Shed Notes

Issue 320 February 2015

WOODCRAFT GUILD·ACT

NEXT MEETING: Wednesday 25 February 2015, 1930 - 2130

Venue: The SHED, Lions Youth Haven, Kambah Pool Road, KAMBAH ACT 2902

Show and Tell?

As far as the Editor is able to determine from those Committee members he can find (and that's not many), the subject of the February Guild meeting is supposed to be **Show and Tell**, which means that members are expected to bring along a recent creation, or work in progress, and be prepared to explain their design and techniques, and answer questions from the audience.

In my experience of these events, it's always a good idea to line up a couple of "volunteers" in advance, to make sure that there will be at least someone at the Front Bench to kick things off. At the time of writing, yr Ed is not aware of any such nominees, so as Tonto would say to the Lone Ranger, *"¿Quien sabe?"*

* * * * * * * * * * * * * * *

Little Fiddly Bits

Someone who will be prepared to Show and Tell, but not until the end of May, is our resident expert on the art of Marquetry, **Don Rowland**, one of whose prize-winning works — an exquisite Nautilus-shell-patterned wine box — appears at left.

Don and the Scrollsaw SIG will be running a **Scrollsaw and Fretsaw Marquetry Workshop** on two consecutive Saturdays — **23 and 30 May**, from 10am to 4pm. There will be a limit of 10 places, open only to financial members of the Guild.

So if you were ever tempted to dabble in this ~~dark~~ fine art, turn to **page 14** for more details, and get your expression of interest in early, as it will be "first come, first served".

Contents

Executive Committee of the Guild:

President:	**Graham Reynolds**	president@woodcraftguild.org.au
Vice Pres:	**Les Fortescue**	vicepresident@woodcraftguild.org.au
Secretary:	**Hugh Milloy**	secretary@woodcraftguild.org.au
Treasurer:	**Andrew Hewat**	treasurer@woodcraftguild.org.au

Newsletter Editor: ***Rod Tier*** *editor@woodcraftguild.org.au*

Correspondence: ***The Secretary, PO Box 1411, WODEN ACT 2606***

Website: ***http://www.woodcraftguild.org.au***

ABN 79 748 587 157

Presidential Palaver

I began writing this in an hotel room in Hokkaido, Japan, in between flurries of powder snow and exploring Japanese culinary offerings. Then the tablet I was working from got more and more frustrating – last time I go abroad without a computer, methinks. One thing that struck me on my first visit to the ski slopes of Japan was the expanse of white over fields that clearly are normally resplendent with flowers and grain over the summer. Little outdoor activity except at the ski resorts, and I did not find any quiet woodcraft workshops worthy of visiting — nor, indeed, any master craftsmen with knives or chisels that may have been lurking beneath the snow. As shown below, the local toymaker and windmill maker had little workshops within a tourist village, but that is about all.

There were a few highlights over the last month or so, and a few more are coming up. The Woodcraft Guild presence at the National Museum of Australia on Australia Day was very successful, and my thanks go to everyone who helped out. The NMA has sent us a link to their video record of the event at http://www.nma.gov.au/engage-learn/families/festivals . I was working in Mildura Hospital at the time of this event, and missed the weekend altogether, although a range of multicultural events within the international music festival in Mildura did create a nice diversion.

Bill Hodgetts has been busy getting ready for the Canberra Show, coming up from 27 February to 01 March. The volunteer roster is now out, and Dan Steiner is organizing sales items. It should be a great weekend.

Dan and I attended the launch of the National Folk Festival on 18 February, and the program looks fantastic, with an array of high class performers — the program should be online by the time that you receive this Newsletter (see http://folkfestival.org.au/).

I am grounded for a few weeks, and will get on with more of the Guild activities that I have neglected over this time, including analysing your responses to the workshop survey that has been talked about a lot. This will result in a program that will be finalised at the next Committee meeting.

Suggestions for speakers at the monthly Guild meetings are appreciated — more suggestions would be welcome. The program for the rest of the year will appear shortly. On 25 February we are having a "Show and Tell" evening, with members invited to bring along items that they have been working on recently. The Shed will be configured a little differently, and opportunities for discussion, tips and tricks will be there. This is ideal for members to bring in items of interest to share, so that we can together appreciate the range of talent or emerging talent that exits within the Guild. Be bold! Most of you should be working on something, however small or big, starting or finishing, frustrating or satisfying.

My contribution to this month's newsletter is small – my apologies to the Editor. Keep the contributions coming in! [*Does he know something I don't? Ed*] I hope to see as many people as possible at the next Guild meeting.

Graham Reynolds, President 0413 053 978 *president@woodcraftguild.org.au*

Editorial Effluvia

The Editor is more than usually grumpy this month — despite the comments in the recent survey, members were not particularly willing to make any contributions to the Newsletter, and he refuses to write it all himself. So thanks to those who did make the effort, but if it's not what you really wanted to see, then get off your backside(s) and put something in!

Editor

* * * * * * * * * * * * * * * * * *

Coming Events

Internal

Next Monthly Guild Meeting:

Wednesday, 25 March 2015, 1930, at the Shed. Speaker TBA.

External

Next Triton Club Meeting:

Wednesday, 04 March 2015 – (For further information, visit the club's website at http://www.tocact.org.au)

Canberra Show:

27 February ~ 01 March 2015, at EPIC – Coordinator **Bill Hodgetts** has been busy organizing volunteers to help run this important event. The Guild will be represented by the usual marquee of demonstrations and sales outside the Craft Pavilion, and by Guild Stewards of the Woodcraft display within the pavilion. There is a shortage of turners to demonstrate — please advise Bill if you can help ASAP by calling **0427 224 480**, or emailing billhodgetts@bigpond.com .

National Folk Festival:

02~06 April 2014, at EPIC – Once again the Guild will feature among the "Tradition-Bearers" at this prestigious national event, and we will be seeking volunteers / demonstrators to folk the Guild stand (**NB**: **exhibitor passes will, however, be very limited**). An excellent woodcraft sales opportunity, especially for anything "folksy". The Coordinator for this event is also **Bill Hodgetts,** on **0427 224 480**, or at billhodgetts@bigpond.com

* * * * * * * * * * * * * * * * * * * *

SPECIAL INTEREST GROUP (SIG) REPORTS

(SIG Coordinators: please note the deadline for newsletter input: **2nd Friday of each month**.)

Miniatures & Mandrel (aka Pen) SIG: At our first meeting of the year on 07 February, amongst other things, we discussed and planned what will be happening for the rest of the year. The final program is yet to be finalized, but when done, will be distributed so that you will know more than two weeks in advance — all going well, that is.

It was decided to have a planned demo every second month, with an unplanned (spur of the moment, probably) demo, or activity, on alternate months. So, next month, for some unfathomable reason which I am yet to comprehend, people have expressed an interest in **acrylic** pen-turning. As a result, for everyone who missed it last time, Jim Venis will once again show us how it's done [*but don't applaud — it only encourages him! Ed*].

