



SOUTHERN FELLOWSHIP OF WOODWORKERS

Newsletter

Issue 40 - March 2017

Welcome to your February 2018 Newsletter

Pressures on his time has meant that Bruce is no longer able to edit the SFWW Newsletter so I have taken the contributions he had available and produced what may become the last one for the time being. The Committee is reviewing the whole subject of communications with and between Members as part of our strategy review which has the overall objective of increasing the membership and Fellowship activities. Please give these matters some thought and contribute to the discussions when they arise at our monthly meetings.

Remember that as well as the Website the Fellowship is on Facebook, Twitter and Instagram so there is plenty of opportunity to generate and participate in discussions and encourage new Members. How we use social media is another topic within the Communications section of our Strategy Review. Other topics include a Review of our Constitution and how we can make links with other organisations including schools for mutual benefit. — — Brian Sadler

DIARY

Meetings at the Cross Barn, Odiham:

Thursday 22nd February at 7:30pm

Richard Williams, a contemporary Furniture Maker with a team business working in Beaconsfield is our speaker for February.

Thursday 22nd March at 7:30pm

Members project evening

Thursday 26th April at 7:30pm

Gary Ferguson is giving a talk on making a Shaker Side Table

Thursday 24th May at 7:30pm

Members project evening

DON'T FORGET !!!!

Bring and wear your name badge to help us identify each other. If lost, please request a new

Thanks are due to Colin for his work to develop the new Fellowship Website.

You will have heard his cries for Members to make photo's of work by members available to him so he can increase the site content and thus it's interest.

Just one picture and explanatory note from each of us will make a big difference.

The more unusual the subject the better.

**There is a project in Southampton for wood recycling.
Check it out at <http://www.southamptonwoodrecycling.org.uk>**

OPEN DAY

Our OPEN DAY in January was a great success. Besides the good turnout of Members with work to display the demonstrations were well received by the visitors.

The Survey undertaken after the event gained both a high response rate and satisfaction levels from both Members and Visitors. We also gained a contact list of some 40 interested people which we inform of our meeting programme and other events. This has already generated new members who are most welcome.

The centrepiece of the display was the Side Table designed as a family piece by our founder Peter Guyett.

Unfortunately Peter did not get to quite finish it before his death but Steve Bailey generously stepped in to ensure completion which Peters wife Mary and family much appreciated.

Mary visited the Open Day to see the finished piece before it was packed and despatched to one of their children.

Here we see Mary with Steve Bailey and Roger Hardwick during her visit.



A Show Visit - Last year our Treasurer, Julian Gall, travelled to Southbridge, Massachusetts to see how the Americans go about a woodwork Show. Here is his review.

Fine Woodworking Live

Most members will have heard of the American magazine, Fine Woodworking, or be familiar with their podcast, Shop Talk Live. The magazine has been published since the seventies and they have been holding a weekend event, Fine Woodworking Live, for the last few years. I was fortunate to be in the US at the time of this year's event and signed up to attend. It was a wonderful opportunity to hear talks, see demonstrations and meet other woodworkers. The speakers who attended included some very well-known names in furniture-making today. Most had written books and contributed on several occasions to the magazine.

Vic Tesolin of Veritas gave a talk on Working Wood the Minimalist Way. He is a great fan of hand tools and talked about getting the best out of different types of plane. He believes a hand tool which needs no set-up can often be quicker than a power tool. He is also a great advocate of the shooting board which, he said, enables fine adjustments of just a thousandth of an inch, something that isn't possible with power tools.



Several of the talks were about furniture styles as much as techniques. I attended a talk by Christian Becksvoort on Shaker Design. Christian works with the last remaining Shaker community (there are now only two Shakers left) restoring their furniture and using it as inspiration for his own furniture. He brought along a reproduction of a famous Shaker candle stand, the original of which is in the American Museum in Bath. Christian explained that, in contrast to the Amish, the Shakers were very interested in modern inventions and were the first to make extensive use of the circular power saw. Anything that saved physical effort was considered worthwhile as it freed up time to spend on the spiritual side of their community. The Shaker style is not a single thing, although their furniture is known for being simple and functional. Many woodworkers brought their own ideas when they joined the community and some left, taking Shaker ideas with them. The only things they made for sale were chairs.

Although these now sell for thousands of dollars, they were originally eight dollars for a dozen. They were not designed to be comfortable, just used for as long as needed and then hung up on a peg on the wall.

One feature of Shaker furniture is the use of milk paint for colouring. This is actually made from milk and gives a flat surface with muted colours. One of the exhibitors and sponsors of the event was The Old Fashioned Milk Paint Company. They gave demonstrations and handed out samples. Their products are available in the UK from The Blueberry Store.

