by normal diplomatic nutcrackers. Gimlet usually manages to bore a hole in it.' A keen-witted problem-solver, working on jobs in hard-to-reach spots, Captain King was indeed the hero throughout the series. One of the books, published in 1950, was fittingly titled: *Gimlet Bores In*. F&C



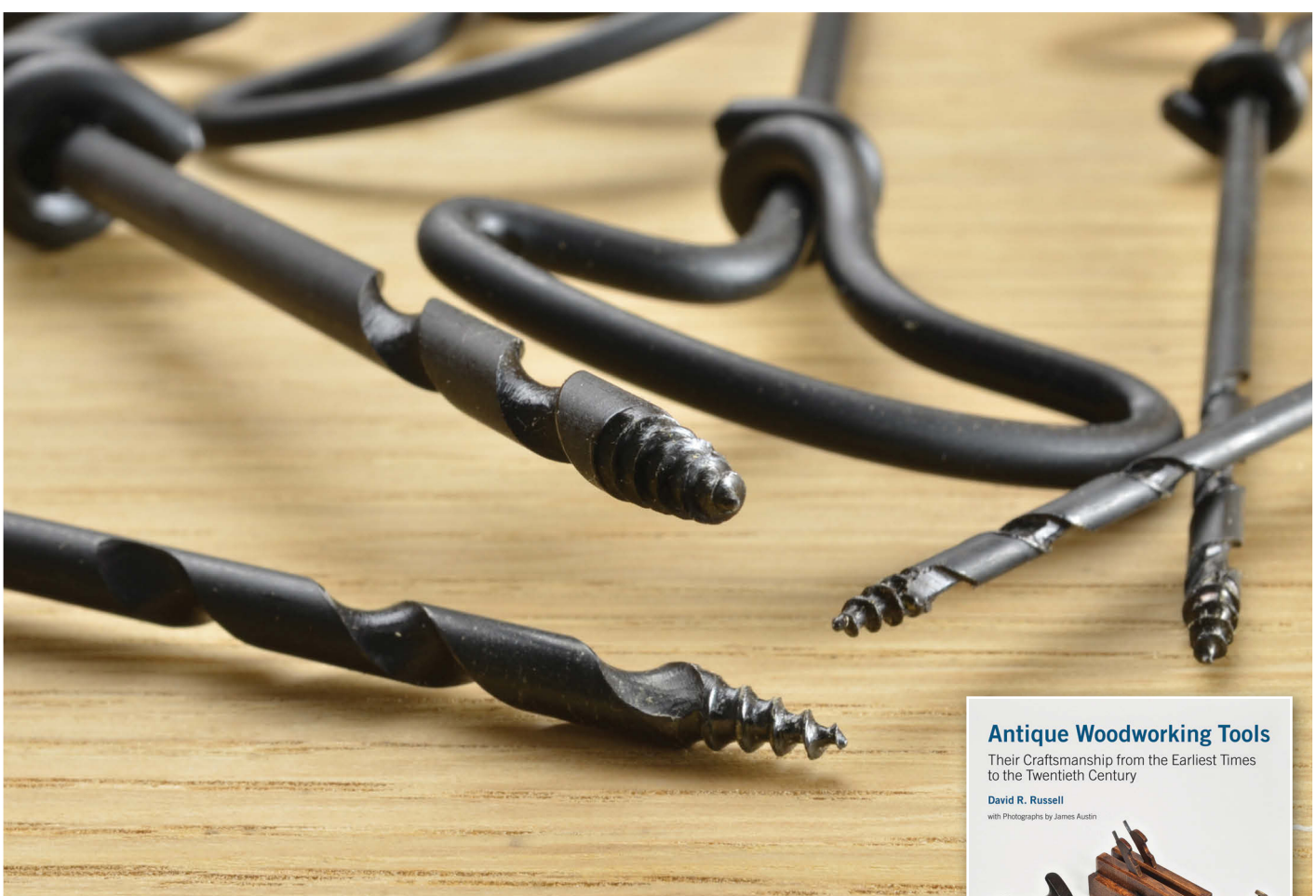
WILLIAM MARPLES & SONS LTD. 100TH ANNIVERSARY CATALOGUE, 1928

Engraving of a wire-handled twist gimlet by William Marples & Sons Ltd



S. TYZACK & SON, LTD. OLD STREET, LONDON EC1. CATALOGUE NO. 679, 1930S

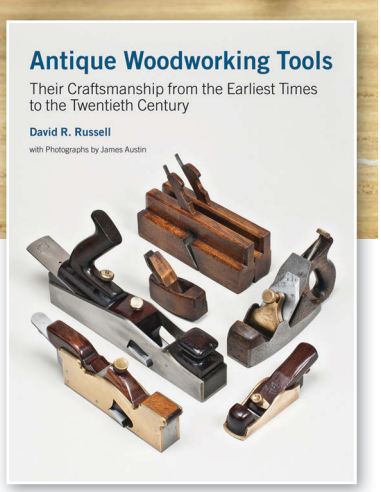
Engraving of a hand-forged twist gimlet by S. Tyzack & Son, Ltd of London, with square tang and boxwood head



COURTESY OF WORKSHOP HEAVEN

A selection of contemporary French-made gimlets available from workshopheaven.com for less than £10 for a set of seven

If you're enjoying our series on tool collecting 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



UNDER THE HAMMER:
The Oak Interior

We look at several lots from Bonhams' record-breaking oak sale

£52,500

A rare James I joined oak coffer, made in Somerset or Devon, dated 1609. It has a triple-plank and end-cleated hinged top and the front features three flush panels. The two outer panels are decorated with an applied arcade enclosing a five-petal demi-flower within a carved and punched-decorated knot pattern. The central panel has a similar arcade with flowerhead-carved spandrels and is centred by the carved date '1609' and the initials 'CR'. The top rail has unusual lunette-carving, highlighted with a five-petal flower punch that is repeated on each arcade. This piece was the top lot of the auction, selling for more than four times its estimated price of £12,000.