The next meeting will be **07 March**. I will be opening up at 10 for turning or talking; lunch at 1; and demo at 1.30; with time afterwards for you to try your hand at acrylic turning (or not). I will try to have some spare blanks if you don't have any of your own.

Also, a big thank you to the person who left a large bag of (wooden) pen blanks at the Shed for the SIG, and especially for labelling them — putting a name on them was very helpful to those who don't know one timber from another.

Gai Simpson 6231 4139 ***mandrel@woodcraftguild.org.au***

Furniture SIG: The SIG met on Saturday, 14 February, starting with a discussion on chisel-sharpening by Terry O'Loughlin. Members then proceeded with their own work. The next meeting will be held on **Saturday, 14 March**, starting at 1pm. Alan Walker will demonstrate the use of the Tormek wet grinder.

Mathew Klein 6231 0475 ***furniture@woodcraftguild.org.au***

Saturday Turning SIG: For those turners who need a reminder, the Saturday Turning SIG now meets on the **third Saturday of each month**, so in February that will be **Saturday 21**, commencing at 10.00am

As explained in a previous newsletter article, there is no demonstration planned for this month, so members can spend time turning their own projects in the round. There should be experienced members of the SIG present who can help with any problems.

This will also be a good opportunity to work on your Turning SIG Competition entry to win a fantastic, limited-edition (there's only one of them) turning smock, kindly donated by Timberbits, in a choice of wonderful colours (as long as it's blue), unisex and one size to fit all (hopefully — otherwise, some of our members can sew…)

Remember that the first hour is devoted to welcoming and assisting newcomers to turning, so if you are an experienced turner, please be prepared to lend a hand. (Remember when you were greener than the wood you now turn with ease!)

Satnam Singh 0481 004 674 ***turningsat@woodcraftguild.org.au***

Between Centres Turning SIG: The first meeting of the Between Centres SIG for this year, on 14 February, saw a small attendance at Jim Reid's Murrumbateman woodturning workshop, however, the Guild members who did attend witnessed, as usual, a skilful demonstration of the production of 'door-stop wedges'.

Made from blackwood, and turned so as to produce two wedges from one piece, as always it looked easy when turned by the expert, but for the average learner it proved a little more complicated. The conclusion was that these types of turning exercises are an excellent learning project in producing a quality product.

Members attempted the same turning, using a skew chisel and detail gouge; then cutting on the bandsaw; sanding (as shown at right); and finally, waxing.

As shown at left [*NB: Scott is standing on a box, or John in a hole — I think... Ed*], the novices had some success, but maybe you might say the result was probably to a "not for sale" standard.

Jim Venis 6241 1465 ***turningbc@woodcraftguild.org.au***

Scrollsaw & Marquetry SIG: A well-attended meeting in January planned the SIG program for 2015, available now on the Guild website. A couple of significant principles were employed:

(a) that two consecutive monthly meetings would work on a given project, to enable greater opportunity to complete work; and

(b) that various members would share in preparing things (plans, materials) prior to the meeting, to enable greater productivity during actual meeting time.

Hence, our meetings on **15 February and 15 March** (from 10am to 4pm, on our usual third Sundays) will concentrate on making toys with the scrollsaw.

An ongoing project, in which members may elect to participate, is the making of a diorama of a small country town, coordinated by David McEwan. We hope to have this completed in time for the Annual Exhibition in September.

David French 0428 121 934 *scrollsaw@woodcraftguild.org.au*

THE FRONT BENCH

Behind the Front Bench at the January meeting were a couple of turners rabbiting on — illustrated by Powerpoint — about the wonderful time they had attending the Sturt Summer School in early January. Guild members present managed to stay awake and feign polite interest until supper time.

After supper, much more interest was shown in a demonstration by Robin Cromer of a special jig he has created for the large Hammer bandsaw, which will allow the longitudinal cutting down of small logs — see page 17 for Robin's illustrated article on this jig.

Editor

* * * * * * * * * * * * * * * * *

LATE FINAL EXTRA

Just to hand, as we go to press — a snap of the Food Cart built for the Oz Harvest organization by a hard-working team, led by Dan Steiner, including Mike Nash, Bill Thompson, Stuart Storey and Terry O'Loughlin. The cart was built to Oz Harvest's specifications, to be used in public displays to promote the organization and encourage donations of surplus foodstuffs for distribution to charities.

A rush job, the cart was only finished yesterday (19 February) in a flurry of last-minute activity, mainly involving yellow paint, and is already on display at a catering convention at the National Convention Centre.

Apart from its axles, the cart is made entirely of wood, including the "spoked wheels", which were actually cut out of plywood and laminated in layers.

Dan tells me that interest has already been expressed in more carts, but a major reworking of the cost structure would be needed!

Editor

Feature Article

A CARVER'S MALLET
or
SIZE DOES MATTER

In the Beginning

It was the late John Armstrong who first raised with me the question of design for a carver's mallet. Members may remember his practice of "malletizing" new members of the Carving SIG. The resultant flow of mallets from the turners (often not carvers themselves) produced a great variety of different mallets varying in size, weight, and head and handle shape. All were good practical mallets, but they were not all good for **carving**.

The next impetus for my thinking was a personal experience, where for a couple of hours I used a mallet made 25 years ago, and discovered it had not changed with age — but I had. The handle was uncomfortable; the grooves caused a blister; and the unnecessary weight caused tiredness and discomfort to an arthritic thumb.

My old mallets are shown at left — both are Chinese Elm (*Ulmus parvifolia*); the one on the left weighs 630gm; the one on the right weighs 470gm, and has the "decoration" on the handle under the head that caused the blister. (The reference block is 100x25mm.)

Evolution of the Mallet Shape

The first deliberate mallet must clearly have come about from the thinning of a section of a branch to create a better grip for the heavy end. Ancient Egyptians used both hand-held lumps of stone for masonry mallets, and also round wooden mallets for carpentry and carving. It is only in recent years, with the appearance of new materials such as polyurethane and brass for heads, that this basic design has altered significantly and changed its ergonomics. In this same timespan, the offspring of the mallet – the hammer – changed dramatically. Timmins and Son's 1845 tool pattern book lists 136 sizes and shapes for hammers, but only three for mallets. Two of these were round (dismissively called 'Toy' and 'Gentleman's') and one was block-headed — the traditional carpenter's mallet. It would seem that the mallet was still an artisan tool, with its design at the whim of its user/maker.

Surely it is axiomatic that, for these most functional of tools, the **form** must derive from its **function**. Over time the hammer has changed for each different task; the flint scraper has become a range of specialised planes; but the mallet is substantially the same. This invites the question, "Is the carver's mallet a specialised tool, or is the prevailing generalisation of design appropriate?" To answer this it is necessary to look at how a carver uses a mallet.

