

The Timbecon Times

Timbecon's Official Newsletter

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Happy New Year for 2009!

We all hope you had a great Christmas and New Year with your family and friends.

The beginning of a new year is always exciting, as although we've all made our plans and resolutions; we can never be really sure of what to expect. This year is going to be full of promise and has the potential to be very exciting.

It might not be an easy year ahead, but at Timbecon: when the going gets tough - the tough get going.

So let's get going with our first newsletter article of the New Year. *It's a big one!*

Circle Cutting - Applied

In recent editions of The Timbecon Times we've discussed various methods of measuring and marking circles and arcs in your work pieces, together with using the Milescraft Circle/Edge guide to cut them.

If these back issues are missing from your collection, they can be downloaded from the Member's section of the Timbecon website: www.timbecon.com.au.

In this edition we're going to look at one of the most practical ways of applying these lessons to make something everyone can admire and enjoy - which also very useful.

The Lazy Susan

The intriguingly named 'Lazy Susan' is a very useful rotating storage or display platter, which is made to be either free-standing on a portable base or fixed to a work surface for greater stability.

Popular in Chinese restaurants for assembling and sharing the many dishes of your banquet, these dumb waiters, as they were originally called, don't always have to be elaborately decorative centrepieces for your dining table. They can be made out of matching timber, stain and finish to go with your outdoor tables and entertainment areas. Using plain timber or other suitable materials, they are extremely functional inside cupboards, drawers and other storage recesses. You can also incorporate them into your office or entertainment furniture as a great way to mount your flat-screen monitor or TV for easy rotation and better viewing. *And it doesn't stop there.*

One of our valued customers told us at one of the wood shows a few years ago how he'd made a large and heavy-duty version of a Lazy Susan to take a bench grinder, small drill press and 1" x 5" belt/disc sander. In this way he was able to rotate it to whichever machine he was using, saving bench space and keeping everything neatly in the corner of his home work shop.

So, as with most of the things we show you in these newsletters, you're free to unleash your creativity and initiative to discover your own uses for this very handy device.

The domestic Lazy Susan mechanisms available from Timbecon come in 5 sizes; 75mm, 100mm & 150mm square and 200mm & 300mm round.

In this article, we've used the 300mm circular mechanism and a 600mm diameter platter to work with, as these large sizes are easier to see in the pictures.

Measuring and Marking

The more reference points you use in the layout of your work pieces, the easier and more precise the assembly will be. Whether you're starting with pre-cut circular workpieces or making your own from scratch, there are just two of the available methods of marking you could use - at least until you're comfortable with the process before you experiment.

All marking should be done on the underside of the platter and on the top of the base, as these surfaces are generally unseen on the completed Lazy Susan and can be cleaned off without risking damage to the visible areas.

One of the marking methods uses a standard carpenter's square, the other involves using a Trammel, Beam Compass or other similar marking tool.

Critical to the balance, appearance and usefulness of your completed Lazy Susan is finding the centre of your platter and base work pieces.

The Carpenter's Square

Using a carpenter's square to find the centre of a circle.



Place the outer corner of the square on the edge of the circle and draw two lines from the corner across to each edge of the circle.

Pic 1.

Then place the outer corner of the square along one of the lines where it touches the edge of the circle.

Draw a line from the outer corner across to the other edge of the circle.

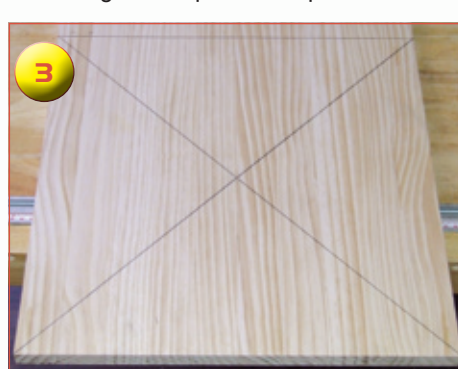
Do the same from the other line.

Now draw a straight line across each diagonal and where those lines across is the centre of your circle. This will work better the more even in length you make your lines, but you don't need to draw a perfect square. *Pic 2*



Using a carpenter's square to mark and find the centre of a square.

On a sheet of timber measure one side of the square and using the carpenter's square at the end of the square



of the square line, draw a right angle at the same length. Repeat the process until all four sides have been drawn to the same length, completing the square. Draw a diagonal line between two opposing right angles. Repeat this on the other two opposing right angles. *Pic 3*

Where the lines cross over is the centre of the square and the centre of your circle.