Bonhams' Oak Interior auctions include 16th-, 17th- and 18th-century carpenter-made and joined early vernacular furniture. 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 (*Fraxinus excelsior*), elm (*Ulmus procera*), fruitwood, oak (*Quercus robur*), walnut (*Juglans regia*) and yew (*Taxus baccata*). Related works of art, including treen, metalware, carvings in wood and stone, and folk art-related items, are sold alongside the furniture.

The auction on 20 September in the New Bond Street saleroom smashed estimates, achieving more than £1.1 million. The sale of more than 550 lots lasted for several hours, and bidders in the room, on the telephones and online around the globe competed to acquire these superb examples of furniture. Bonhams Senior Specialist in Oak Furniture, David Houlston said, 'It shows that the demand for fine oak furniture continues to be strong, and that pieces with interesting provenance and displaying unusual techniques are sought after around the world.'

The next Oak Interior sale will take place on 28 March 2018. For more information, visit: www.bonhams.com

£4750

An 18th-century inlaid table cabinet, made in Peru or Bolivia. The top, sides and fall are all divided into four reserves and are inlaid with a pair of birds or native cats and dogs on either side of a flowering vase. The interior is fitted with five drawers around a central drawer with an arched facade, inlaid with a figure of a man. The interior of the fall is inlaid with two further figures.

PHOTOGRAPHS COURTESY OF BONHAMS

£6250

A rare and small mid-17th-century joined oak enclosed cabinet-on-frame, made in England ca. 1640–60. With delicate dentil-mouldings below the ovolo-moulded top, the cabinet is enclosed by a pair of doors, each constructed using a traditional central panel, but with the horizontal rails mitre-moulded to simulate narrow panels. There are five slender drawers, three with pairs of mouldings, and the stand has a conforming frieze drawer. The baluster-turned legs each have a small band of dog-tooth carving.

£12,500

An impressive Elizabeth I/James I inlaid boarded desk box on stand, made ca. 1600–20. The sloping lid, front and sides of the box are made from walnut, and the rear board and baseboard from elm. The box is inlaid with various woods including padouk, maple, bog oak and fruitwoods. The slope is decorated with images of a man and a woman in early 17th-century costume reaching for each other's hand, between a pair of stags and a pair of Talbot hounds. The field of the slope and the front board are inlaid with flowers, birds, hearts and roundels. The stand is inlaid and veneered, the sides are decorated with Talbot hounds and there is a drawer on the front frieze. The desk box is raised on a later joined oak stand, which has columnar ring-turned legs and block feet joined by side stretchers.

£13,750

A Charles II joined oak fold-over credence table, made ca. 1680. The semi-circular thick boarded fold-over top sits on a triangular-frame. The canted crescent-carved frieze rails with ovolo chip-carved applied lower rail are raised on three bold ball-turned legs, which are joined by plain stretchers on turned feet. The rear single gate is formed from internal ogee-profiled rails.

£27,500

A remarkable, polychrome-painted oak chest of drawers. The chest was made in the late 17th century and probably painted in the 18th century. It was decorated in bright oil-based paints, primarily in cream and red against an indigo ground, with combing and marbling decoration added to the drawer fronts, and a series of small painted dots on the large end-rounded rectangular reserve to the top.

£1750

A compact mid-17th-century joined walnut draw-leaf table, made in the Netherlands, ca. 1650. The fully-cleated triple-plank top has a conforming draw-leaf on each end. The frieze rails have scalloped lower edges and scroll-profiled spandrels, raised on large and bulbous rising-baluster turned legs, with stop-fluted upper blocks, and joined by run-moulded stretchers.

£31,250

Elizabeth I joined oak three-tier open buffet, made ca. 1590. Each end of the front frieze is carved with the head of a mythical beast and centred by a male mask, along with scrolling flora, vine and acorns. It is raised on a pair of canted front end-supports, both carved as a lion sejant (sitting on its haunches), supporting a scroll-carved shield. There is a gadrooned-carved drawer below, on elegant cup-and-cover front supports, carved with frilly-leaves over reeding and with slightly projected leaf-capitals, joined by a boarded undertier over cable-carved base-rails.

£1250

A rare cabinet-maker signed George II joined oak bureau, made by William Palleday in London, ca. 1730. The central drawer bears a hand-written inscription and signature: 'Wm Palleday at the Sign of the Crown in Aldermanbury London, Cabinet maker'. William Palleday came from an established line of cabinetmakers. His father John was a member of the Joiner's Company, his grandfather William had been Master of the Company in 1679–80 and his great-grandfather Richard had been taking on apprentices in the 1640s.

£7500

A rare James I joined oak, pine, parquetry and penwork-decorated ventilated mural livery cupboard, made ca. 1625. The frieze is decorated with black ink-drawn imitation floral-inlay and corbels drawn with masks, below dentil mouldings. Each door has a row of five spindles above a pine panel, again ink-drawn with a typical Nonsuch architectural design of tall towers and pairs of swans to the foreground, within an applied and carved S-scroll filled arcade raised on carved pillars, and all within chequer parquetry-inlaid rails, enclosing a single shelf.

£5250

A pine boarded chest decorated with oil paintings by the British artist Sir Alfred James Munnings. The chest is painted on all four sides with advertisements for Norman's Rock.

