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WOOD WORKING

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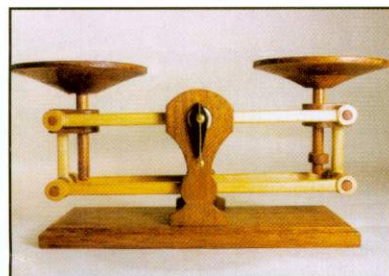
Bosch GAS 12-50RF
dust extractor

WEEKEND PROJECT

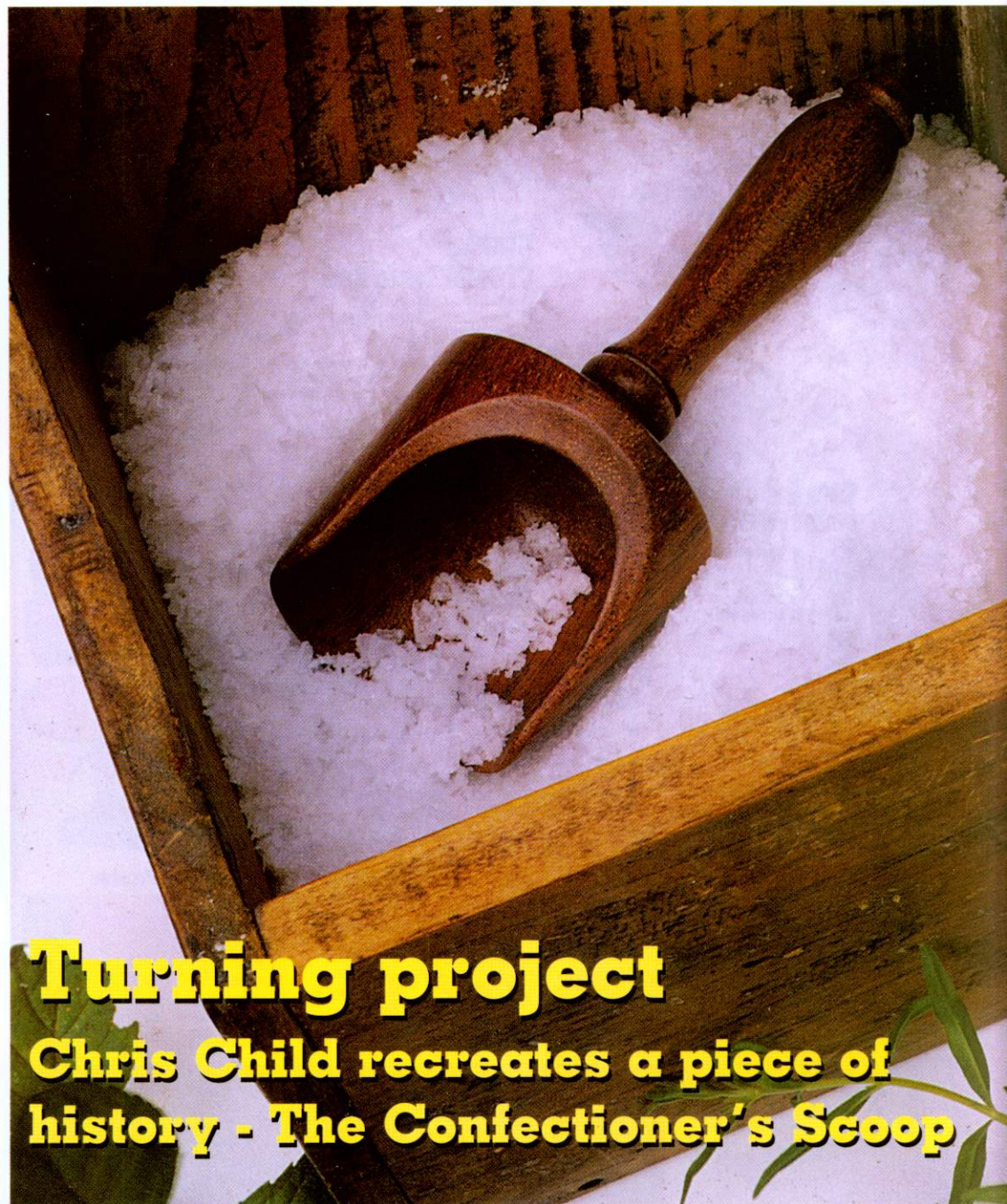


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Vol 32 No.9 15th Aug 1997 £2.35

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Don't forget to make a note in your diary to visit our two exhibitions during October. The International Woodworking and Turning Exhibition is being held at the NEC, Birmingham from October 3rd - 5th, whilst the International Woodworking and Furniture Exhibition is being held at The Ascot Exhibition Centre from October 24th - 26th. Come along, there will be lots of bargains to buy, competitions to enter, demonstrations by experts from around the world and displays of work from most of the country's leading woodworkers and furniture makers. There will be something of interest for everybody whether amateur, enthusiast or professional craftsman. Do you want to save money? Contact our telephone advance ticket hotline - 01442 244321 and check out the bargains.

Peter Roper
Editor

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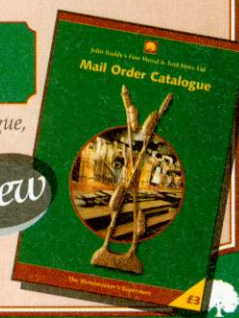
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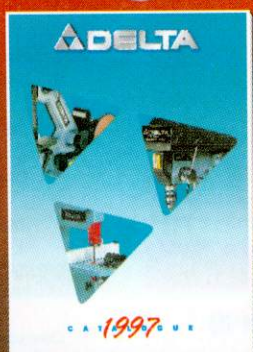
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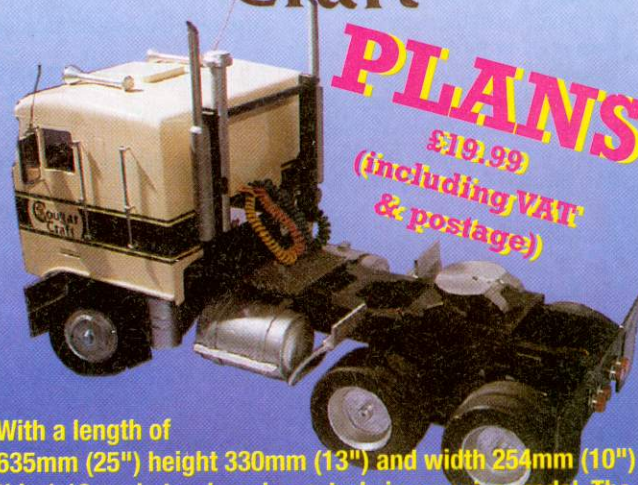
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WORLD'S LARGEST CARVING?

A record was unveiled at the recent Three Counties Showground, nr. Malvern in the form of a carved mural, believed to be the largest of its kind in the world.

The giant woodcarving commemorates 200 years of farming in Herefordshire, Worcestershire and Gloucestershire. It measures 60ft. x 14ft. and was created by a team of 12 craftsmen, known as the Blackmore Park Carvers, who represent the Gloucestershire region of the British Woodcarvers Association.



WEIRD AND WONDERFUL WOOD

Woodworking techniques in almost every practical form were demonstrated to fellow enthusiasts and their families at the annual Weird and Wonderful Wood Show in Suffolk.

Visitors could sit in Adirondack garden chairs and listen to the sounds of wooden drums, or let their children pick up some skills in a waste-wood workshop or step into the shade of an elegantly designed yurt. In addition there were furniture makers of all kinds, turners and carvers, timber suppliers and toy makers.

AWGB EXHIBITION

Wonders in wood was the theme

of the 10th anniversary exhibition of the AWGB at Warwick University recently. It was a celebration of the woodturners art and craft.

The exhibition made visitors think again about woodturning just being about bowls and spindles, it showed that turned wood can be as sculptural and artistic as ceramics, glass or metals as well as beautifully functional. Traditional work such as spinning wheels, Windsor chairs and four poster beds were featured along with examples of more decorative and artistic work. Many of the items on display will be featured on the Practical Woodworking stand at the International Woodworking and Turning Exhibition, NEC, Birmingham 3rd-5th October.

YANDLE EXPANDS

Timber merchant and craft supplier, Yandle and Son of Martock, Somerset is opening a completely new shop for the woodworker.

It will include a major woodworking machinery section, hand and power tools, large stocks of finishes, greatly increased planking, bowl blanks and general timber store.

The existing shop will be turned into larger galleries as well as an improved dolls house and miniatures shop and tea room.

The new woodworking centre will be opened at the company's Woodworking Show on 5th - 6th September.

1997 INTERNATIONAL WOODWORKING & TURNING EXHIBITION

4th - 6th October

Held at NEC, Birmingham. Includes demonstrations, tools, lectures competitions and bargain buys.

Details from: Exhibitions Department, . Tel: 01442 66551

1997 INTERNATIONAL WOODWORKING EXHIBITION

24th - 26th October

Held at Ascot Exhibition Centre, Ascot, Berkshire. Includes demonstrations, tools, lectures competitions and bargain buys.

Details from: Exhibitions Department, . Tel: 01442 66551

NORTHERN TOOLS AND ACCESSORIES

Series of exhibition and demonstration days where visitors can try before they buy everything to do with woodworking including routers and cutters. Open 9am-6pm.

3rd-4th September

5th-6th November

Further details: 0191 2652821

JOHN BODDY'S FINE WOOD AND TOOL STORE

Free demonstrations held at Fine Wood and tool Store schoolroom. All start at 10am and finish about 3.30pm.

23rd & 24th August

Sign Making with Ted Heathcote-Walker

30th & 31st August

Finishing with Alan Waterhouse

6th & 7th September

Woodturning with Phil Reardon

13th & 14th September

Woodcarving with Dave Johnson

20th & 21st September

Gilding with Pamela Everitt

4th & 5th October

Woodturning with Tim Hope

11th & 12th October

Finishing with Stephen Hardcastle

18th October

Demonstration with Robert Sorby Ltd.

25th & 26th October

Routing with Ted Heathcote-Walker

Further details: Tel: 01423 322370

PETER CHILD DEMONSTRATIONS

Series of woodturning demonstrations and courses. Start at 10am and 2.30pm for a duration of about an hour.

20th September

18th October

15th November

20th December

Further details:

Tel: 01787 237291

THE ROCKING HORSE SHOP

Fangfoss, York, YO4 5QH.

6th September

Open day for all woodworkers, restorers and enthusiasts. Workshops, showroom and museum will be open from 9am - 4pm. Refreshments available.

Further details: 01759 368737

ISAAC LORD

Series of demonstrations and teach ins at tool showroom, 185 Desborough Road, High Wycombe HP11 2QN.

30th August

13th September

27th September

11th October

25th October

6th December

20th December

Further details:

Cliff Rayner

Tel: 01494 462121

YORKSHIRE WOODCRAFT SUPPLIES

Series of demonstration days held at Finkle Street, Cottingham, East Yorkshire HU16 4AZ.

13th September

15th October

15th November

13th December

Series of woodturning clinics on:

2nd August

6th September

4th October
1st November
6th December

THE 1997 HOBBY'S ANNUAL HOBBIES WEEKEND

Sponsored by W. Hobby Ltd., held at Pontin's Barton Hall, Torquay, South Devon.

Three nights full board from £99 per person 31st October to 3rd November

Further details: Tel: 0181 761 4244

CRAFT SUPPLIES

5th - 7th September

Great Autumn Show

Series of training courses to be held at The Mill, Millers Dale, Buxton, Derbyshire SK17 8SN.

4th - 5th October

Wood turning demonstration with Ken Allen, plus french polishing & furniture restoration with Stephen Simmons.

1st November

Woodturning demonstration with Gordon Warr and Elu routing demonstration with Chris Hyde.

2nd November

Turning boxes on a Shoptsmith with Bob Lambert and Elu routing demonstration with Chris Hyde.

6th December

Turning jewellery with Nick Swann.

7th December

Turning large hollow vessels with Phil Irons. Further details: Tel: 01298 871636

TRENT VALLEY WOODTURNERS

Held at Kegworth Community Centre, Kegworth Village at 7pm.

Basic turning 2 plus 3 members hands-on, with Viv Collins

10th September

Basic turning 3 plus Christmas competition, with Viv Collins

8th October

Art & design ideas, with Wilf Bedford

12th November

Last chance night

10th December

Craft evening and Christmas competition

Further details: Tel: 0116 2677233

MELPLASH AGRICULTURAL SOCIETY

28th August

Melplash Agricultural Show, Bridport, Dorset, includes a special competition for amateur woodworkers.

Details and entry forms from Secretary: Tel: 01308 423122

NORTHERN FEDERATION OF WOODTURNING GROUPS

20th September

Exhibition, organised in conjunction with Woodmatch, to be held at the Dialstone Centre, Stockport. Demonstrators include Ray Jones and Tim Hope plus a pole-lathe turner and woodcaver.

Details from: Judy Hope, publicity officer
Tel: 01942 715871

GLOUCESTERSHIRE ASS. OF WOODTURNERS

6th & 7th September

2nd annual exhibition, held at Westonbirt.

Details from: Josephine Freeman, Secretary. Tel: 01452 532083

ROBERT SORBY

Series of demonstrations held throughout the country.

5th - 6th September

Yandles, Hurst Works, Martock TA12 6JU.

6th September

Alan Holtham, The Old Stores, Willaston, Natwich CW5 6QJ.

19th - 20th September

Jean Burhouse, The Old Saw Mill, Inver, Dunkeld, Perth, PH8 0JR.

22nd September

Edinburgh Saw Centre, 36 Haymarket Street, Edinburgh, EH12 5JZ.

20th September

St. Mary Way, Stockport, SK1 3HA.

26th - 27th September

Tewksbury Saw Co., Ltd., Newton Trading Estate, Tewkesbury, Glos.

25th - 27th September

Jaymac Ltd., 144 Midland Road, Derby, DE1 2SN.

Reader to reader

SUCK IT AND SEE

The drawing shows a cheap way of making a vacuum table using a water radiator. It can be small or large, but it must be flat all over and new.

Drill small holes in the ends of the cells walls about 1/8in. will do; fit door and window sealing strip all around the cells.

The shut of valve can be used to make and break the vacuum without stopping the pump.

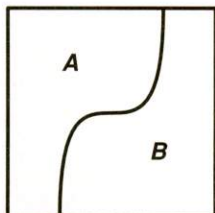
A vacuum cleaning or a fridge pump can be used.

R. Brown (Cardiff, South Wales)

GOING ROUND THE BEND

To apply edge banding to convex or concave shapes, such as shelf brackets, if cut a shape such as this. Forget about the glue already on the banding. Instead smear white

Evo on the banding, put this on shape A, put A and B together and clamp.



R. Hayward
(Rainham, Essex)

EASY LONG HOLE BORING

I have been a reader of Practical Woodworking for over 25 years and I am a woodturner of many years experience.

I decided about four years ago to purchase a modern lathe.

Having sold the old lathe I afterwards

discovered that the long hole boring kit could not be used on the new one.

So, I removed the live centre from the tailstock. The barrel which was hollow centre was 35mm dia.

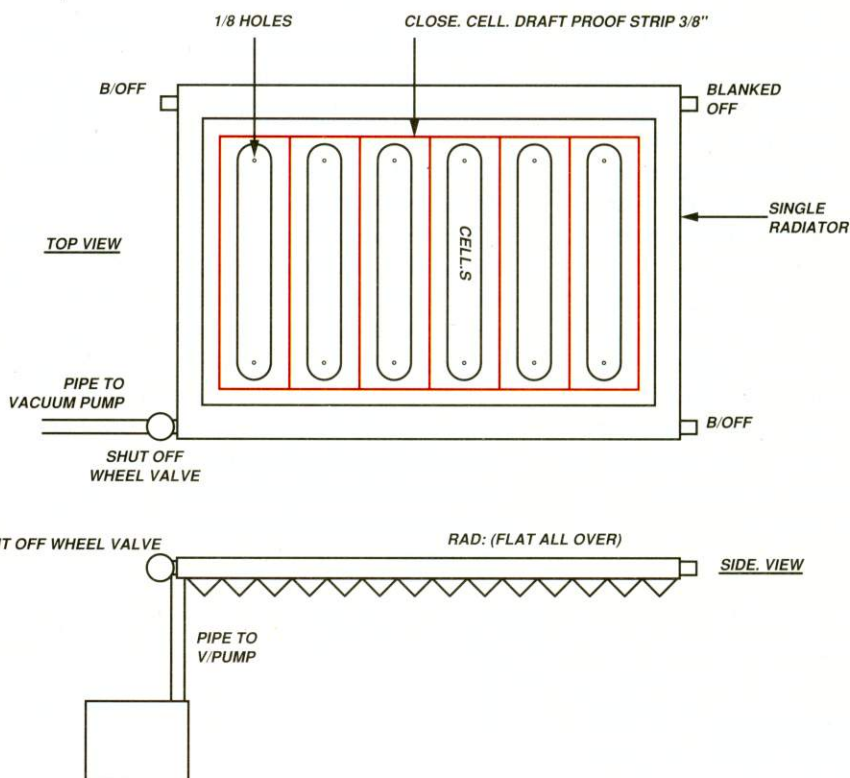
I took a length of timber which I wanted to make into a table lamp and bored a hole in the end 35mm dia. 6mm deep.

I fitted the opposite end to the headstock then brought the tailstock up with the barrel into the end of the timber.

With this locked in place, put the lathe at a slow speed and proceed to bore the centre in the usual way.

This I find very simple and may be of use to other turners who do not have the boring kit.

Sam Hamilton (Maghera)



EASY HANDLING

I have been using a Black and Decker Workmate 536 for some time and found it invaluable as an instant workbench where required however:

I find when holding a piece of timber, for example, wanting to lower it into the jaws to a marked line I need three hands! also if I want to open min. to max.

I have to use two hands to keep the moving jaw from sticking.

In consequence I have made a simple, but effective method of achieving parallel movement using the left or right crank handle and leaving enough slip to give differential adjustment.

The parts required for the existing Workmate are :

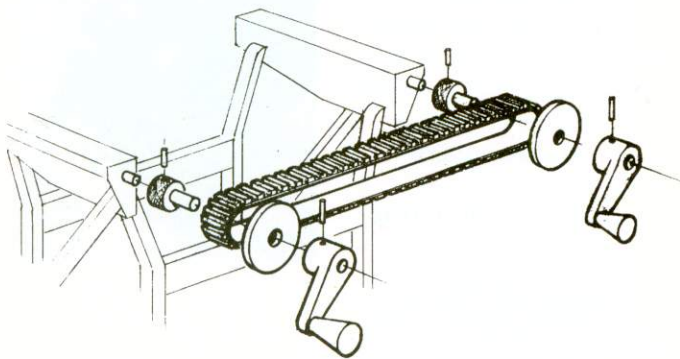
- Two adaptors
- Two washers
- One drive belt (old Fiat 128 timing

belt).

Two extra roll pins.

The existing roll pins were used to fit the two belt adaptors to the Workmate drive shafts, the drive belt was slipped over the adaptors, followed by the large washers to keep the belt from riding off. Finally the two existing crank handles are fitted with the extra roll pins.

The flat side of the drive belt was used so that differential adjustment could still be made.



There are many ways the aforementioned could be achieved more economically when using the plastic moulding techniques.

I have been using the Workbench with this modification since and find that it is a great help and speeds up material changing.

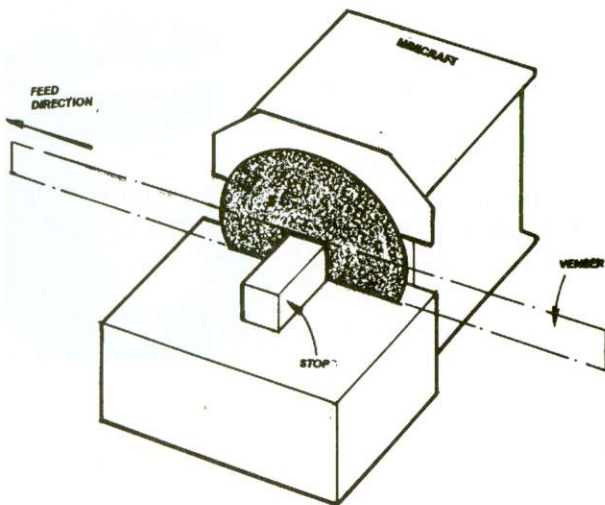
W. R. K. Gamble,
Portadown, (Co. Armagh)

RIBBON VENEERS

If you require ribbon thin veneers for your craft then the small Minicraft Disk Sander is the answer. Fix a stop of hardwood to the base with double-sided tape and use a feeler gauge to set the thickness then pass the veneer through. Bindings and linings of square section can also be refined.

I have tried many methods to achieve good results, but this is the best so far.

Peter Giolitto (Epsom, Surrey)



WIN Black & Decker Tools

This month we focus on Black & Decker's **KC1251C 12 volt cordless drill** which is new to the range and features **variable speed with Twistlok keyless chuck, as well as a reversing function, torque control and brake**

Each month the sender of the best tip, as adjudged by a panel of Practical Woodworking staff, will be awarded a Black & Decker tool. This could be either the KC1251C cordless drill, which we focus on above, or one of the other tools from the Black & Decker range shown below. The sender of every other tip will receive £20. When submitting tips please indicate which tool you would prefer to receive if yours is the 'Top Tip'



KD355RE hammer drill



KA75 belt sander



KS846 circular saw



KS755PE jigsaw

Entries should be sent to:

**'Reader to Reader', Practical woodworking,
Nexus Special Interests Ltd, Nexus House,
Boundary Way, Hemel Hempstead,
HP2 7ST, England.**

We are grateful to readers for all tips submitted, but owing to the volume involved we cannot acknowledge receipt of each one by letter. It may also be some months before any accepted tip is used, owing

New Products

Rocking the surf

The small Yorkshire business, The Rocking Horse Shop, has now gone galloping into the 21st Century by launching itself onto the World Wide Web.

For those with the necessary computers and skills to operate them the company's range can be found on <http://www.rockinghorse.co.uk>



CD and video storage

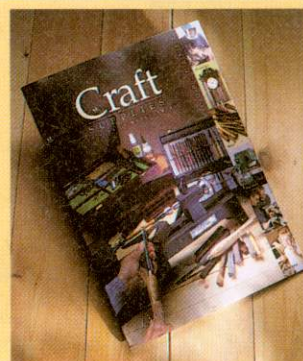
Isaac Lord keep a range of compact disc and video storage products and have recently made an addition to their existing stocks which requires no tools to fix. One is a CD frame which is made for fixing into side walls 132mm apart. Side pegs located on the frame are designed for fixing into pre-drilled holes for fast, tool less assembly. Another option is available for fixing a sliding tray into drawers. This comes with a handle or drawer front option. Both these fittings hold 17 CDs.

Further details tel: 01494 459191.

Catalogue

The latest summer catalogue from Craft Supplies has just been published. It is packed full of ideas and many new products. Price is £3 (redeemable against first purchase).

Details tel: 01298 871636



Cordless trimsaw

An 18 volt Cordless Trimsaw that delivers maximum run time and maximum cutting speed has been introduced by DeWalt. The compact unit allows easy access to difficult cutting

areas. It is fitted with a simple depth of cut adjustment that provides the capacity to cut up to 41mm and with a 50 degree bevel. It also comes complete with a parallel fence for greater accuracy, a one hour charger, two battery packs, a 136mm tungsten carbide blade, Allen key, heavy duty steel case and costs about £400 ex. VAT. One charge is sufficient to cut through 40m of 13mm plywood at a rate of 12m per minute.



Efficient air filter

To help free the workshop from dust as fine as 1 micron, is the Microclene 400 and 1200 air filters from Robot Products.

Both are designed to be hung above the work bench, a machine or free standing. With a filtered air flow of 400 cubic metres per hour, the smaller of the two models is said to change the air in a 7ft. x 10ft. x 7ft. workshop 27 times in an hour.

The 400 sells for £159.99 and the 1200 for £249.99. Further details tel: 01243 527242



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The descriptions below should help you decide. But if you need further assistance, we'll send you a free information pack - including a complete guide to French Polishing.

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*Wood Dyes

For staining bare wood prior to finishing. Easy to apply, quick drying, non-fade - and suitable for interior and exterior use.

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Yacht Varnish

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*French Polishes

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*Acrylic Varnishes

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*Danish Oil

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The Renovators

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*Plastic Coating

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*Colorglaze

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*Conform to toys safety regulations BS 5665.

Other products include: Wood Bleach, Wood Stopping, Plastic Wood, Grain Filler, Sanding Sealer & Teak Oil.

For full information, send large S.A.E. to: Dept PW, Rustins Ltd., Waterloo Road, London NW2 7TX.



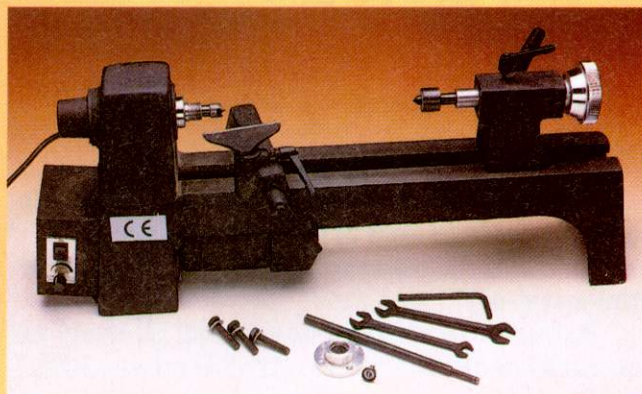
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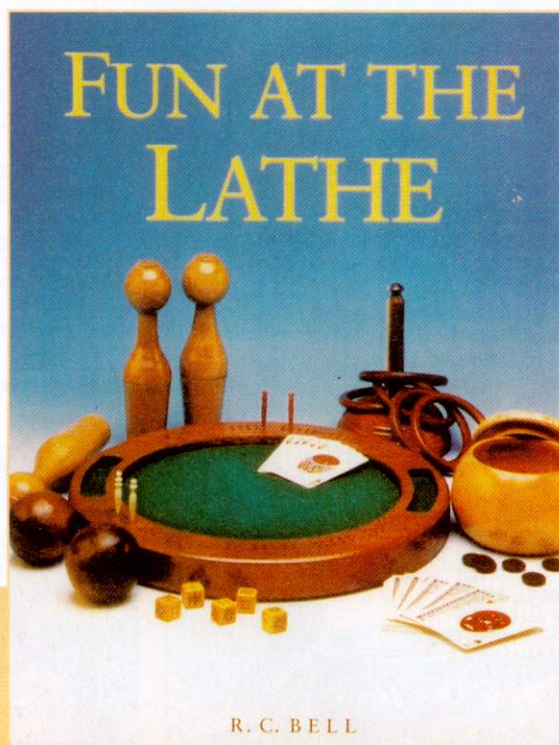
Budget priced lathe



Just introduced by Craft Supplies is the MVS1000 mini variable speed lathe designed to suit the miniature turner or the young turner on a small budget.

It offers speeds from 250 to 3000rpm, features a cam lock on the banjo and tailstock and has a 3/4 in. - 16 thread and No. 1 MT headstock. There is 2 in. between centres and a bowl capacity of 6 in. Price is £179.50 inclusive of VAT.

Details tel: 01298 871636.



Making games

Fun at the Lathe is the latest book by Practical Woodworking contributor, R.C. Bell. All are designed to be quick and easy to make and of course, fun to play as well as making ideal gifts.

Projects include: Squails, Muslim chess set, Dice cup, North Star solitaire, Crown and Anchor, Hoca and Mancala board.

Price is £14.95. Further details tel: 01273 477374.

High performance jigsaw

Especially suitable for scrolling work is the DW 323K Body Grip Jigsaw from DeWalt. Featuring the company's patented 'Optimum Pendulum Action' which helps to ensure a fast cut with a high degree of precision, the unit has less vibration and a greatly improved dust extraction facility.

Price is £235.00.



Triton goes direct

Triton, the distinctive bright yellow woodworking machinery is now available in the UK, after a short break. The company that produces, amongst other items, the popular Mark 3 Workcentre from its factory in Melbourne, Australia has set up a company - Triton Workshop System (UK) Ltd., based in Hope Valley, Derbyshire.

It is also launching a new Series 2000 Workcentre, which has been some years in development. The unit can crosscut accurately up to 600mm wide, using almost any crosscut saw and can be used as an overhead or underslung router table. The 2000 also comes with a large range of optional accessories to make this one of the most versatile woodworking machines on the market. An in-depth video is available free detailing the full product range. Details tel: 01433 630870.

Computerised thicknesser

Woodworking machinery specialist, Felder has designed and built an electrical table height adjustment for the thicknesser table with position controls.

With this development the thicknesser can be set to any required measurement, at the touch of a button. Simply enter the height, to 0.1 in. on the digital control panel and the table will go automatically to that position. It also has the facility to allow the specific positions to be pre-programmed. The unit is now available on all 7-series machines from the company. Further details tel: 01908 211171.

Birthday bonus

To help celebrate its 25th anniversary, Makita UK is promoting a triple bonus offer on its top selling 9.6 volt cordless drill/driver Model 6095DW. A limited number of these powerful tools will be supplied with not one, but three battery packs, at a special price of £139.00 ex VAT. This is about £100 below the machine's normal list price. This is said to be just one of a number of special promotions the company will be running to celebrate its silver anniversary. The 6095DW drill/driver features 12 torque settings, 2-speed gearbox, variable speed trigger, forward and reverse rotation and comes in a robust plastic carry case complete with a fast 1 hour charger. Further details tel: 01908 211678.



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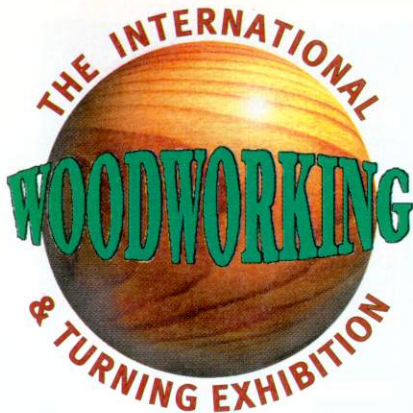
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USA, Stuart Mortimer now returns to the UK to attempt the biggest bowl yet! If all goes to plan, the finished article will be on display at this show - and at over 7ft wide and 4ft deep, turned from mature cedar, this has got to be seen to be believed.



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Friday 3rd to Sunday 5th October 1997
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By Rail

Birmingham International Station is at the centre of the NEC, with a covered walkway to Hall 10. InterCity services run frequently from London Euston and many other regional centres. The centre is also only 10 minutes from Birmingham New Street Station.

Blanket Chest

John Murphy makes use of reclaimed pine for his charming multi-purpose box.

Blanket chest or blanket box, linen chest or toy box, the name is not important.

Although I have used the term 'blanket chest' this is simply a large box which can be used for any purpose.

Before starting this project I decided to keep it so simple that a beginner could make one from this article. There are no joints to be cut and hand tools are sufficient.

Material

I was fortunate to be able to obtain 150 year old reclaimed Oregon pine for this project. I had it re-sawn into boards, 6 x 3/4in. (150 x 20mm) PAR. The moulding at the base is reclaimed pitch pine, but there is very little difference in appearance.

Of course any wood can be used, it is a matter of price and convenience in obtaining it.

Construction

The front and back consist of three boards glued together, edge to edge. I used a jack plane to true up the edges. The lid is similar, but in addition two battens, 2 x 3/4in. (50 x 20mm) are screwed to the underside to prevent warping.

The ends are constructed in the same fashion, but are much shorter. For the bottom, I cheated and used 10mm plywood.

Assembly

There are many ways of assembling the components, from hand cut dovetail joints to nails. I used triangular fillets of wood glued and screwed to the internal corners. The screw holes are pre-drilled and the heads countersunk before gluing and fixing. If you cannot cut triangular fillets, a suitable alternative is some

'scotia' moulding available from any timber merchant. I have used this method successfully for many years.

The front and back panels have the boards with their grain horizontal in the usual manner. I fitted both end panels with the boards and grain vertical. The reason is that the end grain does not show to the front or back comers, but is concealed under the lid. See photograph.

The bottom

I fixed the bottom next by gluing and screwing from below. The skirting board type moulding is fitted next to the bottom of the front and sides by

screwing from inside. The corners are mitred at 45 degrees.

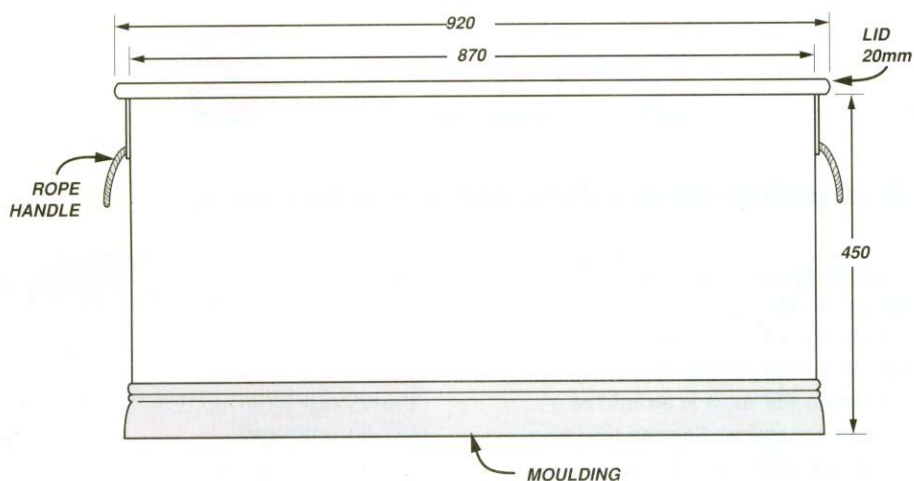
I also glued and pinned a thin 10mm board to the top outside of the two ends. This was to stabilise the top of the ends and prevent warping. I then drilled two holes in each end to take the rope handles.