The Process

With the help of many (often bemused) Guild members, I have observed a large number of mallets being used, and have been given much useful advice. A number of carvers have shown me their favourite mallets, and discussed why they were preferred, and what they saw as drawbacks. I have also made mallets of different shapes and sizes, and am grateful to the carvers who took them, 'road-tested' them, and gave valued suggestions for improving their design.

I have also had the chance to measure the hands of many Guild members, as it became clearer to me that hand-size as well as function were important to handle design. I have discussed this particular aspect with a doctor and two physiotherapists.

A very clear early conclusion to all this was that there is no such thing as THE carver's mallet. Every carver who practices a range of carving styles needs (probably) three mallets which differ markedly in size and shape. To make it easier to keep them clearly separate, I have created functional names for them. The first mallet is used for delicate work — the **Tapping** Mallet — and is used with the wrist as the fulcrum, but the elbow is inactive. The second is for heavier work — the **Hitting** Mallet — and is used with both

the wrist and elbow involved. The third is, perhaps, the least needed, and is for the heaviest work — the **Pounding** Mallet — and involves wrist, elbow and shoulder. Its use is in tasks like cutting deep mortices, and is probably best replaced with the traditional carpenter's mallet. It is totally unsuitable for use with delicate and expensive carving chisels.

I will be concentrating on the **Tapping Mallet**.

Watching Tapping Mallets in use gave me some interesting insights:

- The impact point for every user I watched was the centre of the head, regardless of the head's size or shape. This means that it is important to control the weight distribution of the mallet so that the mallet's centre of mass is as close as possible to the centre of the mallet head. In practice this cannot be achieved totally, unless the mallet has no handle. So handle size and weight are major design issues.
- The mallet handle was always held firmly by the thumb, little finger and ring finger, but only sometimes by the index and pointing finger as well. This is important in determining the length and diameter of the handle.
- Many carvers sometimes choose to hold the mallet with the head cupped in their hand when doing particularly fine work. This places a limitation on the diameter of the head, and determines the shape of the transition between handle and head.
- Nearly every carver liked to have a flat top on their mallet. Carvers traditionally use small, square benches to permit access to all sides of their carving, without having to alter the clamping. A standing mallet takes up less bench space; is safer to pick up among very sharp chisels; and is less likely to roll and fall on your toe.
- The preferred mallet weight naturally varied, and there is clearly a correlation between the robustness of the carver and the weight of the mallet. The preferred range, however, seems to be between 325 and 375gm. If this is a sufficient weight, then using more can only contribute to tiredness. (A suitable weight for a Hitting Mallet is, I suspect, between 450 and 500gm, but I have not really looked at this.)
- As the mallet is round in section, and the handle end of a carving chisel is domed, the impact is a point on point contact between two curved tangents. This is absolutely different to, say, a flat hammer face on a flat nail head. This point-on-point contact allows for a major re-assessment of the shape of the head.
- Measurements of the hands of many people show that most are between 90 and 110mm across the knuckles when gripping a handle. This suggests that the actual handle length needed is no more than 120 mm.

The Good Mallet

Carvers tend to claim that the mallets they have are suited to them "because everybody is different." What has surprised me is how often a carver's preference was challenged simply by using a different mallet long enough to become used to it. People without recognisable physical handicap are not greatly different except, for the purposes of this examination, in hand size and strength. For a Tapping Mallet, strength is not really an issue, and hand size makes only very minor differences to the length, or diameter, of the handle, or to the diameter of the head.

To be a well-designed tool, a mallet must be comfortable in the hand for an extended period of use. It must efficiently transfer the user's energy through the blow, which means its centre of mass (the point at which it balances its length) must be as close as possible to the centre of impact, which, in nearly every case, will be the centre of the mallet head. It must be of a heavy durable timber, not prone to cracking or, just as importantly, flaking as a result of repeated impacts. The timber must not be so hard, however, that it transmits shocks to the hand, or damages chisel handles.

Inevitably, to achieve the most functional form, design compromises must happen, but it seems to me that the biggest compromises must be made by the manufacturing turner, who may be driven by aesthetic

concerns, rather than seeking ergonomic efficiency. The most efficient shape is very simple, as shown in the photo at right.

(From left) **Prototype for Testing:** Red Ironbark (*Eucalyptus sideroxylon*). Weight 405gm; handle too short and badly shaped; transition to head uncomfortable; a little too heavy.

Recommended Shape:. Chinese Elm (*Ulmus parvifolia* — from the same tree; I really must start throwing things out!). Weight 330 gm.

Recommended Shape: Head is Gidgee (*Acacia cambagei*); handle is European Ash (*Fraxinus excelsior*). Weight- 320 gms.

The marks show the distance between the centre of impact and the centre of mass. Note that they are closer in mallet C with the denser head and lighter handle.

These two mallets are the shape and size I now believe to be the most efficient for a Tapping Mallet. The Chinese Elm mallet is 235mm in length, while the Gidgee mallet is 230mm. The separate dense Gidgee head with a lighter handle gives a quite different balance.

Parts of a Mallet

There are three distinct parts to a mallet, and each has its own requirements:

The Handle: This is made to fit my hand, and is 120mm from the butt to the narrowest diameter. Where my ring finger holds it, the diameter is 28mm. This allows a gap of about 2 to 3mm between the tip of the finger and the pad of muscle at the base of my thumb. If they touch, or are too far apart, there is a possibility of muscle strain in the hand.

The handle is deliberately of this length, as it is important to have no waste wood in the handle, because this would counteract the weight in the head by moving the balance point away from the impact point, and reducing the mallet's effectiveness.

The Transition: The curve between the smallest handle diameter and the head matches the ball of my thumb, and allows me to put my thumb comfortably behind the line of impact. My thumb also locks the handle, and prevents it slipping — this means there is no need for a knob on the handle end. This shape also fits the web of my thumb if it is around the handle. A flat base to the head becomes uncomfortable over time.

The Head: Each head is 50 to 55mm in diameter, to permit comfortable clasping in the hand. The length of the head is determined by how much weight is wanted, and varies with the density of the wood, as shown by the difference in size between the Chinese Elm and denser Gidgee heads in the mallets shown above.

The most argued point about the shape of the mallet head is whether it should be curved along its length. Chris Pye (an internationally recognised carver) argues for a strongly rounded mallet, and claims this shape gives better control. I can see no reason for this. The contact between mallet and chisel is always point-on -point, and a point has no dimension — so, for this use, it merely transmits the force the carver applies. The direction of the force is determined by the direction of the mallet's arc of movement, and this is the product of the carver's hand and wrist action. This movement must, like all skills, be learned and practised, and resulting control problems are no more the fault of the tool than a golfer's hook can be blamed on the club. It seems to me that the longitudinal curve argument is really only one of tradition — a cylindrical shape is easy to get used to.