£812

A rare late 17th-century joined walnut and caned open armchair, made in England ca. 1685. The unusual cresting rail is carved with a pair of 'boyes' astride open-mouthed bridled dolphins and centred by a winged-angel mask. The rectangular caned back-panel has pierced and vigorously floral-carved sides, and the fore rail is boldly carved with acanthus leaves. All the uprights and stretchers are spiral turned.

£812

A 19th-century child's crofter-made primitive chair. It is possibly birch, hawthorn or blackthorn, with a pine seat. The back has five horizontal spindles fitted into naturalistic back uprights that are continuous with the seat supports, the latter grooved to take the thin seat board. There is a further spindle to the front of the seat. The rear legs are mortised through each upright/seat support and joined all round to the similar rectangular-section front legs by turned and hand-shaped spindle-stretchers.

£2250

A Charles II joined oak panel-back open armchair, made in Yorkshire, ca. 1670. The back panel is carved with a fanciful flowering vine plant issuing from a gadrooned ovoid-shaped vase. The cresting has a typical double-scroll outline, with leafy-buds and also carved with a fruiting vine and with scroll-carved ears. The back uprights are carved with a single upright plant above the downswept open arms, with a boarded seat and baluster-turned front supports.

£2375

A Charles II joined oak rocking armchair, made in Yorkshire, ca. 1670. This is a double-panel back armchair that was adapted to a wing-sided rocking chair. It has a shallow arched and leaf-carved cresting integral to the S-scroll carved top rail, over a narrow panel carved with stylised flowerheads and a plain panel, with outsplayed flat arms and boarded wings. The later painted seat is above a panelled box-base, on rockers.

£1250

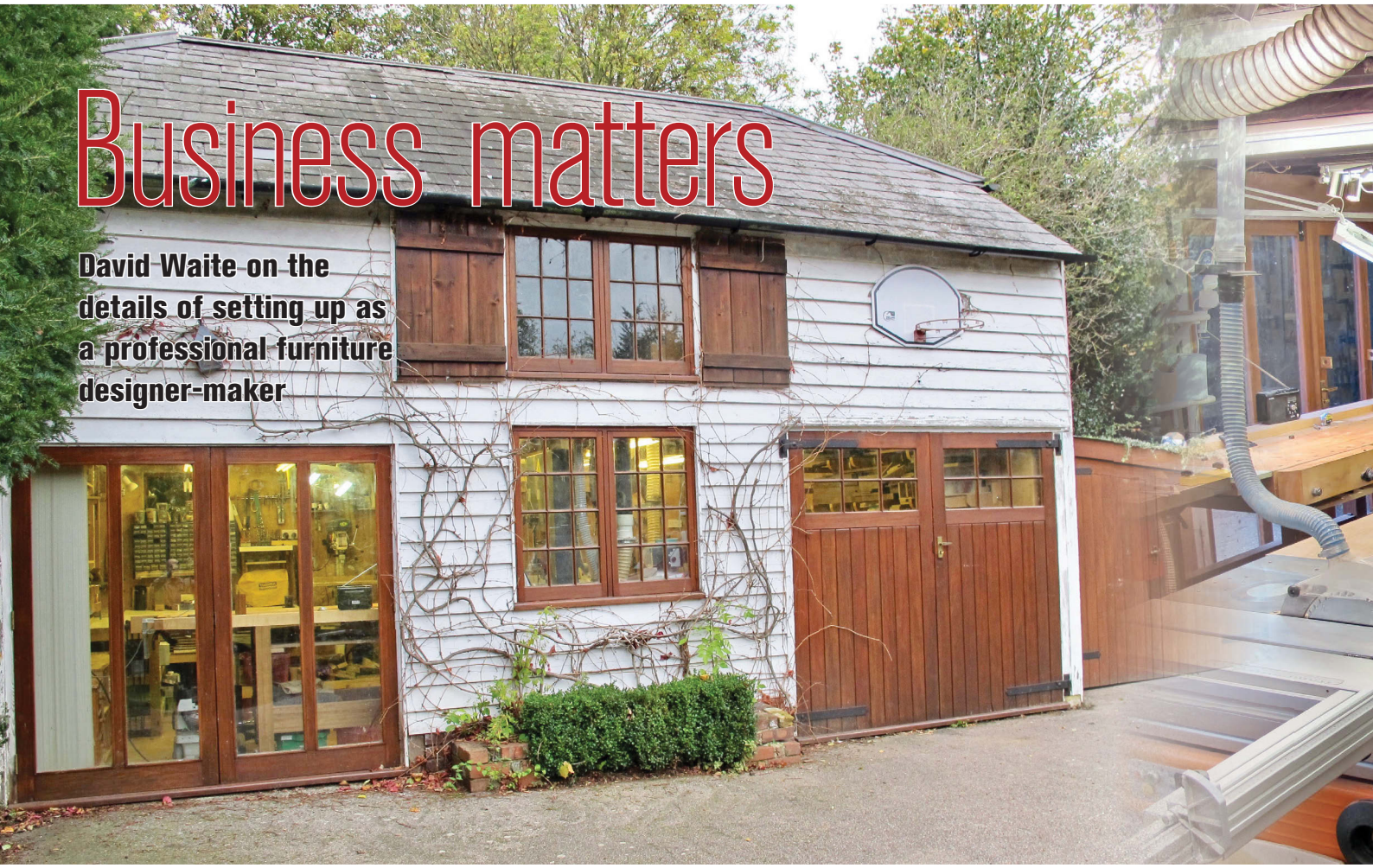
A George III ash primitive comb-back Windsor chair, made in the West Country, ca. 1790. The chair has nine back spindles supporting a double-arched stay-rail with rounded-ends. The two-part bent and outsplayed arm is supported on pairs of square-section spindles and a curved cleft section to the front. The deep elm seat is attached to four hand-shaped and splayed legs, which show traces of green paint.