The Trammel or Beam Compass

Using a Trammel or Beam Compass to find the centre of a circle.

By taking several opposing measurements across the widest line through the circle you can confirm the diameter. You simply halve the result to determine the radius.



Set the fixed point and the marking point on the Trammel to the circle radius. *Pic 4*

Place the fixed point on the edge of the circle and draw an arc in the middle of the circle.

Repeat this process at 2 other opposing points on the circle's edge – approximately the 12, 4 and 8 o'clock positions.

The arc lines you've drawn should intersect neatly at the centre of the circle. *Pic 5*



Ideally, if you use a combination of these two different methods, you'll be able to complete this part of the measuring and marking process with ease.

All the effort you've taken to find and mark the centre point will be wasted if the mechanism is mounted off-centre. The hypnotic effect of watching your Lazy Susan spinning off-centre won't be enough to soften the disappointment of almost getting it right. With this in mind, always mark the hidden, underside of your work pieces throughout the various stages of manufacture to assist you when assembling the finished parts.

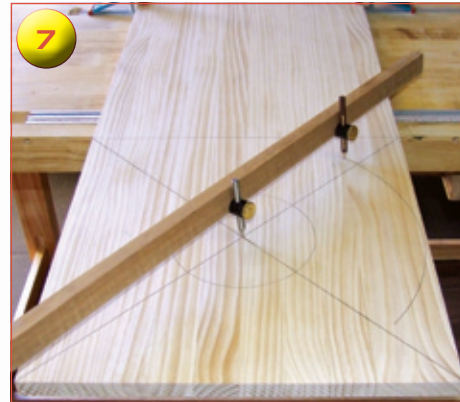
A bit of extra time taken along the way will ensure a happy ending.

So before going any further you should align the screw holes in the mechanism on the 90 degree crossed lines, which will centre



it on the work piece. When the lines pass through the centre of each hole draw a line around the inside of the mechanism. *Pic 6*

Using the Trammel or Beam Compass fixed at the centre and set to a radius slightly larger than the circle to be cut, draw the line on your work piece. *Pic 7*



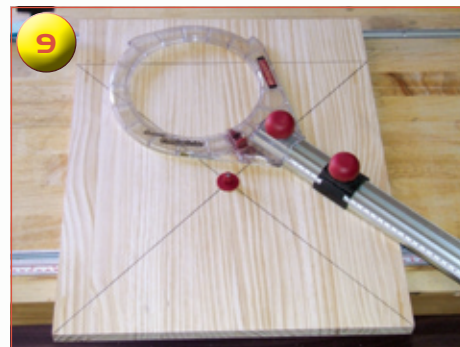
This is now how your marked-out work piece should look before cutting. *Pic 8*



Cutting the Circle

We'll be using the Milescraft Circle/Edge Guide and a router fitted with a straight cutting bit to cut the circle.

Firstly, attach the anchoring pin in the centre of the work piece. *Pic 9*



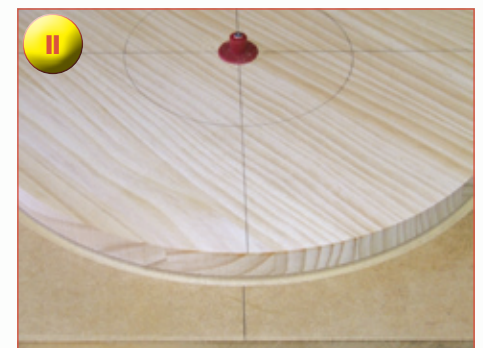
Before cutting the circumference of the circle with the router you should trim as much of the waste as you can from the edge of the marked line. This is why we made



the marked line slightly larger than what we're going to cut with the router. Doing this saves the router and the bit from doing a lot of unnecessary work and gives you more control and a smoother cut when guiding it around its pivot. You can use a bandsaw, jig saw or even a hand saw to do this, and you don't have to be too accurate. *Pic 10*



As you'll be routing a full circle and cutting the face of the edge in one pass, you'll need to plunge deeper than the thickness of the work piece. You should place your work piece on a piece of sacrificial material to make sure you don't also cut into your bench or table top. *Pic 11*



In all your efforts to create the perfect platter, you don't want to forget all about the base. Measuring and marking your base is the same as you did the platter, just of a smaller diameter.

The heavier, wider and more solid the base the, more stable your finished Lazy Susan will be. More critical for a decorative - as opposed to a functional - Lazy Susan, but the base also needs to be as substantial as your design allows, without being too high or obviously visible from the side view.