A family friend does some macrame work so I was able to obtain two pieces of plaited rope for the handles. These are



Cutting List

Part	No.	Millimetres	Inches	Type of wood
Front	3 off	900 x 150 x 20	(36 x 6 x 3/4)	reclaimed Oregon pine
Back	3 off	900 x 150 x 20	(36 x 6 x 3/4)	reclaimed Oregon pine
End x 2	2 off	450 x 150 x 20	(18 x 6 x 3/4)	reclaimed Oregon pine
	1 off	450 x 100 x 20	(18 x 4 x 3/4)	reclaimed Oregon pine
Lid	3 off	950 x 150 x 20	(38 x 6 x 3/4)	reclaimed Oregon pine
Bottom	1 off	950 x 490 x 10	(36 17 1/2 x 3/8)	ply
Moulding	1 off	950 x 75 x 12	(38 x 3 x 1/2)	reclaimed pitch pine
	x 2	450 x 75 x 12	18 x 3 x 1/2	reclaimed pitch pine
	(x 2)			
Triangular				
Corner fillets	4 off		450 x 50 x 50	(18 x 2 x 2) pitch pine
Lid battens	2 off		350 x 50 x 25	(14 x 2 x 1) pitch pine
2 Rope handles				
2 Brass hinges		50mm (2in.)		



secured by knotting on the inside.

Last to be fitted was the lid. I used a pair of easy fix brass hinges although any other type may be used. Two pieces of brass chain keep the lid from opening too far.

Finish

I treated the completed chest with three coats of Danish oil which gives an attractive satin sheen.

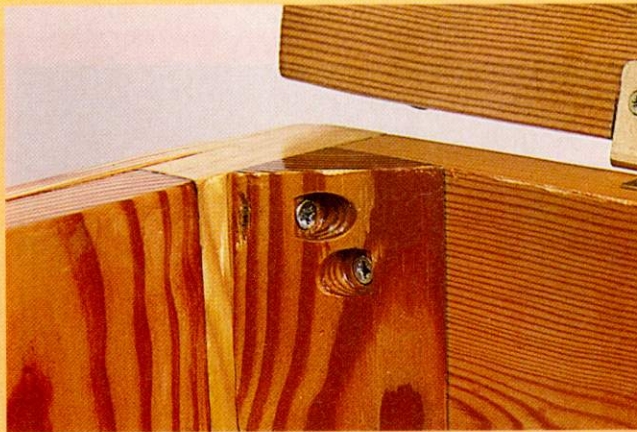
When it was dry I fixed a small plaque to the lid giving details of the wood used

and the date.

The completed chest was presented to a local charity, The Ulster Cancer Foundation, for their next fund-raising auction.



Pride in re-cycled wood.



Internal corner fixing.



Plinth corner detail.



Attractive rope handles.

Emily - Part 3

Seymour Thistlethwayte with the final part of this delightful addition to the garden

The pelargoniums survived the winter and are in vigorous good health. I have saved myself a great deal of cash by growing a profusion of young plants from seed. I always resented paying garden centre prices for bedding plants year after year; now I will not have to do it anymore - thanks to Emily and her heating system.

Gently economical

She's not a hot house in which to grow grapes or exotic house plants, but she provides an economical way to keep the frost at bay and maintain a climate a few degrees above the outside temperature to

bring along some seedlings, or overwinter tender plants.

Emily is not just a small area to heat, but she can be moved into a sheltered spot when the snow is around or a blizzard is coming. She can also be shifted to catch the first rays of sun in the early days of spring.

The heating system

This consists of three basic parts; the heating appliance, the racking and minor modifications.

This is what you do:

Heating Appliances.

An electric 75amp undersoil warming coil can be purchased from any good

Equipment

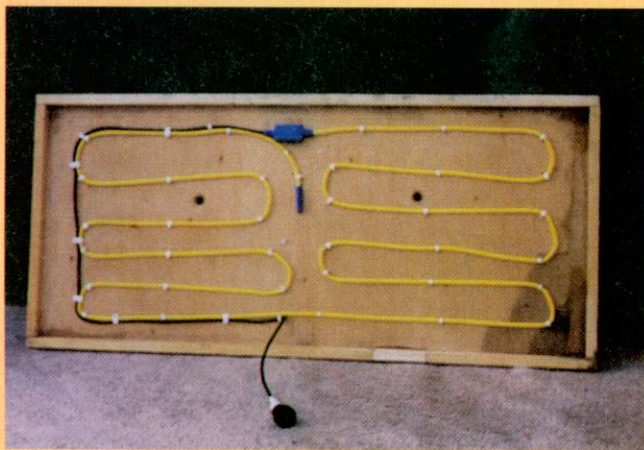
75 watt soil warming cable JEM 007 by Jemp £26.95

Thermostat Jempstat JEM 056 by Jemp £47.95 (optional)

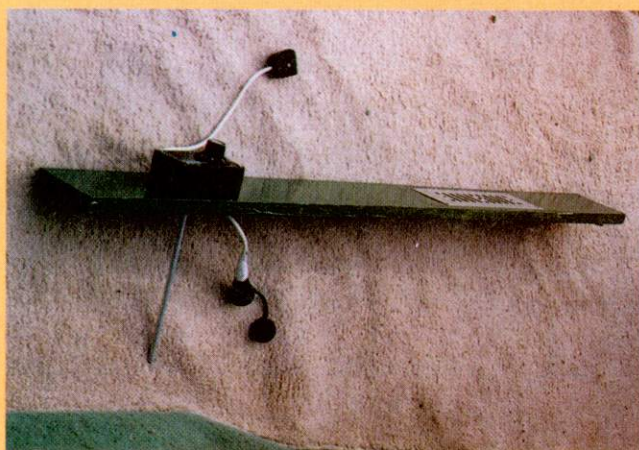
Jemp Engineering Ltd.,
Canal Estate,
Station Road,
Langley,
Berks. SL3 6EG.
Tel. 01753

or available through good garden centres.

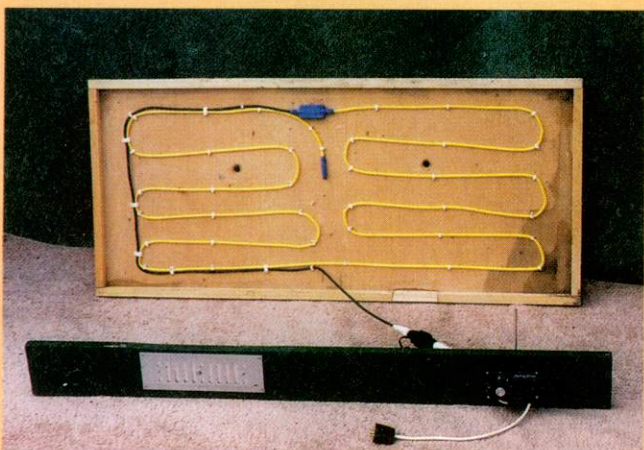
Parafin lamp Illustrated Hanging Anti-Frost heater by Parasene MHB £11.49 from garden centres



Wiring the drip tray.



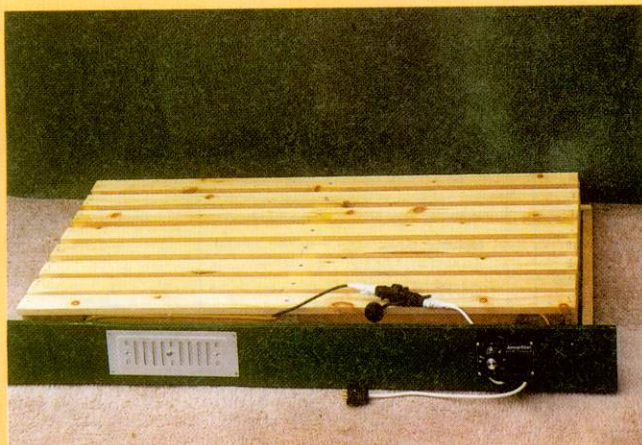
Install the thermostat and cable connector in front panel.



Keep the power cable ends short.



Staging.



Assembly ready to be fitted.



Extra heating for very cold weather.



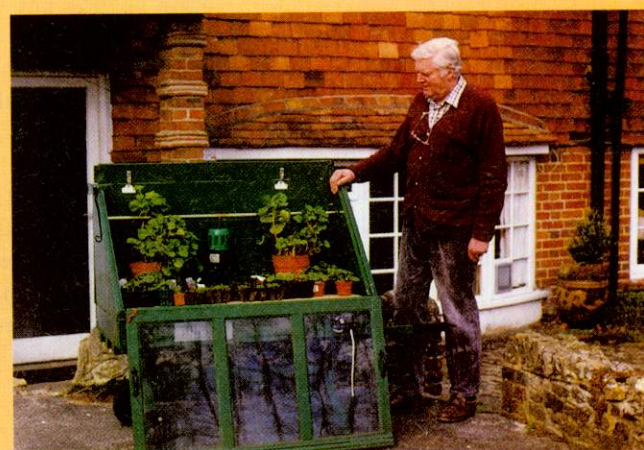
Fit a window stay. Cut out frame to accommodate peg.



Providing extra ventilation.



What do you get?



Satisfaction! ... and colour in your garden all year, every year.

garden centre for a price of about £27. (See above left). This can be used to provide heat directly into the compost around the plants, or to raise the overall temperature inside by a few degrees. The cable should be laid out the same way for either application. This article describes the use to warm the inside air generally.

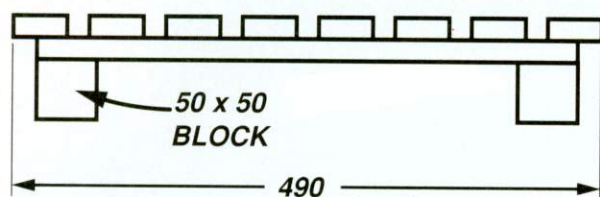
Fitting

Fit the cable to the drip-tray with electric saddles, avoiding the two outer edges, as shown in the photograph.

(Keep a margin of about 4in.) You may need to shorten the length of the electric staples if they protrude beneath the base of the tray. In which case, snip off the ends of the pins with a pair of pliers before fixing. You may like to fit a thermostat to the cable. This is quite expensive and is not necessary if you only want to warm the air during the winter months. However, it will save the odd bob or two in electricity costs in early spring, when you only need the heating to keep off the occasional frosts.

Install the thermostat and cable connection in Emily's removable front panel. Electrical sockets at both incoming and outgoing power ends, need to be of a weather-proof type. Cut the front panel and fit an adjustable louvre, as shown.

It is important to keep the trailing power cable ends short so that Emily can be moved if necessary. It also makes it easier to assemble and dismantle at the beginning and end of each season.



**SIDE VIEW
MIDDLE SECTION**

Staging

Make a simple set of staging to rest above the heated drip tray and on which to stand the plants and seed trays. This should be constructed using 8 lengths of prepared 45x18mm slats mounted on a frame made from 20x95mm timber. Note the central support does not run the full depth of the staging, but consists of a length of 45x18mm resting on a front and rear block of 50x50mm timber. This is to avoid disturbing the cable below.

The assembly

This is now ready to be fitted into Emily.

In extremely cold weather it may be necessary to provide additional heat. The simplest method is to hang a small paraffin lamp in the centre of the frame. Fit a length of 1/2in. curtain rail between the two side panels using plate fixers screwed centrally at each end and mounted 6in. from the top.

This will be sufficient to maintain a temperature above freezing even in the coldest weather.

Figure 2 shows the inside temperature maintained during the period November '96 to March '97).

During this time, the auxiliary heating was lit only when the temperature fell well below freezing. The total consumption for the whole winter was 10 points, although the 75amp cable was on almost constantly, at a cost of around 75p per week.

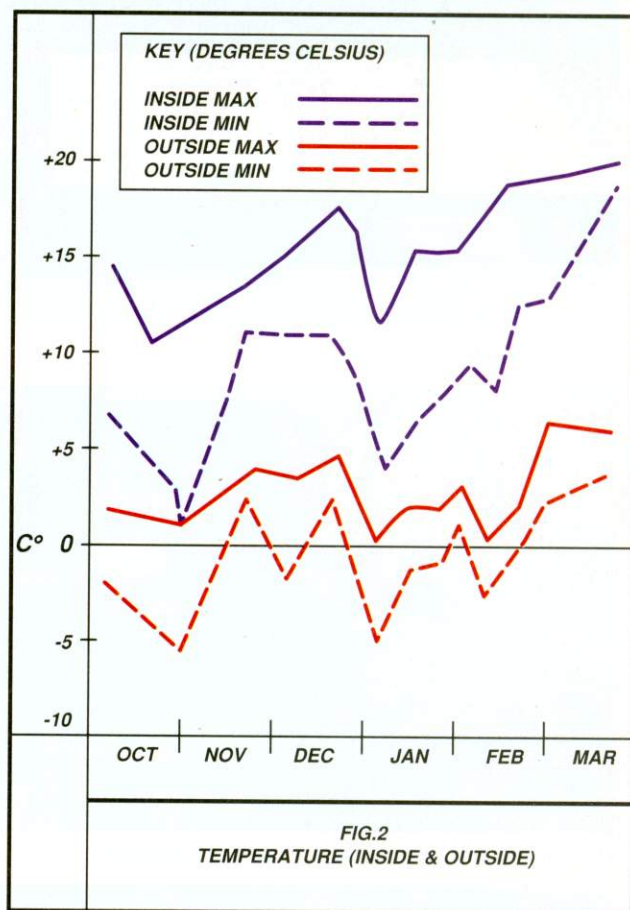
During the spring it is advisable to provide extra ventilation, in addition to the adjustable louvre and top-opening flap. This can be achieved by fitting a window stay to the removable glass

frame. Cut a small section of the side to accommodate the peg.

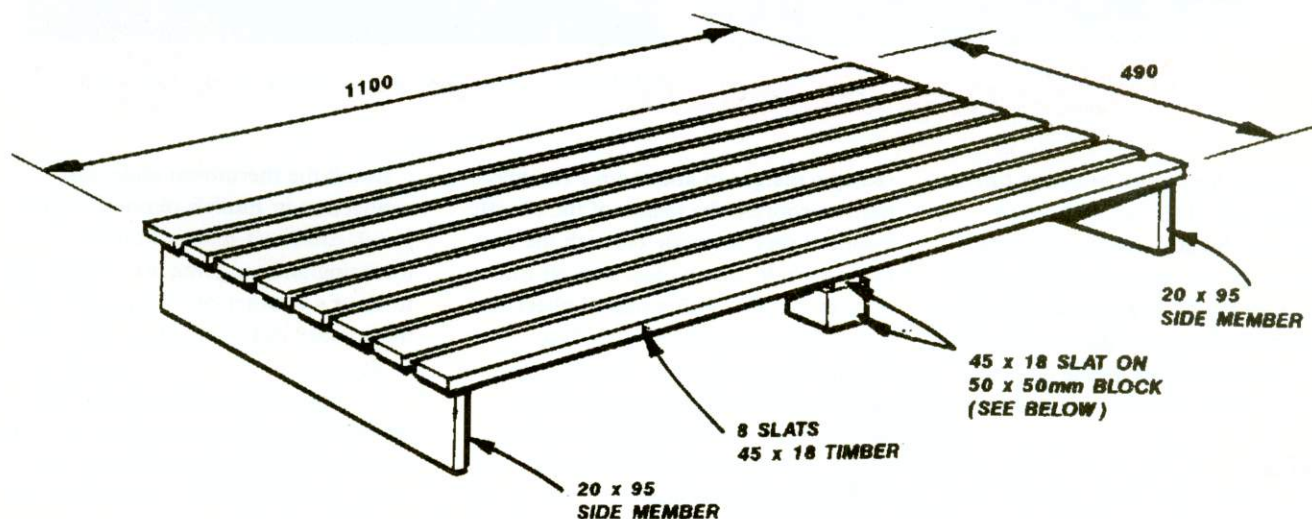
Results

...and for all this work what do you get?

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**FIG.2
TEMPERATURE (INSIDE & OUTSIDE)**





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A rolling rustic firewood box

Winter comfort by an open fire, now's the time to look forward to that pleasure with David Mukamal Camp

With your arms loaded up with logs from the wood pile, you struggle to open the door. The biggest question you have as you balance your heavy, tottering armful of stove fuel is "How do I get it there without tracking the snow in?"

My firewood box has castors neatly hidden underneath so I can roll it to the door and fill it from the threshold. It also features a clean out hole in the bottom that empties into a debris tray, which slides out like a drawer from the end. I just push the bark, dirt and chips into the hole and then dump the tray in the yard. If there weren't snow on the ground it would make a good mulch.

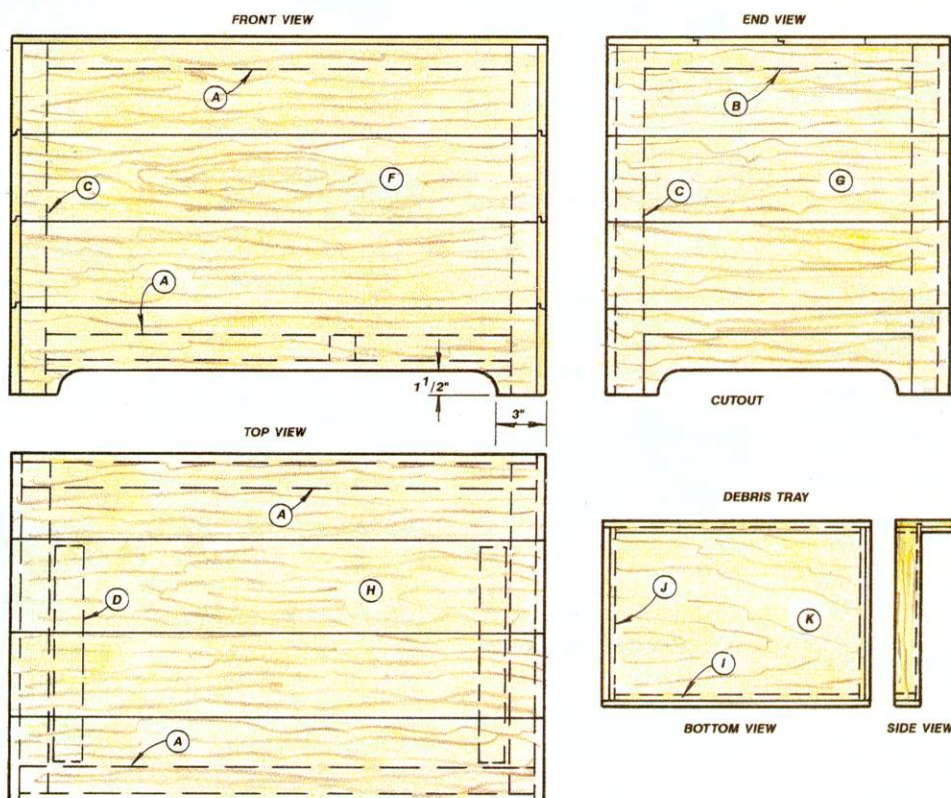


Gathering wood

I bought eight 1 x 6in. rough cedar fence boards to give my firewood box a rustic look and a couple of 4 x 2in. for the frame members. The bottom is made from a pair of 1/2in. plywood panels separated by frame pieces that create a space for the debris tray. You will also need a couple of interesting hinges and four 1 1/2in. castors (buy sturdier castors than those shown in my photo - and if your floor is carpeted, get some that will roll on the rug).

Making a start

Begin the project by making the 4 x 2in. into 1 1/2 x 1 1/2 in. frame members (A, B, C and D) cut to the different lengths given in the cutting list. The next step is to construct the sandwich that comprises the bottom. Cut the bottom panels (E) to size and notch the corners to fit around the uprights. Use a sabre saw to cut out the cleaning hole in one of the bottom panels as indicated in the plans. Now



glue and screw two of the long rails (A) and two of the short rails (B) in place between the panels as shown. You will build the sides of your box around this base assembly.

The sides

I think sawyers make 'the new kid' cut fence boards after lunch on a bad day; the planks just do not come out very straight and true. But I like the rugged look they lend to projects like this, so I have figured out how to work with their inconsistent dimensions: don't care, wing it. It helps to go through the stack and select boards that are fairly straight with tight knots and no cracks. Avoid cupped planks at all costs, because they will just break when you try to screw them down to a flat surface. As always, it is a good idea to have a couple of 'extras' on hand.

Cut them to the lengths given in the cutting list for parts F, G and H.

The average thickness of my 6 x 1in. planks was 5/8in. and the widths averaged 5 3/8in. You may need to adjust the dimensions shown in the plans to accommodate the wood you buy.

I cut 'shiplap' (an overlapping rabbet joint used in boat building) on the plank edges that abut other planks - not because I was concerned about the seaworthiness of my firewood box, but because it would conceal gaps between the uneven edges of the boards. To do this, arrange the four boards that comprise one side and mark the edges for rabbeting, leaving the edges that do not meet other boards (such as the top edge of the side) unmarked. Put 3/8in. worth of dado cutters on your table saw and set it to a depth equal to just a bit more than half the thickness of your average fence board. Cover the saw fence with a wooden auxiliary fence so you can position it next to the blade and rabbet the edges. Cut shiplap joints on the planks for the top as well, but leave the back edge of the third board and both edges of the fourth board unrabbeted.

The lower planks

The final step before assembling all this kindling is to cut the relief on the lower planks. Clamp together the two bottom side boards (F) and the two bottom end boards (G) and cut the reliefs as shown, using a sabre saw.



This wood storage box features a removable debris tray to collect the bark and chips that fall off your logs.



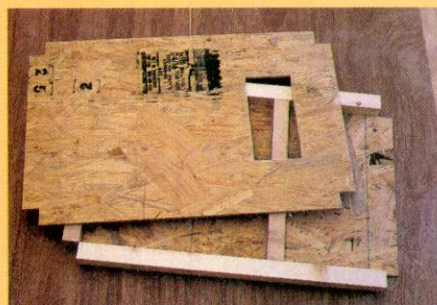
Cut both bottom panels to size; then clamp them together and cut 1 1/2in. notches at each corner.



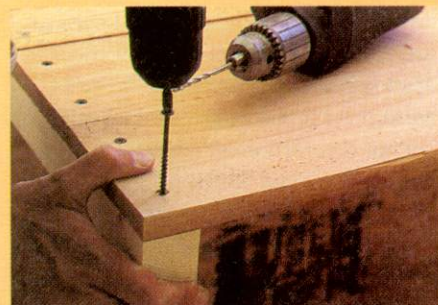
Lay out the cleaning hole on one of the bottom panels. Drill a hole at each corner; then cut it out with a sabre saw.



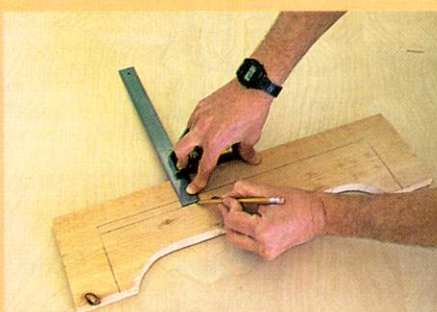
Sandwich the bottom frame members between the two panels and attach with glue and screws. Position one short rail 10 1/2in. back from the end to create a space for the debris tray.



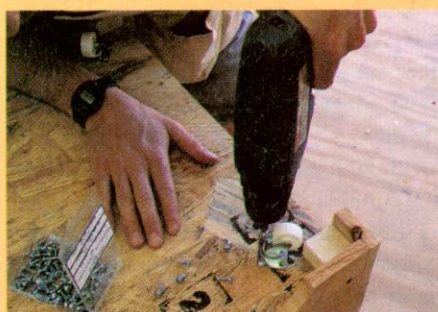
To attach the short rails, replace one of the short screws with a longer screw.



Side panel being screwed into the framework.



Set the leg of a combination square 1/2in. lower than your mark and use it to guide the pencil as you draw the cut-out for the debris tray.

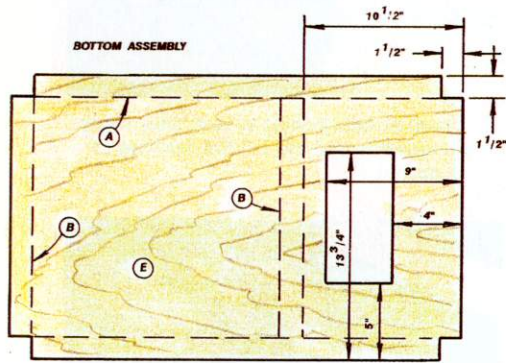


Attach castors to the bottom of the box, making sure they clear the uprights.

The side boards

Now attach the side boards to the uprights (C). When you have two completed sides, attach them to the bottom assembly, making sure there is enough clearance for the castors. I found it helpful to use the short rails (B) to support the side assemblies while I drove

the screws. Installing those short rails is the next step; simply replace the short screw holding the fence board to the upright with one that is long enough to grab the short rail. Glue and screw the two remaining long rails (A) along the top of the side boards (F). Now you can attach the four boards (G) that make up one end.



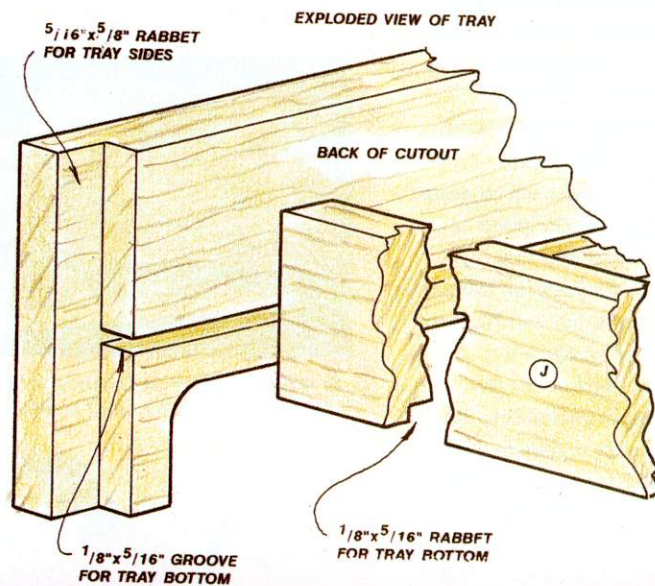
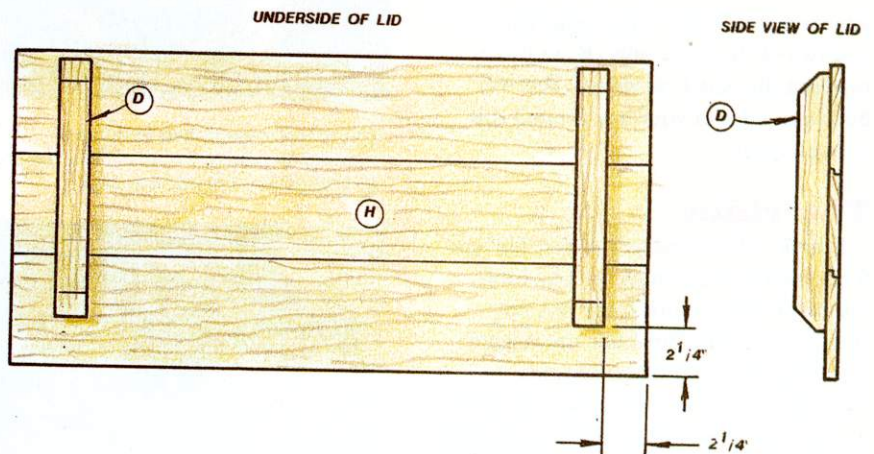
Plunging ahead

Before you attach the boards to the other end, cut out the portion of the lower end board that will serve as the front of the debris tray. Lay the box with its unfinished end up, position the lower board and mark it where the bottom meets it. Because the bottom panel is 1/2 in. thick, you need to make a second line 1/2 in. below the first. Mark a pair of perpendicular lines that correspond to the width of the opening and cut out this portion of the plank. In order to use the cut-out for the front of the tray, you need to make a plunge cut with the sabre saw. This will keep the sides and corners of the opening and the cut-out straight and square. Tip the tool up onto the front of its base and start it running; then slowly lower the blade into the wood.

Cut the tray back (I) and sides (J) from some scrap wood and rabbet the ends of the back and the cut-out to accept the tray sides. Make the tray bottom (K) from 1/8 in. plywood (scrap of wall panelling works well). Fit it into a groove cut on the back of the cut-out and a rabbet along the bottom of the other tray parts. Glue and nail this simple drawer together and fit it into the space between the bottom panels. Before attaching the lid, turn the box over and install the casters.

Putting a lid on it

Mitre the ends of the lid cleats (D) as shown in the drawing. Lay the three shiplapped lid boards (H) upside down on your workbench and mark the position for the cleats. Clamp them in place and flip the assembly over to drive in the screws. Now set the lid in place and position the last plank. Mark and rip this to width and glue and screw it to the upper rail. Install the hinges directly over the cleats.



Cutting list

	Qty	Thick.		Width		Length	Piece and Misc.
A	4 off	1 1/2	x	1 1/2	x	27in.	Long rails
B	4 off	1 1/2	x	1 1/2	x	15 3/4in.	Short rails
C	4 off	1 1/2	x	1 1/2	x	20in.	Uprights
D	2 off	1 1/2	x	1 1/2	x	13in.	Lid cleats
E	2 off	1/2	x	18 3/4	x	30in.	Bottom panels
F	8 off	5/8	x	5 3/8	x	30in.	Side boards
G	8 off	5/8	x	5 3/8	x	20in.	End boards
H	4 off	5/8	x	5 3/8	x	31 1/4in.	Lid boards
I	1 off	5/8	x	1 3/8	x	15 5/8in.	Tray back
J	2 off	5/8	x	1 3/8	x	10in.	Tray sides
K	1 off	1/8	x	10	x	15in.	Tray bottom

The box does not need any sort of finish (that is the best part about using rough wood), but it is a good idea to break the corners with some rough sandpaper, or use a

rasp to ease the edges and add to the worn, rustic look. With that done, the easy work is out of the way; now it is time to start cutting and splitting those logs to fill the box.

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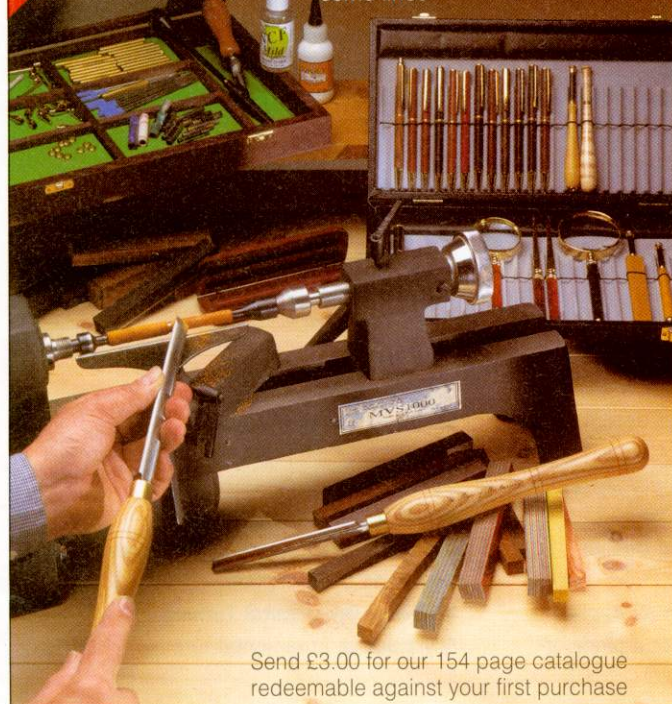
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1997 International Woodworking Exhibition Competition, featuring Furniture Ascot, October 24th, 25th and 26th

RULES

The competition is open to all readers resident in Great Britain, including Northern Ireland and the Channel Islands, Eire, Isle of Man, other than employees (and members of their families) of Nexus. Any entry arriving after the closing date will not be considered and no responsibility can be accepted for entries lost, delayed or damaged in the post or elsewhere.

Entries received incomplete, not accompanied by an entry coupon or not complying with the instructions and rules will be disqualified.

Items must be collected by the entrants (or a nominated representative) **between 5.15 and 6.00pm on the last day of the show, Sunday 26th of October.** The judges' decision will be final, as will those of the Editor in all other matters. In the event of there being insufficient entries of a sufficiently high standard, the Editor reserves the right not to award all the prizes. Entry implies acceptance of the rules as being final and legally binding.

All items entered for the competition must be the entrant's own work. Winners will be notified before the end of the Show and the results will be published in the Nexus Woodworking titles.

CATEGORIES

Furniture

WFUR 1: Modern Furniture (Professional)

Any single piece or suite of modern furniture of original design constructed principally from wood by a professional furniture maker.

WFUR 2: Traditional Furniture (Professional)

Any single piece or suite of reproduction/period furniture constructed principally of wood by a professional furniture maker.

WFUR 3: Modern Furniture (Amateur)

Any single piece or suite of modern furniture of original design constructed principally of wood by an amateur furniture maker.

WFUR 4: Traditional Furniture (Amateur)

Any single piece or suite of reproduction/period furniture constructed principally of wood by an amateur furniture maker.

WFUR 5: Modern Furniture (Student)

Any single piece or suite of modern furniture of original design constructed principally from wood by a student whilst enrolled on a recognised furniture design/construction course.