£13,750

An extraordinary pair of William & Mary joined oak backstools, made in the Lake District, ca. 1690. Each has a figural-profile carved back panel, one with a male on horseback and a lion rampant within a cable-carved oval, the other with a seated crowned female, holding a large bird, again within a carved roundel, and carved to the right-hand side with a pair of birds resting on foliage. It is possible that the carved figures represent William III and Mary II. Both backstools have a scroll-shaped and acorn-leaf carved cresting, and the uprights have unusual hooked-beak bird-head finials. The boarded seat on the male-carved backstool is raised on block and reel-turned front legs, while the other backstool has block and egg-turned front legs. Both have a reel-turned fore-rail and multiple side and rear plain stretchers, and each is stamped with the ownership initials 'MG'.

Business matters

David Waite on the details of setting up as a professional furniture designer-maker



PHOTOGRAPHS BY DAVID WAITE

After the intensity of the final weeks at Waters & Acland in July, trying to finish my last project, and the excitement of my first exhibition in Cheltenham in August, the first week of September found me back at home in Kent, ready to make a go of things as a proper business. Even though I had envisaged reaching this milestone on many occasions while working at my student bench, I have to admit that the cold reality was a little daunting. It took time to work out just where to begin! Fortunately, I had a copy of Alan Peters' book *Cabinetmaking: the Professional Approach* to hand. This book is an excellent reference, setting out all the key areas one should consider in setting up a furniture-making business. Peters also provides a healthy dose of realism as to the challenges faced. As he succinctly puts it, 'at the end of the day, nobody owes you a living; you will have to create it for yourself by your own efforts and the quality of the work you produce.'

Planning

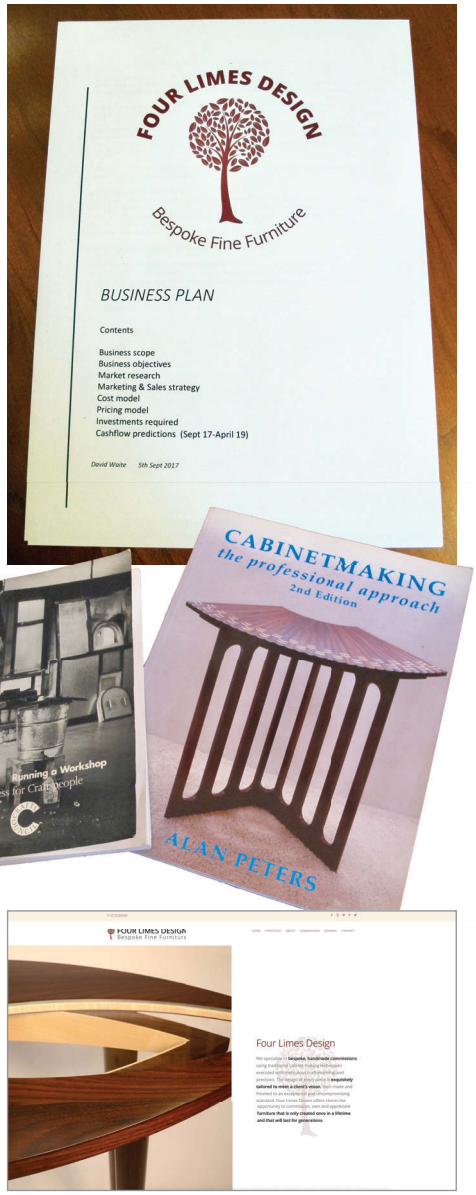
Prompted by Peters' book and another very useful – albeit dated – reference *Running a Workshop: Basic Business for Craftspeople* published by the Crafts Council, my first step was to write myself a simple business plan. In this short document, I laid out the objectives of the business, stating simply where I want to be in six months, one, two and five years, and captured an action plan to define how I will achieve these objectives. I then set about working out my costing and pricing structures, allowing for a modest monthly wage and including a cash flow prediction for the first 12 months of the business. This cash flow prediction includes estimates for all the financial investments that are needed to get the business up and running.

Business structure

Setting up the structure of your business is a topic that can occupy quite a bit of thinking time. Fortunately, there is a lot of free information easily accessible on the web around the pros and cons of the most common business structures, e.g. becoming a sole trader, forming a limited company or entering a partnership with someone else. One of the key factors to consider, whichever structure you settle on, is the associated tax framework. After reading up on the basics, I sat down with several accountants to discuss my options, the services they could provide and importantly the fees they charged. Through these initial discussions, and with my business plan in hand, it quickly became clear that keeping my overhead costs to a minimum was going to be key to my initial success. My cash flow projections also assume a relatively slow ramp up in commissions as I start out and therefore I am unlikely to generate significant income in the early years of my business. As such, any tax advantages offered by adopting a limited company structure are unlikely to be realised and would be offset by the additional costs associated with the company formation and the accountant's fees associated with the necessary tax return. I therefore opted to register as a 'sole trader' (which is what 70% of new start-up businesses do), safe in the knowledge that I can always become a 'limited company' when the business is more established and the tax advantages become more relevant in the future. I also opted not to register for VAT, figuring that the burden of passing on an additional 20% charge to any prospective clients could well put them off commissioning a piece from me. However, taking out a public and product liability joint insurance policy did seem to be a sensible and relatively inexpensive precaution to protect myself against possible litigation should any client injure themselves while visiting me in my workshop, or while using any of the furniture I make for them.

