

Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

December Meeting

The program committee kicked off the new format for Guild meetings in December, bringing us Instant Gallery, a woodworking school review, and a very informative session on vacuum bag veneering techniques presented by Jeff Anderson.



[Full Story](#)

January Meeting

Mike Siemsen spoke to a large group on the topic titled Hand Saws Demystified. He showed attendees how to make a handsaw from a chunk of steel and a block of wood. We also learned about a new organization known as The Mill.



[Full Story](#)

What's On Your Bench? - Dead-Blow Mallets

David Lane (the Guild's webmaster) designed and built a drop-dead beautiful dead-blow mallet. How well does it work? Hmmm, let's just turn a phrase and say that function might not always follow form. Read David's humorous essay about his mallet building journey.



[Full Story](#)

President's Notes

Charlie writes about a new board member and thanks those volunteers preparing for the upcoming Northern Woods Show.



[Full Story](#)

Members in the news

What do Mark Laub, Dean Jansa, Jock Holmen, Tim Heil and Richard Tendick have in common? Besides being members of the Minnesota Woodworkers Guild they are all featured in recent woodworking magazines.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)
[DVD Library Listing](#)



[Full Story](#)

Northern Woods Show

Time to get your entries ready for the 2012 Northern Woods Show. Details within...

[Full Story](#)

Visit the MNWG Web Site:

| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
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Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

Classifieds

Advertising in the classifieds is provided to members of the Minnesota Woodworkers Guild free of charge. Ads placed should be for goods or services of general interest to the woodworkers who make up the guild community. Ads for services will run until cancelled. Other ads will run for one issue unless renewed. Submit ads to [Jerry Beutel](mailto:Jerry.Beutel)

Wood

Unfinished hardwood picture frame molding, in lengths. Liquidating my inventory. Beautiful, various woods: cherry, maple, walnut, ash, poplar, birch. Several profiles including floater moulding. Moulding is unfinished and sold by the stick, average length 8 - 10 feet. See profile examples at:

[https://www.facebook.com/media/set/?](https://www.facebook.com/media/set/?set=a.1455897894148.42875.1734387448&l=4c7d9cbea4&type=1)

[set=a.1455897894148.42875.1734387448&l=4c7d9cbea4&type=1](https://www.facebook.com/media/set/?set=a.1455897894148.42875.1734387448&l=4c7d9cbea4&type=1) Prices vary depending on wood and profile, start at \$1.30/foot. Contact me for more info at: info@sheralynbarnes.com

Shop Space

The Mill is a new educational industrial arts/maker space in Minneapolis, Minnesota that celebrates the do-it-yourself culture and creative communities by providing members with access to tools, equipment and instruction. From woodworking to metalworking and electronics, members of the Mill will work on individual or collaborative projects in a well-stocked, industrial grade fabrication workshop. The Mill offers a unique solution to address the knowledge, space, storage and social constraints of building projects at home.

The Mill is community resource. Beyond its identity as workshop, the specific purpose of the Mill is to encourage technical, scientific and artistic skills through individual projects, social collaboration and education. The Mill is conceived as an infrastructure provider for technical-creative projects. We will also fulfill our role as a community resource by hosting classes in a number of areas including electronics, woodworking, digital fabrication, metal fabrication, artistic use of industrial equipment and any other skills that our members or guests are willing to share.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)
[DVD Library Listing](#)



The mission of the Mill is to serve as an incubator of ideas; to foster a collaborative community where members utilize industrial arts concepts, cutting edge technology and time tested fabrication equipment to create innovative solutions to technical issues in fabrication and making. Through classes, group interaction, and an inclusive environment, the Mill is a space where innovation and creativity can be fostered for novice and expert alike.

www.mnmill.org

The Mill

2300 Kennedy St NE

Suite #130

Minneapolis, MN 55413

Dream Workshop Space for rent /to share (several areas to pick from): 2303 Kennedy Street NE. 4500 s.f. total shop space. Industrial building with mushroom pillars. 12' high ceilings and concrete floors. 10 hp Quincy air compressor. Heavy power - 3 phase and single phase. Private build/work space. Heat/electricity included. Loading dock. Easy parking. Spray booth available on second floor. Room for your own tools/machines. Internet available. Southern exposure/natural light. Many possibilities for the serious hobbyist or professional. Affordable. No curfew.