WFUR 6: Traditional Furniture (Student)

Any single piece or suite of reproduction/period furniture constructed principally from wood by a student whilst enrolled on a recognised furniture design/construction course.

Routing

WRTNG 1: Project

Any project which has been made using a router as the main tool in its production.

Box making

WBOX 1: Functional Box

Any box designed and made for a particular purpose including writing slopes. (Turned work is excluded from this category).

Carving

WCAR 1: Project

Any form of woodcarving – low relief, high relief or in the round of your chosen subject will qualify as an entry.

Because the exhibition is taking place for the first time at Ascot it may be felt however, that 'A day at the Races' would be an appropriate theme but this is optional.

WCAR 2: Wild Fowl Carving

A realistic carving in the round of any wild fowl including decoy ducks.

WCAR 3: Spoons

Any love spoon or domestic spoon.

Clocks

WCLO 1: Project

Any longcase, bracket, mantel or wall hung clock of original or traditional design.

Marquetry

WMAR 1: Picture or Applied Design

Any marquetry picture or geometric/decorative design as applied to an object such as a tray or a piece of furniture.

Doll's house

WDOL 1: Doll's House

Any doll's house of period or modern design to 1/12th or 1/16th scale.

WDOL 2: Doll's House Furniture

Any single piece or suite of furniture of any period made to 1/12th scale.

WMOD 1: Any model to any scale, made principally of wood.

Musical instrument making

WMUS 1: Stringed Instruments

Any stringed instrument including keyboards.

WMUS 2: Woodwind

Any wind instrument made principally of wood.

Workshop

WSHP 1: Tools and Jigs

Any plane or other traditional tool of composite wood and metal construction or self made machine or workshop fixture.

Woodturning

WTRN 1: Spindle-Turning

Any piece which has been predominantly turned between centres.

WTRN 2: Face Plate Turning

Any piece which has been predominantly turned on the faceplate.

WTRN 3: Ornamental Turning

Any piece of ornamental turning.

1997 International Woodworking Exhibition Competition, featuring Furniture Ascot, October 24th, 25th and 26th

Competition Entry Form

Here are the categories and entry form for this year's International Woodworking Exhibition, featuring furniture. This year the venue has moved from Sandown to Ascot Exhibition Centre, with more prizes, more demonstrations and the chance to participate in the country's premier woodworking competition.

To enter, just fill in the form and post it to:

Nexus Woodworking Group, Nexus House,
Boundary Way, Hemel Hempstead,
Hertfordshire, HP2 7ST.

Mark your envelope: **IWE COMPETITIONS ENTRY**

FOR OFFICIAL USE ONLY

COMPETITORS REFERENCE NUMBER

TITLE OR DESCRIPTION OF EXHIBIT

FIRST NAME(S)

SURNAME

ADDRESS

POSTCODE

TELEPHONE NUMBER

DOES THE EXHIBIT REQUIRE WALL HANGING?

GENERAL DIMENSIONS

DO YOU OBJECT TO THE DETAILS ON THIS FORM BEING GIVEN
TO THE PRESS?

ENTRY CLASS

VALUE OF MODEL FOR INSURANCE

TYPE OF WOOD USED

MY EXHIBIT WILL REACH (PLEASE TICK)

NEXUS HOUSE ☐

ASCOT EXHIBITION CENTRE ☐

BY

RAIL ☐

PERSONAL DELIVERY ☐

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ROAD CARRIER ☐

DETAILS OF GENERAL INTEREST FOR PUBLICITY

NAME AND ADDRESS OF YOUR LOCAL NEWSPAPER

IS A PHOTOGRAPH ENCLOSED FOR CATALOGUE INCLUSION?

HAVE YOU INCLUDED NOTES FOR JUDGES?

IMPORTANT: SHOW ENTRIES MUST BE COLLECTED BETWEEN 5.15 AND 6.00PM ON THE LAST DAY OF THE SHOW

Completed forms should be returned to the organisers:

The International Woodworking Exhibition, Nexus Special Interests, Nexus House, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7ST. Note: A separate form or photocopy is required for each entry.

I DECLARE THAT THE ABOVE PARTICULARS ARE TRUE AND CORRECT

DATE.....

SIGNATURE.....

CLOSING DATE: FRIDAY 5TH SEPTEMBER 1997

THERE IS NO CHARGE FOR ENTRY



Wooden scoops

Chris Child looks back to the time when village shops looked and smelled so warm and homely

The role of the wooden scoop in the grocer's shop or local village store, dispensing tea, sugar, flour or other loose produce has long been superseded by the introduction of standardized packaging. The large coarsely-made scoops used on the farm for filling bags of seed or dealing out animal feed are now only to be found in the proud possession of green collectors. It is probably fair to say that the wooden scoop has had its day as a worktool in the world of trade and exchange.

New lease of life

Does this mean that an attractive well made wooden scoop has no utilitarian value today? It is always nice to be praised for one's work, but I feel even more satisfaction when my woodturning is considered to be of practical use as well. So it was very gratifying to hear that an assortment of wooden scoops, given as gifts to some friends had turned out to be really useful in their home. In their kitchen a small mahogany scoop had become an indispensable utensil for applying the salt to the cooking and a cherry wood scoop provided a novel way to serve out the breakfast cereal. Uses for scoops were found in the garden too, when an early (and not too successful attempt at scoop making) had become an instant hit in the greenhouse for preparing plant pots and containers.

Timber

Any reasonably fine-grained wood will do for making a scoop but you may find that some woods are easier to hollow than others. Traditional woods would have been beech, sycamore, and some fruit woods such as apple or cherry. I have made two of my scoops out of English cherry and one out of a particularly sweet cutting piece of Brazilian mahogany.

First steps

The first thing to do when making a wooden scoop is to turn the block of wood to a cylinder with it held between centres, and then secure it in the jaws of a chuck at one end so that it can be worked on at the free end. I used a Masterchuck to hold my workpiece. If you do not possess a suitable chuck to hold your work on the lathe you can do just as well by gluing your block of wood to a scrap of waste wood and then screwing this onto a face plate. This method actually has the advantage over most chucks in that the work is held closer to the head stock reducing the vibration which can occur when working on the end furthest away from the support.

I slice the end square using a 1/4in. bowl gouge in preparation for the hollowing operation. This, in the larger scoops, can be done with a ring tool but a more straightforward tool to use is a small round nosed scraper. I grind a longer than usual bevel on my 1/2in. round-nosed

scraper so that it can be honed extra sharp with a slip stone. I also recommend using a longer handle to provide more leverage and thereby obtain more control when you are stretching to the full depth of the hollow. The scraper is the easiest and most versatile tool to use for hollowing end grain and is the only practical tool to make the small radii which are required on the smaller scoops. But there is a penalty to pay for this ease of use; which is that you will not achieve the same smooth finish that you can with the ring tool's cutting action.

To hollow out the scoop start cutting at the centre and work outwards towards the edge in the reverse direction of what you would do if you were hollowing a typical bowl. Depending on what you want to use it for, you will need to make the hole in the scoop fairly deep. Once you are happy with the depth and size of the hole you can sand the inside smooth. Use some coarse abrasive at first, then follow with progressively smoother grades as you remove the marks made by the preceding abrasive.

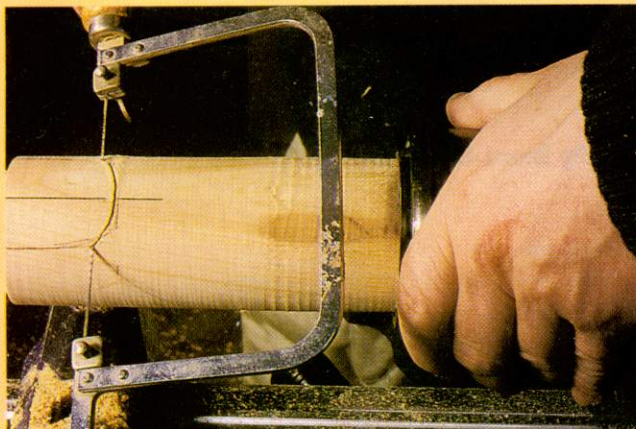
Before you start shaping the outside of the bowl of the scoop, make a mark on the outside of the workpiece corresponding to the depth of the hollow. Shape the outside of the bowl of the scoop using a small bowl gouge and leave the sides about a few millimetres thick. They need to be thick enough to provide enough strength to perform the function demanded of the scoop. This is when I cut away the section



The block of wood having its face trimmed with a small bowl gouge.



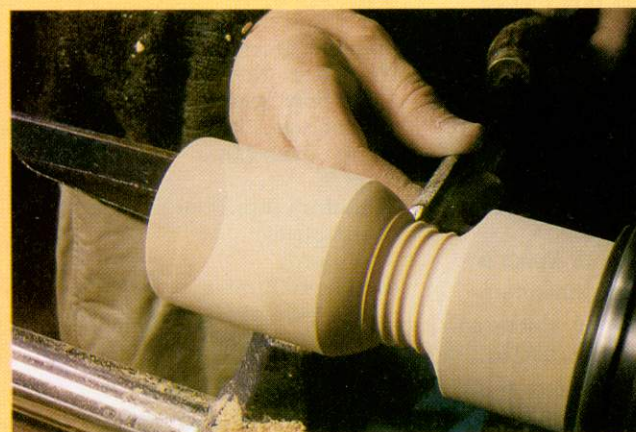
Hollowing out the end of the scoop with a round nosed scraper.



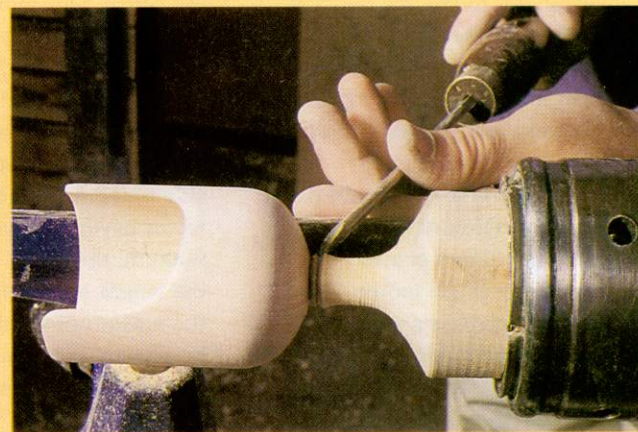
Sawing the mouth of the scoop.



Carving the edge of the mouth.



Starting to make the handle of the scoop.



Using a 1/2in. skew chisel to create some crisp moulding where the bowl meets the handle.

of the bowl to create the mouth of scoop, while there is a rigid amount of wood to support the work. Mark out the area to be removed and cut it away with a coping saw. It's a good idea to cut a small amount off at first; you can always trim some more off if you find the mouth is too small. Some turners use the curved surface on their belt sander to do the final shaping but I find it just as convenient to use a chisel and some coarse abrasive. It is much quieter and less dusty to do the modelling of the sides in this way.

The handle

The handle of the scoop can be a long elegant affair or a short grip so that the finished scoop can be kept inside a container. The same rules that apply for making the stem of a goblet apply to making the handle of a scoop; once the handle has been turned down, you cannot go back and re-work the bowl without risking the work snapping off.

I like the simple Shaker style myself, but there is no reason why you shouldn't be adventurous with the design of your

own scoops. And to finish them off you can either polish your scoops with a couple of coats of waterproof finish such as Rustin's Plastic Coating or if you prefer, leave them "au naturelle."

COURSE INFORMATION

Chris Child runs a series of woodturning courses at : Peter Child Woodturning Supplies, The Old Hyde, Little Yeldham, Essex CO94QT
Telephone (01787) 237291

The Kity Bestcombi 2000 combination machine - Part 2



Gordon Warr with more information on this new beauty from Stayer

The new Kity Bestcombi 2000 is classed as a six function universal machine capable of surface planing and thickening, ripping and crosscutting, spindle moulding and slot mortising. It is, however, possible to purchase the machine as a four function, or alternatively a five function, unit and then 'upgrade' this to give the full range of operations the new machine is capable of.

The original Bestcombi from this French firm has been a firm favourite in its class for very many years, but the new model has a much higher specification. The first Bestcombi is essentially a collection of small machines mounted in a common table and powered by a single motor which necessitates belt changing when switching from one mode to another. The new machine is an integrated unit, has a large shared main table and three separate motors all rated at 750 watts output. The electrical wiring and controls are such that only one motor can be running at once, there is a simple change-of-mode control at the front, a switch at the rear for the spindle and a single switch also at the front which operates both the saw and the planer.

The market

With the top having a size of 560 x 900mm, this is a machine aimed at the small professional shop, or the serious amateur. In its six function mode and with all attachments in place, the Bestcombi has an overall size of 1700 x 1150 x 1100mm high.

Last month

In the last issue of the magazine, we took a close look at the sawing facilities offered by the Bestcombi and the spindle moulding provision. Both these functions use tooling with 30mm bores, there is an overlap of use relating to the sliding carriage, but this is designed in such a way that there is really no loss of efficiency. This month we take a close look at the planing provision and the slot mortising unit.

Planer thicknesser

This is positioned on the right hand side of the machine, the surface planing tables having an overall length of 900mm, the width is 200mm which is the length of the blades and therefore the maximum width of wood which can be planed. The dynamically balanced cutter block is 56mm in diameter and carries two knives. These are held in place by the usual method of wedge blocks locating in dovetailed slots in the blocks, with four set screws in each to provide the actual tightening. The block revolves at 6500rpm.

The rear table is non-adjustable, adjustment being a refinement which can make setting the blades a little easier. The front table adjusts in the usual way by moving downwards and backwards so as to provide the depth of cut required. Maximum depth of cut is 3mm. The knob for this adjustment is at the side of the table rather than the customary end location, this because of the rail along the front which holds the main fence which is used when ripping

Prices and information

Recommended retail prices are :

Four function machine; £1232.00; five function version, £1380.00; and the six function Bestcombi, £1560.00. VAT has to be added to these prices.

Further information on the new Bestcombi 2000 range, along with other Kity machines and all appropriate accessories, available from: Stayer Tools Ltd., Unit 9, Guildford Industrial Estate, Deaconfield, Guildford, Surrey. GU2 5YT. Tel : 01483 454502 Fax : 01483 454415

and can also be used when planing the edges of material. All UK sold Bestcombi machines will now be supplied with the alternative fence for use when planing. This will tilt up to 45 degrees, the long main fence will not. A cutter guard, for use when surfacing, is carried on an arm which can be readily swung out of the way when not required.

General principles

The general design of planing machines follows very similar technical principles wherever in the world they are manufactured, it is in the details where they vary. A slightly unusual aspect of this machine is that the

surfacing tables remain in place when thickening takes place. The inner ends of the tables are heavily 'toothed', this is a feature to lessen the noise generated by a planing machine and seems to be particularly effective with this combination.

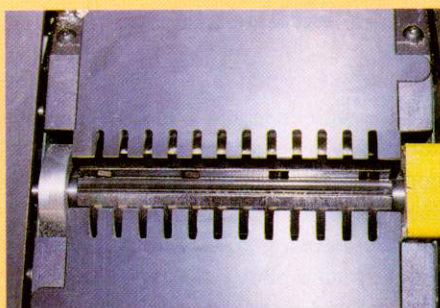
The thickening table is 420mm long, but will only carry material to a maximum width of 195mm - the slight loss of width compared with the surfacing is because the thickening table has lips at the edges, these are to ensure correct passage of the wood through the machine. Thickening height is a massive 200mm and again the maximum cut at one pass is 3mm. Minimum dimension to which wood can be thickened is 4mm. The automatic feed to this part of the machine is de-clutchable, with the feed rate being 7.50 metres/minute.

Thickening table

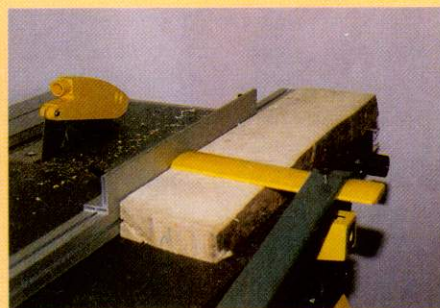
The thickening table is supported on four corner pillars, linked by chain and sprockets to a handwheel so as to adjust the height. The handwheel located into the top of the machine and is removed when surfacing is taking place. There is a scale at the infeed end of the thickener to indicate the setting of the table, with a pointer which can be adjusted although this arrangement, on any planing machine, must only be taken as a guide.

What is not obvious because of the non-lifting design of the surfacing table is that beneath these are the serrated infeed roller which provides the drive to the wood when thickening, the plain outfeed roller and the anti-kickback fingers.

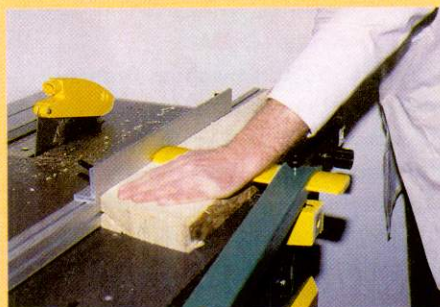
What is quite an innovative feature of this new Bestcombi is the guard which also serves for the collection of chippings. The guard rests on the thickening table set to a height to hold it in place, or on the surfacing table when thickening is taking place. What makes the guard different, though, is that a toggle screw locates in a slot near the end of the infeed surfacing table whether in the upper or lower position. Not only does this toggle screw hold the guard firmly in place, it activates a switch before which the machine cannot be switched on.



1. Inner ends of surfacing tables are heavily toothed.



2. Surfacing wide material.



3. Edging, using combined saw/planing fence.



4. Edging the material up.



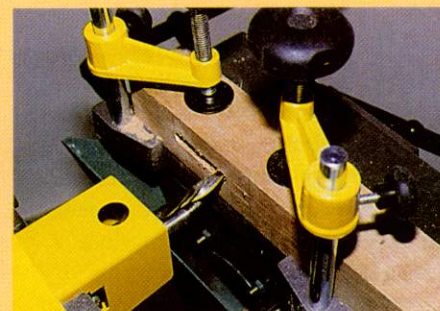
5. Passing wood through machine for thickening.



6. The mortising attachment in place.



7. Typical mortising taking place.



8. Mortising up to 12mm wide is possible.

This is a new idea to me, a very clever one as it means that the planer when both surfacing and thickening cannot

be used without the guard in place. This is an excellent improvement to the safety aspect of a planer thickener.

Dust extraction

The above guard is designed to be linked to a vacuum dust extractor; in fact this is really essential as otherwise the guard simply becomes very quickly choked with chippings. And remember, the machine cannot be operated without the guard in place, so it would be very unwise to try to bypass that secondary safety switch.

The mortiser

This attachment secures to the thicknesser table; the bits are held in a chuck at the end of the cutter block and because of this the bits must be left hand cutting. Chuck capacity is 0.5mm to 10mm, but the maximum mortising capacity is 12mm. Speed of rotation is as for the planer block.

As well as bolting to the underside of the thicknessing table, there is secondary support given to the two rails where they pass through the body. This ensures maximum rigidity to the unit.

The work table

This measures 270 x 135mm, with the front edge being lipped, against which the wood is aligned. Two clamps are provided which locate into the table, these are essential to ensure the wood is properly secured and able to resist the forces resulting from the boring action of the bit. Vertical adjustment is provided by raising and lowering the thicknessing table and up to 90mm of height movement is available. What this means is that when thicknessing wood up to around this size then the attachment can be kept in place, but for material thicker than this then the mortiser must be removed.

Movement of the table and therefore the wood is controlled by two levers, one provides the forwards movement, the other the lateral one. Stops are provided to limit the depth with a maximum of 75mm, also the length of the mortise which can be controlled up to 100mm. However, by repositioning the wood on the table, the cut can be of any reasonable length. The advantages of the stops can be best exploited when several mortises have to be formed since the marking out can be kept to a minimum. To complete the facilities of this part of the universal, a

chippings' funnel with an outlet port secures to the underside of the table.

The stand

The whole machine is mounted on a substantial leg stand of steel construction and a wheeled base is available as an extra. Other extras include tenoning hood, setting device for the planer blades, a dust extraction hose set and a wide range of cutters for the spindle. The Bestcombi 2000 is also available with three phase electrics.

Conclusions

So did the new machine from a very respected French manufacturer live up to expectation? It is really quite a different product from the original Bestcombi, far more substantial in size, capacities and specification than the earlier combination of similar name.

The large working surface is an obvious advantage and offers generous support to the workpiece. The three motors, along with the switching for these, mean ready changeover of mode, although some physical setting of fences and guards is also needed. The overall impression with this machine is one of quality of materials and design, although with any combination unit compromises have to be made.

The saw operates on what might be regarded as a 'back-to-front' basis when compared with typical bench saws, that is, the rip fence is secured to the left of the blade, with the cross cutting to the right. It is, though, possible to locate the fence to the right if only narrow material is to be ripped.

The fence itself has a generous length and is very rigid once fixed to the table at the front and rear, but does not adapt to give a short, but reasonably high fence as is usually needed when ripping typical material.

However, adding a wooden fence to suit the preferences of the owner would be easy.

The fit of the mitre fence in the slot in the table is virtually perfect and I found it easy because of this and the dual faces to produce perfect mitres as well as any other angle needed.

The sliding carriage is also exact in its

operation, although when repositioning this attachment in the forwards-backwards position the inner Kip fittings which hold it to the supporting brackets are a little fiddly to adjust and could lead to making a contribution to the swear box!

The spindle is of conventional form, although with limited support on the table for the workpiece; it's ideal for cabinet work, although hardly the machine for heavy joinery constructions. The fence has all the usual refinements, but only a small cutter block can be fitted.

The ring fence is an extra, two rings are provided for tackling work of different curvatures, however, a fulcrum pin is not included. Again, it's not a major job for the owner to provide his own.

The planer operates very sweetly both for surfacing and thicknessing, although the guard when surfacing does have to be manually lifted over the wood. I did find that the support to the adjustable fence, when slid to the right hand side, tended to partially foul with the riving knife. No problems when thicknessing, but do not mislay the handle which is loose.

The mortising attachment is a very handy facility, especially when several similar mortises have to be formed. It is at its best on smallish material, when mortising near the end of, say, standard size door stiles, then some additional support for the wood is essential. The same is true on most similar attachments I have used on other makes of machines.

All things considered, this is a well thought-out and produced machine, not perfect, but then such a machine has yet to appear on the market.

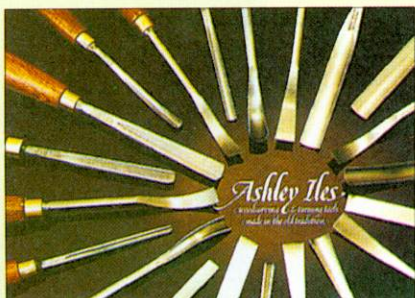
It has a lot in its favour, the prices for the various modes are quite competitive with the advantages that the two models with rather lower specifications can be upgraded when required. This new machine is available as a four function model carrying the circular saw, spindle moulder and planer thicknesser stations.

The five function model includes the slot mortiser attachment. The six function model includes the sliding carriage which operates with both the saw and the spindle.

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The Bosch Gas 12-50RF

An all-purpose vacuum cleaner assessed by Alan Watters

In the interests of health and safety, a purpose-made dust extractor makes sense in any workshop. The accumulation of dust and shavings is not only a health hazard, but a fire risk too and then there is the task of cleaning up all the nooks and crannies.

Bearing this in mind, I decided to invest in a heavy-duty, multi-purpose vacuum cleaner.

The model I chose was the Bosch Gas 12-50RF. The vacuum is powered by a large 1200 watt motor. It has a (gross) container volume of 50 litres and weighs approx. 15kg.

The cleaner stands 700mm high and 350mm wide. It is moved quite easily by two large wheels at the rear of the machine on its base and steered by three heavy castors at the front.

Chassis design

This is integral with the container and allows the vacuum to be moved simply by use of the two suction pipes. By pushing them together and inserting them into the centre apertures of the accessory compartment, an instant handle is formed and when used in conjunction with the handle on top of the cleaner, it can be moved quite easily, even when full of waste.

Control

It has an automatic remote control facility where on connecting any power tool into the power socket on the front of the machine, the vacuum will start and stop automatically in synchronisation with your power tool.

Paper filter

The vacuum can be used with a paper filter bag, this will help keep the internal folded filter free of dust build up for longer periods, it also makes for easier disposal of the waste. The machine can be operated without a filter bag if required, but a dust deflector must be fitted to the inside of the container to prevent damage to the internal folded filter.

After some use, depending on the material being vacuumed, the internal folded filter will become soiled with dust deposits and so reducing vacuum power. To help prevent this, the cleaner is fitted with an electromagnetic vibration device. By depressing a button on top of the cleaner, the device is activated and in doing so, it 'shakes' off excessive dust from the folded filter. The filter can be cleaned of any adhering dirt when need be by taking it out and rinsing carefully with water and allowing it to dry completely before reinstalling into the machine.



Fluids

The cleaner will also vacuum fluids and when the container is full, the machine will stop immediately.

The vacuum comes with a selection of accessories and the main hose length is 2 metres long, it comes with a cable length of 10 metres allowing plenty of free movement.

The suction power of this unit is most impressive, picking up all manner of workshop waste including metal swarf with an almost insatiable appetite. All in all, I was very impressed with the overall performance of the Bosch Gas 12-50RF and it will prove a very useful addition to any workshop.

Tool Specification Gas 12-50 RF

Rated Input	1200 watt
Container volume (gross)	50 litres **
Paper bag filter	13 litres **
Vacuum *	230 mbar
Airflow *	57 l/s
Suction power	2150 l/min-1 with 6 mbar
Folded filter surface	7200 cm ²
Filter category	G
Weight	Approx. 15kg.
Protective glass	/1
*	Measured at blower
**	Needs to be checked, manual not too clear

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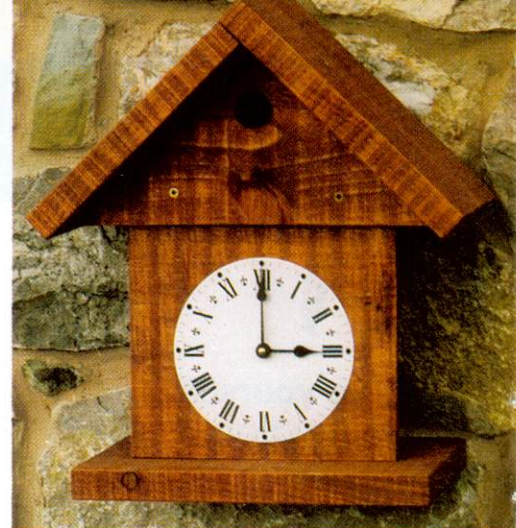
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Avian Clockhouse

Some garden fun with Wally Hughes and a project for beginners



This outdoor clock and nest-box was designed as a rustic piece of garden furniture and thus should be built from sawn timber. Originally it was intended that the simple construction would be merely pinned and without any fancy woodworking skills necessary for its making. Some of the prototypes were made from larch which is well prone to splitting, when being nailed, so they were first drilled and fixed with 50mm No. 6 screws instead. This method of fixing we shall describe here.

The whole project is made of softwood i.e. spruce, fir, pine etc., but of course, home grown hardwood would look equally well. The front can be made alternatively to the method described,

from matchboard pieced together where those wide thin pieces of board are hard to find. A plywood front, I am afraid, ruins the whole appeal of the finished project and should therefore not be used.

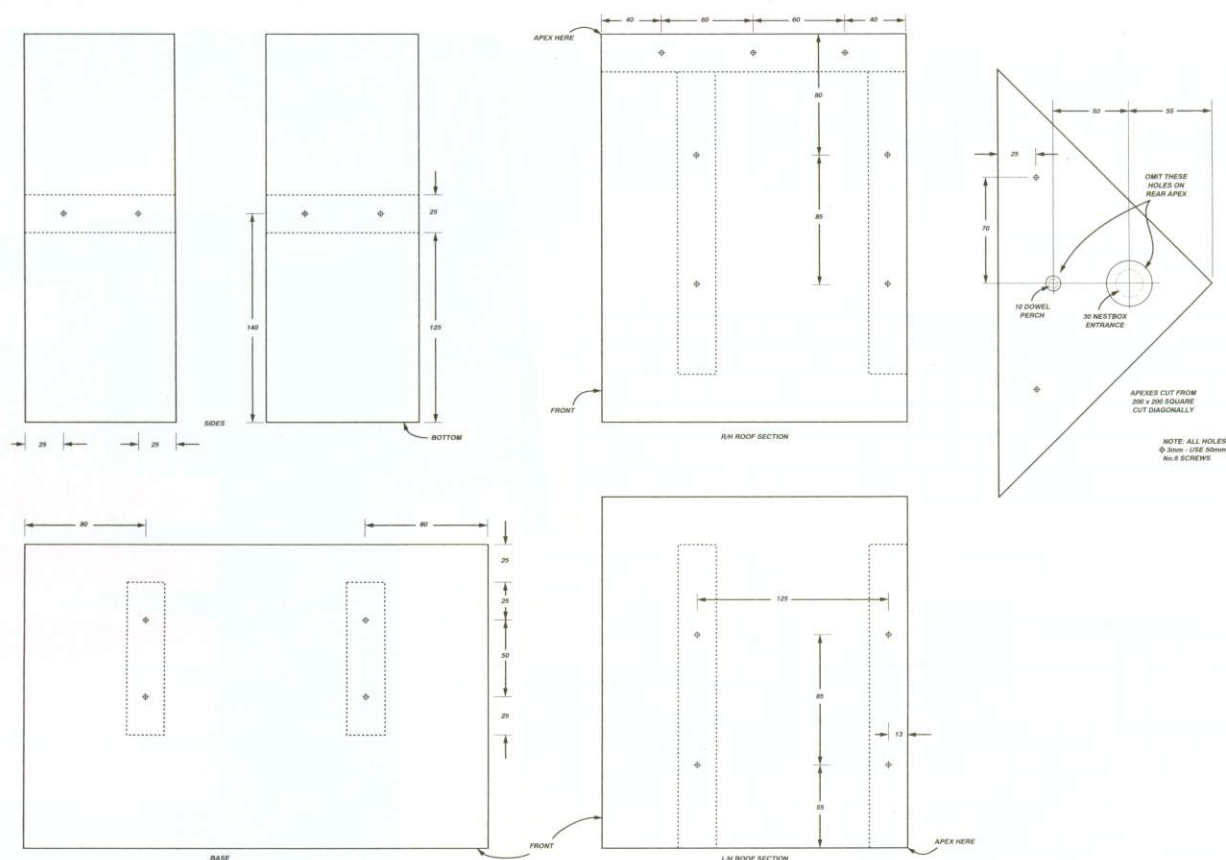
Drilling

Having followed the cutting list we then prepare all these pieces, for drilling to take the fixing screws. Following drilling, the first stage in our construction is to fix the small divider, which separates the nest-box from the clock compartment, between the two sides. Joining these pieces, with two screws per side, we should end up with a sub-assembly in the form of the letter 'H'. The base piece is then fitted to this 'H' section, with four screws, remembering that the

bottom compartment formed, which is to take the clock movement, will be 125mm high. Keep the side parallel while fixing. With the sides correctly fixed to the base there should be left a ledge 25mm to the rear of this new assembly with of course a lot wider ledge to the front and sides. Put this assemblage to one side for the time being.

The roof

We next go on to the roof section. Join the R/H roof section (the longer of the two sections we have prepared and drilled) to the L/H roof section with three screws. With these pieces joined, the rear apex is now screwed into position using four screws. Without fitting the front apex, now fit this assembly to the base/sides



assembly, made earlier, by screwing through the back of the apex into the top of the sides with two screws, ensuring the roof sits squarely. The front apex can now be fitted making a tight fit, using two screws through the apex and four through the roof.

The front

The piece or pieces chosen for the front can now be finely trimmed for a perfect fit, but first a hole must be drilled to take the spindle of the clock movement. With the trimming complete, drill a 10mm hole through the centre line of the piece exactly 90mm from the bottom edge. Now pin the front squarely and centrally to the Clockhouse. Likewise trim and fit the rear cover, but fit this with a small screw instead to facilitate access. Glue in the 10mm dowelling for the perch into the front apex.

The finish

With the construction now completed it should be decided before fitting the movement if some sort of finish to the project is preferred. Ornithologists tell us birds too can smell and are put off with heavy pungent smells as with creosote and the like. I have personally found no trouble



Waiting for the works.



Ready to go

with Sadolin, when dry, on my clocks nor have I had a problem with any of the water based finishes. There seems to be no evidence colour will upset the birds either so colour your clock at your discretion.

When the finish is completely dry the clock may be fitted. Firstly remove the rear cover. The movement is fitted from the rear pushing the spindle through the hole in the front cover, ensuring the rubber washer supplied with it, is between them. Holding on to the movement with one hand, pass the brass ferrule through the dial and screw it through the 10mm hole in the cover and into the movement, from the front, with the other. Line up the dial and tighten the ferrule. This secures the dial and the movement. Now place the hour hand into its place on the spindle only very lightly for

now. The minute hand fits next and will fit only in one position, then fit the spindle end cap and tighten up properly. The hour hand can

now be orientated properly. Turn the minute hand to any hour, but let us say the 12 o'clock position. The hour hand, having only been lightly fitted, should turn gently on its spindle, again to any hour, but let us say to the 6 o'clock position while keeping the minute hand still at its 12 position. With the both clock hands positioned correctly as described, push down firmly the hour hand onto its spindle using your thumb nails on either side. When the hour hand is firmly in position no attempt should be made to move the clock position by turning the hour hand or damage to the movement will arise. To set the clock to the correct time the minute hand only may be turned from the front, or the adjuster on the movement itself may be moved from the rear access.