Website construction

I had already made some progress on business matters in readiness to exhibit at Cheltenham, with a good quality business card printed and an active website up and running. For the latter, given I don't have the strongest IT skills, I decided to engage a local website designer to construct my site although there are several excellent do-it-yourself subscription packages available if you prefer. I found it was worthwhile interviewing several different web design studios to find the one that met my needs



and was reasonably priced. In addition to discussing the costs to create a website, it's worth checking what potential vendors will charge for site maintenance, as well as asking questions about the security of their data storage. The last thing you want is to have your website disabled, and inaccessible to potential clients, because of a cyber-attack on the host server.

The one consistent piece of advice I got from all the web design studios I approached was to make sure I had really good quality pictures of my furniture portfolio, as this is key to making your site look professional and slick. I was fortunate to have had excellent pictures taken both at the school and by a local friend. Armed with these, it was relatively straightforward for me to steer the design studio to quickly produce a clean and elegant site that I was very happy with. Coming up with a business name and logo is another important early consideration and I tested several alternatives on friends and family for their reaction before settling on 'Four Limes Design'. It's important to check your preferred name is not already in use by another company and secure it as a domain name for use on your website and other social media platforms.

Publicity

Finding as many ways as possible to show potential clients your work is critical if you are to generate future commissions. That said, it's also very easy to spend a considerable amount on ineffective advertising that brings little return. I decided to allocate a fixed percentage of my annual overhead estimate to promote my work, hoping that a little publicity at the start (when cash flow is very limited) would help sell my work and these sales would in turn generate more cash for publicity in the future. With a budget fixed, I then allocated it against specific publicity opportunities including two exhibitions in the coming year. In addition, I invested in some online publicity via my website utilising key word search advertising and in addition to my business cards, I had high quality A4 tri-fold leaflets designed and printed with the intention of targeting affluent areas in my local vicinity for a doorstep letterbox drop campaign. My final approach was to advertise my business on my Land Rover, and for a surprisingly modest outlay I was able to have an eye-catching transfer of my business name, logo and contact details designed and applied, thereby generating constant advertising for the business whenever I am out and about on the road for both business and pleasure.

Setting up shop

With the business basics worked out on paper, my final step to launching the business was to take a critical eye to my workshop. I needed to separate the costs associated with running the workshop from the private household, and I will take regular meter readings to measure utility usage associated with it. I have also made a complete inventory list of my equipment (needed for business insurance purposes) and ensured a depreciation rate over a 10-year period was included in my overhead costs to allow for the replacement of tools and machinery in due course. Effective layout of my one-man shop has been an evolving process over many years and may well feature as a separate article for this magazine in the future.

I am very fortunate to already have sizeable and well equipped, two-storey premises based at my family home so I do not have the significant burden of paying rent as one of my ongoing overheads, nor do I need to make any major capital investments for equipment for now. That said, I did make a few tweaks based on my experience at the furniture school, adding new dedicated bench space for sharpening, a separate station for mixing glues and a new bag press table. In addition, I invested in new tooling and a ring fence for my spindle moulder to extend my ability to do curved production work. With these new additions and upgrades and with freshly sharpened blades in hand, I was now ready for my first commission. F&C

Tricks of the trade... ...sanding blocks

Ramon Valdez shares his tips for making precision sanding blocks

PHOTOGRAPHS BY RAMON VALDEZ

When it comes to woodworking, I think we can all agree that sanding is everyone's favourite part! No?! I realise that there are many ways to minimise sanding, but inevitably, we have to do it. I've been making these little blocks with Velcro (self-adhesive hook & loop) for a number of years now, and, as my collection grows, I'm starting to have the appropriate curve or radius just about every time I need to sand a curved part. Like the crest rails or chair backs that I made recently; the inside radius of the chair backs was 30in and I just happened to have one. Progressing through the proper grits, I was able to achieve smooth inside curves and prep the crest rails ready for lacquer.

Making the sanding blocks is straightforward. Lay out the desired curve, and make the cut at the bandsaw. I sand to the line at the edge sander to remove all bandsaw marks, remove the dust with an extractor, then add the self-adhesive hook & loop. I typically have small sections of the corresponding sandpaper, usually intended for my 6in air sander. I can cut these into the required strips, slap them onto the cauls and quickly make the perfect sanding blocks. Once made, you can effortlessly progress through finer grits of sandpaper, trading out grit sizes and utilising the same sanding block. I've even used PVC pipe after discovering that the inside radius of the plastic pipe was a perfect match to the convex edge (top and bottom) of the crest rails for a set of nine chairs. That's 18 edges that sanded beautifully and quickly using this little trick. Make yourself a few – you'll be pleased with the results. A Google search of 'self-adhesive Velcro' or 'hook & loop rolls' will yield many results and options to purchase. Happy sanding! F&C