Optional use of Altendorf sliding table saw, 10" Unisaw, Holzher edgebander, edge sander, pocket drill, system drills, pallet rack, drill presses, lathe, panel carts, 36" wide steel storage lockers, etc. Private office/drafting table available. Contact: **Dale 612.812.5331 for viewing.**

North Country Woodshop – Woodshop Open to the Public. The easiest way to describe North Country Woodshop would be this: It's a health club for woodworkers. But, instead of treadmills, we have table saws...instead of dumbbells, we have drill presses, lathes, joiners, sanders, and so on. If it belongs in a woodworking shop, North Country Woodshop has it. And the best part, all the tools are available to use with a simple membership to North Country Woodshop.

Have your own hand tools? Bring'em! Don't have your own hand tools? Rent ours. Our staff of veteran woodworkers will show you how to swing that hammer without hurting yourself...or others. If you need lumber for your project, but don't have time to pick it up yourself, give us a call and we will have it waiting for you when you get there. And when your project is done, we can deliver it for you as well.

North Country Woodshop offers a wide variety of classes for all levels of woodworking ability. We offer classes from beginner to advanced with a large variety of projects and techniques. Our classes are taught by our team of expert woodworkers as well as local and world renowned guest instructors. Contact info at [North Country Woodshop](http://NorthCountryWoodshop.com).

Space available to rent in Bespoke Minneapolis'/St. Paul workshop.

Rental costs include: full use of shop facilities, finishing room, and all utilities and trash. Shop equipment includes Altendorf sliding table saw, Format cnc shaper, Format digital 20" planer, SCM 16" jointer, Laguna cnc lathe, as well as 16" disc sander, belt sander, moulder, router tables, hydraulic veneer 4' x 8' cold press; 5' x 14' veneer bag press, Laguna 16" capacity re-saw bandsaw, Powermatic 14" bandsaw, drill press, dovetail jigs and etc. Please view our website www.bespokeminneapolis.com to see the type of work which is produced in our shop. Total rent is \$925.00 per month.

Magazines

Fine Homebuilding Magazine. 64 issues, earliest is #108, April 1997, newest is #180 June 2006. About 9 issues missing from that series. Good condition. \$15. Contact [Jerry](#) or call [651 436-5897](tel:6514365897).

Tools

Delta Drill Press Mortising Attachment Model 17-905:

Used three times, includes two hollow chisels/drill bit sets (1/4 inch and 1/2 inch) the 1/2 inch chisel/bit set is a Delta 17-911, the 1/4 inch set is not Delta but was purchased at Rockler. Individual prices for this package through Amazon total in the range of \$159 - \$160. I am asking \$75.00 for the set. If interested, let me know and I will send you photos. Contact me via email at rjayotte@gmail.com or by [phone 952-890-6152](tel:9528906152)

Table Saw Blades – 10", 5/8 arbor:

Freud 40 tooth rip, Freud 50 tooth combination, Oldham 80 tooth cross cut, Rockwell steel blade which came with my table saw. Sold individually, \$20 for the carbide blades and \$10 for the steel blade or \$50 for the set. Contact me via email at rjayotte@gmail.com or by [phone 952-890-6152](tel:9528906152)

Shopsmith Mark V, Model 500, barely used- capabilities: table saw, disc sander, drill press, horizontal boring machine, lathe. Asking \$600 or best offer. Contact [Ron Gardner at 763-786-7513](tel:7637867513) or ron84gard@fastermac.net

Services

Mike Siemsen's School of Woodworking. Woodworking with a hand tool focus. We have a great line up this year including some tool sharpening and tool tuning classes. Our Workbench Class was a huge success and will be offered again in the future. Take a look at my website, improve your sharpening or furniture making skills! Classes are held in my shop on a quiet rural setting 35 miles North of the Twin Cities. The shop is heated and air conditioned for your comfort year around. Reserve your spot now! Visit my [website at](#)

www.schoolofwood.com, e-mail mike@schoolofwood.com or call ~~651-257-9166~~ for more information.