A long life AA battery (Duracell etc.) will drive the movement for two years, but changing the battery every year would ensure the clock will not stop half way through a season if the clockhouse is adopted by a breeding pair of birds and thus eliminating their being disturbed to get the clock going again.

Cutting List

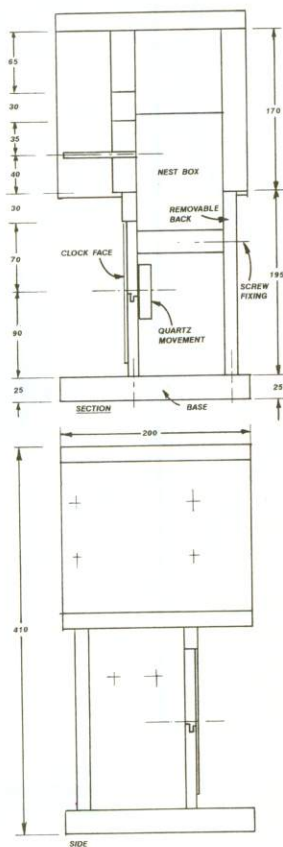
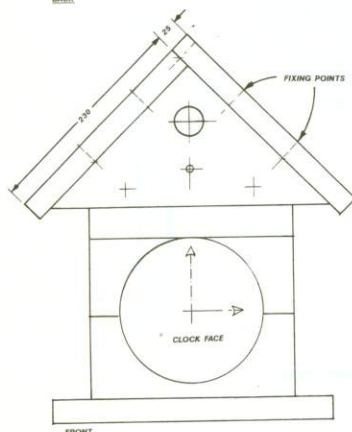
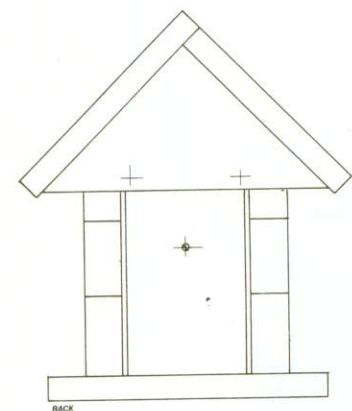
Dimensions: mm

	L	W	T
Base	305	200	25
R/H roof section	255	200	25
L/H roof section	230	200	25
Nestbox/clock sides	260	100	25
Nestbox/clock divider	115	100	25
Apexes (from)	200	200	25
Front cover (trim to suit)	230	200	10
Rear cover (trim to suit)	200	150	10

Perch: dowelling 65 x 10

Clock motor and dial
Junghans quartz clock movement with 16.5mm spindle length
6in. (150mm) painted clock dial
Black painted hands to suit

(Clock movements, dials and hands can all be supplied from: C & L Clocks, Bude, Cornwall).



Floating Bowl

Fanciful, impressionistic and not over practical, floating turnings are nevertheless a great favourite with Ralph Harvey

Floating bowls are a style of turning I have developed into several variations, all of which work on a similar principle to create the impression that the bowl is suspended in the air. By using a length of wire coiled into a spiral or the use of weights to counterbalance the bowl this effect is achieved. The project I will describe here is the original style of floating work and the simplest to turn.

Where to begin

The first step is to drill a hole suitable to mount the largest blank on your desired chuck and set your speed to 1500 to 2000 rpm. First we will turn the underside of the bowl, starting with a stump to mount the piece when we turn it over this needs to be 40mm diameter by 10mm deep. We will leave a wing around the outside of the bowl, the proportions of this need to be the bowl taking up approximately half the diameter of the blank with the wing taking up the remainder.

We want to create the appearance of a flowing line running from the outside to the centre of the base, a slight downward

curve to the wing will help the flowing appearance.

Now we can remove the waste timber to within 7 to 10mm of your desired bowl and wing shape. Next you need to drill a 8mm hole for the finial that will support the sprung wire. This needs to go into the bowl wall at the top of the curve 5mm deep (remember to add the extra thickness of waste timber). You can now cut back to your finial bowl shape, take light cuts and try to blend the cuts to create a flowing curve.

We can now sand the under side of the bowl starting with 80 grit and remove the chisel marks, then we can use 120 grit to remove the lines left by the previous grit,



and finally repeat the process with 180 and 240 grits. This should leave a reasonable finish, but for a finer finish you can also use 320. Seal and polish, lacquer or oil the work.

The next step is to turn the piece over ready to turn the top. If you have a 3 or 4 jaw chuck you simply need to grip the stump in the jaws using the tailstock to centre the work.

If however you are using a screwchuck you will need to turn a scrap piece of timber to mount the stump in.

You will need a piece of timber

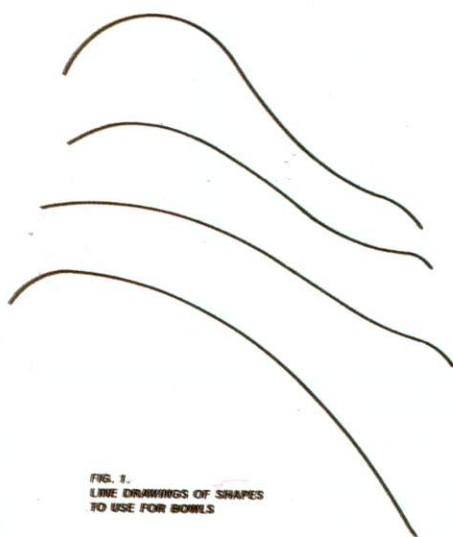


FIG. 1.
LINE DRAWINGS OF SHAPES
TO USE FOR BOWLS

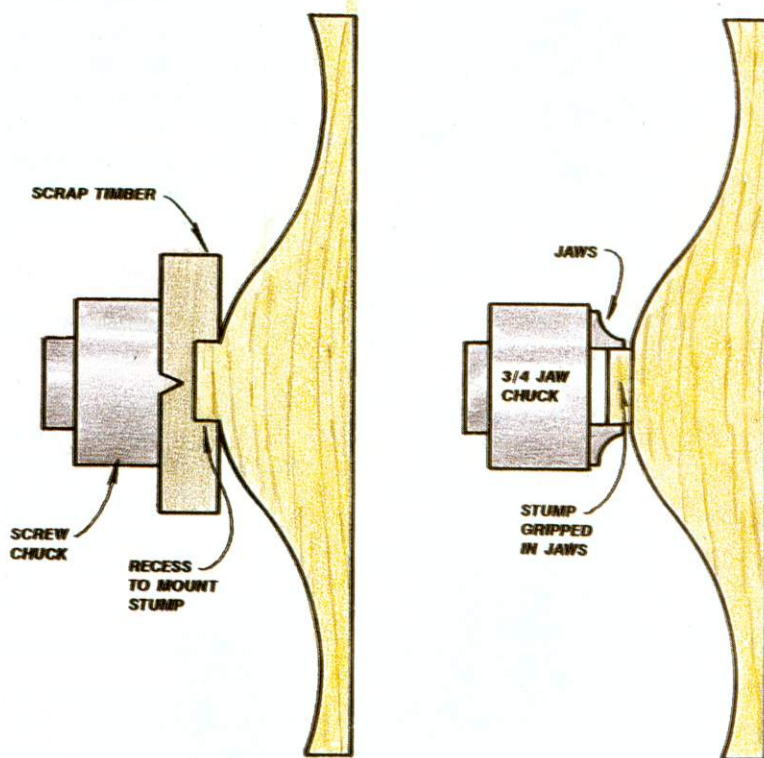


FIG. 2.
2 METHODS OF GRIPPING
STUMP OF BOWL

approximately 80mm diameter by 30mm thick; mount it on your screwchuck and turn a recess in the timber exactly the same diameter as your stump. Keep stopping the lathe to check the fit of the stump. When you have turned the recess to a tight fit we can mount the bowl blank with some hot glue using the tailstock to centre and hold the blank whilst the glue hardens.

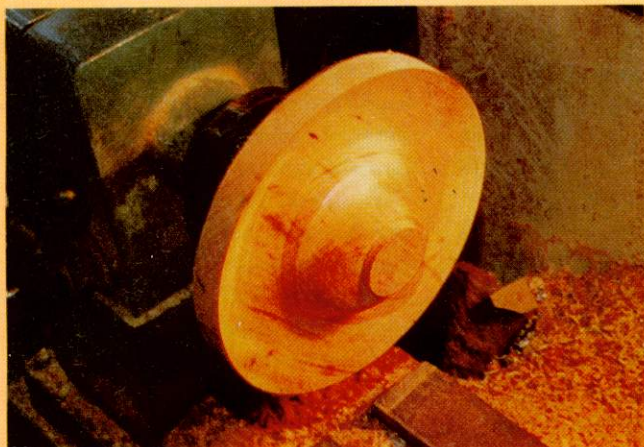
Truing up

The next step is to true up the face of the work, then we can mark out the inside of the bowl. This needs to be approximately 15 to 20mm smaller than the overall outside bowl size. Then mark two more 7mm spacings outside the bowl line these are for two decorative beads around the top of the bowl.

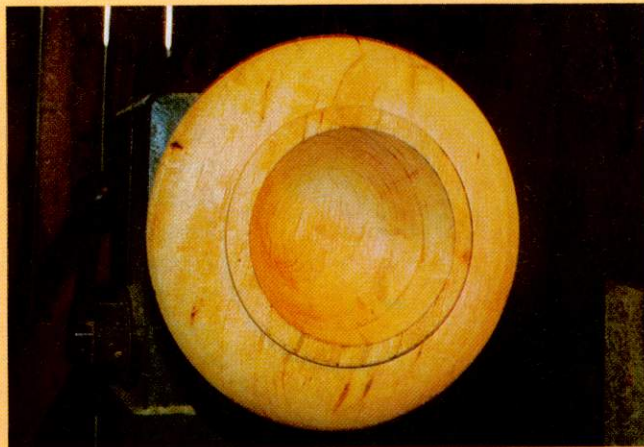
The first step for turning is cut a groove

outside the line nearest the rim of the wing this needs to be approximately 5 to 7mm deep and then remove the waste timber over the wing section. Using a pair of callipers clean back to your desired wall thickness 7 to 10mm; take gentle cuts and constantly check with the calipers to get an even thickness. You can now sand the wing section, as we did before

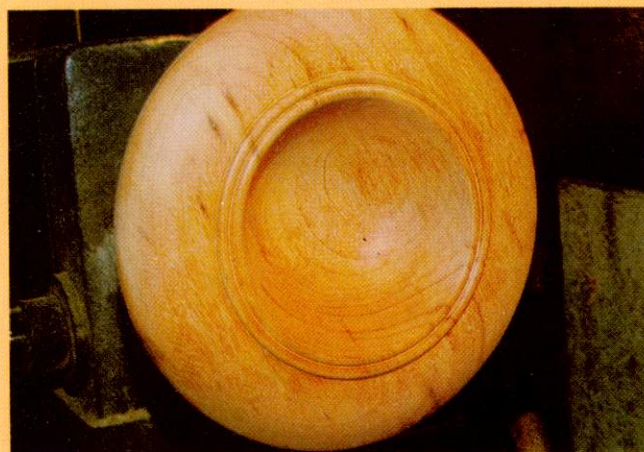
Now turn out the waste timber from



Stump on base and proportions of bowl/wing.



Turned wing and proportions of beads.



Beads turned.



Point turned at base.



Underside of lower base including raised section.



Recess in top of lower base.

Bowl	1 off.	250mm diameter	x 50mm thick	goncalo alves
Upper base	1 off	100mm diameter	x 30mm thick	goncalo alves
Lower base	1 off	140mm diameter	x 30mm thick	black walnut
Finial	1 off.	15mm diameter	x 40mm long	black walnut

1 length of 1.5mm brazing wire 400mm long.

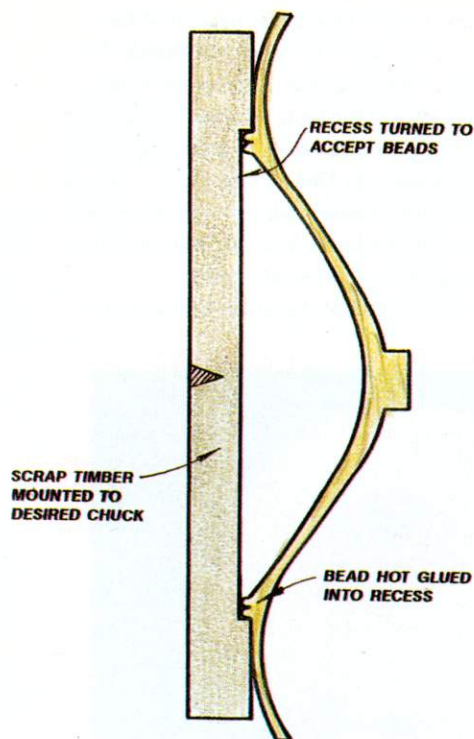


FIG. 3.
RECESS IN SCRAP TIMBER
TO HOLD BOWL FOR TURNING
OFF STUMP

inside the bowl leaving a wall thickness of approximately 10 to 12mm and following the outside bowl shape, then clean back to the desired wall thickness. Sand out the bowl.

The bead

Turn the bead around the top of the bowl on the 7mm spacing, the centre mark dividing the two beads is the first point to work on. Take your parting chisel, turn it on its side with the vee of the chisel pointing towards the centre mark then simply push forward into the mark cutting a groove of approximately 5mm deep; next turn your chisel back up the correct way and starting with the outside bead roll the chisel over cutting from top centre to the bottom of the bead forming a steady curve then from top centre again roll the other way forming a steady curve

in the other direction. Finally repeat the process with the inside bead. Try to form a bead of the same size as the first one and with the inside of the bead running over to meet the wall of the bowl. You can now sand the beads, as before, but this time you should only need start with 120 or 180 grit and seal and polish, lacquer or oil the piece as you did with the rest of the bowl. Turn the piece over and turn off the stump we left in the base, this will be turned and left as a shallow point.

To turn off the stump we will need to turn up another scrap piece of timber to remount the bowl on, this needs to be approximately 150 to 170mm diameter by 30mm thick. Mount this piece on your lathe and first face it and true up the edge, next we will need to measure across the face of our bowl, measure across the outside of the beads accurately, this

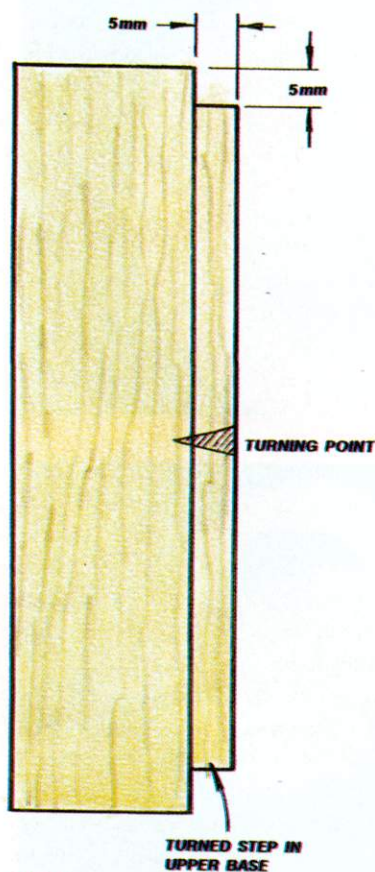


FIG. 4.
MARKING & CUTTING
STEP IN UPPER BASE

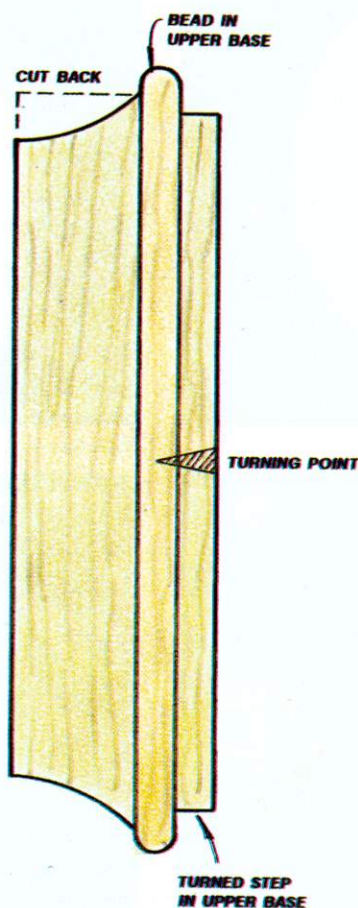


FIG. 5.
MARKING & CUTTING
BEAD IN UPPER BASE

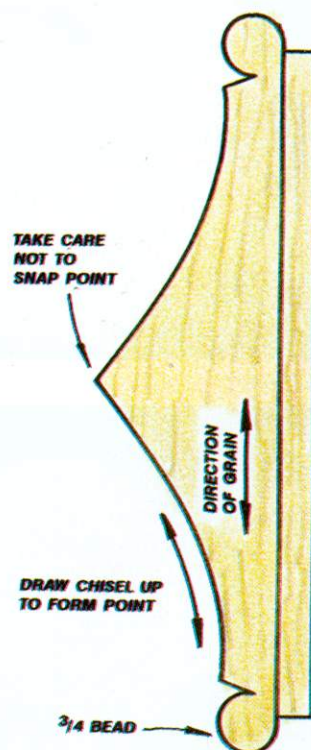


FIG. 6.
CHISELLING UPPER BASE
TO FORM POINT

should be about 140mm, but may vary according to the size of your beads, this is the size of recess we need to turn in our jig to mount the bowl in, remember to take light cuts and keep stopping the lathe to check the fitting of the bowl. When you have a perfect fit in the recess you can remount the bowl in the jig using a few spots of hot glue to secure it in place and your tailstock to centre the bowl whilst the glue hardens.

We are now ready to turn off the stump. Leave the tailstock in place as long as you can, follow the same curve as your bowl, then remove the tailstock and draw the remainder out to a shallow point; take care it is cross grain and is likely to snap take light cuts then sand as before. Remove the bowl from the lathe and store in a safe place whilst we turn the remaining components of our piece.

The base

This is for our bowl to spring from. Starting with the piece 100mm by 30mm which will be the upper part of the base mount it on the lathe and true up the face and edge. We now need to create a step in the outside edge of the piece the size of which will be 5mm deep by 5mm across leaving the centre raised approximately 90mm across.

Now we need to turn a 5mm bead at the top of the recess. Firstly mark up from the recess 5mm and draw a line round the piece, then using a parting chisel on its side (with the vee pointing towards the blank) push the chisel in to the piece cutting a groove approximately 4mm deep; then turn the chisel up the right way again and from the centre of the 5mm section roll out to the lower part of the blank forming a steady curve, then the other way to form bead.

Turn the piece over to turn the top of the base. But, instead of wasting another piece of scrap timber we will start the lower part of the base and use this to mount the piece in to finish it.

Take the piece of timber 140mm diameter, mount it on the lathe and true up the face and edge as we did on the first piece. The last part on this face is to turn a long chamfer on the outside edge of the blank 20mm in and 5mm up the wall. You can now sand this piece as it will be the base.

Next remove this piece from the lathe

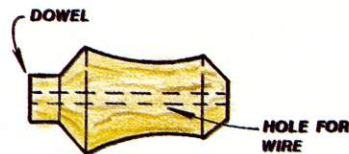


FIG. 8.
FINISHED
FINIAL
SHAPE

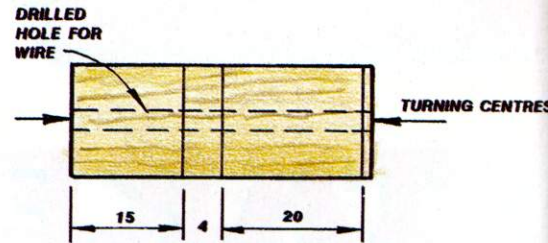


FIG. 7.
MARKING OUT FINIAL

and place to one side for the moment. Remount the scrap pieces of timber we previously used and turn up the face and edge then mount the 140mm diameter blank on the scrap timber, using hot glue and the tailstock to centre as we did before. Start turning the top of the lower base; the first part of which is to turn a recess to fit the upper part of the base and this needs to be a snug fit.

Run the decorative edge to the 140mm blank; for this we will turn a simple shape so as not to distract from the bowl.

From the recess mark out 5mm and draw an arc, then mark up from the bottom of the blank 10mm and mark this point. You now need to turn a steady inward curve from the top mark to the lower one, then we need to round over the bottom 10mm section of the blank.

Using a parting chisel roll from the centre to the bottom of the blank then repeat the process in the other direction to meet the curve we have just turned. You can now sand this section of the piece.

We now need to glue the upper piece into the recess we turned with PVA glue. Allow time for it to set before continuing the turning of the upper base. Once set we can continue the bead we previously turned to form a 3/4 circle. Firstly remove the waste timber 20mm in down to the top of the bead. Now mark 5mm in from the outside of the bead with a pencil. Use your parting chisel and cut a vee as we did before on this pencil mark approximately 4mm deep. Then turn your parting chisel up the right way and carefully roll into the vee continuing the bead round. Now using a skew chisel carefully cut from the top of the vee to the deepest point forming a clean straight line.

Form a steady curve from the top of the vee section raising up to a point in the centre and be careful when approaching the centre; remember it is cross grain and is likely to snap.

Now sand this piece as we have done before. Then seal and polish, lacquer or oil the piece as we did to the rest.

Remove this piece from the lathe and put it safe with the bowl section.

The finial

The last piece to turn is the finial to mount the bowl to the wire. This is turned from the piece 15mm square by 40mm long. You will need to drill a hole through the centre first which needs to be the same size as your wire. Once you have drilled your hole mount the timber on the lathe between centres. Take care when turning, this piece will split if you apply too much pressure on the centres.

First turn the blank to a round on a high lathe speed (about 2000 rpm) then stop the lathe and mark out the size of the finial and the dowel. Starting from the headstock end mark in 15mm with your pencil then mark 4mm for the dowel and lastly mark 20mm for the finial.

Open a set of calipers to about 8mm and turn between the dowel marks with a parting chisel until the calipers just fit over the timber. Next, turn a shallow curve from about 2mm inside the lines at either end of the finial and lightly sand with 180 grit paper, then with your parting chisel and starting at the dowel end cut the ends off at about 45 degrees, repeat the process at the other end, but be careful not to cut too deep or you will cut into the hole we previously drilled through the blank. Now sand either end with 180 grit paper then the whole with 240 grit.

Cutting away the waste

We are now ready to cut the waste timber from the ends of the finial. Holding a skew chisel firmly in the right hand resting the bulk of the handle on your arm and supporting the finial with your left hand, lightly cut into the top of the finial until you meet the hole running through the centre, at this point it should neatly part away. You can now cut the waste timber from the dowel end leaving a 4mm long dowel to fix into the bowl.

All that remains is to shape the wire into a wide spiral, then simply glue the pieces together; you will find that super glue is the most effective type of glue for this.

TAKE YOUR TURN

£3000 in tools and equipment to be won

Woodturning remains the central element of

our annual National Woodworking and Turning Exhibition at the NEC, Birmingham from 3rd to 5th October, 1997. And as always, it offers you the chance to couple imagination with skill, demonstrate your talent, and win a great prize.

Sponsorship of the competition has been taken up by Craft Supplies in conjunction with Delta UK, BriMarc, and Purelite and there are prizes to the value of £3,000 on offer.

Competition there certainly is, and there were around 80 entries submitted last year. This year we hope that there will be an even bigger and better display which will also feature your work. Clubs may perhaps help by encouraging members to participate and coordinating work for entry.

Winners will be able to choose items to the value of their prizes from Craft Supplies' comprehensive catalogue of machinery, tools and accessories. At the Show itself the entries will as usual form a superb display of work. Visitors will also have the opportunity to choose the item which they think should be the 'overall winner' of the competition by casting a vote, and the turner of the item receiving the most votes will be awarded a special trophy which

is donated by The Association of Woodturners of Great Britain.

Entry to the competition

Competitors may enter as many pieces as they wish in each category but may only win one prize in each category. There is no specific theme and the pieces need not have been made specifically for this competition. However, they should not have been exhibited before at a major woodworking event.

Criteria for judging

Entries may be in the form of faceplate turnings, spindle turnings, decorative turnings or as turned components of a larger project. The use of a woodturning lathe must be predominant, and entries should demonstrate the use of hand skills in woodturning. Items should also principally be made of wood and may be finished in any way you choose. All accepted entries will be examined by the judging panel (who will have no knowledge of entrants' names during the judging process) and marks will be awarded on the following qualities.

1. Craftsmanship: skill in using tools and the quality of finish.
2. Design: whether the item performs its function well and is visually pleasing.
3. Originality: is the design



Purelite helmet

of the item original or copied from an existing design.

4. Good use of materials and general appeal.

How to enter

Having first filled in and returned the registration form, all you have to do is to submit any item that you have made on the lathe and send it, together with a properly completed entry form, to: 'Take Your Turn' NEC Woodturning Competition, Nexus Woodworking Titles, Nexus House, Boundary Way, Hemel Hempstead, Herts. HP2 7ST

Your entry must reach us no later than Friday 19th September 1997.

All entries will be returned after they have been judged and displayed at The National Woodworking & Turning Exhibition, which takes place at the Birmingham National Exhibition Centre from 3rd to 5th October 1997. Alternatively, entries may be collected from the Exhibition Hall on the last day of the Show (Sunday 5th October) after 5pm.

To avoid damage in transit, please ensure that your entry is well packed, especially if it

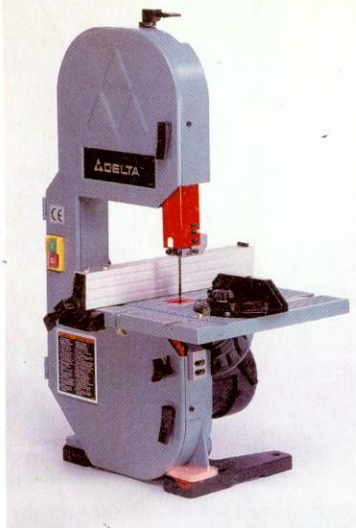
incorporates any delicate details or is at all fragile. It is a good idea to send your entry recorded or registered delivery and/or to insure your work against damage or loss in transit through the Post Office, Parcelforce or with the relevant carrier. Please write your name and address clearly on the outside of your packaging. Whilst it is not intended to open any entry/parcel prior to its arrival at the Exhibition Hall to avoid unnecessary unpacking and repacking during transit, any parcel that shows obvious signs of damage on arrival will be opened immediately to ascertain if any parts are broken or damaged.

Alternative arrangements

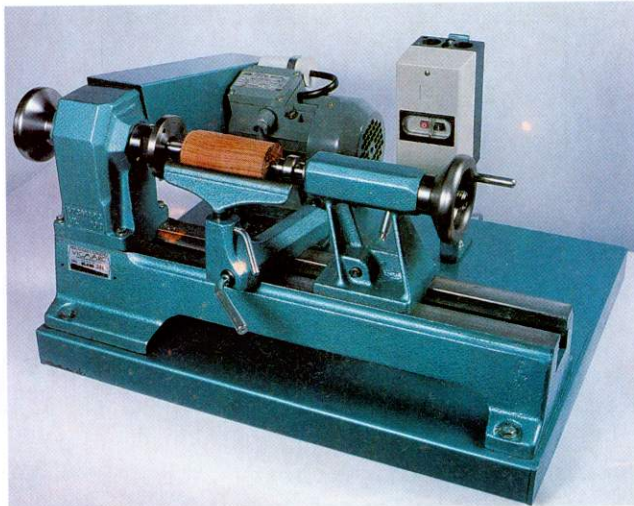
Entrants who wish to make alternative arrangements for delivery of their work are invited to telephone the magazine's editorial offices (Tel: 01442 66551).

Registration

Before submitting your finished piece of turned work we ask you to complete the registration form and send this in separately to the



Delta bandsaw



Vicmarc lathe

magazine. This allows us to label the entries and produce graphics in sufficient time to describe the items before putting them on display. All entrants will be given free entry to the Show for the Sunday, to allow them to attend the prizegiving and to collect their entries if they wish.

The competition is open to all

readers resident in Great Britain, Northern Ireland and the Channel Islands, Eire, Isle of Man, other than employees (and members of their families) of Nexus.

Entries must be in the form of an object or set of objects, practical, functional or decorative, and should

principally be made on a woodturning lathe.

They should be constructed mainly of wood and may be finished in paint, varnish, stain, etc. Other materials may be used for decoration and non-wood mechanisms and accessories may be incorporated.

Items for this competition should not have been entered in previous competitions other than local club or association events.

Any entry arriving after the closing date will not be considered and no responsibility can be accepted for entries lost, delayed or damaged in the post or elsewhere.

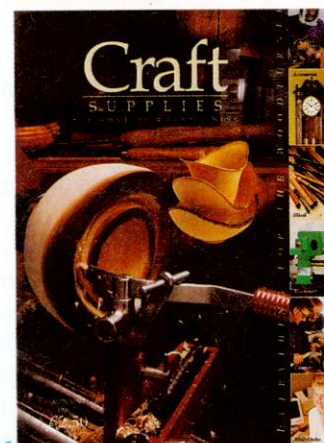
Entries received incomplete, not accompanied by an entry coupon cut from the magazine, or not complying with the instructions and rules will be disqualified.

All entries will be displayed at The National Woodworking & Turning Exhibition at the Birmingham National Exhibition Centre from 3rd to 5th October 1997. Items will be returned after this date. The judges' decision will be final. In the event of there being insufficient entries of a sufficiently high standard,

Details of the Robert Sorby woodturning competition 'Making a good start' for turners under 19 years of age, can be found in Vol 101 issue 7 of The Woodworker published July 4th 1997.

Prizes from Craft Supplies

Winners may choose from the wide range of tools, equipment and accessories featured in the Craft Supplies catalogue. You can also consider using your prize value to part fund the purchase of a larger item such as the products from joint sponsors BriMarc, who are now offering the sturdy and compact Vicmarc lathes such as the New Zealand manufactured VL100 BP bench mounted lathe (shown in picture), or equipment from American manufacturers who have a wide range of equipment to complement woodturning activities such as the Delta 28 - 180 bandsaw (shown in picture).



Craft Supplies catalogue

Nexus reserves the right not to award all the prizes.

Entry implies acceptance of the rules as being final and legally binding. All items entered for the competition must be the entrant's own work.

Registration form

Please note, this is not an entry form but should be completed and sent to the address shown below by 30th August to show your intention to enter

To be sent to:

'TAKE YOUR TURN' NEC Woodturning Competition,
Nexus Woodworking Titles,
Nexus House, Boundary Way,
Hemel Hempstead,
Herts. HP2 7ST

Name _____
Address _____

Postcode _____ Tel. No. _____
Category or categories entered _____
Description of piece(s) _____

Wood(s) used _____
Date _____ Signature _____
Estimated value for insurance _____

Entry coupon

'TAKE YOUR TURN' NEC Woodturning Competition

Category 'a' faceplate	a	tick ☐
Category 'b' between centres	b	☐
Category 'c' composite	c	☐

Please tick which category you wish to enter. When entering more than one item please indicate on a separate sheet of paper which item is entered into which category

Name _____
Address _____

Postcode _____ Tel. No. _____

Dates to remember
30th August -
Registration forms in
19th September -
Entries to be sent in
(or alternative
arrangements made)

Reproduction - style bookcase

This is the first of a series of eight articles by Robert Thackery which feature the use of Contiboard for domestic furniture making

The bookcase stands 777mm (30 5/8in.) high, 781mm (30 3/4in.) wide and 320mm (12 5/8in.) deep.

The lower bookshelf has 355mm (14in.) of space above it, enabling it to accommodate most large books. The mid-shelf is 229mm (9in.) deep and can take books up to 305mm (12in.) tall. Sliding glass doors could be fitted if desired.

This is an ideal choice for the first project in the series. It is not very large - roughly 76cm high and wide - it does not have a large number of components - only nine pieces of board - so it is relatively cheap and quick to build.

Construction

Note: In this and the following articles, '6T', '9T', '12T', mean the true thickness of the 6in., 9in., 12in., etc. boards. '6W', '9W', '12W', mean the true width of the 6in., 9in., 12in., etc. boards. Screw holes are 5mm and pilot holes are 3mm unless otherwise stated. The embossed trim should be stained or painted before construction begins.

Begin by cutting five pieces of the 12in. wide board, each 762mm long. Examine the grain pattern on all five. Mark the most attractive pieces 'A' with chalk, the next two most attractive mark 'D' and 'E' respectively, the next one 'C'. Mark the last one 'B'. Keep this on the bench and put the others to one side.

Measure the thickness of the board (12T) very carefully and mark a strip this wide in from each end of B. At 100mm inwards from each long side, draw across the 12T strips and mark the central section as waste. In each outer section mark for screw holes at 25mm and 75mm from the long edges of the board. These holes should be central in the 12T strips.

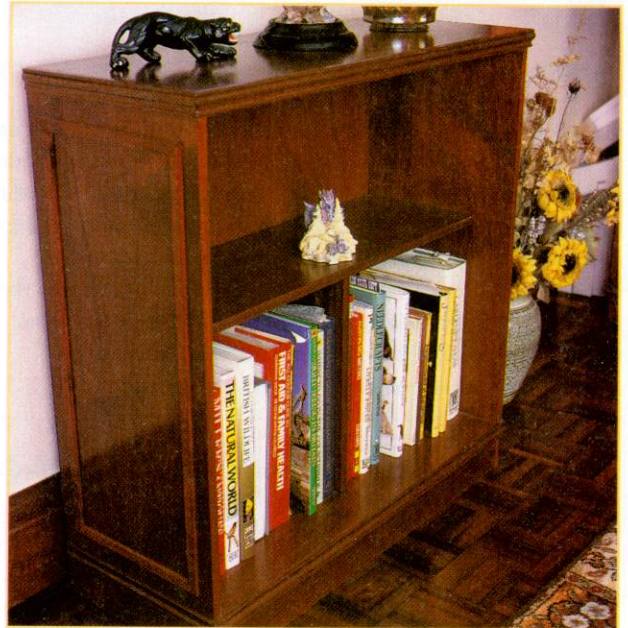
Draw a line 40mm inwards from and parallel to both long edges of the board. Find the centre of each line and mark for a screw hole. Mark for further screw holes at intervals of 165mm.