If the mechanism is being directly mounted onto a work surface like a bench or cabinet top, the fasteners you use should be sufficiently strong enough to take the anticipated load.

Now that you can efficiently mark-out and cut your own (endless) supply of circular timber work pieces for the platters and bases— the hardest part is over.

But as you can now appreciate, it can take some time to accurately measure and mark your work piece - and equally, you also understand why it is necessary. *Fortunately there is an easier and more efficient way to make multiple Lazy Susans in a batch: Templates!*

Once you've worked out your preferred Lazy Susan sizes and you've mastered your assembly techniques, it's likely you'll want

to make more of these as gifts for family and friends or possibly even for sale.

Making templates of your platter and base means you can take a few hours to copy and cut a batch of blanks to be later assembled as you need them. This is particularly time-saving if you've also pre-made a batch of laminated boards, from which to cut your blanks. You can also buy a quantity of mechanisms, possibly at lower than individual prices and save on freight (if they are sent to you), so you'll always have them on hand and ready to use.



Simply place your circular template (for either the platter or base) on your workpiece and align the crossed lines to centre both pieces. Draw a pencil line around the circumference - allowing a suitable gap for pre-cutting as before. *Pic 12*

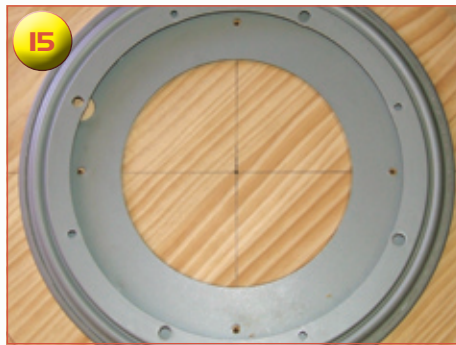
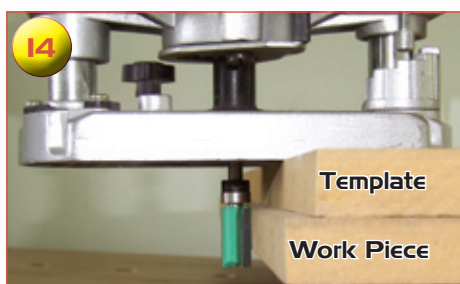
Once you've cut around the pencil line you can attach the anchoring pin for the Milescraft Circle/Edge Guide in the centre of the work piece.



The marked graduations on the shaft of the Circle/Edge Guide allow you to accurately adjust the size of the radius for each size circle you want to cut, when using the same router bit. *Pic 13*

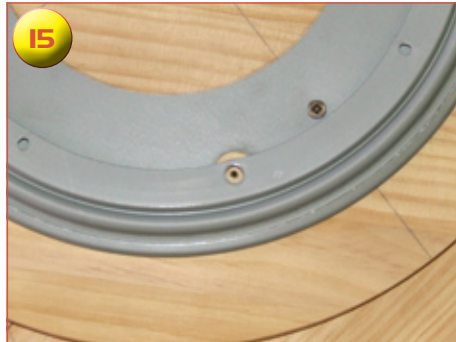
With any template and blank you can also use a pattern following bit in your router to cut the work piece free-hand. As you can see in the picture, the bearing will allow the router bit to cut into the work piece until the bearing touches the template. The bearing will now act as a guide to force the router bit to follow the shape of the template, which is a straight edge in the picture. *Pic 14*

This useful routing method can be used for following any kind of template or guiding edge for cutting and copying.



Assembly

Align the mechanism on the base and drill the screw holes. Screw the mechanism to the base and drill a pilot hole for the screwdriver through the base. *Pic 15*



Remove the screws and take the mechanism off the base. Bore out the pilot hole using a drill bit larger than the diameter of the screwdriver you'll be using to attach the screws to the underside of the platter.



Align the mechanism on the underside of the platter - taking great care to keep it centered. Carefully rotate the mechanism and drill the screw holes, making sure the screwdriver hole is accessible. *Pic 16*

With the mechanism screwed back on to the base - making sure to leave the screwdriver hole accessible - and the underside of the platter pre-drilled it is time to finally join them together. *Pic 17*

Prior to final assembly you should always make sure the bearings and runners in the mechanism are clean and free from dirt and sawdust, which may have gathered there



while you were working and can impede smooth running. *It may be more difficult to clear such obstructions once the base and turntable have been attached.*

The underside of the base can be covered with flocking or any other kind of backing material to prevent abrasive damage to your dining table. This could be done earlier in the manufacturing process, but that is an individual choice. Sanding, staining, finishing or polishing can also be done as it suits your individual requirements. *Pic 18*



Other than that, your Lazy Susan is now ready to use, give away or sell!