Woodcraft Education Program. Located in Bloomington, we offer the Twin Cities most complete selection of woodworking classes. Our classes cover furniture making, carving, turning, hand and power tools, and finishing. We also offer free demonstrations every month. Close by, small class sizes and the best local and national instructors make it a great place to bring your skills to the next level. Website: [Woodcraft Bloomington Store](#) *Phone: 952-884-3634*

Workbench Plans. Plans now available for Adjustable Height Workbench with a built in Mobile Base. Email Charlie Kocourek at Charlie@Jack-Bench.com or visit my [website www.Jack-Bench.com](http://www.Jack-Bench.com)

Plane soles milled flat, price ranges from \$12 for a block plane to \$40 for a #8. Sides can be milled square to the sole for \$15-\$20. Contact Chuck Pitschka at ~~952-935-0660~~, or by e-mail at cepitschka@yahoo.com

Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

New Members

We welcome these new members to the Minnesota Woodworkers Guild:

Robert Hoover	John Urick
Terry Walton	Erik Hutchinson
Dan Wilson	Timothy Stange
Craig Jentz	John Hoffstrom
Michael Messano	Bruce Wiskus
Reed Hanson	Stephen Portoghese
Jim Pennoyer	Scott Stubbs
Tony Kalal	Steve Cienciwa
Paul Mayer	Tom Lueck
Gregg Arseneau	Scott Demma
Paul Miller	Steve Smith
Terry Tobiason	David Munkittrick
Elise Walker	Robert Offord
Brady Nesvold	Jack R. Smeyers
Roger Coulthart	Jim Cech
Jon Lawson	Chad Pearson
Andy Pugh	Lucas Baker
Gary Brown	Bryan Carter

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)
[DVD Library Listing](#)



Visit the MNWG Web Site:

| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
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Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

Northern Woods Show

The 2012 Northern Woods Show will be held April 26th through the 29th at Southdale Shopping Center. The deadline for entries is April 2nd - time to get busy in your shop!

Watch the [Guild website](#) for all the details.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)
[DVD Library Listing](#)



Visit the MNWG Web Site:
| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
Copyright 1982-2022

Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

What's On Your Bench? - Dead-Blow Mallets

Story by David Lane

Photos by David Lane

Getting Hammered

Having bought and sharpened an old draw knife, I decided to learn the tool with an easy project. For a while I have wanted a small mallet for the boxes I like to make so I decided to make myself the ultimate dead-blow mallet.

Step one involved some research. I learned that dead-blow mallets work by virtue of a chamber within the head containing loosely packed lead shot. The shot absorbs the recoil from a blow, preventing the head from bouncing. Here's an [example of a plan](#) I found searching the web.

To insert the shot in the head I sliced open the head, drilled two 1" cylinders with a Forstner bit, and loosely filled the chambers with shot from a sporting goods retailer. I then re-glued the two pieces, encapsulating about 4 1/2 ounces of shot. You can hear the shot within if you shake the mallet head near your ear.



I also looked at various handle designs but eventually settled on shaping one to my own hand. I accomplished this with the draw knife, a Nicholson #49 rasp and a card scraper. The handle is wedged and glued with epoxy, with the walnut wedge offering a nice contrast to the handle. I used 1/8" thick hide leather as cushions for the mallet head. The head weighs 15 ounces.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

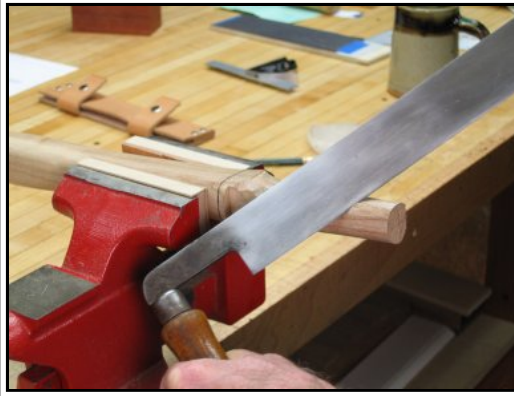
Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)
[DVD Library Listing](#)