Cut away the two waste areas and drill the 18 holes. The holes marked '+' should now be countersunk on the top surface and those marked '*' on the underside. Now take Part A and lay it best side down on the bench.

Put Part B on top of A with the underside uppermost. Using pieces of scrap wood to protect the surfaces, clamp the two boards together making sure that all the edges are exactly flush. Using a 2in. screw as a punch, mark through the countersunk holes into the underside of A. Separate the boards and drill pilot holes not more than 10mm deep where marked. Put A and B to one side.

Take Parts D and E. These are the sides. They are not identical and have to be mirror images of each other. Have a good look at the grain pattern of each board and decide which side has the best grain pattern and which end should be the top. Lay the boards side by side on the bench with the best faces underneath and the top ends together.

Measure 12T below the top end and draw a line across. Mark across this strip at 100mm in from each end and mark the two outer sections as waste. Measure 25mm in from each end of the central section and mark for screw holes centrally in the strip. Draw a line across each board at 75mm above the base end and a second line 12T above that.



Measure 100mm in from each side and mark across the strip - this time mark the central section as waste. Mark for screw holes centrally in the strip at 25mm and 75mm from each side. Cut away the three waste areas and drill the screw holes. Turn the boards over and countersink on the reverse.

Turn the boards back again so the best side is underneath. Measure 366mm up from the top of the lower strip and draw a line across each board. Draw a second line 9T above the first. Now place the boards side by side, long edge to long edge, with the bases together and the tops together. So far, they should look exactly alike. Measure 100mm in from the outer edges and mark across the strip. Measure 75mm out from the inner edges and mark across. Mark as waste the central area shown by a large asterisk on the plan. The boards should now look different from each other, but like mirror images. These central 'waste' areas now have to be channelled to a depth of 11mm. This is no great problem if you are experienced with a router and have one at your disposal, but otherwise it is a

2 Contiboard 12in. x 8ft.
 1 Contiboard 9in. x 8ft.
 2 Coving/Dado rail 8ft.
 2 Embossed moulding 8ft.
 20 Screws 2in. x 8 CSK BZP
 10 Screws 1in. x 8 CSK BZP
 48 Screws 5/8in. x 6 CSK BZP
 12 Joint blocks
 56 Panel pins 1in.
 50 Round wire nails 1in.
 6 6mm diameter hardwood dowels
 1 x 10m roll Iron-on edging strip
 1 6mm mahogany faced plywood
 762mm x 762mm
 1 tube Plastic wood filler, mahogany
 1 small tin Colron mahogany wood dye
 750ml can Ronseal Coloured Gloss
 Varnish, mahogany
 750ml can Ronseal Hardglaze Clear
 Gloss Varnish

Tools Required

Fine tooth panel saw (or electric jigsaw with Bosch T101 AO blade or equivalent)
 Fine tooth tenon saw
 Hand or electric drill with wood bits and twist bits up to 6mm
 12mm chisel
 Hammer and wooden mallet
 25mm flat file, medium cut
 Dowel marker set
 Steel tape measure
 Steel straightedges (12in. minimum)
 Large steel try-square
 Swivel blade keyhole/copping saw
 Heavy duty craft knife
 Bradawl or pointed centre punch
 Pin punch
 Pair of 3in. G cramps
 Screwdrivers

case of patient excavation with a mallet and a sharp chisel. Make a cardboard template as shown in Figure 1 and use it constantly to check the depth. Cut round the edges of the slot first and then lift out the centre, layer by layer, until you reach the correct depth. Take your time, do not rush it. Hit the chisel firmly, but not heavily and at all times keep both hands behind the point of the chisel. These channels are to support the ends of the shelf and must not be cut right through the board.

Take board C and mark a 12T strip across each end. As with B, mark across the strips 100mm in from each end. Mark the outer sections as waste. Draw a line across the board exactly midway between the ends. From the rear edge mark the dowel holes at 48mm, 126mm and 204mm as shown. Use a 6mm wood drill to bore the holes. Cut away the four waste areas at the ends of the board. There are now screw holes in this piece.

We will pass by parts F and G for the

moment and move on to Part H which is cut from the 9in. board. Measure the thickness of the 12in. board (12T), double it and then take that figure away from 782mm. The answer is the overall length of Part H. When you have cut it to that length, mark a strip 10mm wide across each end. From the rear edge mark across the strips at 75mm and 175mm and mark the outer sections as waste.

Decide which face of the board has the most attractive grain and lay the board on the bench with that side underneath. Draw a line across the width of the board exactly midway between the two ends. Double check which is the rear edge of the board and from it mark across the midline at 48mm, 126mm and 204mm. Drill dowel holes 6mm diameter and 10mm deep and cut away the waste areas from the ends of the board.

Cut another piece of 9in. board 366mm long. Lay it on Part H with one end on the centre line and the rear edges of the boards absolutely flush. Mark on the end of J the exact positions of the centre of the dowel holes on H. If you have a set of dowel markers - copper studs which fit into the holes and have a sharp point on the top - then by all means use them. Measure the length of the dowels you have, subtract 9mm and drill 6mm holes the necessary depth into the end of J. Tap dowels into the end of J and check that they fit into the holes of H. Make any adjustments necessary with the drill or fine round file.

Now repeat this process with the other end of J being marked to correspond with the holes on Part C. Make double sure that the back edge of J is flush with the back edge of C. This time take 14mm from the length of the dowels to give the depth needed for the holes in the end of J. Tape the dowels into the end of J and check that they fit into the holes on C.

Next, check that the tenons at the top of D and E fit into the open mortises at the ends of B; the tenons at the ends of C fit fully into the lower mortises of D and E; and that the tenons at the ends of H fit fully into the blind mortises in the middles of D and E. What we want in each case is a smooth snug fit, neither sloppy loose nor so tight it has to be forced. Make any adjustments necessary - if a joint is too tight, try enlarging the

hole with a flat file - if the joint is loose, try lining with a strip of iron-on edging.

Pilot holes are next on the agenda. Fit the tenons at each end of C into their mortises in D and E and the tenons of D and E into their mortises in the ends of B. Punch through all the screw holes with a 2in. screw and then separate the parts and rill the pilot holes 40mm deep.

First Trim

Place D and E on the bench with the blind mortises underneath. Draw lines across each board 27mm below the top strip and 27mm above the strip which has the lowest mortise. Join the top 27mm line to the bottom 27mm line with lines which run 27mm from the sides of the boards. These are the guidelines for the outer edges of the decorative embossed trim.

Cut the trim to length and cut the mitres with a fine saw. Stick in place with resin glue, wiping off any surplus adhesive with a moist cloth. Weight the trims down while the glue sets - preferably overnight. Of course, it is entirely up to you how you trim the unit.

Note! Resin glue seals the surface of the wood preventing it from absorbing colour and varnish. Wipe off excess with a moist cloth immediately!

Note! If possible, complete the assembly in one session. The back panel, which is the last part to be fixed, will then hold the structure properly in shape until the glue hardens.

Start with the bottom end of Part J (the end with the longer amount of dowel showing). Remove the dowels one by one, put a blob of resin glue in each hole and replace the dowels. Put a blob of glue in each dowel hole in C and a line of glue down the bottom edge of J and fit the dowels into their holes, making sure that the back of J is towards the back of C. Repeat the process with the dowels at the top of J, making the joint with H. This is most easily done with the assembly on its back on the bench. The structure now looks like a letter 'H'. Wipe off surplus glue.

Take D and E. Apply glue to the ends of C and H and assemble the joints. Screw through the holes in D and E into the ends of C, using 2in. x 8 screws. Glue and screw B to D and E. Wipe off surplus glue.

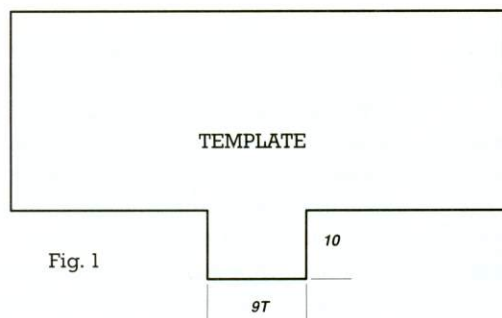


Fig. 1

Turn the assembly upside down and measure the distance between the bottom ends of D and E. Cut two pieces that long by 75mm wide (Parts F and G) from the remainder of 9in. board. These are the plinths and fit along the front and rear edges of C between D and E. Fix each one in place using glue and a joint block at each end and three more at intervals down the long edge. The outer faces of F and G should be flush with the edged of C, DE and E - see Figure 2. Wipe off surplus glue!

Stand the carcass upright again. Spread a pattern of lines of glue over the top surface of B and lower the underside of A onto it. Clamp the boards together using scrap to protect the surfaces and screw them together from the underside of B using 1in. x 8 screws.

Finally, place the assembly face down on a clean smooth surface. Take the piece of plywood and check which side has the most attractive grain pattern. Decide whether you want the pattern to run vertically or horizontally and lay the board face down on the back of the assembly. Draw guide lines over the centres of the edges of A, C, D, E and H. Lift the board off and run a line of glue along the edges of the structure. Replace the board carefully so as not to smear the glue and then nail it down with the round wire nails. Put one in each corner first to ensure that the structure remains 'square' and then nail along the guidelines at 85mm intervals. Lightly round off the edges and corners of the plywood with a medium cut flat file and then stand the book case upright. Check all the joints and wipe away any more glue which may have oozed out. Leave to harden for twenty four hours.

Second Trim

The next job is to fix the upper and lower decorative rails. However, it may be necessary to do another little job first.

Measure the width of the rail you have chosen. Ideally, it should be the combined thickness of A and B (30mm). If it is a fraction narrower then a narrow strip of the tenon of B will be exposed at each end. This is not a major problem..

Draw a line across D and E 2mm below the bottom of B. Iron on a 320mm length of edging strip with its lower edge on the line just drawn. Rub down hard with a piece of scrap softwood. If you have used the wide edging strip, it is just a case of trimming the ends and the top edge which should be absolutely flush with the top of A. If you have used narrow (19mm) strip, you will need to apply a second strip above the first.

Because of the variation in pattern width over the range of decorative rails available, it was a practical impossibility to design the TV cabinet (which was actually the first constructed in this series) with symmetrical joints at the mitres because it has angled corner panels at the front. Because of this I used a plain coving/dado rail. However, when trimming basic rectangular items such as the bookcase and the three cupboard, only two mitres are required and symmetry is easy to achieve. If you are not planning to build the TV cabinet or if you feel that uniformity is not important, then you have the choice to stamp your own individuality on the furniture by using a patterned rail of your own choice.

I will give you the instructions for fixing a patterned rail - the plain rail is basically the same, but simpler.

On the flat back of the rail mark a line of arrows at 6in. (150mm) intervals from one end of the rail to the other - this indicates the direction of working and helps to ensure that the wood at each side of a mitre joint comes from the same section of rail. From the beginning of the

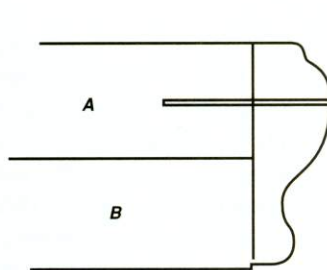


Fig. 2

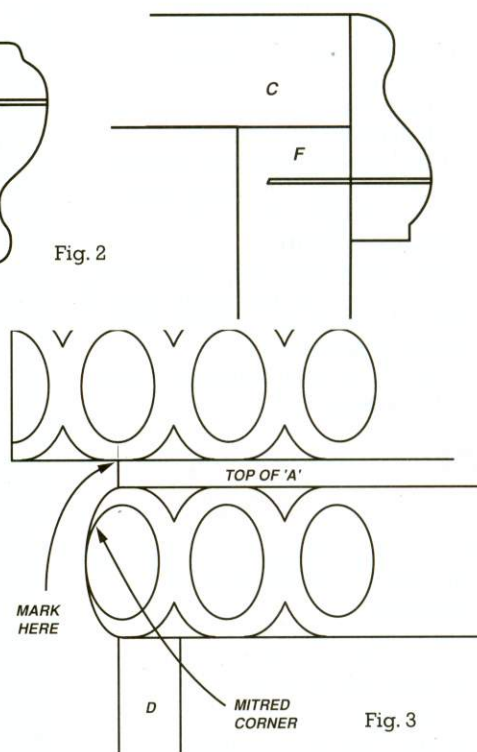


Fig. 3

rail cut a piece which is the length of the end of A plus two full patterns. Measure the front edge of A and mark its exact centre. Cut a piece of rail which is the length of the front edge of A plus three patterns. Find the midpoint of this piece of rail. We need to drill a 1.5mm hole through the rail as near as possible to this point - either dead centre in the pattern or in the division between two patterns, whichever is less conspicuous. The hole should be through the thickest part of the wood. See Figure 2. Push a 25mm panel pin through the hole and with the top of the rail exactly level with the top of A, tack the point of the pin precisely into the centre line of A's front edge. It will now be quite easy to mark the ends of A onto the rail. Take the rail to the mitre block and cut the mitres outwards from the marks. Remember to keep the saw on the waste side of the marks - it is easy to shorten a rail that is a fraction long, but you cannot stretch a rail that is too short. Drill more pin holes at intervals of about 75mm (depending on the width of the pattern) from the centre and tack the rail lightly to the front of A, making sure the tops are flush from one end to the other. Do not hammer the pins fully home yet!

Now take the short piece of rail and hold it upside down over the end of the front rail where it was originally cut from. See Figure 3. Make sure that its

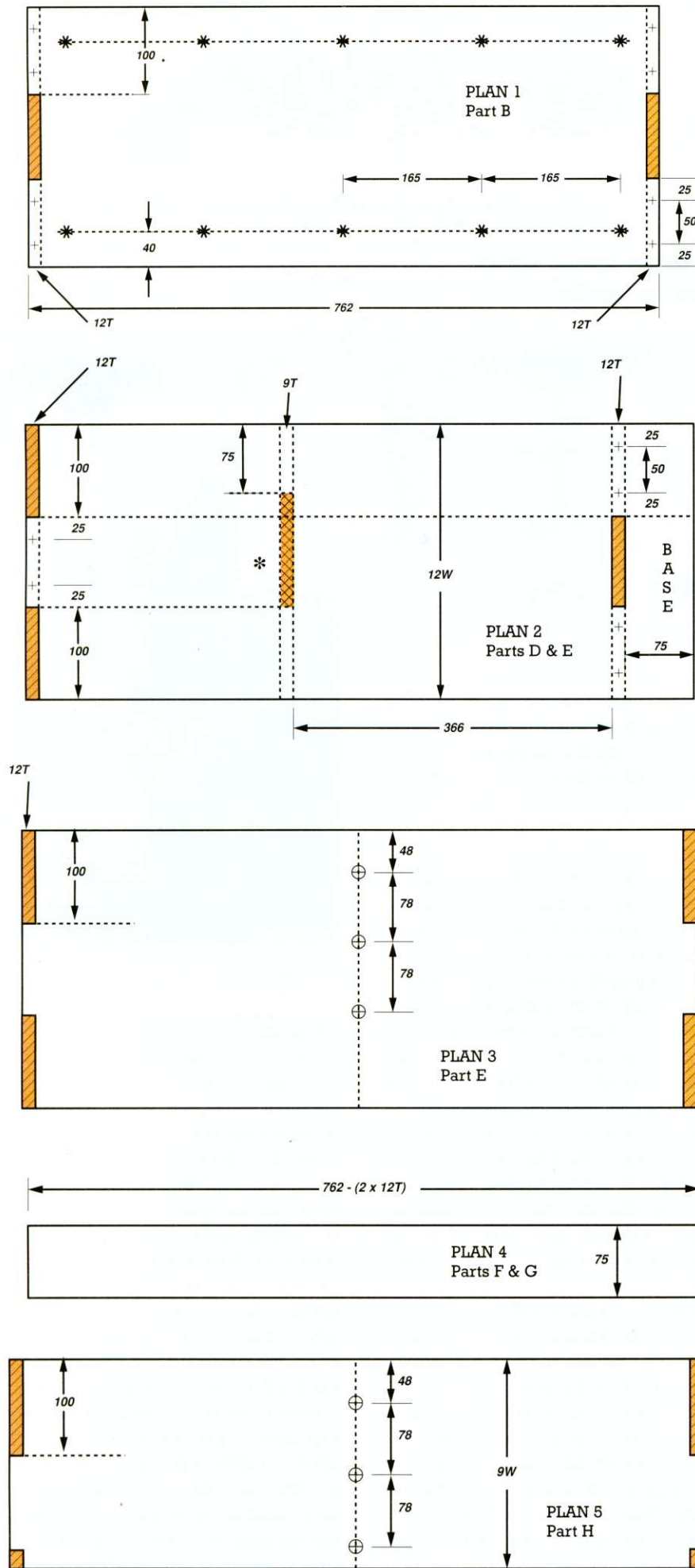
pattern is exactly in line with the pattern of the front rail and that it sticks out part of a pattern further than the end of the front rail. Mark the short rail where it crosses the end of A and cut the mitre outwards from this point. When you put the rail into position, the pattern should be symmetrical across the joint. Cut off the surplus, drill for panel pins and lightly tack the rail in place. Repeat the process at the other end of the unit.

Use the same method to fix the lower rail, remembering that its top edge should be flush with the top surface of C. Before starting, hold a piece of rail in place and decide whether it will look better the same way up as the top rail or upside down. It is a matter of personal choice.

When you are satisfied that it all looks fine, remove one piece at a time, glue it and replace it and hammer the pins home. Remember to glue the mitres as well as the back of the rails and wipe off surplus glue with a moist cloth.

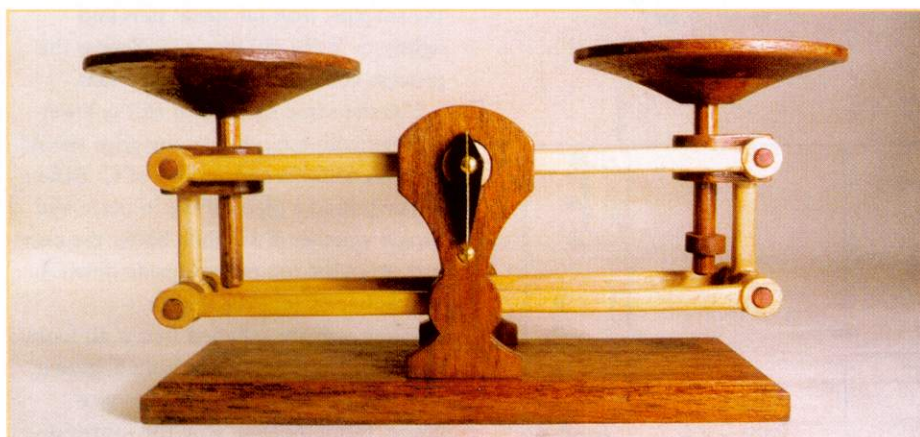
The final step is to pack wood filler into any cracks, crevices, nail holes, etc. and next day when it has hardened, smooth it off with fine sandpaper. You may also wish to slightly round off the mitred corners on the trim rails in the interests of safety. When this is done, examine the whole surface carefully for pencil and chalk marks and remove them. Finish by wiping over with a cloth moistened with white spirit.

All that now remains is to apply the necessary number of thin coats of coloured gloss varnish to achieve the required depth of colour and then build up the finish with coats of clear gloss hardglaze varnish. When each coat is dry, rub down lightly with fine sandpaper and wipe the dust off with a cloth moistened with white spirit. When you are happy with the quality of the finish, leave the unit alone for several days to allow the varnish to harden thoroughly. Well done!



Letter scales....

Ralph Sinnott brings us a brace of letter scales which can be used both practically and ornamentally



Having your own letter scales you can weigh your letters and avoid those infuriating queues at the Post Office. You have to buy the stamps, of course, but these can now be obtained at various outlets without waiting to be served. Alternatively the scale can be displayed in your office as an ornament - an executive ornament - more mature than an executive toy.

Counter machine type

The so-called counter machine type of scale is based on the Roberval principle. Professor Roberval and his contemporaries were puzzled by the way that equal weights remained in balance at different distances from a fulcrum in a mechanism in the form of a parallelogram (Fig. 2). A scientific explanation had to wait until the next century, but from a practical point of view it works because the downward force is transferred to the vertical members of the parallelogram.

Coins as weights

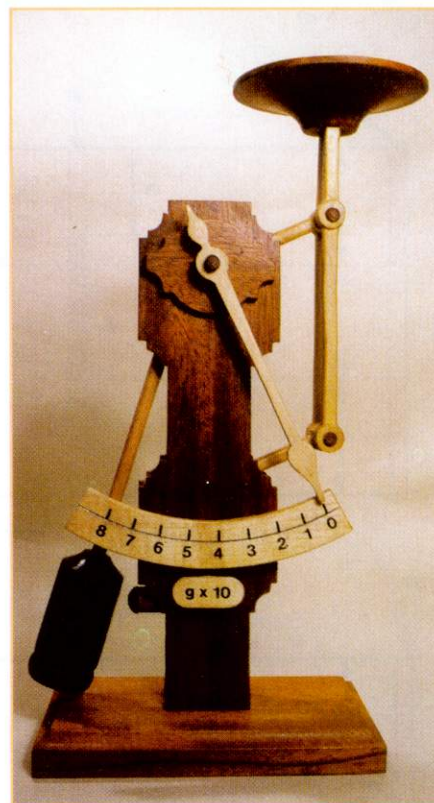
In lieu of a set of gram weights coins can be used. The standard weights of British coins are given in Table 1. For inland letters the initial postal charges for letters is 60g. As an alternative to using twelve 5p coins for this weight, six £1.00s plus 5p gives 60.25g, eight 2p coins

57.024. The decimal places are, of course irrelevant. For airmail the rate starts with a weight of 10g and rises in 10g steps so 20 coins can be used.

Beams, stays and legs

Sycamore 13 x 8mm in section was used for these members. While cramped together, pieces for the beams and stays were bored for a tight fit of the 6mm diameter dowelling used for pivots; this ensured that the holes were in identical positions in all pieces. In reducing the members between the pivot holes use was made of the fence of the bandsaw. First a lead-in had to be sawn freehand then 1mm was removed from each side by running against the fence. Next the width was reduced in the same way. Finally the members were smoothed with a Sandvik Hobby sander, the arises rounded and the ends shaped. The legs were shaped in the same way.

With the spacers that fit between the legs and stays I found that the best way to ensure that the hole in them was central was to first bore the mahogany from which they were made then mark their circular outline using a circle template. They were then cut roughly to shape on the bandsaw and rounded on the disc sander. After the pivots had been cut to length a spot of mahogany coloured stain was put on the end grain.



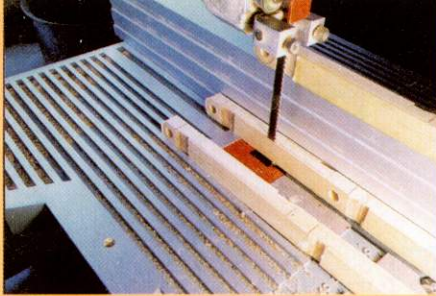
The stand

Mahogany was used for the stand. At the top of the central support a bearing for the knife-edge was glued into a groove. The bearing and the knife-edge were made of ebony, but some other hard, dense wood could be used. Next a mortise was cut in the timber prepared for the base to receive the end of the central support. The knife-edge was fitted into the cap which was then screwed to the double beams so that the edge lined up with the centre of the pivots. All parts of the mechanism were assembled and the hole for the central pivot bored in the central support. While this was done, the stays were held in the correct position by means of blocks and a

Table 1

Weights of coins

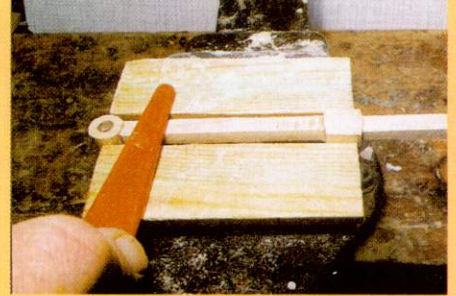
P	grams
1	3.564
2	7.128
5	3.25
10	6.5
20	5.0
50	13.5
£1	9.5



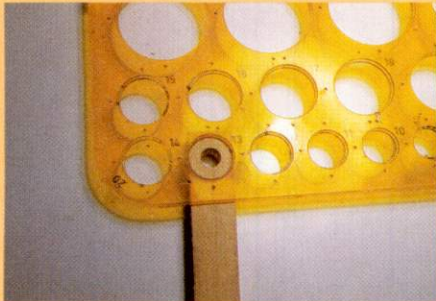
Reducing thickness of stays.



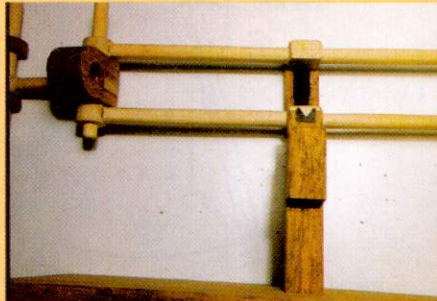
Reducing width of a stay.



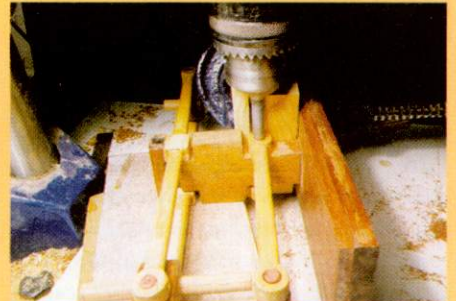
Smoothing a beam after cutting on the bandsaw.



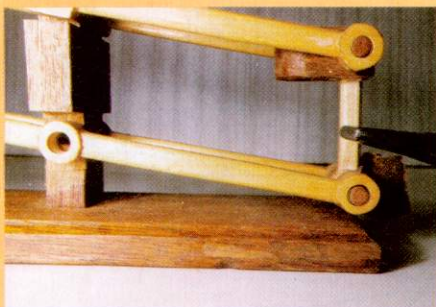
Use of a circle template in marking out a spacing collar.



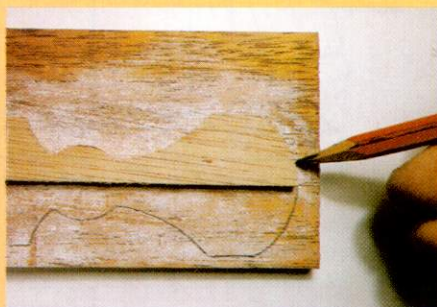
The knife edge and its bearing.



Boring for the centre pivot.



Fixing stay to pivot.



Marking out a facing piece.



Turning the underside of a pan.

G-cramp. Then the base was removed and moulded on the router table. To avoid gumming up the mechanism, it was necessary to apply the finish before final assembly. Some polish inevitably found its way into the holes where the pivots penetrated the beams and the stays.

This ruled out using glue to hold the pivots in place, anyway, glue might have found its way into the holes in the legs

where free movement was essential, so I used fine pins to hold the pivots in the beams and stays.

A 1mm diameter bit was used to pre-bore for the pins. It was easy to get the pins into the beams because they could be knocked in before the stays were in place. A gap between the parts was maintained by the insertion of a piece of sandpaper

Facing pieces

A half-template was used to mark out the shape of the facing pieces. After they had been cut out a 13mm hole was bored in each of them to centre on the bottom of the knife-edge. They were then glued and screwed to the central support with the screw at the front positioned as reference point for the indicator.

Sycamore discs were glued to the beams to move freely in the holes in the facing pieces. The front disc was made a little thicker so that when the indicator was fitted it would be clear of the face.

Pans

The mahogany I was using was only just thick enough for the pans, this meant that there was no material available for holding the mahogany while turning a circle in the lathe so I made the circle using the disc sander then turned the underside while holding the disc in a recess in a wooden chuck. Each pan was bored for the pan support which was glued to the pan then fastened in the fixing block. The support projected below the block to allow the addition of collars to adjust the balance necessary.

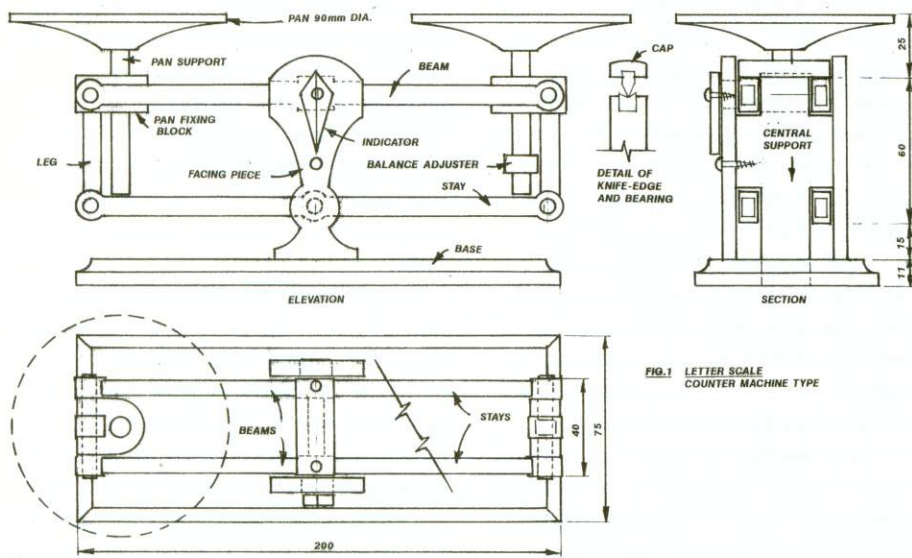


FIG.1 LETTER SCALE COUNTER MACHINE TYPE

Indicator

The work was completed by making and fixing the indicator. A piece of brass was inserted into a fine saw cut in a small piece of ebony which was then cut to shape and screwed in place.

Pendulum Type Machine

As no weights are required this scale does not lock up your money in the way that the counter machine demands. It is easier to use, but more limited in the amount it will weigh than the other scale. As the pan with a letter on it moves down, the counter-balancing pendulum moves outward increasing its leverage, in this way the deflection of the pendulum and the indicator with it, provides a measure of the weight of the letter.

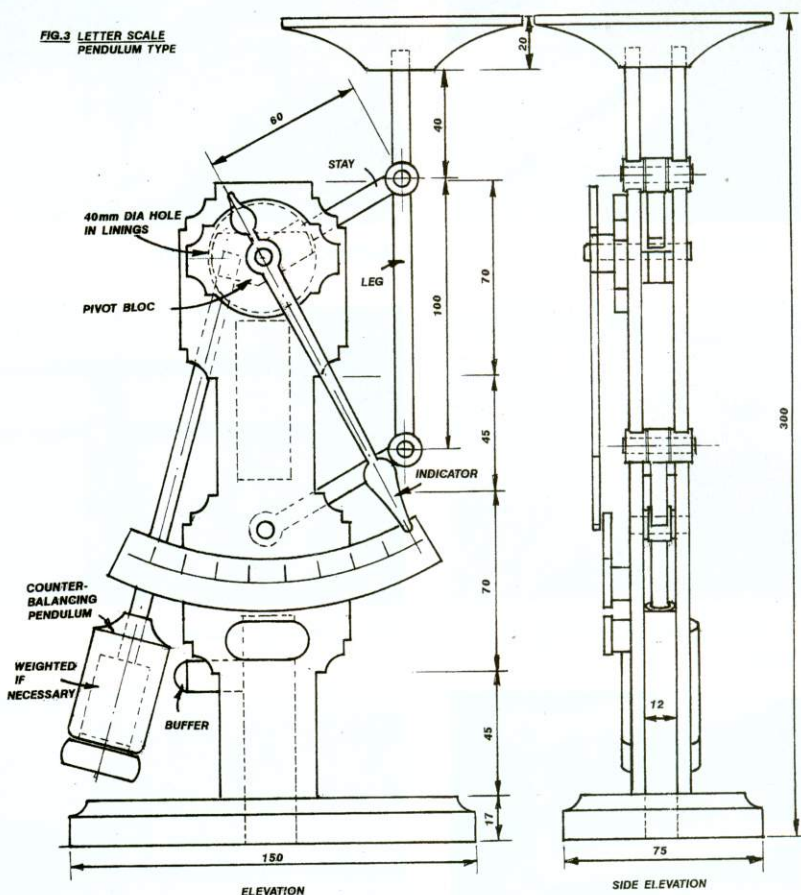
Stays and legs

These were shaped as for the other scale; double legs and single stays in this case. The upper stay is slotted into a 18mm thick pivot block which is bored to receive the pendulum rod. Because the pivot in the block will operate the indicator it is fixed in the block; the other pivots are fixed to the legs, or in the case of the lowest pivot to the facing pieces and move freely in the stay.

A half-template was used to mark out the shape of the facing pieces. The two blanks were stuck together with double-sided tape, bored with a hole saw for the 40mm diameter holes that accommodated the pivot block then cut to shape on the bandsaw. The hole for the lower pivot was also bored.