Another technique talk I attended was by Michael Fortune on Chair Design. He explained how he had developed his own dimensions for the ideal chair by making a jig, an adjustable chair, which

allowed for any seat height and angle and any back angle. He tested this with many people and found that a chair made to his dimensions suits anyone from 5' 2" to 6' 3". He said he would provide the chair dimensions to attendees at the show. When Michael designs a new chair, he makes from four to ten different models at one quarter scale. Once the best design has been chosen, he makes a full scale rough mock-up in scrap wood, cardboard and foam, then an actual prototype of wood with the final joinery.



At the dinner on the Saturday night, Hank Gilpin gave an amusing and interesting talk on his life in woodworking. I didn't take notes but Hank showed slides of most of the pieces on his web site and described their construction; also the thinking behind their design and the choice of timber.

Other talks I attended included Allan Breed on Reviving Great American Furniture, Matt Kenney from the magazine on Making Boxes and Bob Van Dyke from the Connecticut School of Woodworking on Dovetailing.

Although some talks were repeated, there weren't enough hours to go to everything. Talks I missed included Japanese saws, setting up a hand plane, table saw and jointer tuning, 17th century furniture making, mid-century modern furniture, inlay techniques, moulding with hand tools and many more.

Most speakers were familiar names from the magazine and podcast and included Roland Johnson, Garret Hack, Chris Gochnour and the editor and writing staff.



In addition to the talks, a number of companies sponsored the show and manned stalls where they demonstrated their products and answered questions. In addition to Veritas, with about fifty planes on display, and the Milk Paint Company, Stanley were promoting their Sweetheart chisels – every attendee received a free one. Rikon demonstrated their bandsaws and other workshop tools and Tesla parked a Model X on the hotel forecourt and offered test drives. In spite of this not being a typical woodworker's car, they actually sold one over the weekend and are keen to come back next year.

The final thing to mention is the wonderful atmosphere at the event. It was very well organised but also relaxed and informal. The hotel seemed genuinely happy to host the event and were very tolerant of

all the woodchips flying. To be with 250 woodworkers of all abilities from amateurs just starting out to professionals who can charge tens of thousands of dollars for a single piece, was an inspiration. Interestingly, the demographics of the people attending were not that different from SFWW. Perhaps 75-80% were men of retirement age and only 5% or so were women. The younger attendees were more often associated with the sponsors or the magazine, or were just starting out in woodworking careers. Look out for next year's event, which will be held at the same hotel in Southbridge, Massachusetts. I assumed this year's visit would be a one-off for me but I am definitely considering going again next year. Wives (husbands) can also be accommodated and can attend the Saturday evening dinner so it could be part of a New England spring holiday. Start the process of persuasion now!

Links

Fine Woodworking Live event 2017	Fine Woodworking magazine
Shop Talk Live podcast	The Minimalist Woodworker Vic Tessolin
Christian Becksvoort Shaker furniture	Shaker candle stand (Christian Becksvoort reproduction)
The Old-Fashioned Milk Paint Company	Blueberry Store (UK milk paint supplier)
Michael Fortune chairs	Hank Gilpin a life in wood
Allan Breed	Southbridge Hotel and Conference Centre

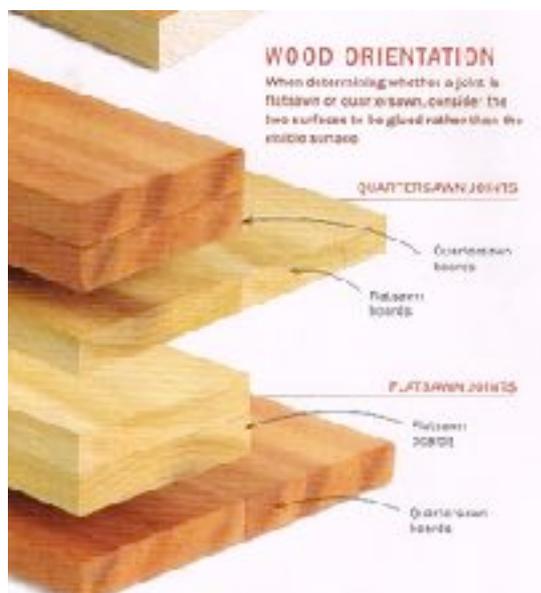
Now For Some Technology

GET SERIOUS ABOUT CLAMPING

Roger Hardwick

Question: What is the optimum force to use when clamping soft wood and hardwoods?

I guess , when clamping up a board for example, most of you would use as many clamps as you can and tighten them until the glue squeezes out and then a bit more.



Optimum clamping pressure creates strong glue line joints in several ways. First, it overcomes resistance of the glue and forces it into a thin, continuous film in contact with the wood, which is necessary for a strong joint. Secondly, as the glue releases moisture, causing the wood to swell, clamping overcomes this pressure and prevents the joint from opening up. Third, it overcomes minor surface imperfections between mating surfaces. And fourth, clamping holds parts in position until the glue cures. Too little pressure will fail to achieve any of these benefits, which extreme pressure can produce weaker joints.