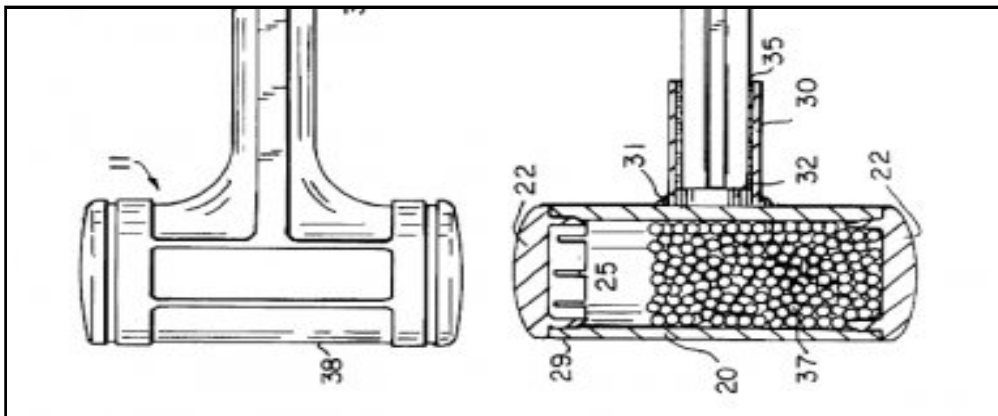




I must say that I was very proud of myself at this stage of the project. "Gee, what a sweet looking mallet. It's gotta be great cause it looks so nice!" Not so fast, grasshopper...



I have since found evidence that what really deadens the impact is a chamber that allows the shot to travel further within the head from the back (at the start of a swing) to the front (upon impact). Witness this illustration from a 2001 patent (# 6595087).



Hmm...no wonder the impact is not completely deadened on my mallet. No worries. I can rename my version the all new "Coma-Blow Mallet" ... it's not quite dead. "Hello, Patent Office?"

Wanting to further confirm this theory I contacted the man whose class, "The Unplugged Woodshop" got me started on this journey 15 years ago. When asked about my design Tom Caspar of American Woodworker replied, "The mallet I use for assembly just has to have two qualities: sufficient mass and a large face. I wouldn't worry about recoil at all, so the "dead-blow" aspect isn't important." Hmmm..."sufficient mass and a large face." I'll call it the "Jackie Gleason Mallet!" I can see the ads now...."To the moooooon!"

And finally, Tom had a very interesting observation: “I wouldn't want a mallet whose head is glued up. Sooner or later, after many blows, the head is sure to delaminate and fall apart. We had a mallet in the shop just like the one you described, and eventually it came apart. The heads of carving mallets are always made from one piece of wood.”

Lose the Jackie Gleason Mallet. Lose the Coma-Blow Mallet. While looking gorgeous this item is not quite dead, lacks mass and eventually falls apart. Wait, I've got it! Witness the all new “Paris Hilton Mallet.” “Hello, Rockler? Have I got a product for you!”

Visit the MNWG Web Site:

| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
Copyright 1982-2022

Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

Members in the news

The February/March issue of American Woodworker magazine features articles by or about four Minnesota Woodworkers Guild members. The September 2011 issue of Popular Woodworking has a story written by Dean Jansa.

The links included below are to the on-line story previews, the full story is not available online except to subscribers.

Richard Tendick wrote an article about a very clever bandsaw [circle cutting jig](#) of his own design. The weblink will give you a preview of his story and probably have you heading for the bookstore to buy the issue.

Mark Laub talks about the importance of working at design in his interview with the magazine. The interview is part of the [Great American Woodworker / An Artisan's Life](#) Story series published in each issue. Find out what platinum blondes in stiletto heels and Mark's woodwork have in common.