The cover pieces that fit over the 40mm diameter holes were prepared in the same way as the facing pieces and glued in place. Two blocks 20mm wide and 12mm thick were glued on to the back of the front facing piece. The lower block protruded to form the tenon that fits into a mortise in the base. Next the dial, made from sycamore, about 25mm longer than its final length, blank at this stage apart from a line scored in with compasses, was temporarily fixed in place with a screw from the back of the facing piece. The plate under the dial was permanently fixed at this time. Next the rear facing piece was temporarily fixed in place, two brass screws penetrating the facing piece and holding in the blocks were used.

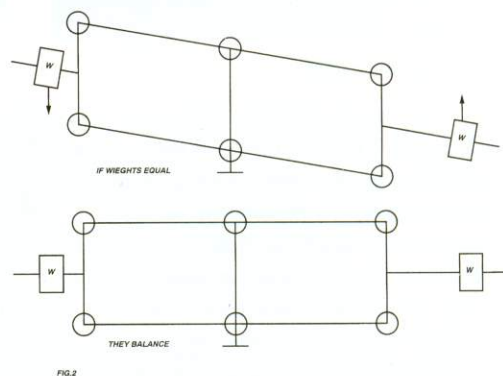
FIG.3 LETTER SCALE
PENDULUM TYPE



Pan and pendulum

This pan was prepared in the same way as the pans for the other scale, then the underside was mortised to receive the ends of the legs. With the in place and the mechanism assembled it was then necessary to experiment to find the size to make the pendulum bob. With a previously prepared indicator tight on the pivot, but not fixed I added pieces of timber to the rod until balance at approximately the position shown in Fig. 3 was achieved. By weighing a length of the kind of timber used and a piece of ebony, on a kitchen scale, I was able to calculate their density and hence know approximately what size to make the bob. By luck rather than accurate calculating it came out about right, just a little adjustment of its position on the rod was required. Had I not had any timber as dense as ebony I would have made the bob hollow as shown in Fig. 3 and weighted it with panel pins.

Having got the counter balance right I marked the ends of the dial for cutting, disassembled the scale and cut the dial to length. While the rear facing piece was off the buffer that limits the swing of the pendulum was fixed in place. The buffer is a cut-down domed tap washer screwed to the end of a rounded piece of mahogany that is flattened to fit between the two



facing pieces and glued to them.

When the base had been mortised and moulded the parts of the scale were given a coat of sanding sealer, rubbed down and except for the dial and plate, wax polished, then final assembly of the parts of the scale was made. The indicator was permanently fixed by gluing it to the boss that holds it out to clear the dial then putting a pin through the boss into the pivot.

Now it was back to 20p coins. These were placed on the pan two at a time and the position taken up by the indicator under the cumulative weights marked in pencil on the dial. Transfers were then used to mark these positions and to show the weights they represented. With a coat of sanding sealer over the transfers and a final polish the scale was ready for use.

Oval Coffee Table

Brian Samuels with an appealing traditional design



Here we have an attractive and useful table fit for any reception room. It has the added advantages of drop leaves and a magazine

platform below the main table surface. By far the majority of coffee tables are fitted with rectangular tops and come without any form of stiffening at the lower end of the legs. If you are anything

like me and have to have piles of 'essential' reference material to hand all around the house, you will find the addition of a magazine rack to a coffee table worth its weight in gold.

Fig. 1. Overall Dimensions

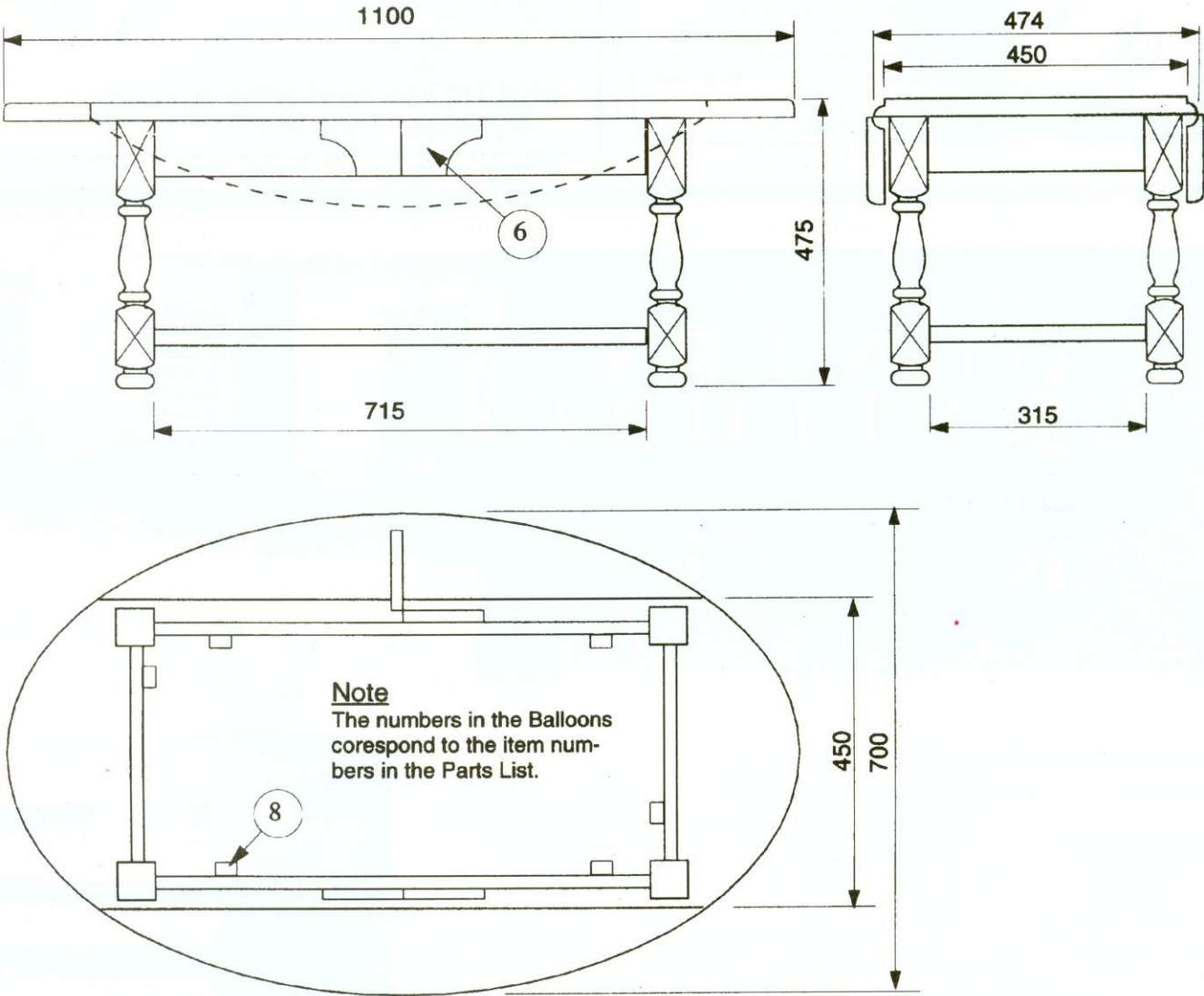
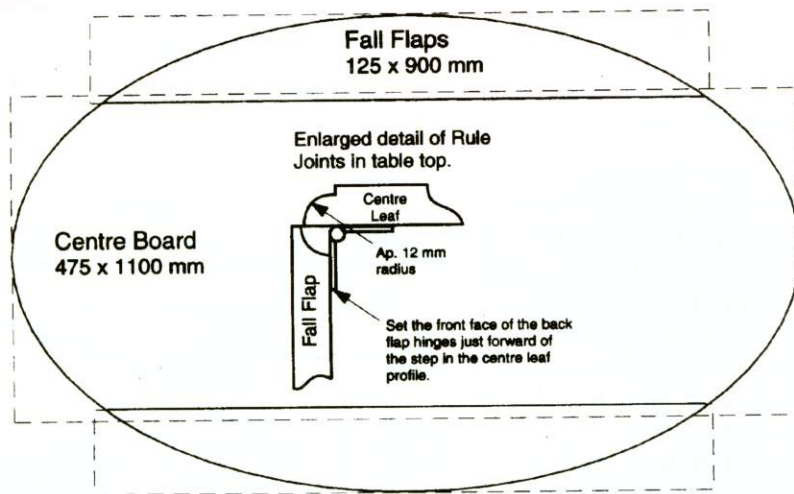


Fig. 2. Table Top : 18mm Stock.



Fall flaps

The fall flaps on this oval version will also come in handy when you are looking for somewhere to park a cup of coffee amongst the more temporary reference material on the table top.

Materials

The design of this table would lend itself to almost any solid timber. Personally, I would go for one of our native hardwoods, probably ash. If you are into pine, no problem. It looks good in anything from cabinet quality redwood (fifths) to reclaimed yellow.

Components

Not very many and not very special. However spend some time selecting your boards for the top. A nicely figured table top is a potential source of pleasure for a lifetime.

Turned parts

None of the turning on the legs materially affects the function or operation of the table. So feel free to change any of the turned profiles shown or even leave the timber in the square if you have no facilities for turning or just feel that you would prefer square section legs. Incidentally I should mention here that there are suitable proprietary turned legs available for this table in both beech and pine from good wood stores.

Table top

Note that the grain runs along the length on this table to avoid problems at the rule joints if the timber 'moves'.

For a good symmetrical oval top :

- Machine the rule joint profiles whilst the three sections of the top are still rectangular. (see Fig. 2.).
- Join the three sections of the top with the back flap hinges.

Fig. 3. Magazine Platform : 18 mm Stock

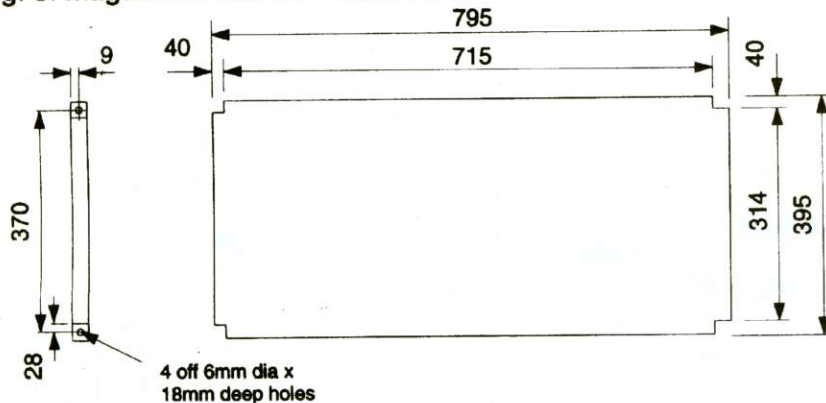


Fig. 4. Side Rails: 18mm Stock

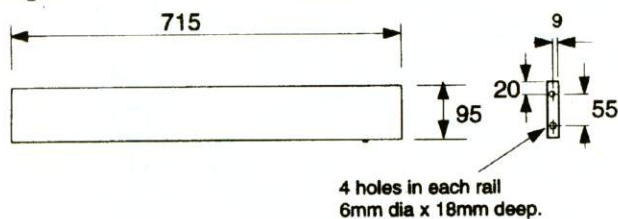


Fig. 5. End Rails: 18mm Stock

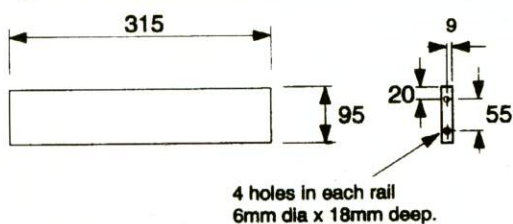


Fig. 6. Leg : 55mm Square Stock

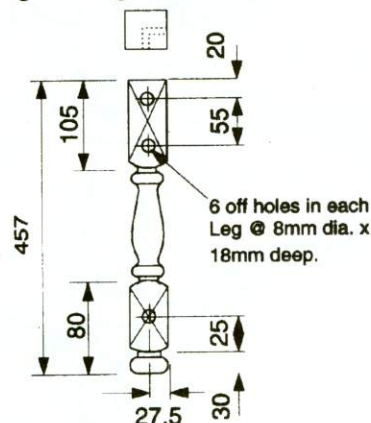


Fig. 7. Wing : 18 mm Stock



iii) Reproduce the quarter profile at Fig. 9 at full size on a hardboard or ply off cut, mark out and cut the oval.

iv) Decorate the edge with any profile you fancy or have to hand. (If you do not have a router the edge will look fine if you round it over carefully with a block plane or rasp).

Notes Re-assembly :

i) Prime the end grain butt joints of the end rails with adhesive. Fit 6 x 30 mm dowels into the locating holes in the rails.

ii) Join the legs and end rails via the dowels. Check that the legs are square to the rails and adjust if necessary.

iii) Prime the end grain butt joints of the side rails and the four niches in the magazine platform with adhesive. Fit dowels into the locating holes in the rails and magazine platform.

iv) Lay one of the end assemblies formed at steps i and ii flat on your work surface. Fit the side rails and magazine

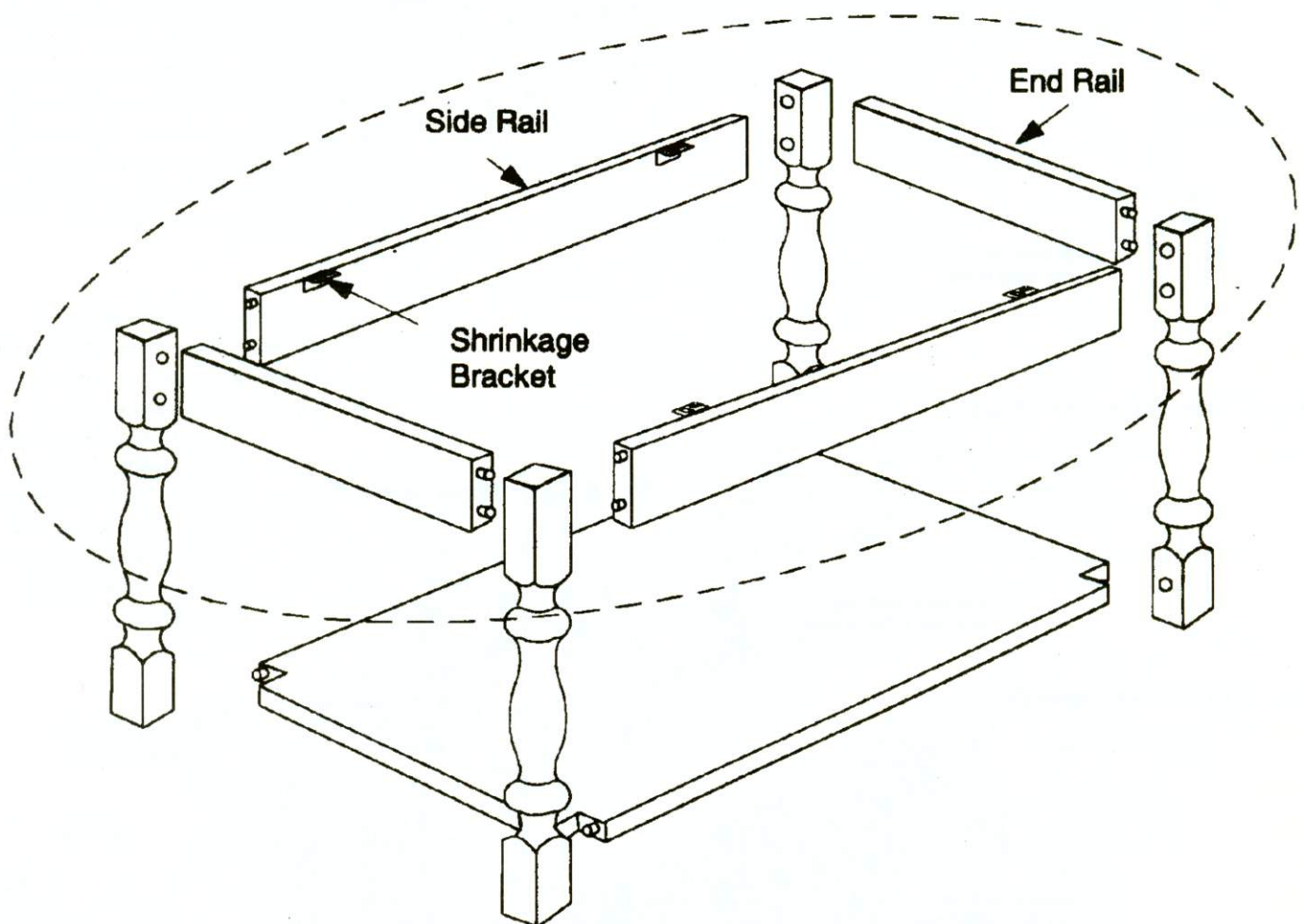
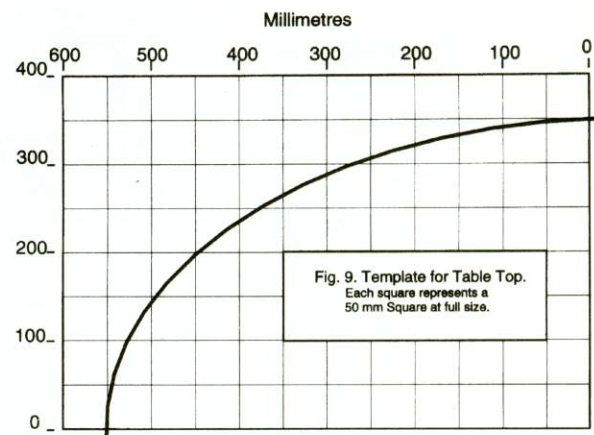
platform to the leg assembly via the dowel joints. Fit the other end assembly over the free ends of the side rails and magazine platform.

v) Check legs and frame for 'square' and adjust if necessary. Cramp up the frame assembly for an hour or two.

vi) Fit shrinkage brackets to the upper side and cross rails and attach the top via the slots in the brackets on the assumption that shrinkage will occur across the grain.

Component parts list

Item No.	Qty	Description	Fig. No.
1	1	Top	2
2	1	Magazine platform	3
3	2	Side rails	4
4	2	End rails	5
5	4	Legs	6
6	4	Wings	7
7	4	1 1/2 in. backflap hinges	-
8	6	Angled stretcher plate	-
9	2	3 in. butt hinges	-
Assembly Guide			10



Donna's Diary

A few months ago my lovely husband asked me if I would like him to make me a garden bench followed by a picnic table just in time for summer. As he has been promising this for the past 13 years you can imagine my excitement.

Our garden is an important part of our family life, the children spending a good deal of time playing there and even having their own patch to cultivate.

Great excitement was brewing at the thought of the forthcoming projects and

I was even asked to participate in their design. By now I had dreams of summer lunches at the table and cups of tea on our bench.

Well, the day finally came when both the bench and the table were completed. My husband suggested that by the rose bed in front of his workshop would be an ideal location for the bench with the table a little further up. It sounds wonderful, don't you think? I thought so too.

In my ignorance I had overlooked one

small point. We have eaten twice at the table. The rest of the time his Lordship is either gluing up or sanding at the table saying something about the workshop being too hot in the summer because it is well insulated.

I decided to sit at the bench to keep him company, but you guessed it, his tools had to go somewhere not to mention the very fine sawdust!

Never mind, I'm sure his heart is in the right place.

Crossword Puzzle No. 30

Rustin's

Our prize crossword is again sponsored by Rustin's Ltd., manufacturers of an extensive range of

quality household, wood preparation and finishing products. This includes traditional items such as french polish as well as acrylics, strippers, finishing oils, specialist paints and varnishes.

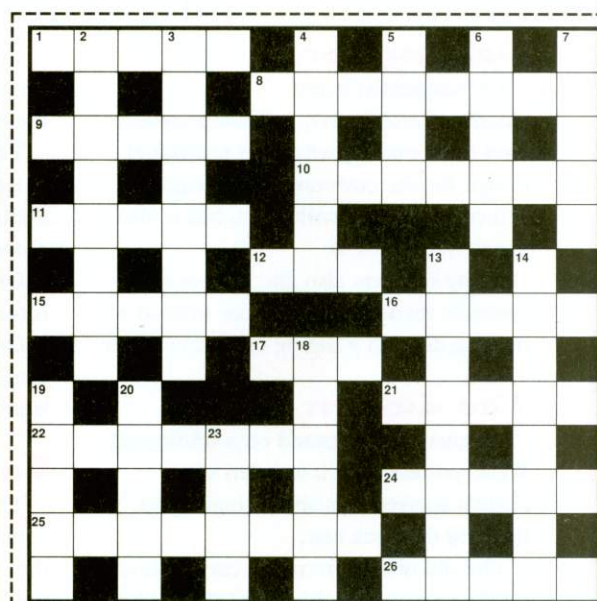
The sender of the first correct entry drawn will receive £50 worth of products from the Rustins range and each of the six runners-up will receive a litre of Strypit Paint and Varnish Stripper and one Plastic Coating Outfit worth £16.98.

Clues Across :

- 1 Trees for sanders waved before Easter (5)
- 8 Name best changed in low room (8)
- 9 Nothing loose when drunk! (5)
- 10 & 22 Across: Show furniture? (7, 7)
- 11 Executes framed items for 10? (5)
- 12 Built kennel for, dear (3)
- 15 Jamboree in wardrobe a novice made (5)
- 16 & 18 Down : New remit with scissors operator for saw with own jig (5, 6)
- 17 Rebuild cue for proposed new money (3)
- 21 & 25 Across : Lo! He's lit shelf anagram to plug gaps (5, 3, 5)
- 22 See 10 Across
- 24 Wool cuts down shine (5)
- 25 See 21 Across
- 26 Money for drawer fittings? What cheek! (5)

Clues Down :

- 2 Shaken up, tied a tag wrongly (8)
- 3 Suitable wood for 22 (8)
- 4 Wooden propulsion item for boat, would not want to be up the creek without one (6)
- 5 Human elements in chairs? (4)
- 6 Elm and Royal Academy type enjoin the kingdom (5)
- 7 Remains that stop lift-up flaps from slamming shut (5)
- 13 It's resin mixed on left side (8)
- 14 Mobile furniture items in Y-front design? (8)
- 18 See 16 Across
- 19 Wood source for northerners? (5)
- 20 Playwright in crib sentimentally designed (5)
- 23 Room recess with cranny? (4)



Name:

Address:

Postcode:

Tel:

Crossword Puzzle Number 29

Answers Across:

1 Short; 8 Panel Pin; 9 Inlay; 10 Plywood; 11 Butts; 12 Odd; 15 Gabon; 16 Wagon; 17 O.B.E.; 21 In Use; 22 Content; 24 Stour; 25 Eggshell; 26 Acted.

Answers Down:

2 Honduras; 3 Reaction; 4 Warped; 5 Very; 6 Apron; 7 Anode; 13 Magnetic; 14 Moisture; 18 Battle; 19 Screw; 20 Snags; 23 Echo.

Spinning chairs

Leslie Welch with the revival of an ancient chairmaking tradition

During recent years the ancient craft of hand-spinning has undergone a resurgence and there are now guilds of hand-spinners and weavers throughout the country, with healthy membership of both sexes.

This has resulted in an increased demand for spinning wheels and accessories, largely met by factory produced wheels and kits.

These, however, although well made, are usually not very aesthetically pleasing, except for the expensive copies of antique wheels.

Driving force

Consequently, many woodworkers/turners, including myself, have been making wheels of individual design for the customers who require something which works well, but is also attractive to look at.

Many spinners also like to have a specially made spinners' chair instead of making do with a dining or kitchen chair.

The design

I believe this is based on a traditional Welsh pattern with a wooden seat, slightly splayed legs and a single splat forming the back rest.

The old ones were richly carved, both on the seat and the back and those I have sat on were excruciatingly uncomfortable.

They are not difficult to make, require the minimum of basic tools and need no complicated angle jigs to achieve the splay of the legs.

Obviously a lathe is required to turn the legs, but alternatives can be fitted, as will be indicated. None of the dimensions is critical, but some indications of measurements are given where necessary.

Seat

Start the job by making the seat which should be based on a square not less than 350mm wide and 35mm thick.

Make a template of thin card. Most shapes can be produced by simple geometry, but in the case of a heart shape, for instance, freehand drawing is needed.

In these cases take your square of card, draw a vertical centre line and lightly score with a knife. Draw one half of the shape, cut out with scissors, fold over, draw round and cut out the other half.

Back support

The extension piece is to accommodate a supporting bracket for the back.

The seat square should be made up of at least two pieces, butt-glued, with the annular rings reversed to minimise movement.

Draw diagonals on the underside for future reference when fitting the legs.

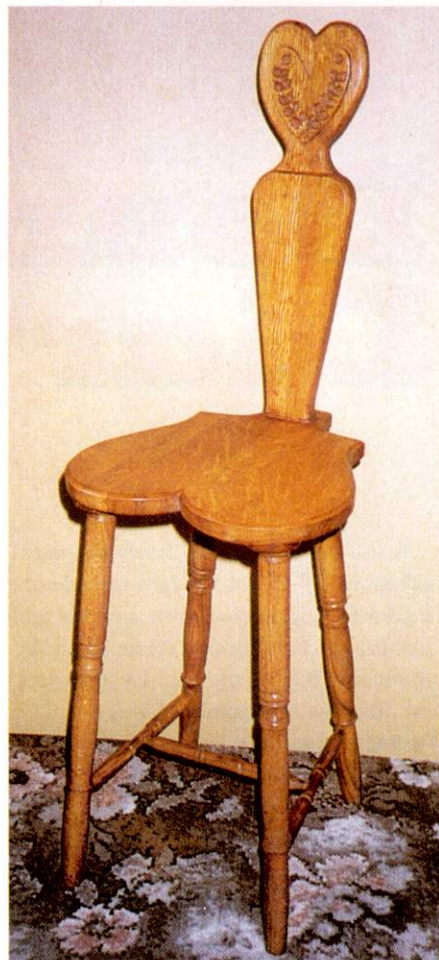
Draw round the template and cut out using a coping saw, bowsaw or bandsaw, smooth the edges and put aside.

Legs

The turned legs are made from 35mm squares and measure about 460mm from the underside of the seat. The seat end of the leg is turned to a spigot 25mm long and 25mm diameter with a bead below this is to be a push fit into holes in the seat made by a 25mm saw-tooth bit.

These legs are fitted with stretchers about a third of the distance from the floor, so avoid turning decoration where the stretchers will enter the legs. The method of fitting legs and stretchers is given in the assembly instructions.

The straight legs are 35mm square, the corners pencil-rounded, fitted to the seat



with stub tenons. The tenons have slopping shoulders to give a splay of about 5 to 7 degrees.

The curved legs, are also stub-tenoned, but the tenons have square shoulders; the splay is achieved by the curvature.

No stretchers are necessary for the straight or curved legs.

Back splats

The length of these is a matter of choice, but about 460mm look right. Cut from a board 125mm wide and 15mm thick.

The decorative shape at the top should echo the shape of the seat. Suggested shapes are given in the drawings.



The amount of taper is also arbitrary and is dependent on the width of the rear extension piece. The splat is fitted to the seat with a stub tenon having sloping shoulders cut on the edges only to give a slope of about 6 degrees and the mortise is cut into the extension piece so as not to encroach on the seat shape.

Decoration

Any decoration of the seat and splat should be done now and the splat mortise cut to fit its tenon. I am no carver so my decorative features are simple.

Most seats have a plain bevel on the upper edge, but some lend themselves to the notched edge treatment, particularly the circle. The notches are spaced out with dividers and then cut with a large rat-tail file, to an even depth.

Assembly

After all decoration and sanding is complete and the back splat has been dry fitted the legs may be assembled.

Stool with Turned Legs

Cramp the seat to the bench top with one of the diagonals right angles to the bench edge. Measure 25mm from the seat edge along the diagonal line and mark with an awl. Using a 25mm sawtooth bit in a portable drill set to a slow speed and with drill angled towards you at about 4 degrees drill the hole as deeply as is safe. Try to keep the drill in line with the diagonal line and at a constant slope. Repeat for all four holes.

Dry fit the legs making sure they enter up the bead. Aim at a snug push fit.

Apply glue and push legs home. I use Cascamite glue which has good gap filling properties and allows time for adjustment.

The following procedure may seem primitive, but it works! You need a box of wooden toothpicks, the kind which are thin hardwood triangles with fine points. With the seat cramped to the bench with the front legs facing you pull the legs apart to an angle of about 5 degrees, testing with a sliding bevel. Then place the bevel stock in line with a diagonal and adjust the slope also to 5 degrees. Look round the edges of the hole and wherever there is a slight gap tap in a toothpick or two. This will tighten the leg. Test again with the bevel in both directions. Another tweak of two may be necessary. When satisfied turn the seat and round and do the rear legs. Make a final check all round and leave to set.

The next stage is to turn and fit the stretchers. There are three of these - two to fit between front and rear legs and one across the width to connect these two.

Measure and mark the positions of a stretcher on one front leg. Cramp the seat upside down on the bench. Cut a piece of stiff card or hardboard long enough to span from a back leg to a front, with the long edges parallel to each other and the width equal to the distance from the seat to the stretcher mark. Use this as a gauge to mark the other three legs.

Turn the two side stretchers with the finished length 25mm longer than the distance between the legs and the greatest diameter 15mm. The centre area should be left plain and the ends turned to 10mm diameter about 25mm long.

My method for boring the stretcher holes is again primitive, rather tedious, but effective. Start the holes with a bradawl, then use a spare drill chuck as a grip and bore the holes by hand, starting with a small drill, say 4mm gradually increasing the size 1mm at a time, finishing with a 9mm drill. Depth should be 12mm.

Cramp the seat down. Screw one end of a stretcher into a hole as far as it will go, then pull the opposite leg over and try to spring the other end in to place. If too long, slice a small piece off each end, and try again.

When both stretchers fit remove them and drill 9mm holes in the centre of each about halfway through to accept the centre stretcher. Replace them. Turn the centre stretcher and using the same method spring it into place. Remove all stretchers, glue and refit.

If a small flexible drive is available of course use this to drill the holes. If you have no spare drill chuck borrow one from your drill.

Stools with straight or curved legs

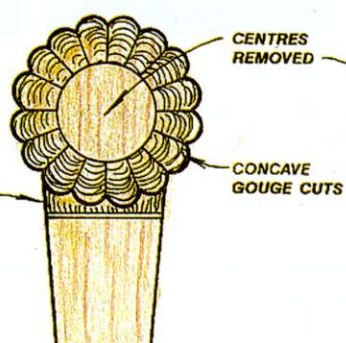
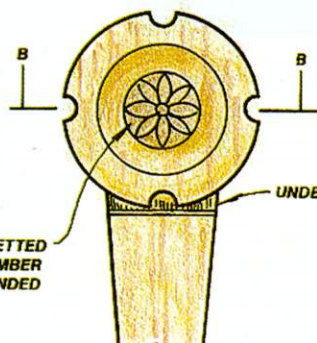
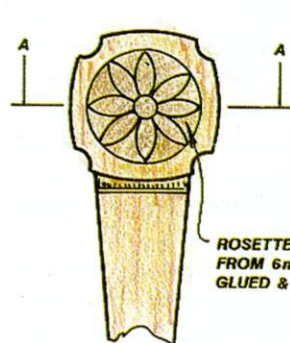
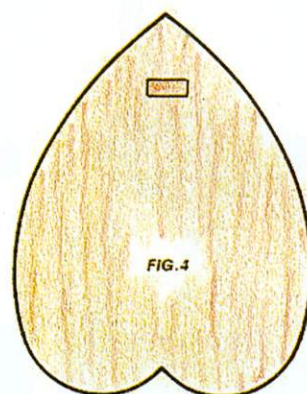
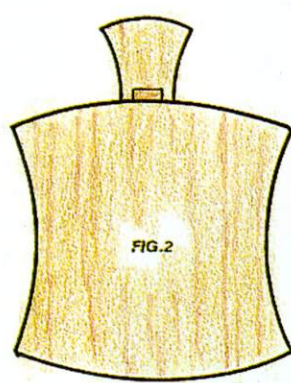
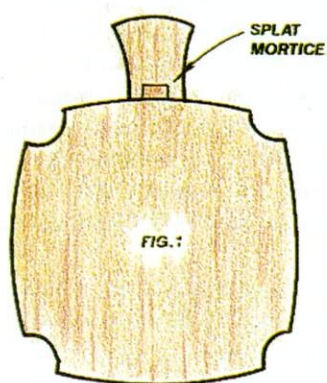
Mark and chop the blind leg mortises on the seat so that the outer face of each leg will be at rightangles to the diagonal reference line.

Cut the stub tenons on the straight legs with the side shoulders at 5 to 7 degrees. On the curved legs the tenons are cut as normal with square shoulders. No toothpicks necessary.

When dry stand the chair on a flat level surface. Place small packing pieces of card under the legs where necessary to ensure that there is no wobble, using a spirit level both ways on the seat. Use a small square of timber of sufficient thickness to mark round the end of each leg and cut off to the lines.

Glue in the back splat. Cut a bracket about 100mm high to fit the angle between the back and the seat. This is glued and screwed - one screw from underneath and one through the bracket into the splat. Counterbore the holes and plug, either with side grain plugs or small turned finials. Fig. 10.

Finish by staining if desired, give two coats of sealer, apply wax with a pad of fine steel wool and bring to a gloss with brushes and a soft cloth.