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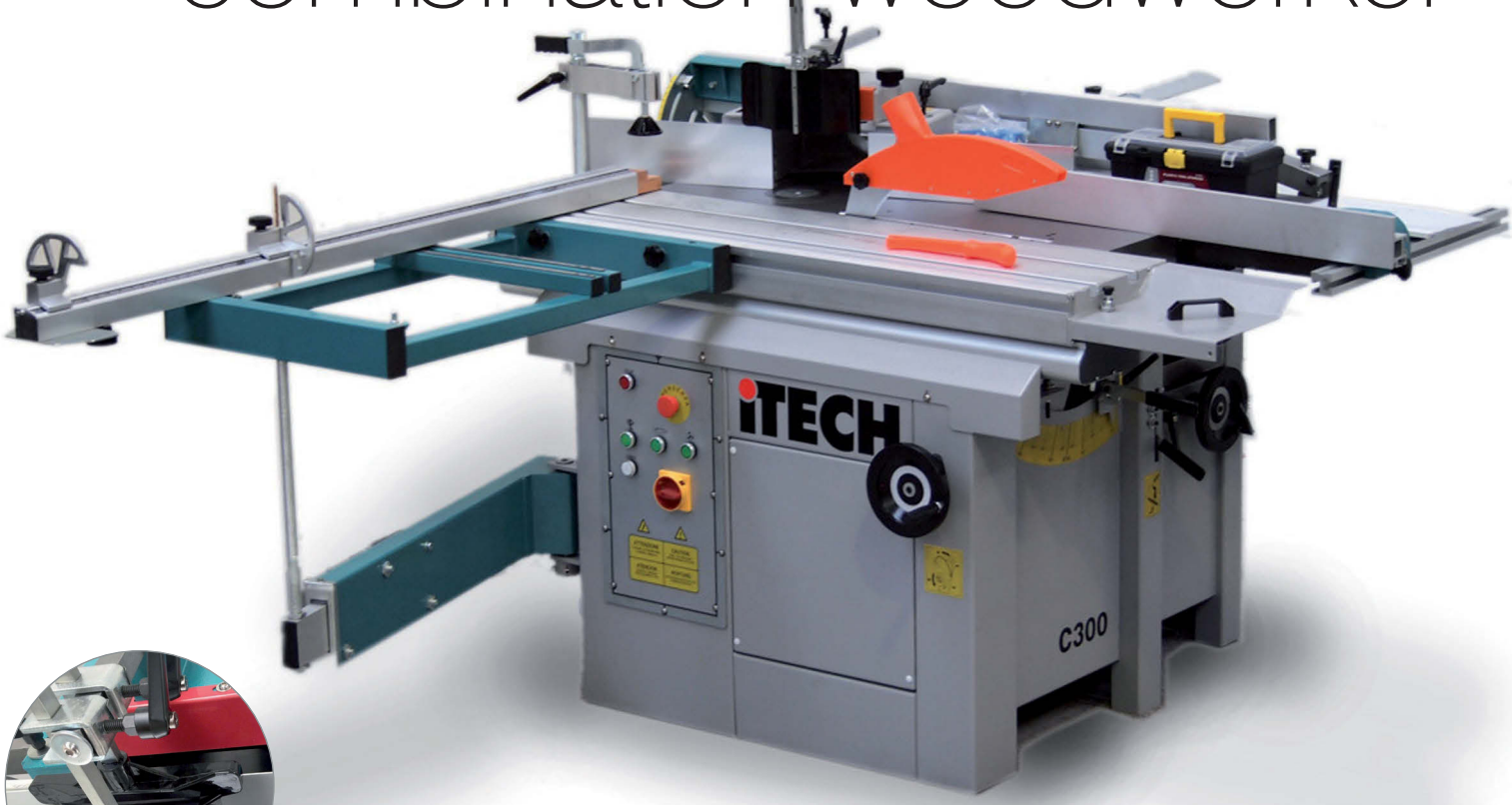

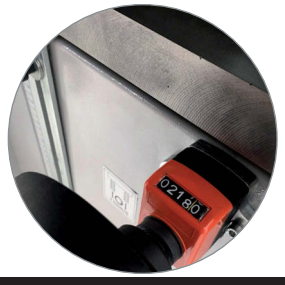

The C300 Universal Machine is the latest addition to the iTECH family. It has been designed to have industrial quality features combined in a size intended for the small professional workshop or home user.

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

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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
Veritas bench chisels

I can't remember the last time we tested anything to the point of destruction in *F&C*, apart from glue lines and joints of course, but here's an example of what happens when, inadvertently, we do. I've had a set of O1 tool steel Veritas Bench Chisels for a number of years and they have performed their little socks off to the point where, for everyday use, I rarely pick up anything else. Such is the 'go to' nature of our union that without thinking, I put them to use chopping out the ends of some deep, blind mortises in ash to accommodate some Bench Crafted vice hardware. When I'm chopping out dovetails or other small-scale joinery I use a 375g Japanese-style Genno hammer to deliver the killer blows necessary for effective progress. I find it a good weight and size with sufficient mass to drive the chisels through hard woods but not so heavy as to become unwieldy in less demanding circumstances. This unlikely combination is left over from a time when I predominantly used Japanese hooped chisels. I can't remember why or when I made the transition to using Western-style chisels but the hammer clearly didn't get the memo. In the scheme of things this might not be a problem for general light work but for heavy-duty stuff it clearly was. While it's easy to look at the split handle and question the merits of torrefied maple, I don't for a second believe that was to blame. My hunch is that the user had pushed the tool beyond its limits and suffered the inevitable consequences. The moral being: get to know your tools' limits. If you're wondering what was happening at the sharp end of the chisel while all this splitting was taking place, I'm happy to report that no significant signs of wear and tear were recorded on the O1 tool steel. Furthermore, Lee Valley replaced the handle (plus a spare) free of charge.

From: www.veritastools.com

From £65

Cordless, brushless LXT router/trimmer

Makita's new 18V cordless router/trimmer has a low-energy, high-performance brushless motor that runs between 10,000 rpm up to 30,000 rpm with variable speed by control dial, and features a constant speed control. There are two available collet sizes (⅜in and ¼in), while alternative bases offer a 0–40mm plunge capacity with the trimmer base, and 0–35mm with the plunge base. Three different model options are available, with varying extras incorporated; including tilt base, offset base, straight guide and trimmer guide. A spindle lock and dust extraction nozzle is standard with all three versions.

While the machines themselves have obviously been designed for greater mobility and convenience, using them without adequate extraction is not something we'd recommend, which begs the question; if you're going to be trailing a hose then why not a lead as well?