More practically, Newton's Third law of Motion makes clear that each impact on the end of a chisel is matched by the chisel's impact on the mallet. This is what causes the mallet to crack along an existing fault, or to flake, if its grain length is too short to resist slipping. Inevitably, grain across a curve is shorter, and flaking more likely to occur, the more the shape approaches spherical.

Some argue for a mallet with a concave head. I have not tested this, but can see no reason for it to be different to a rounded head for flaking. A mallet with the shape of a truncated cone would shift weight

closer to the point of impact, but would still be prone to flaking, and would cause the maker much more difficult maths problems.

Making a Mallet

Turners are more used to working with length and width, and are not often concerned with weight [*I must say, as a turner, that I find this proposition curious — all turners I know are concerned with the weight distribution of the piece they are turning, whether it be a mallet, or a bowl. Ed*] I suggest a small change to ordinary techniques will deal with this.

Choose a **dense** wood. Many Australian eucalypts are ideal, as are many of the acacias. Ironbark (*Eucalyptus paniculata*); Grey and Yellow Box (*Eucalyptus mollucana & E melliodora*); River Redgum (Eucalyptus camaldulensis); smooth-barked (Sydney) Red Gum (*Angophora costata*); Belah (*Casuarina cristata*); Myall (*Acacia pendula*); and Gidgee (*Acacia cambagei*) are all of sufficient density, but there are many others. Fiddleback grain is a bonus, though more difficult to turn well.

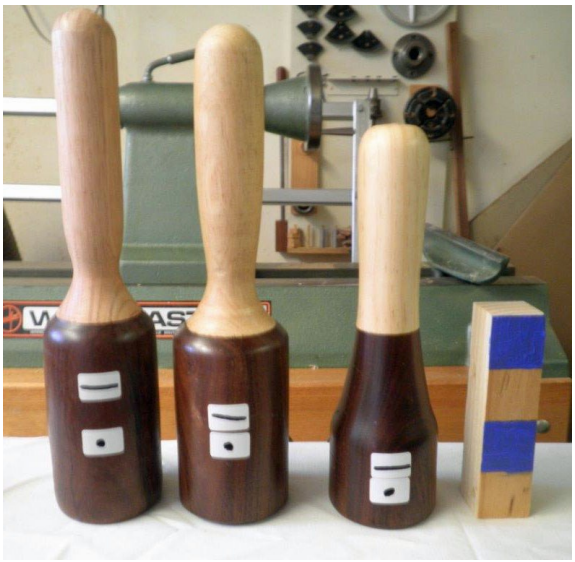
Turn a cylinder about 300mm long and 50~55mm in diameter. Weigh this cylinder, and calculate how much each centimetre of its length weighs. If you have no scales, a rough guide is that the wood you remove turning the handle is equal to 25~30% of the finished mallet.

Turn the handle and transition to suit the user's hand size. If you do not know this, use a length (butt to narrowest) of 120mm, and a diameter of 30mm as a default position.

Weigh the job again, and calculate how much needs to be parted off to reach the desired weight of 325~375gm, depending on the user's body type. No scales? 235mm is an average length.

To lessen the jarring in use, and to protect the chisel handle, the mallet head can be covered with a pliable leather facing – suede side out, simply glued with PVA.

It is not possible with this style of mallet to bring the impact point and the centre of mass close to each other, as the mallets in the second photo above show. To do this needs a different approach, with drilled-out heads and lead shot weighting. I am not certain that ordinary users will think this worth the trouble, but it is fun to do. So here is a brief guide to the process that produced the mallets in the photo at left.



The mallet on the left has no added weight, and is 330gm. (Gidgee and European Ash).

The centre mallet weighs 410gm, and contains a lead plug — a Hitting Mallet (Gidgee and Pine {*Pinus radiata*}).

The mallet at right weighs 310gm, including a lead plug (also Gidgee and Pine).

Note that the centres of mass and impact are much closer together in the weighted mallets.

You will also notice that the right-hand mallet has a different shape, while retaining most of my recommended measurements. I made this to see if I could get a very controllable mallet for delicate work, and I am very pleased with it. I believe this shape can only be successful with added weight.

Making a Weighted Mallet

Choose a suitably dense timber, and rough-turn a cylinder 110mm long by 60mm in diameter. Weigh the cylinder, and calculate the weight of each cubic centimetre (sorry, you must have scales for this).

Drill a hole along the cylinder's axis about 19 or 20mm in diameter. Because the bit may wander a little (particularly if you are using a spade bit), insert a mushroom -shaped, snug-fitting (not jam-fit) plug, as shown at right, into each end of the hole. Remount these in the lathe between centres, so the hole is now mounted parallel to the axis, and the head can now be finish-turned to 50~55mm diameter, with one end trued square to the axis.

Choose the lightest timber you can find for the handle, having regard for some strength. I find Pine (*Pinus radiata*) quite strong enough. Turn a spigot between centres to match the diameter of the hole in the head, and about 30mm long. Square the shoulders carefully. Glue the handle block into the head, using the lathe as a clamp and the same mounting marks. Turn the handle as for the ordinary mallet.

Weigh the handle/head, and calculate the additional weight needed. A cubic centimetre of lead weighs 11.35gm. You will need to balance the amount of lead to allow for the weight of a wooden plug, of at least 25mm and of the same timber as the head, to be glued into the hole. When glued in, about 20 mm at least should still protrude to allow for remounting and parting off.

The Lead Plug

Scrap lead can be easily melted with a gas torch. You will need something like a proper testing ladle, for safety reasons (if you do not have one, talk to me about it). Use a drill slightly larger than the hole in the mallet head, and drill a hole in a block of very dry wood. My mould is in a piece of 2x4 radiata.

Warning: lead (and its fumes) is toxic! Wearing a face-mask and breathing protection, melt the lead in the open air, with nobody anywhere near you, and pour it into the mould. Leave it until it is thoroughly cold, and it should then tap out of the mould fairly easily. The plug can then be mounted in the chuck of a woodturning lathe and turned to final size with a small, sharp scraper.

Insert the lead plug into the mallet head, and force the wooden capping plug firmly down onto it, with sufficient glue to ensure a uniform coating. Excess glue can produce a void. When the glue is dry, remount the mallet in the lathe and part off.

Cover the mallet with protective leather, and the result should look similar to the mallets below.