GOUGED LEAVES,
VIENS INCISED
WITH CRAFT
KNIFE

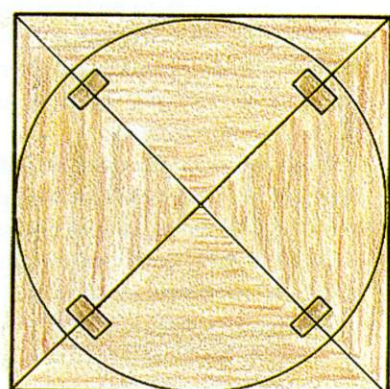
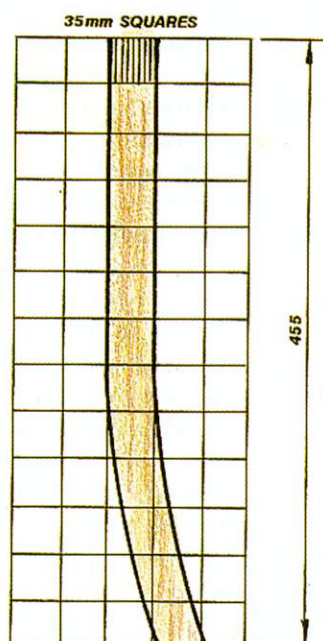
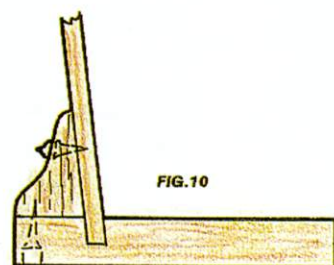


FIG. 9



The International Woodworking & Furniture Exhibition, Ascot

24 - 26 October 1997

Situated amongst the beautiful Berkshire countryside lies the magnificent Ascot Exhibition Centre; the perfect venue for Britain's newest woodworking show, 'The International Woodworking & Furniture Exhibition' at Ascot.

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Ascot Exhibition Centre, Ascot Racecourse,
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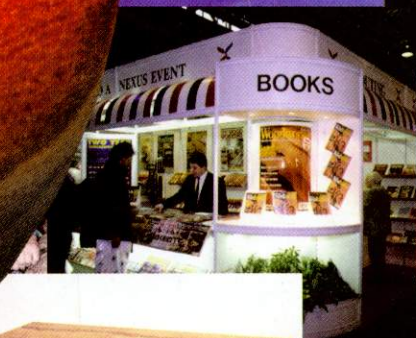
Ascot is ideally situated close to the M3, M4, M25 and Heathrow Airport for international visitors. Central London is less than 45 minutes away by rail or road.

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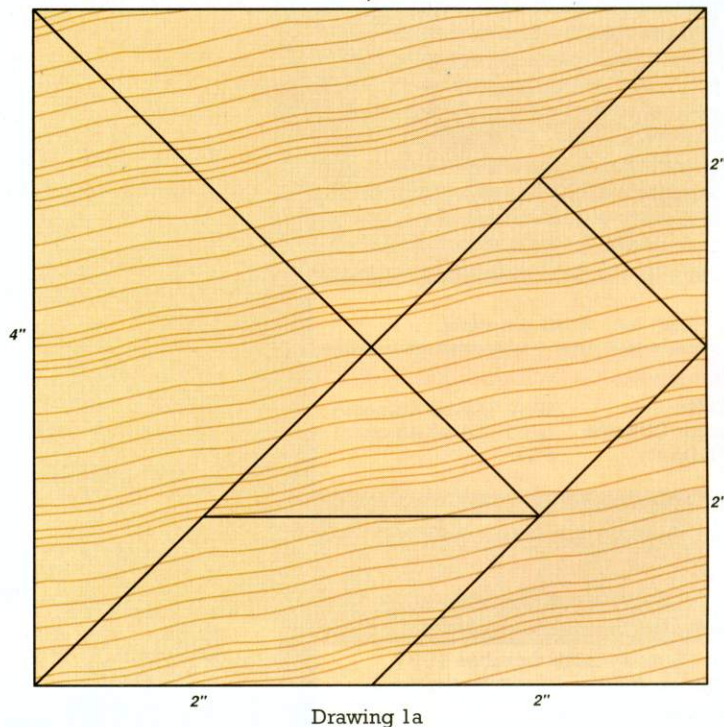
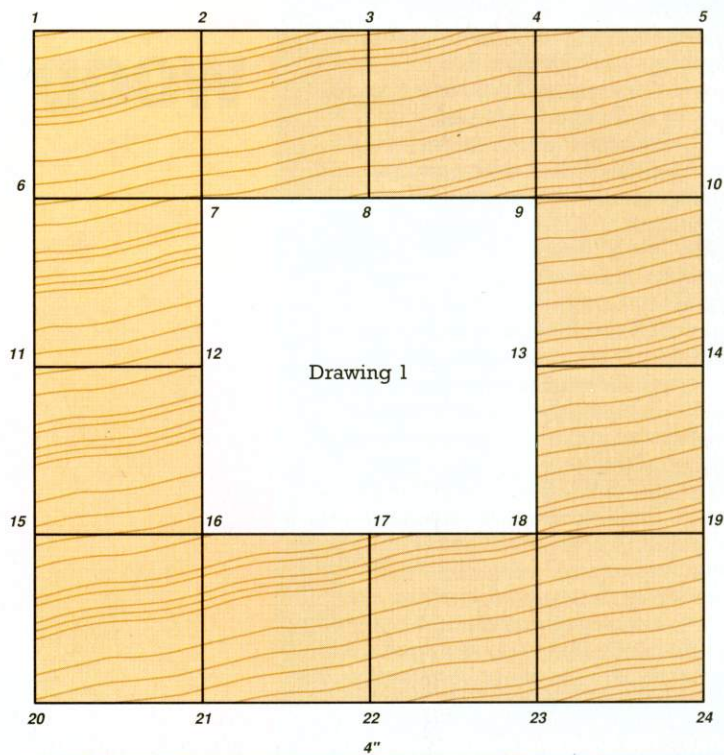
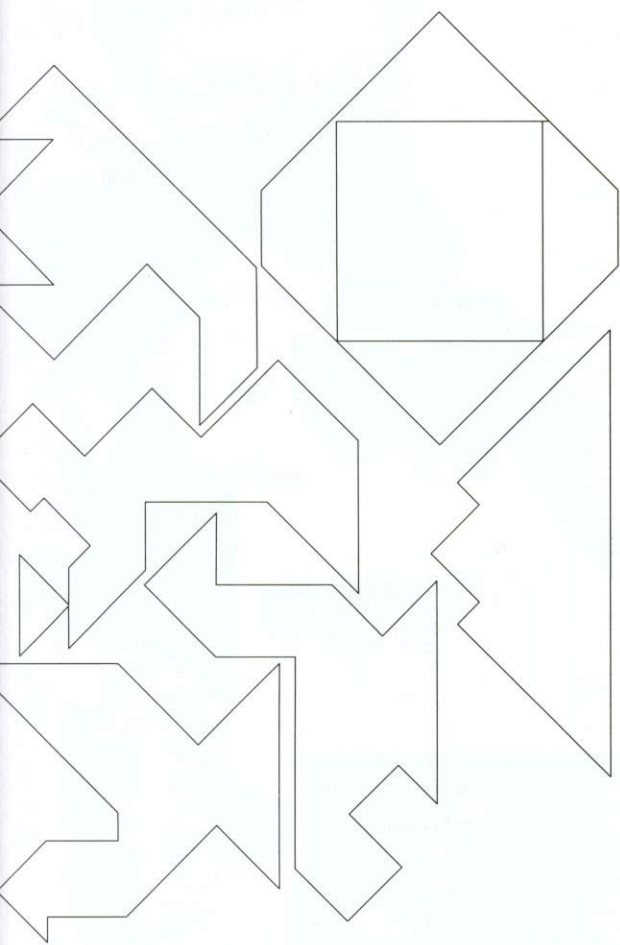
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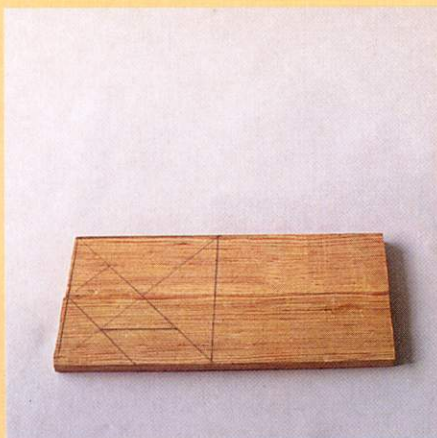
Making a tangram

Another simple but captivating project from R. C. Bell

With Christmas vaguely on the horizon our thoughts turn to presents for children. These need not be expensive and very often the simple things please the best



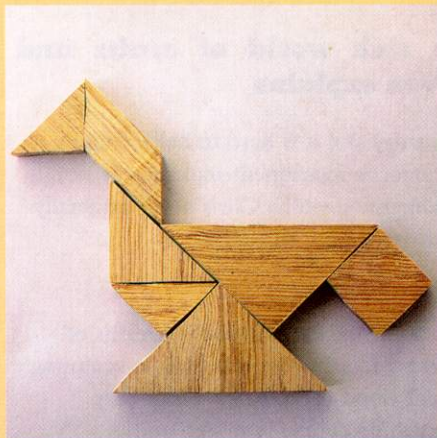
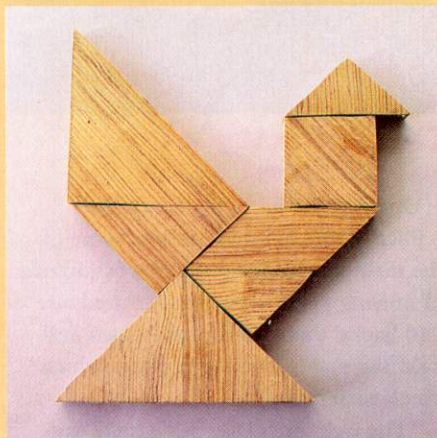
Puzzle Outlines



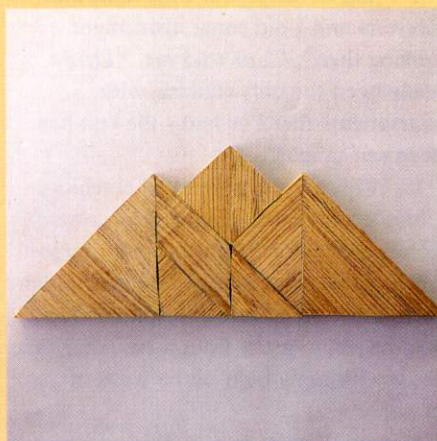
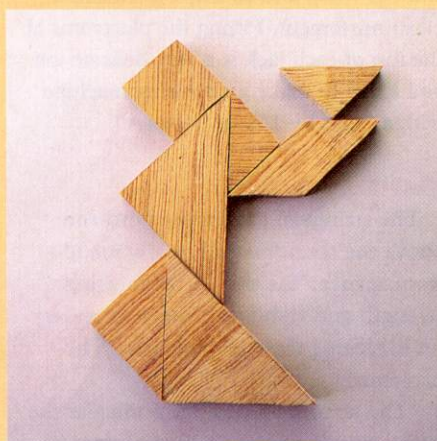
A tangram drawn on a scrap of Taraire.



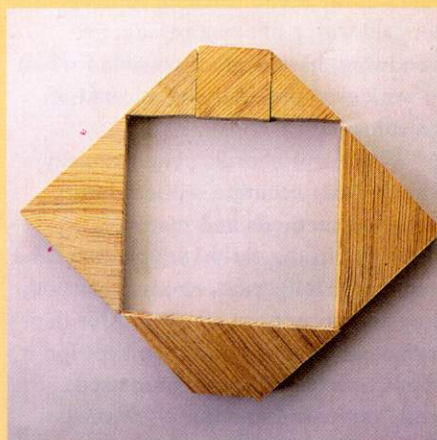
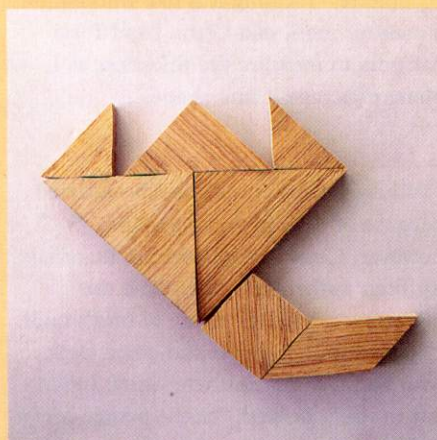
Sanding table is useful to remove burrs from sawn sections.



Cockerel and hen.



Maid with bowl and mountains.



A rose and picture frame.

Timber to use

Photo 2 shows a piece of New Zealand Taraire, 4 1/2 in. wide, 9 3/4 in. long and 3/8 in. thick. Using drawing 1 as a guide, a 4 1/2 in. square was marked out and the seven shapes drawn in. The initial size of the piece of wood is immaterial as long as the proportions of the pieces are correct.

Onto the bandsaw

The puzzle was cut out with a bandsaw, excellent practise in cutting along lines; but using a fret saw or a gents' saw, though slower, is equally satisfactory. When finished, the edge of each piece was sandpapered, followed by the surfaces, to rid them of burr, rubbing in the direction of the grain. A sanding table is useful; that in the photograph consists of a sheet of glasspaper held onto a similar sized board with four G-clamps which also serve as legs. Changing abrasive is easy and quick. No polish, wax or varnish was used on this interesting wood which has an attractive homely feel, but to polish or not to polish is a personal choice.

Antecedents

The tangram, wisdom puzzle, or ci'i chiso pan is centuries old in China and the puzzles present in this article are taken from 'New Series of Ch'i ch'iau puzzles', printed in the first month of 1826 by Lou Chen-wan of Ch'uen Liang and sold in the Lo-yi house. The book is printed on rice-paper and is now in the North Riding County Library, Northallerton.

The simpler the outline, the more difficult the puzzle. Readers may like to invent their own designs and will soon appreciate the versatility of the Wisdom Puzzle. Tangrams were a favourite amusement of Napoleon in his exile.

Chris Barlow.... harpsichord maker

Another interesting find in the rich world of crafts and woodworking skills....Naomi Ruthven explains

If asked when you last saw a harpsichord, a period television drama or a visit to a historic country house might well come to mind. It is hardly surprising - the last harpsichords, constructed from over twelve different woods and finished in fine veneer, were built around 1800, when preference for the piano finally heralded an end to their production.

200 years later, harpsichords have joined the ranks of other early keyboard instruments - square pianos, spinets and clavichords - and have become treasures of the past.

But in the small market town of Frome, deep in England's West Country, the harpsichord is enjoying a revival. Here, craftsman, Christopher Barlow works full-time restoring neglected pieces and making new instruments which he hopes will become heirlooms of the future.

Occupying most of his living-room is a large double manual harpsichord, a replica of an ornate Kirckman instrument of 1786. It took Chris nine months to complete the work and he

now hires it out for concerts and recordings. Having been used by Nigel Kennedy on several occasions, the harpsichord already has an impressive

history and it is hard to believe that a career in instrument-making was something which Chris never originally envisaged for himself.

Getting real

At 19 he exchanged his dreams of going to art college to train in sculpting and wood-carving, for a four year teaching course in design and technology. "During the last two years you could develop your own skills and interests and I did some instrument making then", Chris told me. "That's really been the only training with instruments that I've had - the rest has been self-taught".

In 1978, after four years of teaching, Chris left the profession to concentrate on his own work. "I finished two harps which I had started at college and a man then asked me to rescue a spinet which he'd begun to make from a kit. After that the work simply built up by word of mouth".

Nearly 20 years later, Chris's decision to become self-employed has certainly paid off: the broad teaching course, coupled with a life long passion for woodwork, have made it possible for him to work even the most complicated of instruments.

"With harpsichords, people usually want a fairly accurate replicas built using the methods and materials employed in the early 18th century", he told me. "Holly, pear, ebony, boxwood, lime and spruce are all chosen for their particular qualities and then kept for about two years before being used, while raven and crow-quills, buffalo hide and hog's bristles all play their part too".



Complexity of movement

Opening the lid of his Kirckman replica, Chris pointed out just some of the tasks involved. Among the thousands of moving parts to be hand-crafted, are 240 'jacks' that slide up and down and hold the pivoted quill plectrums which pluck each note.

"The jacks are made using holly and pear", Chris explained. "Pear is a very fine smooth wood and so helps to ensure a clean movement. Fitting the plectrums at the top of each jack is a very delicate job and I had to make a mortising machine with a 2mm by 1/2mm mortise".

Acoustics

The strings of the harpsichord run above the soundboard, usually made from spruce. "As well as maximising strength and stability, it's also necessary for achieving the right acoustics", he explained.

"The soundboard is 3mm thick at the centre and tapers towards the edge. It has to be accurate to a tenth of a millimetre - forming it is like working on a contour map, said Chris, "and I use callipers to measure the thickness as I plane or scrape it into shape".

Timber selection

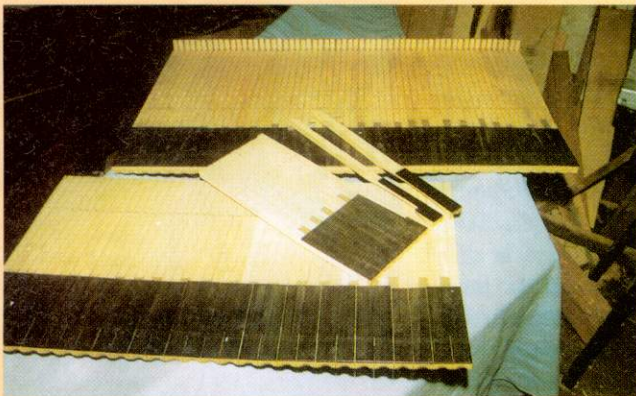
Whereas some woods will be selected because of their physical qualities however, Chris chooses certain materials for their authenticity, including the plectrums which are made of bird's quill. "I play a round of golf and come back with half-a-dozen feathers which I then cut to size", he said. "Some people prefer delrin nylon which lasts longer, but it is obviously not traditional".



A replica of an 18th century, English double manual harpsichord.



The carcass of a harpsichord is glued and held together with old-fashioned wooden cramps. Using lots of cramps enables Chris to apply more pressure as it is spread out across the carcass.



The keyboard is made using one large panel of lime which will be cut and fronted with boxwood after drilling.



Stringing a harpsichord takes Chris two days.



Wooden rods or 'go-bars' are sprung at a high pressure between the ceiling of Chris' workshop and the beech bridge whilst it is glued to the soundboard.



The cross-strung portable virginal is Chris' own design and has a lacewood case with boxwood and afrosia keys. (Price £2,250)

"When making an instrument like the Kirkman harpsichord, you become a researcher in a way and the design is done for you", said Chris, "but designing instruments interests me a great deal and it can be quite fun".

A portable virginal was one of the first instruments which Chris designed after a client asked him to make an instrument which would fit on the back seat of his car.

Having measured the car, Chris realised that the traditional virginal, which works in the same way as a spinet, would have to be radically altered. "The portable instrument is cross strung like a

piano and has removable legs", he said. "With the strings placed in two layers, rather than one, it's very compact and since designing it I've sold quite a few".

Range of clients

Chris' instruments find all sorts of homes. "The larger harpsichords are quite expensive and so they are usually sold to professional musicians", he said "But I sell the smaller pieces, like spinets, to keen pianists who want to play the music of composers like Bach on the right kind of instrument - they find that it makes a huge difference".

Footnote

Christopher Barlow accepts commissions for a variety of early keyboard instruments and small harps. He also specialises in restoration, both of keyboard instruments and pedal harps.

He can be contacted at :
16 Lansdown Place,
Frome,
Somerset. BA11 3HP.
England.
Tel: 01373 461430

Carving the Unicorn - Part 2

Reg Parsons continues this month with the inlay harness and crown of this mythical beast

It has been possible up to now to ignore the harness because it takes the same shape as the body of the unicorn, the exception being where the chain crosses the shoulders from the crown to the girth band. The surface of the unicorn should now be cleaned up to a very high standard of finish as this surface will, constitute the surface of the harness once it has been carved on.

Mark on all the harness and saddle cloth, noting that the top of the harness also passes round and under the tail and then define it all with a 1/8in. (3mm) No.10 including the bottom edge of the crown. The wood between the defining cuts is removed with a 3/8in. (9mm) No. 3; it is of course important to retain the original shape of the Unicorn between the straps. The gouge used to define the harness will have left a small radius between the strap and the body this should be removed and sharpened up with the tip of a sharp craft knife. The scolloping at the bottom of the chest and rump straps is formed by stabbing vertically down with a 5/16in. (7.5mm) No. 8. The triangles left between each scollop being removed with either the tip of a craft knife or a 3/8in. (9mm) No. 3.

The crown

To produce the spikes at the top edge of the crown a series of 3/16in. (4.5mm) holes are drilled around it at about 1/4in. (6mm) centres the tips of the spikes can then be drawn on and the waste wood removed with a 1/4in. (6mm) No. 3. A

small decorative line is then gouged around the crown about 1/8in. (3mm) above the bottom edge with a 1/16in. (1.5mm) No. 10; it is important to remember to leave sufficient room between the spikes and the decorative line for the inlay which will be inlaid later

The chain of course is purely decorative and is left firmly connected to the shoulder throughout its length, it would be a great test of skill to carve it as an actual chain and release it from the shoulder leaving it only connected at the two ends, I, and I am sure the Editor and other readers would be very interested if anybody succeeds in doing this, I did contemplate it, but as you can see that is as far as I got, at least carved as it is it looks realistic and is not vulnerable to damage in the way that a loose chain would be.

Ensure that the width of the chain is the required width of the horizontal links and then mark on the two lines indicating the width of the top of the vertical links. Remove wood from each side of the two lines down to a depth of about 1/16in. (1.5mm). All the links can now be marked on and wood removed from between them; great care needs to be taken over the marking out as it is very easy to finish up with two horizontal or two vertical links together.

The inlay

The techniques and tools used for inlaying into furniture with its flat surfaces are well known and documented, this is certainly not true of inlaying into



carved work which with its curved and often irregular surfaces requires a quite different approach. However, most of the tools required are usually available in the carver's tool kit and as will be seen later it is often a simple matter to make up the odd tool from scrap.

The carving illustrated was inlaid with bone which although showing up very well against the golden brown of the chestnut was very hard indeed to work. Holly or any of the white readily obtainable indigenous woods would have probably looked equally good and would have been

much easier to work. It is important though to choose a hard rather than a soft white wood as the soft will abrade more quickly than the hard when being sanded leaving unsightly depressions.

Preparation of bone

Obtain two or three marrow bones and remove as much of the fat and gristle as possible. The knuckles at the end of the bones should be sawn off and the marrow removed, now comes the fun bit. Boil the bones in a strong mixture of household bleach and soda crystals until all the remaining gristle has gone, if you have survived this, the bones are ready for use and can be worked with mainly engineering tools such as hacksaws, files,

drill etc. Although bone is very difficult to work it does have one advantage over wood and that is that due to its rounded shape, carefully selected pieces will often fit the contour required without a lot of shaping being necessary.

To fit the series of circular inlays along the harness a suitably sized length of dowel must be firmed with a dowel plate, which is simply a metal plate with a series of holes drilled in it of different sizes. A length of inlay about 3in. (75mm) x 1/8 in. (3mm) square is pushed down through the 1/8in. (3mm) hole in the dowel plate whilst being revolved slowly in an electric drill. The more normal method of tapping the wood through the plate with a mallet leaves too rough a surface for our purpose, the position of all the holes should now be marked on the harness and centre punched to prevent the drill tip running off along the grain; drill all the holes with a 1/8in. (3mm) drill and then drive gently in the length of dowel after first chiselling the end to a point and adding a touch of adhesive, the protruding dowel is then cut off preferably with a junior hacksaw blade to prevent the wood breaking off prematurely and leaving an unpleasant hole. It can then be sanded flat, but it will be found that the sawdust from some of the darker woods will tend to rub into the white of the inlay so

darkening it, in this case the final cleaning up should be done with a scraper. The half circles of inlay in the scollops are cut from the inlay wood by first making a cut along the wood with a very sharp craft knife and then cutting down at an angle with a 1/4in. (6mm) No.9 until the half round chip comes cleanly away. The hole for the inlay is formed in the same way, Which means that when the inlay is tapped gently into the hole with adhesive on the back it will stand a little proud it can then be filed flat.

The buckles

These are simply fretsawn out of a piece of 1/8in. (3mm) inlay wood and cleaned up with needle files that are fitted into two slots cut in the strap and glued in position. It is important that they are made a snug fit; a few small adjustment holes are drilled in the strap one in the centre of the buckle and the others on each side of it.

There is a triangle of inlay at the front of the chest harness. First fretsaw from a piece of 1/8in. (3mm) inlay wood the triangular shape and hollow the back until it fits snugly in position on the strap; use a small dab of contact adhesive to secure the inlay to the strap and then use the point of a sharp craft knife to mark round it. The inlay can be removed from the



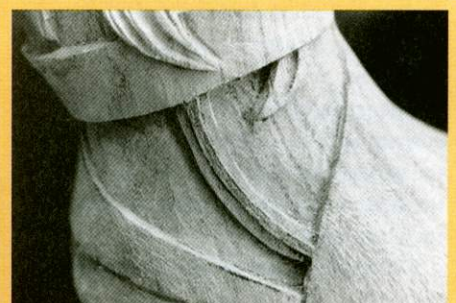
Completed, view from rear.



Front view showing all details.



A series of holes are drilled to produce the spikes.



Crown prior to carving.



Completed chest and rump harness.



Crown finished with bone inlay.

strap before the adhesive sets hard and the mark slightly deepened, avoid pushing in the craft knife with too much force otherwise there will be an ugly gap round the inlay when it is fitted in.

Remove the wood from between the marked lines with a 1/8in. (3mm) No. 3 and then deepen the marked lines again with the craft knife. It will be necessary to do this several times in order to get down to the required depth of 1/8in. (3mm). It is not necessary for the back of the inlay to be a perfect fit with the surface of the recess as the triangle of the inlay is glued in with a gap filling epoxy resin.

The crown

The procedure for inlaying the spikes of the crown is the same as that used to inlay the harness except that instead of producing a dowel, a length of 1/8in. (3mm) square inlay wood is driven into the hole. It will be found that if the end of the wood is pointed before tapping it in, the hole will spread to accommodate it.

The round inlays in the crown protrude about 1/16in. (1.5mm). Produce a length of dowel as before and tap into the holes, but this time use the junior hacksaw blade to saw off the inlay about 1/16in. (1.5mm) above the surface. The top surface of the protruding inlay is rounded over by slowly revolving over the top of it a length of about 3/16in. (4.5mm) rod that has had a shallow spherical depression drilled in the end and a hacksaw cut made across it for clearance.

The triangular inlays at the bottom corners and the centre back and front of the saddle cloth are inlays using the same method as was used to inlay the front of the chest band.

The small pieces of inlay that outline the saddle cloth are produced by stabbing vertically down into a piece of inlay wood with a 1/8in. (3mm) No. 10 and then making a further cut at an angle to produce the inlay chip the recess is cut in the same way; this should leave the inlay wood slightly proud when it is fitted. It can then be sanded flat or scraped flush of the base wood tends to darken the inlay as described previously. The square areas between the outlining inlay should be textured by tapping gently into the surface a 3/16in. (4.5mm) nail that has had the tip rounded over by grinding or filing.

The horn

Produce a 3/8in. (9mm) dowel about 2in. (48mm) long from the inlay wood as previously described and reduce a length of about 3/8in. (9mm) at one end to a diameter of 1/4in. (6mm). This short length of reduced diameter will be used to secure the horn into the head, the rest of the length of dowel is then tapered by filing and then sanding as it is revolved in an electric drill held in a vice. The spiral is filed in with a rat tail file, the edges of the spiral then being round over by filing. Drilling the head to take the horn spigot must be done by eye it is quite difficult to get the angle right, so it should first be drilled with a small diameter drill which if left in the hole will give good indication of the angle, it can then be corrected if wrong by drilling in with a larger drill. It should finally be drilled with a 1/4in. (6mm) drill into which the spigot can be pushed with a spot of adhesive on the end. With the inlay completed it should all be slightly dampened with water taking great care not to dampen any surrounding areas that will be difficult to sand down later, the dampening will not only raise the grain in preparation for the finish sanding, but will also swell the wood so closing any tiny gaps that there may be round the inlay.

The finishing

There are now a large number of finishes available to the woodcarver, but in the case of the unicorn great care needs to be taken to select a suitable one, for example, most oils will tend to darken the inlay and should be avoided and a common method of finishing carving, that is, by rubbing into the grain a wax polish although it initially looks very well it quickly becomes grubby so obscuring the inlay and is then difficult to clean up. Varnish will both protect the carving from dirt and also bring up the colour and grain, but it finishes with a hard surface glitter that is out of place on a carving. The following method used for the carving illustrated will avoid these faults and will leave the work with very pleasing soft wax lustre.

The whole carving must now be scraped and sanded up to a very high standard of finish including the base side which is an ideal place on which to carve your mark. My mark was carved with the

pointed tip of a strong craft knife. When the sanding is complete rub down the carving very vigorously indeed with a lint free cloth this will not only remove the dust, but will also burnish the surface of the wood in preparation for the sanding sealer. Coat the carving including the bottom of the base with sanding sealer, or better still Craftlac Melamine which serves the same function of filling the grain, but is also impervious to liquid. Then when thoroughly dry, lightly rub down only the easily sandable areas with well-worn flour paper. Finally and at long last, repeatedly wax polish with a good quality polish not containing silicones until a lovely soft wax lustre has been worked up.



Chest and rump harness positions marked out.



Saddlecloth position marked.

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Crossword 28

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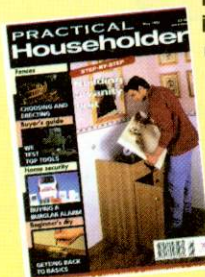
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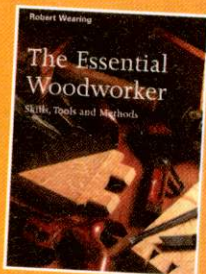
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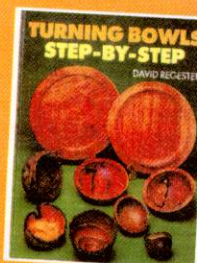
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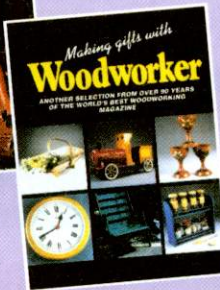
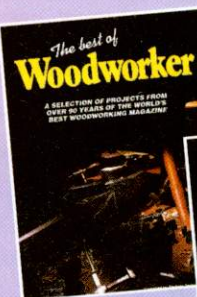
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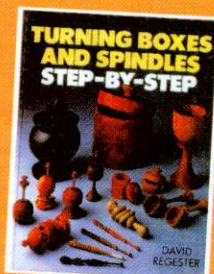
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Written to help the woodturner in spindle turning techniques, this book will allow you to develop your skills through a series of graded projects that are as instructive as they are satisfying to make, including:

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Making Gifts with Woodworker.

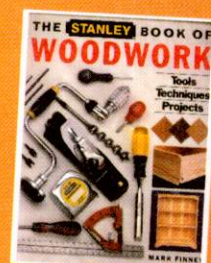
A collection of the most beautiful gifts to make from over one thousand editions of Woodworker magazine. With over seventy gifts included, your Birthday and Christmas present dilemmas will be a thing of the past! Toys, utensils, small items of furniture and ideal gifts for every member of the family are just some of the categories featured.

AND

The Best of Woodworker.

A selection of the best projects from Woodworker magazine, spanning nearly a century and chosen for their ability to fit today's lifestyle. Each project is detailed fully, with specification and technical advice offering a spread of subjects at every level - it's a must for all woodworkers.

Code: NB230/231



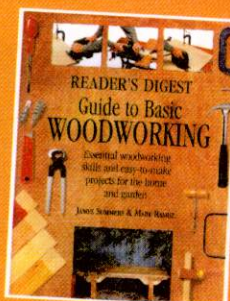
THE STANLEY BOOK OF WOODWORK - IDEAL FOR BEGINNERS

A comprehensive woodworking book for the less experienced woodworker, or those who want to make the next step from DIY. Whether you've never picked up a plane before or want to improve your basic skills, this book takes you

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BRAND NEW!



The Guide to Basic Woodworking - by the editor of The Woodworker.

The perfect step-by-step course for anyone wanting to take up woodworking for the first time. In this practical easy-to-follow guide James Summers, a trained cabinet maker and furniture designer and Mark

Ramuz, Group Editor of The Woodworker and Practical Woodworking take you through all aspects of working in wood, from choosing and buying tools to mastering the essential techniques needed to make a range of simple, high quality products for the home and garden. Each of the 22 projects contains a cutting list, project planner and clear step-by-step instructions that will enable you to make a high quality project to suit every home and taste. Hardback - 160 pages of expert advice and numerous colour photographs. Order your copy today

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Ask Gordon

DOVETAIL CUTTERS NEEDED

Q I have acquired an Arcoy Dovetail Jig - Pat No. 890022/3. It is in first class condition. I want a spare dovetail cutter but no-one has heard of this make.

A Arcoy products were made by a firm by the name of A. Robinson, of Liverpool, the quality of what they produced being very high with plenty of their dovetail jigs in particular being around 20 years after the firm was bought out.

A company called Abrasives and Tools, of the Midlands, took over Robinsons, but they only produced a limited range of the original products and this did not include the very popular dovetail jig. Abrasives and Tools went out of business in the 80's.

I am not surprised that you have been unable to obtain spare cutters for your jig however, they are available, from:

M & M Tools,
P.O. Box 128,
Bexhill on Sea,
East Sussex. TN40 2QT.

I understand the cutters are available in three sizes.