From: www.makitauk.com

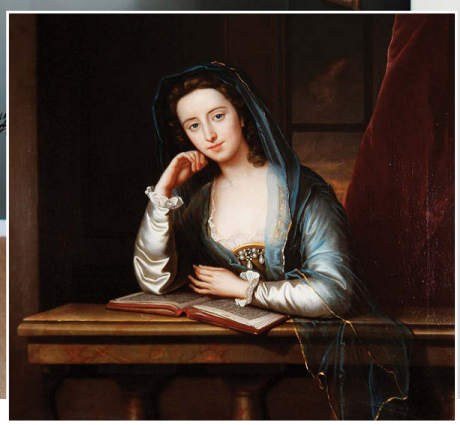
Whipple hook

Modelled after a bench hook patented in 1900 by Rollin P. Whipple, this simple one-piece fitting lets you add a pair of useful stops to a workbench or job-site work surface in the time it takes to drive two screws. The horizontal face functions as a 1¾in wide and up to 7/16in high stop for planing material ½in thick or more, holding your stock in place without obstructing the tool. To secure work held vertically, you can brace stock against the 1⅜in wide stop on the front face, or use it much like a crochet to capture panels up to 9/16in thick behind it. The height of each stop is easily adjusted with the addition of a third screw. Both faces have toothed edges to help prevent your workpiece from shifting.

It looks rather crude but by their very nature simple things don't have to be sophisticated. I haven't tried it yet but I suspect it would come in handy for use on a sticking board for use with moulding planes.

From: www.leevalley.com

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.



Oil painting of Clara Le Heup by John Giles Eckhardt. After Clara married Peter Le Heup in 1722 they lived together in Albemarle Street, Hanover Square. Their daughter Elizabeth also married a Huguenot

Out & about:

The Huguenot Museum

This month we visit Britain's only museum dedicated to Huguenot history

If our article on English cabinetmaking's golden age (see page 24) has sparked an interest in the Huguenots, then a trip to Kent may be in order. The Huguenot Museum in Rochester, Kent presents the history of Britain's first refugees; the crafts, trades and skills they brought with them; and the impact their contribution has had on the development of our country.

History

The Huguenot Museum was established as a trust and registered charity in 2014. The motivation for creating the museum was to showcase the collection of the French Hospital, a charity which was founded in 1718 to help poor Huguenot refugees. The French Hospital in Rochester still provides accommodation for Huguenot descendants in need to this day.

With the help of a grant from the Heritage Lottery Fund, along with private donations, the first floor of the Visitor Information Centre on Rochester's historic High Street was transformed into the Huguenot Museum.

What to see

Objects on display at the museum's three galleries include oil paintings, furniture, silverware, documents, silk samples and personal items, such as a miniature prayer book that could be easily hidden from the French authorities. Many pieces can be viewed on the museum's online catalogue, which includes details about materials and makers. The museum's archive room is a wonderful resource for Huguenot history, containing original manuscripts and books as well as online family history resources. In addition to the permanent collection, there is a range of workshops and craft activities.

Watercolour portraits of the Vaillant family. Paul Vaillant (1716–1802/3) was a bookseller. His father was a Huguenot refugee who settled as a foreign bookseller in the Strand. Paul married Theodosia Whichcote (top) in 1760. They had two daughters, Letitia (left) and Frances (right). Paul continued the family trade, both publishing and printing

PHOTOGRAPHS COURTESY OF THE HUGUENOT MUSEUM

PHOTOGRAPH BY TONY BAGGETT/SHUTTERSTOCK.COM

Former homes of Huguenot silk merchants in Spitalfields, London

The Huguenots in Britain

The Huguenots were French Protestants, mainly from northern France, who were inspired by the writings of John Calvin and endorsed the Reformed tradition of Protestantism. Their history in France was tumultuous as some kings were tolerant and allowed them to practise their faith under controls, but others were not and persecuted them. Under King Louis XIV, many of the Huguenots' privileges were taken away and in 1685 the Edict of Nantes, which had allowed the Huguenots to worship, was revoked. Consequently thousands of Huguenots left France, heading to the Netherlands, Germany, Switzerland, Scandinavia, North America and South Africa.

Around 50,000 Huguenots moved to England where they were generally given a warm reception. In 1687, James II granted freedom of worship in England. The Huguenots brought their valuable skills in finance, industry, medicine, arts and crafts with them. Many of them settled in London, particularly Spitalfields, where they established a successful silk weaving industry. Other crafts they practised included hatmaking, goldsmithing, printing, bookbinding, watchmaking, jewellery making, paper making, gunsmithing and, of course, cabinetmaking. In each area, they brought a level of skill and expertise which revitalised British industry.

IMAGE BY EVERETT HISTORICAL/SHUTTERSTOCK.COM

The Fugitives **depicts Huguenot refugees fleeing France after the 1685 Revocation of the Edit of Nantes of 1598**

Where else to see … Huguenot life and history

- **Dennis Severs' House** 18 Folgate Street
  London, UK
  www.dennisseversshouse.co.uk
- **French Protestant Church of London**
  London, UK
  www.egliseprotestantelondres.org.uk
- **Historic Huguenot Street**
  New Paltz, NY, USA
  www.huguenotstreet.org
- **Le Musée du Désert**
  Mialet, France
  www.museedudesert.com
- **Le Musée Virtuel du Protestantisme Français**
  Online museum
  www.museeprotestant.org

Information for visiting

Address: 95 High Street, Rochester, Kent ME1 1LX
Website: huguenotmuseum.org
Opening: Wednesday–Saturday: 10am–5pm; Bank Holiday Mondays: 10am–4pm; closed Sunday–Tuesday and over Christmas and New Year
Charges: Adults: £4; concessions: £3; family ticket: £10
Information correct at time of publication, check the museum's website before making your visit