Alan Casimir

* * * * * * * * * * * * * * * * * * *

RAFFAN RECOMMENDS

Richard has been busy again, trawling the Internet for interesting links, the first of which involves Steam Bending:

https://www.youtube.com/watch?v=e4CoTNeoa98

The second, as Richard observes, is "an interesting lamination, but the turning techniques could be safer and more efficient. The hole in the base for the chuck does nothing to enhance the final shape, or reduce the clunkiness."

https://www.youtube.com/watch?v=BAe2kIVJ0QI

The third one is for the Carvers:

https://www.youtube.com/watch?v=gOPJveQBwbI

Editor

OFF-CUTS

Miscellaneous Items of Interest

TIMBER SUPPLIES

Especially for the turners this month, we have stocks of Purple Gidgee (*Acacia crombiei*), as in the example shown at left. Originally sourced from the Daintree Timber Gallery, these blanks are well and truly dry.

Most of the Red Cedar that was available in January has been sold, but do not panic, we have more!

The following timber & blanks will be available at the February Guild meeting, or from the Project / Turners Sheds on request:

Project Shed (NB: measurements are width [mm] x depth [mm] x length [m]).

- Huon Pine: 100 x 20 x 0.6 (or longer) - 3 packs
- Kauri Pine boards: 290 x 42 x 1.25; 150 x 35 x 1.4; and others
- Queensland Maple: 160 x 25 x 0.8 and 100 x 30 x 0.8
- Australian Red Cedar: wide boards to 300 x 18, or 19 x 1.0
- Australian Red Cedar: 80, 90 & 100 wide x 16; and 20 x 1.0

Square Sections: Queensland Maple: – 85 x 85 x 0.85

Coachwood: – 60 x 60 x 1.4

Red Cedar: – 70 x 70 x 0.6

Gmelina? ("Beech"): – 65 x 65 x 0.8

Radiata Pine: – 85 x 85 x 1.6

Box-making Packs: Silky Oak: - 11 x 95 x 1.0

Blackwood: - 15 x 70; and 130 x 1.0

Kwila (? similar to Merbau / Jarrah): – 6.0 x 80 & 100 x 0.7

Kwila (?): – 13 x 80 & 100 x 0.7

Turners Shed

- Purple Gidgee — small log cross-sections, to suit between centres, or small bowls / boxes
- Bowl blanks, 250 mm diameter (+/-), in Mulberry, Claret Ash and Box Elder.
- Bowl blanks, 200 mm diameter, in Elm, Redgum, Claret Ash.
- Between centres blanks, up to 80 x 80 mm, in Mulberry and Claret Ash
- Handle blanks, 40 x 40 mm, in Rose Mahogany, Tasmanian Oak, and Jarrah.

Indicative Prices (per cubic metre) for dressed and square boards are:

Radiata Pine:	$1,000
Tassie Oak:	$1,800
Kauri Pine:	$3,500
Queensland Maple, Coachwood & Blackwood:	$4,000
Red Cedar:	$5,000

Timber Team

In response to some urging by the President, we have two new members of the "Timber Team". **Peter Rogers** and **John Roddy** have joined the team, and are already hard at work collecting, sorting and processing timber for sale to members. We mainly undertake processing operations on Tuesdays, so if you have any specific requests for timber, that is the best day to catch us. Another member, **Caroline Nordang**, has offered to join the group, but as she cannot get to the Shed on Tuesday, we need to work out how best to use her skills. Thanks to all three members for offering to help, and it is already making a big difference.

Respirator Opportunity

In addition to timber, we have acquired a Racal Airstream helmet, with charger and battery, all in good working order. These are top-of-the-range respirators, that protect both your lungs and eyes — a must for serious turners, or for others working in similar dusty environments. If you are interested, make an offer, but I would think serious offers should start around $250.

Robin Cromer *timbersales@woodcraftguild.org.au*

* * * * * * * * * * * * * * * * * *

TURNING COMPETITION—REMINDER

As mentioned by Satnam in his SIG Report above, "Timber Bits" proprietor David Lim kindly donated smocks to all turning participants in the Sturt Summer School in early January, and one left over at the end (turning smock, that is) is being offered as the prize in a turning competition.

The rules are quite simple: By the Saturday Turning SIG in March (**21 March**), produce a turned object (at least 80% lathe work) from timber drawn from the Turner's Shed. This object must be suitable for sale on behalf of the Guild at sales events (such as NFF), so don't get carried away with grandiose bowls / platters / hollow forms, or the like — keep it simple, but attractive, such as tea-light / candle holders, pencil pots, toys, and similar. Quirky and clever will probably enjoy an advantage.

Sturt Summer School participants and staff are not eligible to enter, nor are SIG Coordinators, or turning prize-winners in the Annual Competition — we would like this challenge to encourage some of our newer fledgling turners to have a go, and not be overawed by the old hands.

Dan Steiner, Rod Tier & Satnam Singh

* * * * * * * * * * * * * * * * * * * *

DAN RANT GETS THROUGH

Unlike the fate of other requests made in this Newsletter, there **was** a response to Dan Steiner's rant in the January issue concerning the failure of at least one member to turn on the dust extractor before using the Hammer bandsaw, sometime between Saturday 17 and Tuesday 20 Jan.

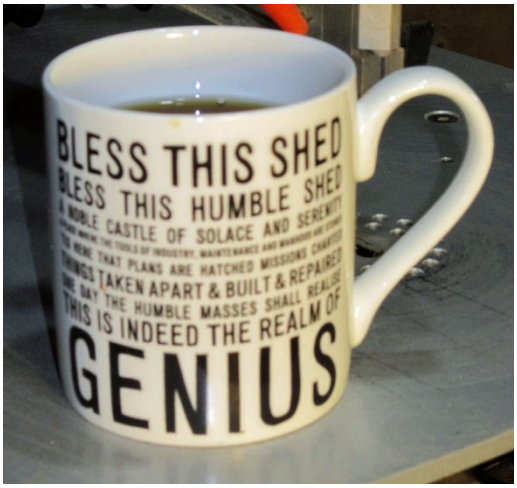
The guilty party, to his great credit, has owned up and apologized for his oversight. 'Nuff said …

Editor

* * * * * * * * * * * * * * * * * * * *

MY SHED — THE REALM OF GENIUS

For my recent significant birthday, a sister-in-law's present was the Mug shown below. You could be forgiven for thinking there might be some significance in that choice of object. I hasten to assure you, however, that there was a higher motive behind it — given my preoccupation with woodcraft, the wording on the mug paints me in a less damning light. It reads:



BLESS THIS SHED

Bless this humble shed
A noble castle of solace and serenity.
A place where the tools of industry,
maintenance and manhood are stored.
'Tis here that plans are hatched, missions charted,
things taken apart, and built and repaired.
One day the humble masses shall realise
THIS IS INDEED THE REALM OF
GENIUS

Having received this accolade, I was brought firmly back to earth when Elizabeth, my wife, said, "OK! So you've achieved your OBE status; now get on and finish your **PHD**!"

It sounds very erudite, but I got the message — she wants me to finish all those **P**rojects **H**alf **D**one before I shuffle off!