Assuming you are using yellow PVA glue, first you need to consider the wood type. In general, dense and tight grained woods require the application of greater force.

On hardwoods glue joints between radial of quartersawn faces require half the pressure of tangential or flatsawn face joints. This is because the quartersawn face has half the compression strength of the flatsawn face, so the fibres are more easily crushed. On softwoods the reverse is true, with the quartersawn face glue lines requiring twice the pressure of the flatsawn face glue lines.

Recommended clamping pressure in pounds per square inch.

Wood type	Quartersawn glue face	Flatsawn glue face
Sugar Maple	600	1200
Red Oak	450	900
Black Walnut	300	600
Black Cherry	250	500
Pine	300	150

Different clamps also provide different clamping forces

Parallel clamps (Bessey type) = 370lbs

Quick grip clamps = 470lbs

Aluminium bar clamps = 680lbs

3/4in bar clamp = 1050lbs

“T” beam bar clamp = 1350lbs

Of course the above figures are approximate and subject to the construction and quality of the clamps you have.

Calculating clamp requirements

$$\frac{\text{Glue surface (sq in)} \times \text{Required clamping pressure}}{\text{Force applied by each clamp}} = \text{Number of clamps}$$

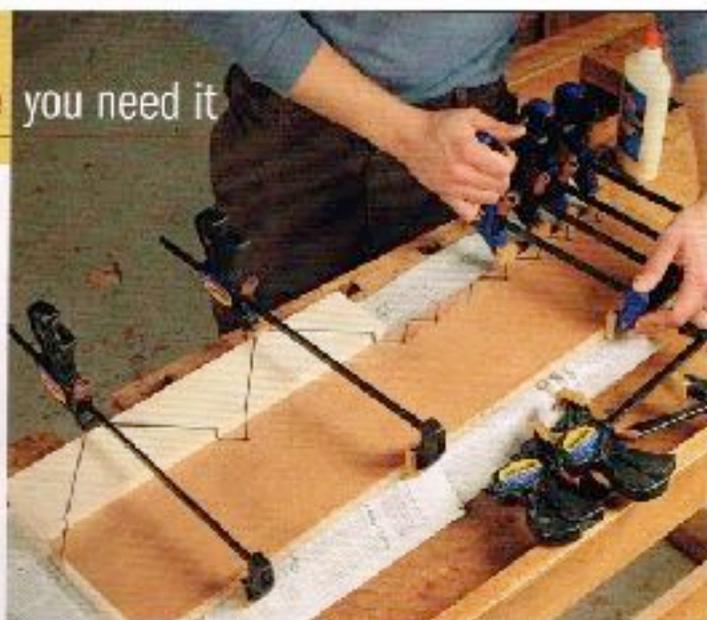
Put the pressure where you need it.

Having worked out how many clamps you need to clamp up your project you now need to consider how to space them out. The force from the clamp head radiates outwards at 45 degrees, so if you are clamping up a 6” wide board the spread of the force at the glue line would be 12” wide. With a small overlap you could place the clamps at 11” intervals. You may need to revise the type of clamp to use match the number of clamps that is ideal for your project. If you are just gluing up a 1” board then the spread of the clamping force will only be 2” so you will require a greater number of clamps with a lower clamping force in order for the clamping areas to overlap. The alternative to this is to use wide Cauls, under the clamp heads to spread the force wider.

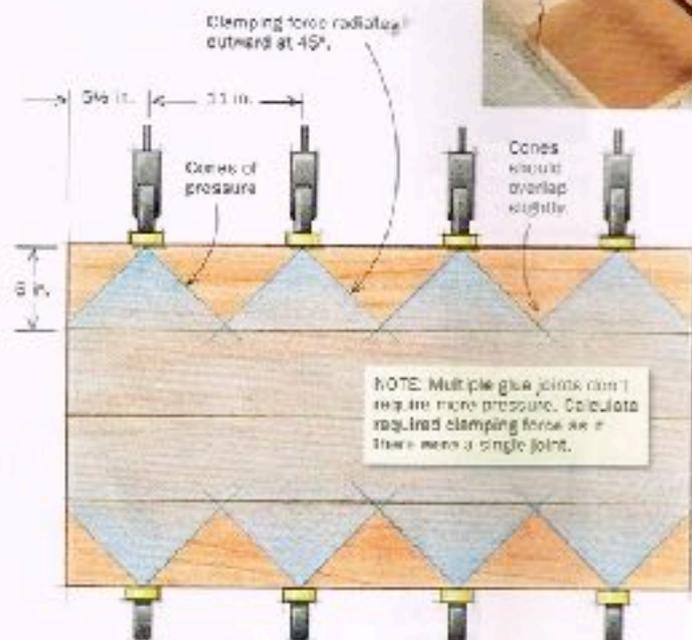
I hope you find the above information useful when planning your glue ups. The above is a summary of an article in Fine Woodworking, issue 194 Dec. 2007. If you wish to have the full article I can provide a photocopy.