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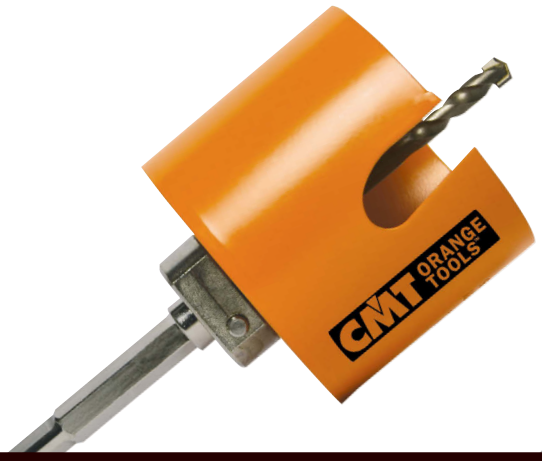

Jig saw blades

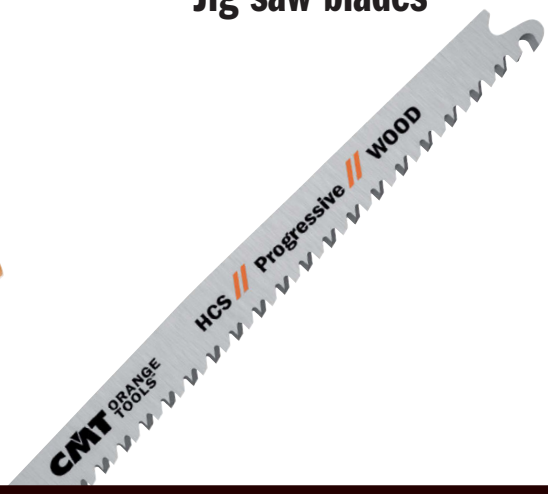

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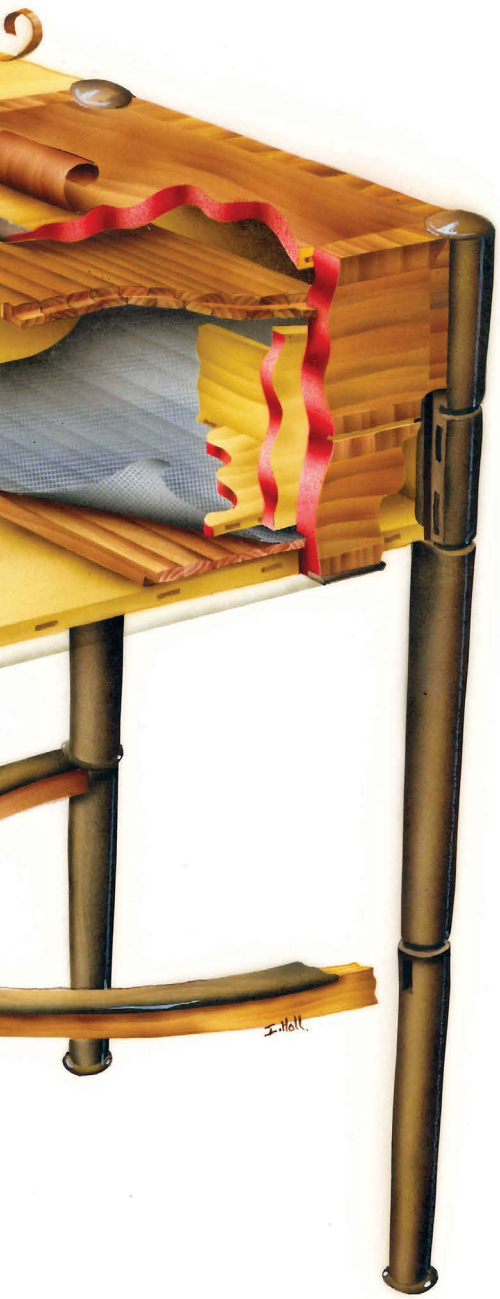
ILLUSTRATION BY IAN HALL/GMC PUBLICATIONS

An airbrush with the past

Derek Jones dips into the *F&C* archives for this ebony desk



Albeit a sponsored commission, Richard Williams' desk was in every respect a speculative piece made not for one client but with a view to attracting lots of new ones. Already two years old before it appeared in the May 2004 issue 88, Richard hints at the cost of making it to be around £30k; a figure that sounds like a lot but is probably only a fraction of what it would cost to make another one, if indeed it were possible. Made almost entirely out of Macassar ebony (*Diospyros celebica*) from old stock bought from a retiring cabinetmaker, it's unlikely you'd be able to source the material again in the solid.

You wouldn't know it but the desk was designed to be easily dismantled and reassembled for exhibition. Towards the back of the cut-away section in the foreground of the drawing there are some fixings that suggest how this was done. The two pedestal ends are separate from the middle section making three sections in total. There's a lot of traditional style joinery in the construction as well as more modern elements like the Dominos and even some ply for the carcass frame. If there's one thing plywood does better than solid timber, it's remaining stable in all directions. Ian Hall, the illustrator, has done an excellent job showing the number of individual components in the piece, even down to the number of laminations required to form the leg braces.

But there's one small, crucial detail missing. At the base of each leg there's an adjustable pad disguised as a bead contained within the cylinder so the desk could be levelled if displayed on uneven ground. It was something that Richard felt was necessary at the time but in reality the structure turned out to be so rigid that as long as five or six of the legs are in contact with the ground, the desk stands firmly.

My favourite detail, and again it's not one you'd go looking for, is the construction of the middle drawer; a solid piece of Macassar attached to the ends of the maple (*Acer campestre*) drawer front to allow for contrasting dovetails. F&C

Next month

Next month we'll be going back but also slightly forward to issue 92 and September 2004 for a look at Gary Dingle's glazed cabinet.

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Trestles, chests and sloping shoulders

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