David French

* *

SCHOOLS SPECIAL NEEDS PROGRAM

Report for 2014

Another highly successful year mentoring disadvantaged students has drawn to a close. During 2014, the program mentored students from three Canberra High Schools — Mount Stromlo, Wanniassa and Deakin.

As a short recap, I should explain that the Special Needs Centre of Stromlo High caters for students born with disabilities; while Wanniassa High caters for students from troubled homes, taking students from all mainstream schools in the Tuggeranong area. Part of the Wanniassa High Achievement Centre Program incorporates the Guild's woodworking program. For Deakin High, we met a special request to work with one student. Given the extreme difficulties many of the individual students are facing on a daily basis, the scheme is proof the Guild's hands-on woodwork program with the students is paying dividends. This is further evidenced by strong and positive feedback from the schools, student carers, and parents.

At the commencement of the year, we introduced a participation percentage for each student's project. We wanted to ensure that the student, regardless of his or her situation, felt that at the completion of their project that there was a strong sense of achievement and ownership. Typically at project commencement participation was low (20-30%), because of the requirement to initiate the project. By the end of the project, however, Stromlo students had moved to a range of 40-100%, while Wanniassa High students achieved percentages in the range of 30-85%, the higher percentages being attributable to those students who had been in the program the longest.

In 2015, we will further refine participation percentage, as it has become a prime indicator of where we are and where we should be heading. For example, the project and equipment used need to fit the student's ability, both mentally and physically. Students taking project ownership at a very early stage has proved critical. Where attendance timeframes are relatively short, we have developed a number of projects where kits can be prepared to varying levels of readiness. The key to this strategy is full student focus and minimal downtime.

As usual, Christmas decorations both on and off the lathe proved a great success, with the Christmas Tree (shown at right) designed by the Timber and Working with Wood Show's professional woodturner, Theo Haralampou, proving very popular (undertaken with Theo's blessing).

In closing, I would like to extend my thanks to my fellow mentors Mike Cammell, John McKenna and David Dunnett, who, with professional assistance from Shed Boss Terry O'Loughlin, make this program so successful.

Phil Colman** **Student Special Needs Program Coordinator.

* * * * * * * * * * * * * * * * * * * *

WORKSHOP ON SCROLLSAW AND FRETSAW MARQUETRY

At the Shed, 10am-4pm, Saturday 23 and Saturday 30 May, 2015

The Scrollsaw and Marquetry SIG will be offering a two day course in Marquetry at the Shed on two Saturdays, 23 and 30 May 2015, from 10am to 4pm. If you have ever wanted to work with veneers, or find an easier alternative to excavating solid wood for inlay, this workshop will provide useful techniques. Marquetry has a long history in furniture making up to the present (to see an example click here), as well as in box making (click here), and decorative panels (click here).

The workshop will include training in double-bevel sawing, to produce high quality marquetry with no gaps between pieces. Participants will be able to work on several practice projects over the two days, and will be provided with instruction sheets, plans, veneers, saw blades and other materials. The registration fee is not yet determined, but it will be based only on the cost of materials, saw blades and use of the Shed. Information about what to bring to the workshop will be sent to participants closer to the event.

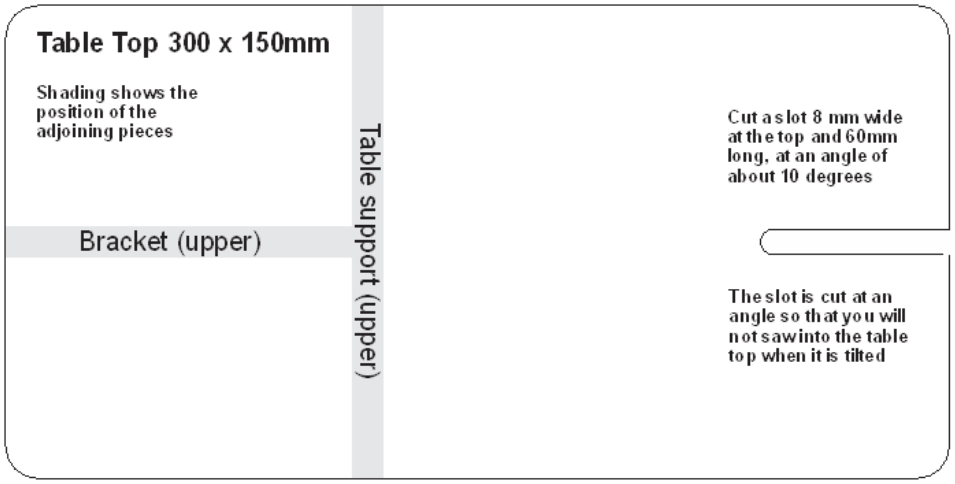
The tutor will be Don Rowland, whose marquetry has appeared in the Guild's annual exhibitions over many years [*see the prize-winning example, a Wine-box, at left. Ed*]. The workshop is intended for beginners, but some previous experience in cutting wood with a scrollsaw, or fretsaw, would be an advantage. The Guild has only a few scrollsaws, and most participants will need to bring either their own scrollsaw, or a fretsaw. Fretsaws with a 10 or 12-inch (254 or 305mm) throat are the most suitable, and can be obtained on the internet, but order early as some suppliers are overseas and stocks run out (for examples, click here , and here). The SIG has four fretsaw tables for use at the workshop, but it would be better to make your own. A plan of a fretsaw table is included below.

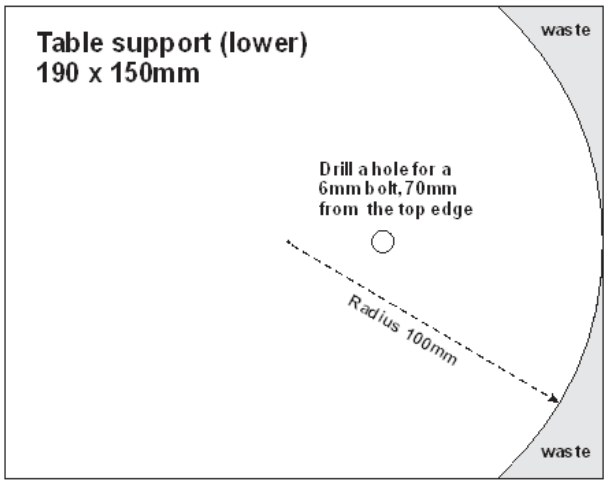
If you expect to bring your own scrollsaw, please be aware that single-speed scrollsaws, and those that take only pinned blades, are **unsuitable for marquetry**. Unless already qualified, people wishing to use the Guild's scrollsaws will need to obtain accreditation by attending a monthly meeting of the Scrollsaw and Marquetry SIG prior to the Workshop. The SIG meets at the Shed from10am to 4pm on the third Sunday of the month, and it would be a good idea to advise SIG Coordinator, David French (0428 121 934 scrollsaw@woodcraftguild.org.au) if you need training.