CLOCKING UP THE PRICE

Q I have started to manufacture grandmother and grandfather clocks. At this time I am buying the mechanical movements and dials from Timecraft, but would be interested in names of other suppliers. One other supplier I had written to was Martin H. Drew, but he was too expensive.

A For a wide range of clock movements, dials and all sundry components, then get

hold of a catalogue from Craft Supplies. Their very extensive catalogue, although aimed primarily at woodturners, contains a wide selection of items for all woodworkers and includes 15 pages devoted to clockmaking materials. Several designs for grandfather and grandmother clocks are included, with a wide range of appropriate movements. Kits of wooden parts are also available from this firm, who took over the Charles Greville clock company a few years ago. Craft Supplies operate an efficient mail order service.

For further information, write to :
Craft supplies Ltd.,
The Mill,
Millers Dale,
Nr. Buxton,
Derbyshire. SK17 8SN.
I wish you success with your venture.

WAXING LYRICAL

Q I read, with great interest, the article 'Turning on the Light' and went into good detail on how to produce what I consider to be a very attractive piece of work. However, I have two questions which I hope you can answer.

1. Someone told me recently that you should always fit candle sticks with ferrules. Is this true?

2. How would you, or what type of, candle ferrule would you fit in the candlestick depicted in the article? I realise that this may be an ornamental piece, but what type of ferrule would you use with this type of candle and where could you get them?

A There is no need to fit ferrules to candle sticks, indeed many of the modern fancy types of candles could not be held in a 'fitting' recessed in the wood. There are, though, alternative ways in which candles can be held other than in ferrules.

An assortment of brass 'candlestick ware' is offered by Craft Supplies, including inserts (ferrules), cups, dish and spike, cup/bases and even a candle snuffer. If you wished to include a brass holder into your project, then the 'dish and spike' design would appear to be the most suitable. The 'spike' allows for the chunky types of candles to be held, this fitting 'E' shown on page 127 of Craft Supplies current catalogue.

HARDWOOD MOULDINGS

Q Would you possibly know of a supplier of mahogany - oak mouldings off the shelf. I enjoy working from plans, especially clock plans, which have quite intricate mouldings.

A Obtaining mouldings in good quality hardwood in small quantities is never easy, but try the following:

Timecraft,
10 Edinburgh Road,
Formby,
Liverpool.
Tel. 0170 487 4089

Winther Browne & Co. Ltd.,
Nobel Road,
Eley Estate,
Edmonton,
London. N18 3DX.
Tel. 0181 803 3434

H. Burbidge,
Whittington,
Oswestry,
Salop. SY11 1HZ.

F.W. Mason & Sons Ltd.,
Colwick Industrial Estate,
Colwick,
Nottingham. NG4 2EQ.
Tel. 0115 940 2222

Time Served Part 2

This month Jim continues with a few more memories of the early days

Last month I told you about the start of my apprenticeship, this month there are a few more anecdotes and the end of serving my time.

The polisher Billy Bishop was a Dickensian like character. He had a large red nose, said by the other craftsmen to be caused by drink. He wore a red kerchief around his neck and a bright coloured waistcoat with a huge watch chain across his ample middle. However, this man is the best polisher I have met in my lifetime. His ability to match, repair and polish a surface I have yet to see equalled. Billy would visit most of the large houses in the area on an annual basis. He would restore any bumps or marks that polished surfaces had received during the year. During my probationship I was occasionally sent with Billy, I think this was just because there was nothing else to do with me. However, by keeping my mouth shut and my ears and eyes open I learnt a lot. Not everything I learnt from Billy was to do with polishing. For instance, we arrived at the tradesman's entrance of one large house and having been shown into the servant's hall, the cook asked us if we would like a cup of tea, or would we prefer a glass of beer? This was a momentous decision for Billy, who gave the matter several minutes thought before replying, "I think I would like a glass of beer while the kettle is boiling".

Billy had a small room under our workshop where he kept all his polishes and sundries. Many of these things were secret, only Billy knew what each bottle and jar contained. Nobody, but nobody, was allowed in Billy's store. He had the only key to its large padlock, he just told

the governor what he required to replenish his stock and he got it. Some of the craftsmen resented Billy, but it was petty jealousy.

There was one particular craftsman known as the doctor who was profoundly deaf in one ear. He was called the doctor because his name was Johnson and he tended to bodge most jobs. He had repaired a hardwood door, and there were some gaps in the joints that he intended filling with coloured putty. He sent me down to get some Bismarck brown stainer from Billy. I came back with the tube that like every thing else from Billy's store was minus a label. The doctor said that it was not Bismarck brown but burnt umber. So I went back and asked for a different colour. I took the new tube back to be told that this also was incorrect. When I went back to Billy he was not best part pleased, he told me to hold my apron out and he filled it with at least ten tubes all different colours. "There take them to the miserable old sod". Back upstairs I tipped the tubes out on the doctor's bench, "There you are you old misery guts" I bravely said, knowing he was deaf. Unfortunately I was not standing on his deaf side. He started to shout and swear at me, also threatening me with his mallet. Just at that moment the governor burst in through the door. The men referred to the governor behind his back as 'Winkle'. He was able to be inside the workshop door before the sound of his



flight up the steps could be heard. It was thought that he was out to catch anybody doing something they were not supposed to do. Anyway this time he had caught Johnson swearing at and threatening the apprentice. One thing led to another and the question of why the stainer was required was raised. The governor looked at the gaps in the joints and was not impressed. He told Johnson that it was not good enough. So Johnson said if the governor was not satisfied with his work he would have his cards. With that the governor went down to the office and came back with Johnson's employment cards and his wages made up to that very hour. Johnson turned to me and said "There I hope you are satisfied you have got me the sack". I was teased about this incident for some months afterwards. Craftsmen would say in my hearing "Watch out what you say to that boy or he will get you the sack".

Grave concerns

On a piece of ply nailed to the workshop wall the age of all the people we had made coffins for was recorded in pencil. The average age was frequently calculated and any elderly craftsmen past that age would have his leg pulled. Younger craftsmen would creep up behind him with a tape, supposedly to

measure him for a coffin. However, I am pleased to say that all the men seemed to live to a ripe old age and remain very active. This I like to think is partly due to the satisfaction of working wood and the steady exercise derived from using the hand tools.

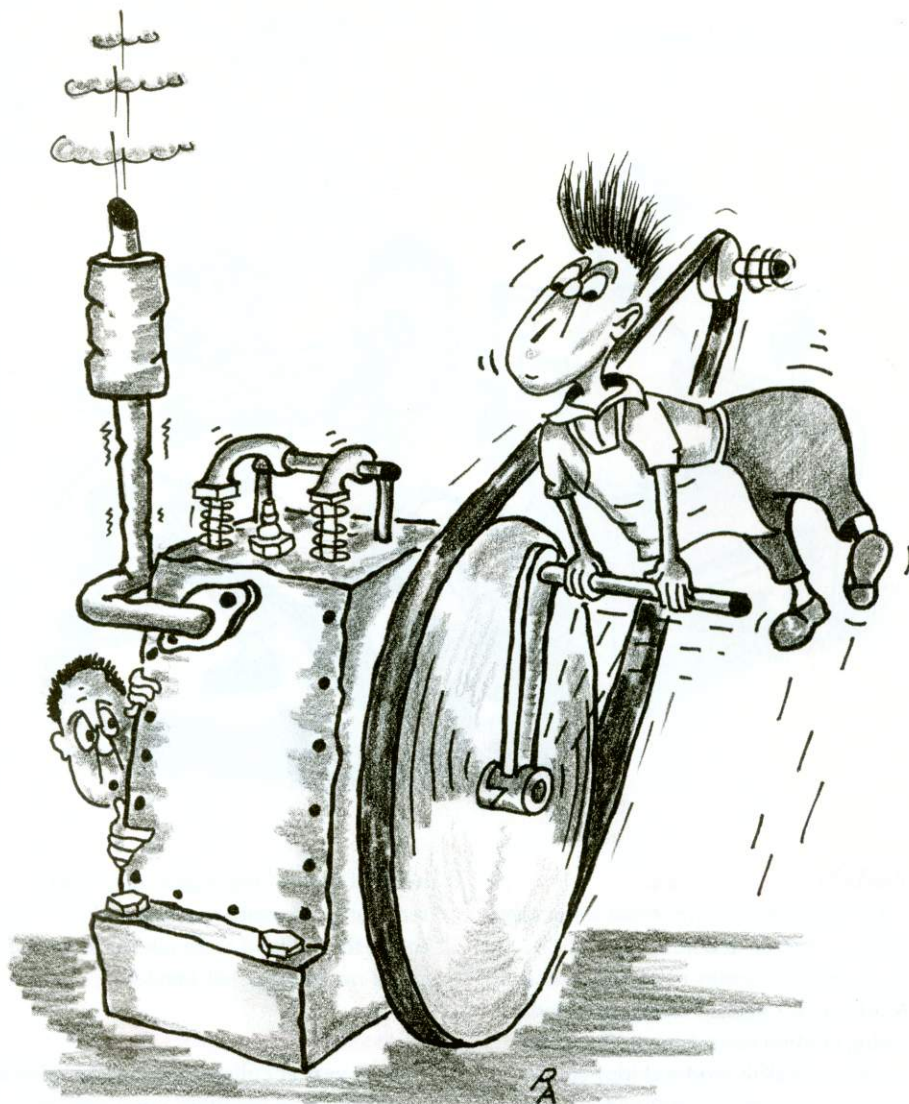
School days

The village school, which I had attended since the age of 5, was a two class room affair. We were divided into the big'uns and the little'ns. Sometimes during the war when we only had one teacher a thirteen-year-old would be sent to teach the infants. Technical college was a revelation to me, here there were dozens of classrooms and the instructor's recently demobilised from the armed forces were very keen. Every encouragement was given to a willing lad. However it was at school at the age of ten that I fell seriously in love. There was this tall graceful girl, who always seemed composed, never ruffled or losing her temper. So at the age of sixteen I plucked up my courage and asked her out. To my surprise she agreed. My work mates were convinced that this would be the end of serious study for me, Jim would go astray. This did not happen, even though that girl is still with me, we married in 1951, from day one she has been behind me supporting everything I have done.

Contract work

The men in the workshop got excited when the firm won a contract to build two pair of council houses. These were to be the first houses built in the district since the beginning of the war in 1939. For this there would be an allocation of timber, which was still on quota and like gold dust. I remember unloading the lorries that delivered the 4 x 2 for the roofs. In those days the roof timbers were cut on site, there were no factory made trusses as used today.

The timber was stacked very carefully and covered by a large tarpaulin. The day came when the roof was to be pitched and I was introduced to the mysteries of the framing square. Trix took one corner of the tarpaulin and I the other. We pulled it back and the evocative smell of that pile of timber remains with me. I have cut many roofs and every time I



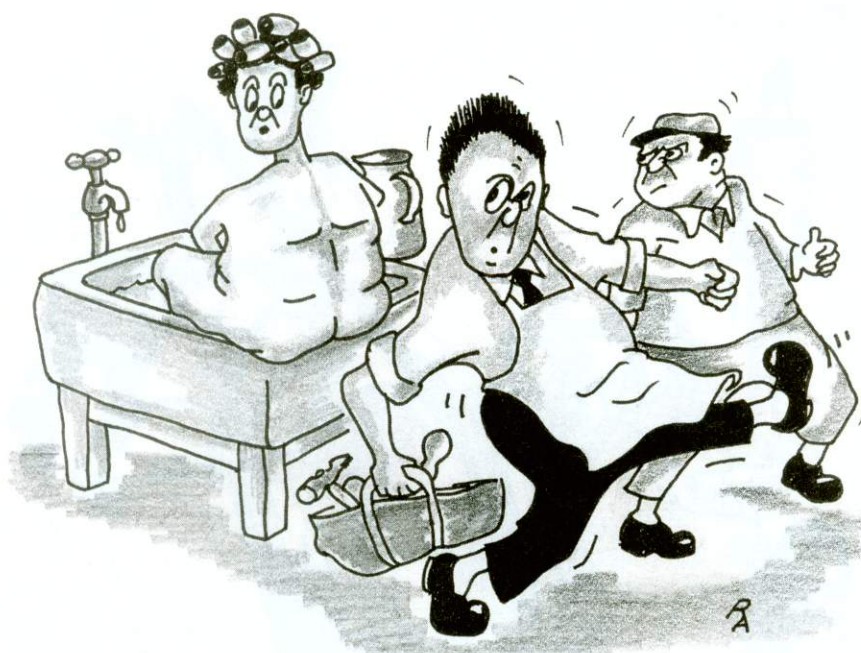
uncover the stack of timber and get the smell I am transported back to that day and the man who opened my eyes to the wonders of the roofing square.

The woodcutting machine regulations did not allow young persons under 18 years of age to operate the machines. On my 18th birthday I made a point of needing some timber machined, knowing that I would now be allowed to do it myself. The machines, just a circular saw and an overhand planer were housed in what best can be described as an open fronted barn. There was no electricity. A stationary engine drove the machines. The power was transferred to the machines by 9in. wide flat belts. To start the engine the belt would be removed from the flywheel. One man would hold the exhaust valve down with a length of wood whilst a second wound the engine with a starting handle. When sufficient speed had been reached the exhaust valve would be dropped, then with a loud

bang the engine would spring into life. Now came the difficult part. The belt had to be replaced on the revolving flywheel. This required both hands and a foot and a quick retreat as soon as the belt pulled into position. The belt was joined with a metal crocodile clip, if this should catch your hand a nasty cut would be inflicted. There was more skill involved in starting the engine than using the machines.



"There, you have got me the sack"



Jobbing work

Occasionally the firm would undertake jobbing work for the local council. This involved small repairs to council houses. Maybe a lock needed changing, a door easing or a tap re-washing. The usual procedure was to send a chippy and a plumber apprentice together. Edgar the plumber's apprentice and myself were sent to undertake this task. On the list there was the address of a certain woman of ill repute known locally as 'Rosy'. You can imagine how two lads talked and speculated on what would happen. We had heard the men in the workshop gossiping and our vivid imagination exaggerated our expectations. There was only a washer required on the kitchen tap so we would not be in her house for long. We knocked at the door and a female voice said, "Come in". We walked in and Rosy was sat completely naked on the draining board with her feet in the sink. "Don't mind me boys I'm just washing my feet" was her greeting. We fled; Rosy never had her tap fixed.

In 1947 I fell off my bicycle, damaged my right shoulder and had to wear a sling, my right hand was immobilised. So for over a month I was unable to work at the bench. During this time the Joint Apprentice Committee awarded me 'Best Apprentice in the South of England'. A special dinner in my honour was given at the White Lion Hotel in Guildford. There

were all sorts of big wigs at this event. I remember my embarrassment when I had to ask for my food to be cut up because I could not manage left-handedly.

Company pride

Each year at college prize giving Winkle would boast to the other employers how

well he trained his apprentices, pointing out how I won the first prize. I felt this unfair because most of the time after the first year I was working on my own doing work that would otherwise be done by a craftsman. He just used me. I was spending nearly all my time out of working hours studying, which was why I won prizes. At the end of the third year of my apprenticeship I was called into the office and told that my Indentures only provided for me to attend college for three years. By this time I had a Final City and Guilds first class and was well on the way to an ONC and aiming at an HNC. No way was I giving up college without a fight. So I agreed the day at college would be stopped from my wages if I could still attend. Winkle still had the audacity to attend prize giving and boast as before.

At that time all young men at the age of eighteen had to do two years national service. Because of my studies my call up was deferred for two years, but the fatal day arrived. My indentures were signed; I was now a fully-fledged craftsman. My craft was to serve me well during my two years as a soldier, but my real love was furniture and on demobilisation I studied and became a qualified cabinetmaker. But that is another story.



Readers Letters

Very often articles in this magazine strike a chord with readers. Maybe you feel that we've got it wrong or that not enough has been said about a particular subject. It may be that you know a better way of doing something or feel that a different approach would be better. Whatever your comments, write to us at:

**Letters
Practical
Woodworking,
Nexus Special
Interests,
Nexus House,
Boundary Way,
Hemel Hempstead,
HP2 7ST, England.**



TROUBLE WITH A SKIVER

Somewhat startled to see my name in Volume 32, issue 4 (Ask Gordon), I was moved to report briefly on the outcome of my pedestal desk project, which was just recently completed.

The project was inspired partly by reading the article 'Pedestal Desk' (Alfryn Hughes, Practical Woodworking, February 1996) and partly by two other circumstances. One of these was that I had a small stock of 32mm sawn boards in sycamore, waiting in my garage since 1985. The other involved my younger son Tom, who is shortly to qualify as a doctor and thought that his future consulting room might be enhanced by the presence of an impressive desk.

Gordon specified the overall dimensions (66in. x 32in. x 32in.), with a requirement for one filing drawer and a sliding table at the top of each pedestal. We chose to make the basic frame of sycamore, with Brazilian mahogany for all the panels, drawers and sliding tables and green leather for the top.

Gordon's advice about the drawer runners proved excellent, as Woodfit Ltd. were able to supply not only the runners,

but also the suspension rails for the files and a brass escutcheon for the keyhole. I found the most difficult part of the whole job to be the precise gluing of the leather onto the top. I had good general advice from the Jean Burhouse staff, who supplied the leather, but whilst it is easy to say 'position the leather', the reality of doing so was almost impossible, even with an assistant.

Fearful of damaging the polished outer frame during trimming the leather, I had elected to paste the leather to the MDF before gluing the finished panel into the frame. Thus, once the paste had dried, it was easy to trim around the MDF using a sharp carving knife and this gave a very clean boundary to the panel.

However, it has to be admitted that the handsome tooling on the leather did not finish up as perfectly parallel and central in the frame as I would have wished. My fervent hope is that the leather does not ever need renewing, or at least not in my lifetime!

Otherwise, it was a very rewarding project and once again thanks to Practical Woodworking for the inspiration and help.

Dr. M. J. Cawood
(Linlithgow, West Lothian)

ONE STEP IN FRONT

I feel that you and Alan Watters have upstaged me! I refer to the Revolving Football in the supplement attached to Volume 32 Number 3. I have just completed a very similar piece of work for a well know bottling company who needed a soccer trophy (see photograph).

I cut each of the 20 hexagons and 12 pentagons on jigs made for the table saw. I did not use inserts like Alan, but angled the cut on the pieces to bring them into the round. Mathematics suggested that the angle I needed would be around 70

degrees. Much, much trial and error (and the odd cuss!) eventually revealed that angle to be 68 degrees. The hexagons were cut in American white oak and the pentagons in African teak from some old parquet flooring I have

been storing for a rainy day. Assembly was achieved by much masking tape, PVA glue and a lot more cussing!

I enclose a picture of the jig for the pentagons. It is dodgy work and must be approached with extreme caution. You are working close to the blade and the waste is all in sharp, angular pieces. A gullet cut in the other jig was not a good idea causing more jamming and flying around. The gusset(s) in the crotch of the jig is very important as I discovered when the blade came through and shaved my thumb! The fence to the right was not necessary and I would make an all-in-one jig with the hexagon set up on one front and the pentagon set up on the other (reverse) front.

I soon determined that the 'unturned' look appeared more dramatic and was fortunate enough to convince my client of this!

The family size bottle was turned and the 'panels' carved. The label was also carved and bent to form by steaming. My carving is not up to doing direct on the bottle in its curved form. I did it on a flat using the router to remove waste, sliced it thin on the table saw and then steamed and clamped it in place with jubilee (hose) clamps. Note it is not quite square!

This trophy has caused quite a stir in our community and there are appeals from other sporting bodies to do them one. Not a chance. For the time being, one is enough.

Rob Bing
(Natal, Republic of South Africa)



Trading Post

FOR SALE

14" Tungsten tipped saw blade 1" arbor £30, unused. Stanley plough plane 044 with eight cutters £30. Tel: 01548 561438.

Festo 900E router with guides and various cutters in carrying case with router table £350. Stanley No. 5 plane £20. Record No. 311 rebate plane £30. Tel: 01379 741086.

A rare opportunity for woodworkers to buy well seasoned rare timber suitable wood turning furniture. Sensible prices due to bereavement. South Dorset. Tel: 01202 536187.

Sears router lathe unused in box £125. Arcy dovetailer unused. Spare cutters £60. Tel: 0115 9786417.

Workshop clearout. Triton Mk3 stand router table leg adjusters complete with B&D professional 7" saw. V.G.C. £180 the lot. Tel: Aylesbury 84557.

Elu 1751 RAS 24" near new & mitre fences. New over £1,000. Offers. Please complete and collect. Tel: 01737 242547.

Bandsaw, Black & Decker DW100 14½" throat 4" cut with spare blades £60 o.n.o. Steve Samler, 18 Lincoln Road, Dorking, Surrey. Tel: 01306 883831.

Planes: Elu MFF80 planer kit, £100. Offers for Stanley No. 271 router; No. 79 side rebate; 13-030 combination. Record No. 0130 block and E.P. shoulder plane. Tel: 01454 413061.

Draper grindstone as new £20. Turning tools Henry Taylor ¾", ½" spindle ¾" ½" super flute. As new 1½" roughing gouge £10 each. Tel: 01483 222836.

The Kiruna grinder wetstone 275 x 50mm 60 rpm, drystone 100 x 13 x 20mm 2800 rpm. As new £98. Tel: 01452 740688.

Poole Wood 14 inch band saw. Mint and boxed unused. Single phase motor £365 o.n.o. Ring 01354 740813 details sent by post.

Large incomplete Fowler traction engine made from m.d.f. tin plate and chipboard. 4" scale 85 inches long. Will haul 1 adult + children. Electric powered. Offers around £300. Tel: 01202 822635.

Tyme Cub lathe 30" between centres with bowl turning attachment, revolving centre face plate etc. £280 o.n.o. Call (Reading) 0118 9479896 (evenings).

J. Sasar band saw cast iron 27 inch throat 30" x 30" table £600 o.n.o. Water grindstone stone 28" x 4½" £200 o.n.o. Tel: 01886 880554.

Sears router crafter 720-25250 instruction manual profile drawings stored unused in delivery carton £175. No offers. Tel: 0151 355 4179. Buyer collects.

Coronet Major Blue with craft supply chuck revolving tail stock and bench plus 8 turning tools £300. Clark variable speed bandsaw as new, only £65. Elu belt sander model MBH 158E, boxed, only used once, bought in error £100. Tel: 01373 836624.

Elektra Beckum SPA 1000 dust extractor, hobby use only. Spare bag. Buyer collects. Poole, Dorset. £85. Tel: 01202 622617.

Very strong magnets 40 x 25 x 10mm for knife racks etc. 20p each plus p&p. Ramin dowel ¾" x 30" £15 per 100. 10mm dice £5 per 100. Tony Stiff 0181 402 0428.

Coronet No. 3 48" with B.T.A. numerous accessories £750. Kity 636 planer thicknesser with stand £425. Scheppach dust extractor £100. Cowley 01889 584963 Rugeley, Staffs.

Record Coronet "O" lathe many extras loads a wood £300. 33" pillar drill with mortice attachment three chisels set Forstner bits £100. 01920 487095. East Herts.

Startrite K210 universal saw, spindle, planer, thicknesser, morticer sliding table, single phase, needs good overhaul. Offers over £400. Tel: 01763 852866.

100 Practical W/working; 100 Woodworker - 25p each. Possible delivery or postage extra. 1 set, 5 vols Newnes Car & Commercial Repair & Overhaul £20 - circa 1950. Tel: 01872 274520.

"Record" DX1500 high filtration extractor unit, still under guarantee. Not constantly used. £120 ono. Tel: 01489 787529 Hants.

Bowl Blanks - Ash, Beech, Oak, Burr, Oak, Elm, Iroko, Walnut etc. Tel: 01785 605071.

Dust Extractor Unit, drum type, 1500W (two motors). Ideal for portable or permanent system - £45. Tel: 01203 410212.

Record SM55 6" Bench Grinder, white, fine stone, boxed, Instruct. Very little use. Half new price at £35. Tel: Walsall 01922 21864.

Record No. 2 Lathe, swivle head bowl turning attachment. All tools, grinder, loads of blanks and 20 videos - £650. Owner going abroad. Tel: 01244 544569.

Axminster M900 Lathe with craft supplies, maxi grip 200 chuck. £320. Tel 01279 504007.

Wood Lathe, union graduate thrée phase motor plus accessories. £400. Tel: 01734 483109 after six.

B&D Belt Sander SR500E - £60. Pair Jet Clamps - £20. B&D Power File - £25. Hot Glue Gun Supermatic - £15. T-Bar Cramp - £20. Tel: 01865 761158 Oxford.

Elu PS174 Pullover Mitre Chop Saw with spare T.C.T. blade. Leg set. Immaculate condition, little used. Price: £350. Tel: 0181 597 3981.

Record Coronet Lathe CL3, 36 x 30 one year old. Record Power Chuck RP3000 7 woodturning chisels - £550. Tel: 01478 780012 North Wales.

Scheppach TS2000 Sawbench. Brand new, still in box, unopened with base unit. £550 for quick sale. Tel: 01564 777452.

Dremel Moto-Tool Kit. Dremel Moto-Lathe (ideal for miniatures). Pyrograph set, 2 holders, 6 stylos. Burgess Electric Engraver + 8 points. All GWO offers. Tel: 01834 843598 Tenby.

Karcher Wet & Dry 2501 Vacuum Cleaner costs £96, sell at £70 ono. Ideal for garage, home - immaculate condition. Buyer collects. Tel: Remi, 01733 266860 after 5pm.

Peatol Micro Lathe. Many accessories, v.g.c. Compound top slide, riser blocks, drill chuck arbour. Needle bearing centre. £250. Buyer collects. Tel: 01705 475206.

Elu MBR100 Biscuit Jointer in carry case. Dust bag and adaptors. Unwanted gift. MRP approx. £250, accept £150. Buyer collect or pay postage. Tel 01935 823585.

WANTED

Elu Router and any accessories in good condition wanted. Tel: 01869 351068.

Wanted Woodrat Machine in good condition. Tel: 01703 618627.

Planer Thicknesser: Kity 1637 or 636 or Elektra Becrum HC260 good condition. Sensible price please. Will travel to collect. Tel: 01492 660728.

Wood Working Machine Startrite Robland 260, 310 or similar single phase. Tel: 015394 46306.

Power Jointer. Motor not required. Must be accurate. Tel: 01243 641560.

Stanley Butt Gauge No. 47-095 also Eclipse Goscut (formica cutter). Tel: 01623 468947.

Woden 78 - Fence Arms, Depth-stop. Stanley 60½ (old style) - mouth, mouth-adjusting lever, knob: items lost when tools were lent. Never again. Tel: 0161 624 2375.

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Jack Hill

This month Jack considers the more academic side of the woodworking author's trade.

Publishers have a penchant for publishing and republishing, books in the autumn. This seasonal inclination has nothing to do with mists and mellow fruitfulness or pagan fertility rites, such as are practised by the church in harvest festivals; it is entirely motivated by money. Sales and marketing are major considerations in such enterprises - the subject, suitability, quality and durability of any particular book appears to be, I regret to say, of little consequence; timing, however, is important. This applies particularly to books which are on 'minority non-fiction subjects' and within the greater world of books in general, those on woodwork, in any of its many forms, fall within this category.

Principles

There are, of course, sound marketing, principles involved in all this. More books of all kinds are sold in the run-up to Christmas than at any other time of the year. More than 50% of annual sales occur in the period mid-October to mid-December every year. In spite of the competition from CD's, computer games, electronic gadgetry and the like, books - and book tokens - remain one of the most popular gifts given as Christmas presents. So we can't really blame the publisher - it's all down to consumer custom and economic expediency. (I think?)

If you can't beat 'em

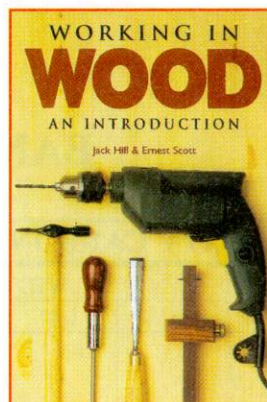
Well, this coming autumn, which, by the time you read this will be just around the corner, I'm jumping on the band-wagon too. Or to be more precise, two of my publishers will be.

Last year I was asked to revise and update a book which I have long admired and which I feel sure many of you will be familiar with. Originally titled 'The Mitchell Beazley Illustrated Encyclopaedia of Working in Wood', the writer was Ernest Scott and it was first published in 1980. I first became aware of the book when I reviewed it for 'Woodworker' magazine in the early eighties; subsequently it was

reprinted four times and was last available in paperback.

The author, who sadly died a few years ago, was a skilled craftsman and woodwork teacher for more than fifty years and at one time he was also a regular contributor and technical advisor to this magazine. In compiling his book he worked with a team of specialist contributors, mainly from the former London College of Furniture, to cover the whole range of woodworking tools and light machinery, jointing methods and construction techniques, aspects of design, materials, etc. etc. As a result the book is, in effect, a distillation of the accumulated, first-hand knowledge of literally hundreds of years of practical experience. And now, for better or worse, I have been given the opportunity to add my own four-penny-worth.

The new version of the book is not over decorated with stunning coloured photographs of work done on machines which you can't afford and if you're looking for an inspirational gallery of contemptible - sorry, contemporary furniture of classical collectors pieces, forget it. There are photographs, of course, but instead, the book relies mainly upon easy-to-follow, one colour line drawings - about eight hundred of them - linked to clear, concise text - close on 60,000 words in total - to put its message across. Traditional and more modern materials and their recommended uses are covered in the first section and then the full range of hand tools and some hand held power tools, together with their safe use and care, are illustrated and fully described. Next, an extensive 'Methods' section provides a complete understanding of the techniques of working wood, covering joints and how to make them, basic carcass construction, work with manufactured boards, surface preparation and finishing. A compendium of woodworking accessories, fixings and fittings is included and the book now concludes with a series of six projects which were commissioned by the publisher and contributed by Andrew Crawford. These are intended to provide practice in



the skills described elsewhere in the book. Overall, it's probably the next best thing to an apprenticeship!

New title

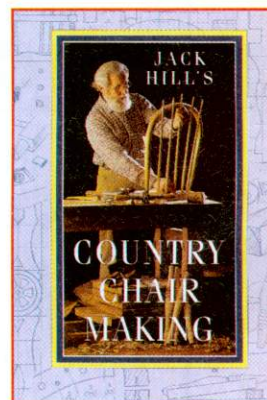
Now titled 'Working in Wood: An Introduction', the proven formula of the original book has been retained in this revised edition, with some modification, where necessary and within the limitations of

the budget, to bring the book fully up to date and even more relevant to today's woodworkers and especially those in the category of 'would-be-woodworkers'. The publisher's 'blurb' states that the book 'provides clear explanations for beginners and a useful reference for the more experienced'. I'll drink to that! On sale soon - and hopefully officially 'launched' at this year's 'Woodworker Exhibition', which will be racing away (sorry!) at Ascot in October and at which I will be demonstrating this time. The book is in hardback and will be priced at £19.99. Start saving-up now!

Name dropping

The second of my publishers ('my' publishers sounds so pretentious, doesn't it? And they are not mine in any case, I only do work for them). Anyway, the second lot, David and Charles, were instrumental in the publication of my favourite book, 'Country Chair Making'. First out in 1993 it was reprinted in 1994 and is now to be republished in 'the autumn' in a paperback edition. It's content will be unchanged (there is still a mistake on page 26), but it will have a new cover and the price will come down to £12.99 I haven't seen either book in its completed form yet.

In fact, I have only just finished checking the page proofs of 'Working in Wood' which will now be computerised somewhere ready for the printer. So far I've only seen the jackets, or covers, of the two books - these are used for advance publicity purposes - and you know what they say about not judging a book by its cover



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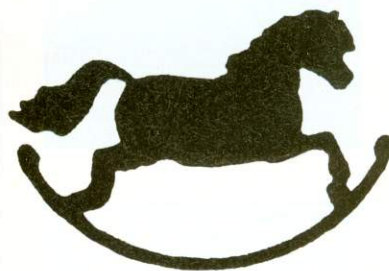


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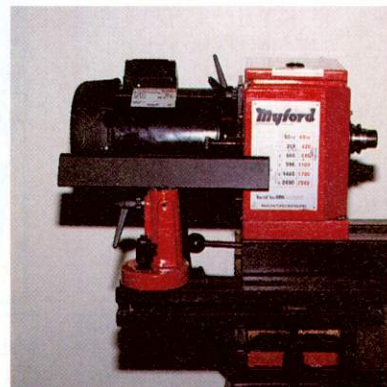
A simple and variable design from V.C. Wallace.



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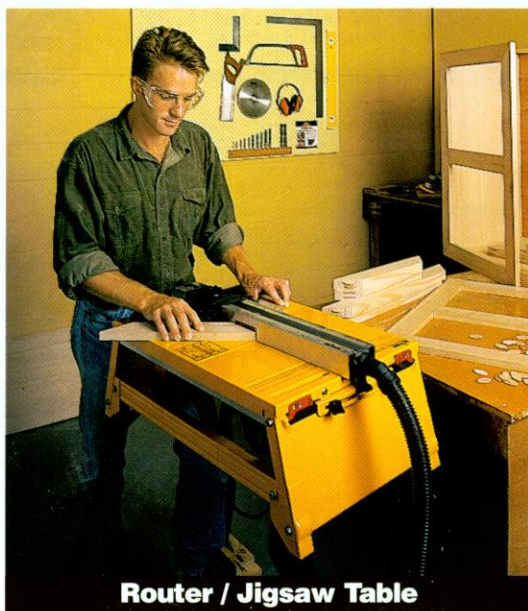
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