To complete this article we've included a set of assembly instructions for the square-shaped mechanisms, which we found on the excellent Veritas website.

Step 1

Center the bearing on the base and mark screw locations of lower bearing. Using upper bearing as a guide, transfer location of one corner onto base and drill a hole large enough for a screwdriver shank, through the base.

Step 2

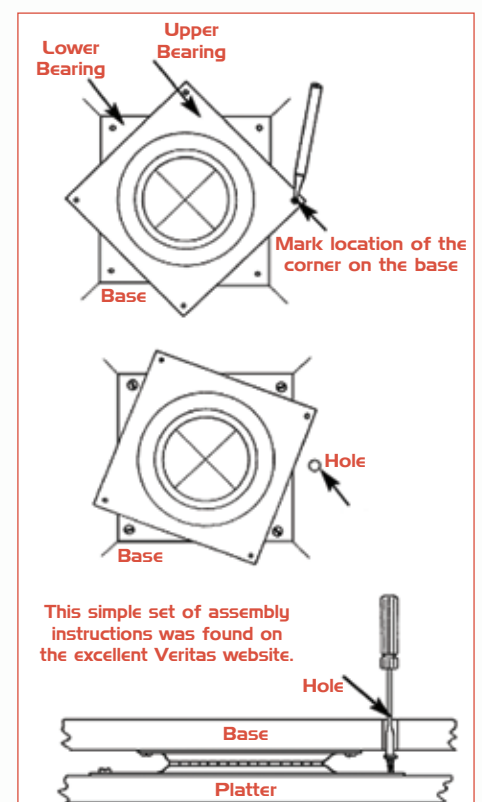
Attach lower bearing to the base with screws of the appropriate size.

Step 3

Center the base over the platter. Locate upper bearing through hole in base and attach to the platter by putting the screws in through the hole in the base, rotating the base to locate each screw.

Step 4

The hole in the base can also be plugged.





All-New Woodworking for Kids
By Kevin McGuire *r.r.p. \$24.90*

This is an excellent starter book for the young wood worker in your family. Whether it's for your son, your daughter or your grand kids; this book is a great way to introduce them to the world of wood work. Not only is it something you can do together, but they can also enjoy it when you're not there to help them.

All they'll need is some timber, some simple tools and some spare time to start working on the fun projects in this book. Projects like workshop tools, pet and animal accessories, outdoor and garden items, storage and display pieces together with a few things just for fun. They'll be amazed at the all things they can build with just a few simple skills; learning as they go.

Their introduction to woodworking basics starts with an overview of the types of commonly-used timber and explains grades, sizes and cutting lists. Moving on to standard workshop supplies and tools, it concludes with the ever-important topic of workshop safety.

The section on techniques covers cutting, measuring & marking, using patterns & illustrations, clamping, sawing, making joints, fastening with glue, screws & nails, sanding & finishing plus lots more.

Then it's off to work, where everything they've just learned is put into action.

Each project has a photograph of the finished item, a shopping list of the materials needed, a list of tools and a cutting list with a very handy map of the pieces. There is a numbered list of steps to be taken together with an exploded view of the project and any other necessary diagrams and illustrations.

Throughout the book there are loads of extra tips to further explain the processes being used so they will have a better understanding of why, and not just how, they are doing things. And in that way, they'll learn so much more.

By the time they've reached the end of the book they will have covered all the skills and confidence to progress to large and more complicated works. And at the same time, you'll have gained a wood working partner to share your skills and your pastime. Now instead of just helping you, they'll be able to work alongside you and share the joy of making something together.

Win/win for everyone.

Birdhouses You Can Build in a Day
r.r.p. \$39.90

From the editors of Popular Woodworking Books comes this fascinating publication extolling the virtues of attracting birds and butterflies to your garden. Observing these wonderful creatures in your own garden is not only relaxing and entertaining but very educational for your family.

Natural habitats are becoming scarce for some species of birds as more and more land is cleared for housing and other developments. This book shows you how to create clean, well-ventilated and functional living environments, while keeping the birds protected from natural predators. There is even helpful advice on what foods to provide for your new neighbours.

This book is intended for woodworkers of all skill levels and the construction notes contain directions for procedures you'll use. It includes details on how to mark and cut the bevels and joints required in the plans, together with the list of simple tools you'll need for the job.