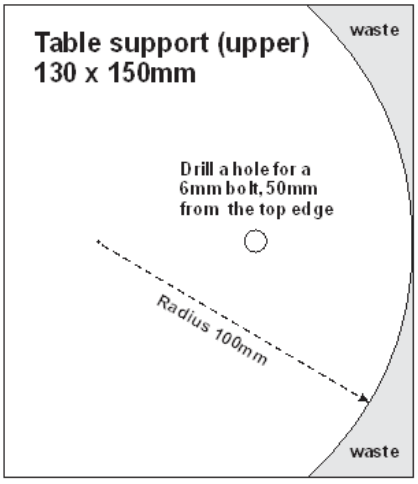
Places are limited to 10. Expressions of interest may be sent to scrollsaw@woodcraftguild.org.au, with "Marquetry Workshop" as the subject. Places will be allocated on the basis of the order in which expressions of interest are received. Participants need to be financial members of the Woodcraft Guild ACT.

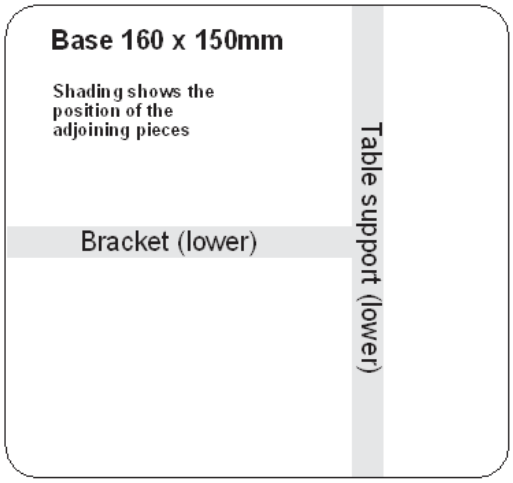
A Fretsaw Table for Double-Bevel Marquetry

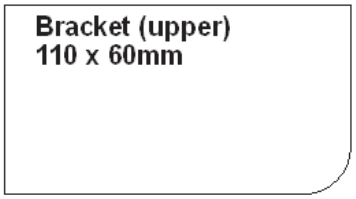
The table has two main components, a top and a base; a bolt and wingnut join the two components, and enable the table top to tilt at different angles (see photo below). The table-top and the base each have a table support and a bracket attached to them. Make all the pieces from 10mm plywood or chipboard. Assemble with PVA glue and chipboard screws. Also needed is a 6 x 40mm bolt, with 2 washers and a wingnut.

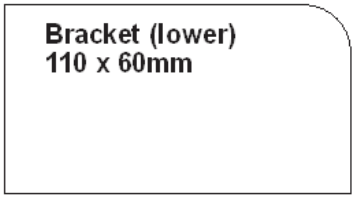












Don Rowland 2015

The assembled Fretsaw Table:

Don Rowland

FEBRUARY DOOR PRIZE

By sheer coincidence with Don Rowland's article above, the door prize on offer at the February Guild meeting will be a Dremel Moto-Saw, courtesy of Vice-President Les Fortescue, who, in another incarnation, is a well-known Dremel demonstrator.

As can be seen from the image at right, downloaded from the Dremel website, the Moto-Saw, as its name suggests, is in effect a motorized fretsaw / coping saw. According to Dremel, the Moto-Saw "offers a compact and easy solution for making detailed cuts in a variety of materials including wood, plastic, laminates and metal. This portable, precision-sawing tool is easy to store, set-up, and operate, and features a tool-free mechanism for quick blade changes. An auto-tensioning feature keeps the blade taut and ready to cut, so you don't have to make blade adjustments, and its slim, ergonomic handle with comfort grip provides control in any cutting position. The Moto-Saw functions as a stationary scrollsaw, yet it can be removed from its base to become a portable motorized coping-saw."

Our thanks to Les, and our sponsor Dremel, for this generous and timely gift.

Editor

* * * * * * * * * * * * * * * * *

WORKSHOP SAFETY – IN HINDSIGHT

Many workshops, to my knowledge, use small electric fans of some description at one time or another, either to move air, fumes, or dust away from the workspace, the intention being to create a safer working environment. Not in this case!

For some years I have worked with two Jet overhead ceiling-mounted dust extractors in an L-shaped workshop. Additionally, I installed a small wall-mounted electric fan at the end of the workshop in a "dead air" section, with no circulation, in order to assist dust movement towards the extractor filter inlets. This has worked to perfection — up until now.

Each ceiling unit has a timer, and if it has been a heavy woodworking session I will then run the units for at least two hours. Sometimes the small electric fan would also be left on. An apparently good combination, but over time dust had slowly been collecting within the small electric fan motor housing, out of sight — a disaster waiting to happen.

On this typical occasion, I left the workshop with all fans running. Some three hours later, on re-entering the workshop, I was confronted firstly by a sickening burning smell, with no idea as to why. It then hit me when I saw smoke built up around the electric fan, coupled with a red haze. On moving closer to the haze, I noticed airborne dust particles on fire, and being blown through the electric fan blades, a similar sight to the sparks flying from angle-grinding metal. Within seconds, I had ripped the fan from the wall and thrown it outside. It must have been only seconds from a major catastrophe, and with me in the room!

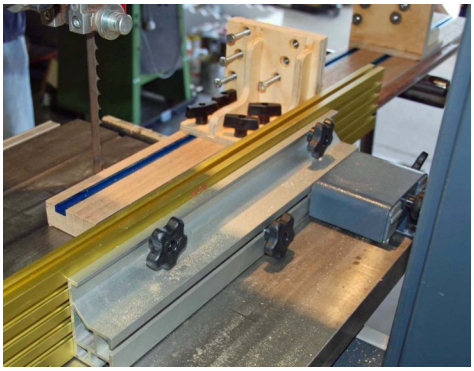
On reflection, I needed to have a few answers. Starting with the electric fan, I determined that most of the air drawn in by the fan blades came around the fan's outer casing, while a small amount passed through vent holes at the rear of the motor, for cooling purposes. This air contained dust particles, some of which had stuck to the motor, causing gradual suffocation and heat build-up in the fan motor over a long period. The end result was burning dust, which was then blown into the workshop by the fan which, unbelievably, was still working, but only just. Yet the residual earth leakage breaker had not thrown!

Of course the ceiling-mounted dust extractor units are protected by a pre-filter, and then a main filter, so they have ample motor protection from incoming dust, assuming reasonably timely filter-cleaning. Will I use small electric fans in the future? No — the risk is far too high. Additionally, I have installed a smoke detector — being photoelectric, this detects light scattered by smoke. This is Chubb's preferred unit.