3 Put the pressure where you need it

The force from a clamp spreads out in a 45° cone from each head. For the cones to overlap and the glue line to receive even pressure, the clamps need to be spaced correctly. The 45° angle makes the cone of pressure easy to measure. The force will radiate sideways in both directions the same distance as the clamp is from the glue line. So, in the example below, the 6-in.-wide board creates 12-in.-wide cones of pressure at the joint.



CLAMPING WIDE BOARDS



Clamps spread the force. When clamping a narrow strip, clamps have to be close together in order to have the pressure cones overlap (as right in photo). A solution is to use a wide caul that spreads out the force between the glue lines (as left).

stronger than the wood itself. You'll achieve a glue thickness well under the recommended amount, which is about 0.004 in. To give a point of reference, the cover of this magazine is 0.005 in. thick.

The next step is to find out how much pressure are applying with each type of clamp.

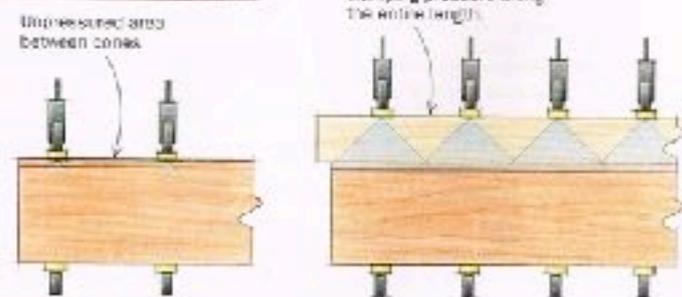
We tested the common bar clamps

In his book, *Understanding Wood* (The Taunton Press, 2000), R. Bruce Hoadley illustrated that the arc of force applied by different types of woodwork clamp varies widely. He also found that the force of individual clamp can differ by a factor of two depending on the strength of the operator.

To compare traditional bar and pipe clamps to newer designs and to see how the force they apply varies by use, *Fine Woodworking* rigged up a jig (in to a set of bathroom scales. The magazine's February editor represented one end of the strength scale, a hobby-former builder in *Fine Homebuilding* represented the other, and a couple of *Fine Woodworking* editors fell in between (see p. 39). Generally, clamps with T-handles exert more pressure than those with round handles.

The first step when gluing boards is calculating square inches of glue surface. For example, if you're gluing two boards 3/4 in. thick and 36 in. long, single glue surface equals 27 sq. in. Even if you edge-glue several boards, you still need to measure only one glue surface because the clamping pressure is transmitted across the width of the boards. If you're edge-gluing flat-sawn red oak boards and a

CLAMPING THIN EDGING



Where the glue line is close to the clamp head, place the clamps very close together or use a wide caul. Otherwise, some parts of the glue line will not receive sufficient pressure.

Shaker Box Making - Tutored by Murray Marks

Course at West Dean College attended by Brian Sadler and Bruce Richardson

Murray made his introductions in the evening before the practical sessions of the two day course during which we all made a set of three oval boxes.

Murray is a long standing UK maker of Shaker items following closely the original Shaker styles, materials and construction methods. He learned much first hand from John Wilson, an American maker and teacher for over 35 years.

The designs originated with the American Shaker community which established itself after breaking away from the Quakers in England and settling in America around 1774. The difficult living conditions and frugal beliefs led to the creation of simple, easily and quickly made items from the minimum of material.

These designs have refined into a classical style and are still made to the original methods.



The oval boxes with their lids are made in American Cherry from a top and bottom of either solid wood, or veneered ply; and bent sides of thick veneer formed wet around a block. An overlap 'finger' joint is secured with small copper tacks. The sides are retained to the base with a number of 'toothpick' wooden pins. No glue, just fit, tacks and wooden pins. They are finished with wax outside and usually left bare inside since many were used for food storage.

The sides are made first by soaking the veneer for 20 to 40 minutes depending on thickness in hot but not boiling water then hand working around a former and tacking. When dry enough the shape for the top or bottom is drawn directly from the side and sawn and sanded to fit. The sides are pinned to the top and bottom followed by sanding and waxing. All very simple in essence but there are a number of techniques and details needed to get a good result which Murray was very good at explaining and showing us.

There is a historical set of sizes for shaker boxes which preserves their style and proportions.

There are also a number of other item designs such as log boxes and basket on the same theme but with modified constructions as well as the Shaker furniture which has it's own style but still has the concept of being light, strong and economical of materials.

Most Shaker makers seem take a purist approach to their work and I find the results have artistic and tactile qualities. So, a most enjoyable, well run course.