The projects are fun and creative with each one taking less than a day to build.

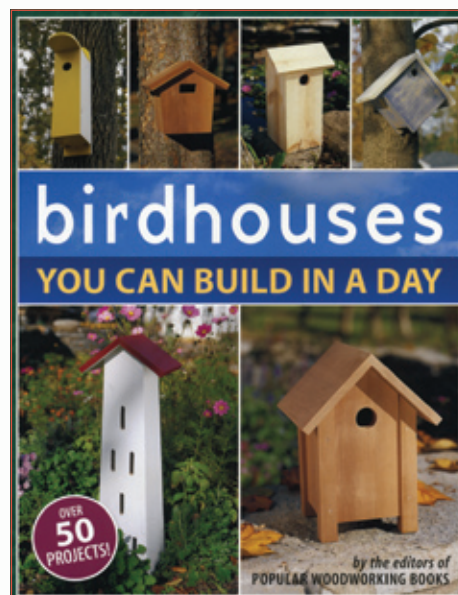
Over 40 birdhouses are included, designed to suit a multitude of bird species. There are also butterfly houses, bird feeders and bird baths included, too. Each project includes a technical drawing, cutting list, step-by-step photos with text, placement details and specific bird information. And as these are only small in size they are a great way to use a lot of your scrap timber pieces and offcuts..

A helpful and informative chapter about attracting birds and butterflies contains charts with specific information such as diet, number of eggs laid per season, house specifications and box dimensions. It is simple to modify the instructions to suit birds from other regions.

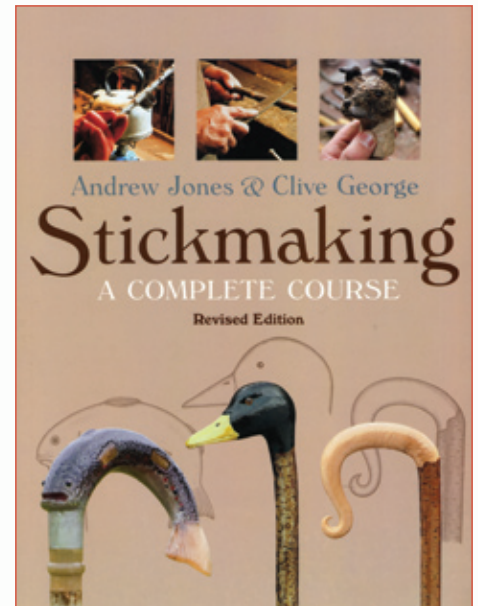
There is even a page of worldwide breeding and conservation groups and associations to contact for further support and information.

Build cottages, shelves and nesting boxes, basic bird houses and even a castle!

Colour photographs included with the instructions will guide you along the way. In one afternoon you can build a unique bird retreat that will turn your garden into a bird watcher's paradise.



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Stickmaking - A Complete Course
Revised Edition
By Andrew Jones & Clive George

r.r.p. \$44.90

In ancient cultures sticks were often used as a symbol of authority or as an indication that someone could speak at a meeting. For centuries the walking stick, or cane, has long been the perfect gentleman's accoutrement, whether by necessity or choice. Larger and more robust sticks are now popular for hiking and bushwalking.

Now you can learn the traditional secrets to make these customised and highly sought-after ambulatory accessories for pleasure or profit as a valuable source of extra income or treasured gifts for family and friends.

This complete introduction to stickmaking explains how to make a wide range of traditional walking sticks, market sticks and crooks. Expanded to include more detailed coverage of tools, moulds, formers, jigs and materials; this books is the ultimate, comprehensive guide to the hobby.

This book shows you how to select suitable timbers as well as alternative animal horn materials. There are tips on straightening sticks, fitting the handle and fixing the ferrule plus advice on how to produce a variety of effects.

Seasoning wood, shaping, carving and shanking handles, colouring and finishing methods are all aspects of this long-established craft and are all covered in this complete and authoritative reference.

The most difficult part of making any style of stick is finding good material to work with.

Starting with a fascinating and colourful look at the woods used in stickmaking, this book further explains how to identify sticks while they're still on the tree. Having found what you're looking for the book then explains how to properly cut, season and store your sticks. Where necessary, removing bark, shaping the handle, straightening and finishing the stick are covered in the designs.

There is extensive information on choosing handle styles for all types of sticks and carving and detailing them for further effect. Whether you choose to make decorative or functional sticks for active use or just for display, this book has something for everyone.