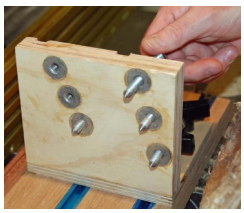
The workshop, and it's owner, lives to see another day! ***Phil Colman***

SMALL LOG BANDSAW JIG

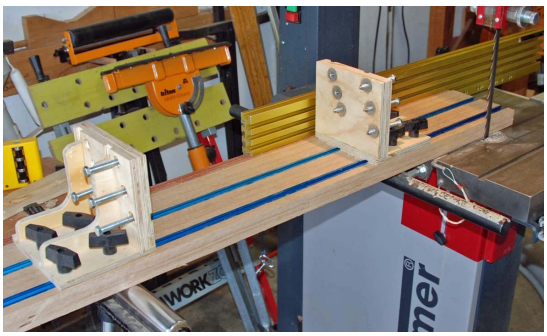
At the Guild meeting on 28 January, I demonstrated a jig for cutting boards from small logs. The jig has been made to fit the Hammer 18" bandsaw, and now provides a safe and accurate way to cut boards from small logs up to about 900mm long. For those who did not attend the meeting, this article will provide a short explanation of how to set up and use the jig.

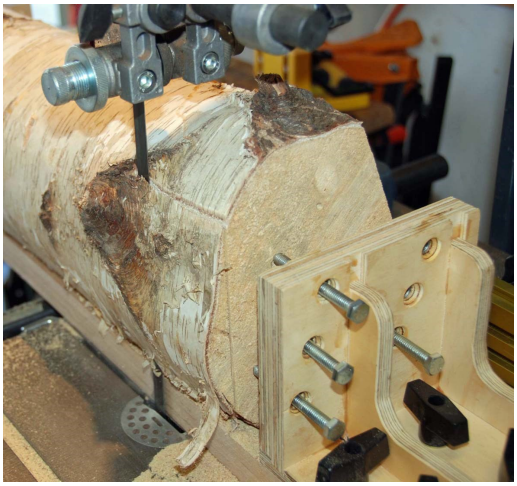


The basis of the jig is a Magswitch Universal Track Tool Attachment (900mm long). The Attachment is secured to the fence of the bandsaw by three 5/16" T-bolts and plastic knobs, shown at left. A solid timber base has been fitted with two Rockler Universal T-Tracks that permit two end stops to be positioned anywhere along its length. A jarrah runner, fitted along the inside edge of the base, slides in the lowest track of the gold-coloured Track Tool Attachment, as seen at right below. Note that a support roller has been positioned under the jig, to support the weight of the jig and log while setting up and making cuts.



A small log can then be positioned between the end stops by tightening the sharpened bolts secured by Propel nuts, as shown at left. This method allows for any variation in shape of the ends, and to speed up the operation, a socket spanner is available that fits a power drill. The log is positioned over the side of the timber base, and the fence set so that a flitch can be cut from the side of the log, as seen at left below. The log can then be re-positioned with the flat side on the bottom, and a second cut made at right-angles. This provides two faces at right-angles, as seen at right below, so that a series of boards of a set width can then be cut, using the normal fence with the jig removed.





Green Wood: A general rule is that green timber should not be cut using the bandsaws, as wet wood tends to gum up the blade and wheels, which are then difficult to clean. A benefit of this log jig, however, is the ability to cut thin boards from a green log so they can season in 6 to 12 months, rather than having to wait years for a log to dry that may by then be rotten or split.

If you must cut green wood, then it is your responsibility to ensure the saw is thoroughly cleaned when you finish. Apply 'INOX' lanolin-based lubricant (NB: not WD40, which evaporates) to the saw blade before you start cutting, and when you have finished the job, use CMT Formula 2050 to clean up the saw and the wheels. A spray bottle of Formula 2050 is located in a box adjacent to the bandsaw, along with the bolts and knobs required to set up the jig. Finally, as always, if you are not sure how to set up and use this jig, ask for help.

Robin Cromer

RE-USE / RECYCLE CHALLENGE — ABANDONED

Having had **no response** from the membership to the request from the Section Head of the Crafts Expo at the Canberra Show, Kay Sharp, for examples of re-use or recycling of wood which could be displayed in the Craft Pavilion, I will, with some embarrassment, be reporting to her at the Chief Stewards' Meeting on 19 February that the Guild has let her down.

Not something to be proud of, people.

Rod Tier, Chief Steward, Woodcraft, Canberra Show 0408 278 460 ***editor@woodcraftguild.org.au***

* * * * * * * * * * * * * * * * * *

GUILD EQUIPMENT SAFETY ACCREDITATION SESSIONS 2015

The Guild is currently planning a number of **'Safety Accreditation'** sessions on Guild equipment for 2015. Initially, these will be held at the Shed on Tuesdays between 11.30 and 1pm, and will be limited to a maximum of four members and one equipment type per session. Repeat sessions may be timetabled, dependent upon demand, and availability of trainers.

The first series of sessions will start during the **second half of March 2015**, and a second series is planned for **September 2015**. Additional sessions may also be incorporated into the Monday Introduction to Woodworking SIG program for those unable to attend the Tuesday daytime sessions.

Could members interested in these accreditation sessions please e-mail an expression of interest to **Brian Treanor** at: **accreditation@woodcraftguild.org.au**. Members will be contacted once numbers and availability are confirmed.

Below is a proposed plan for the Tuesday sessions:

Week	Equipment Type
1	Table & Mitre saws
2	Bandsaws
3	Jointer & Thicknesser
4	Drum Sander
5	Table Router

Brian Treanor

* * * * * * * * * * * * * * * * * *

ROD RECOMMENDS

I can't let Richard steal all the credit for interesting hyperlinks ….

To those people — spouses (spice?), extended family members, friends, or workmates — who speculate out loud about what you woodies actually get up to down at the Shed, here is the definitive answer:

http://www.youtube.com/embed/96I_UrTOZF0

Editor

The Guild wishes to thank our Sponsors, in particular for their support of our 2014 Exhibition

WOODCRAFT GUILD·ACT

impressive exhibitions Pty Ltd

timber & working with wood

Canberra Southern Cross Club

FELDER

... perfekte Holzbearbeitung!

CARBA-TEC

TOOLS FOR WOOD

HARE&FORBES

MACHINERYHOUSE

LAZARIDES

TIMBER AGENCIES

wood works gallery

BUNGENDORE

The Australian Woodworker Magazine

Trend Timbers

Specialists in fine woods from Australia and around the world.

CARROLL'S Woodcraft Supplies

Your one stop shop for all your woodcraft supplies

THOR'S HAMMER

TURNERS

BUILDING, JOINERY & SHOPFITTING SUPPLIES

BOSCH

Invented for life

DREMEL

VESPER

Vesper Tools

SUPERB QUALITY WOODWORKING TOOLS

SINCE 1998