Jock Holmen's article is [Titled Carving Incised Letters](#), and subtitled *Create Artistic Signs the Old Fashioned Way*. The link shows a picture of Jock carving out a sign.

Tim Heil details his method for turning custom handles for socket chisels. [The story](#) includes his tips for making a handle that not only looks good, but fits the chisel well.

Dean Jansa has been the featured speaker at a prior Guild meeting and he assisted Mike Siensen during the presentation on making hand saws at our most recent meeting. He is very interested in building period furniture with hand tools only and that is the subject of his article in Popular Woodworking from August of 2011. Dean writes about the reasons that different methods of building furniture happened and about the importance of actually trying different tools and techniques, not just reading about them. [This link](#) will take you to the Popular Woodworking website, but Dean's article is not available online unless you are a subscriber.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)



Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

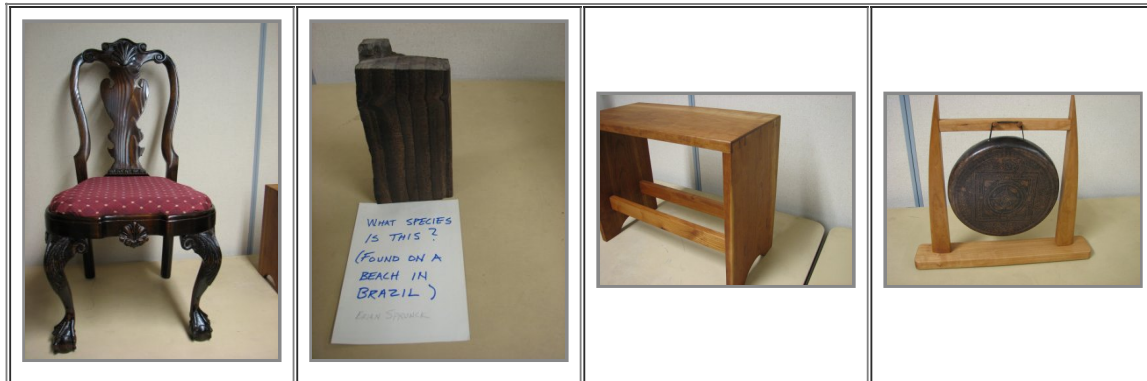
Issue: February - March 2012

December Meeting

Story by Jerry Beutel

Photos by Jerry Beutel

Instant Gallery made its debut on December 14th 2011 at the Richfield Community Center, site of the Guild's December meeting. What is Instant Gallery? It's an opportunity before the formal start of Guild business for members to show their current work or work-in-progress. Sam DiPasquale brought along a very bold first carving project, a claw foot chair, seen in the photo below. Not only was this his first attempt at carving, it was his first chair! He plans to make six more. Brian Sprunck had a very nice looking chunk of wood that he discovered washed up on a beach in Brazil and he was wondering if anyone could identify the species. Steve McLoon had two items he built, a stool and a gong. The gong frame was made from scraps of cherry and the gong itself was something he purchased in the Indonesian island of Buton a number of years ago.



Everyone is invited to participate in Instant Gallery which will be part of all Guild meetings. No sign up needed, just show up with your work!

Besides adding Instant Gallery, Guild monthly meetings will now include a short overview of woodworking related educational opportunities. For this meeting Steve McLoon talked about the Center for Furniture Craftsmanship in Rockport Maine. Steve has taken several short courses there during the previous summers, and has been very pleased with the instruction, the facilities and the area as a vacation spot. The school's [website](#) has all the details about their classes.

Thanks to Steve for telling us about his experience at this school and thanks to the program committee for these improvements to the monthly meeting agenda.

Vacuum Bag Veneering

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier](#)
[Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)



Jeff Anderson gave attendees an overview of vacuum bag uses in conventional and unconventional ways and even demonstrated a process known as infusion.

Bags can be made from vinyl (least expensive), polyurethane (more \$ and better stretch properties) or silicone for use when the bag must sustain heat. While a 20 mil bag works, 30 mil is more durable and worth the cost. Using wax paper between the object and the bag is a good way to keep any glue squeeze-out from getting on the bag.

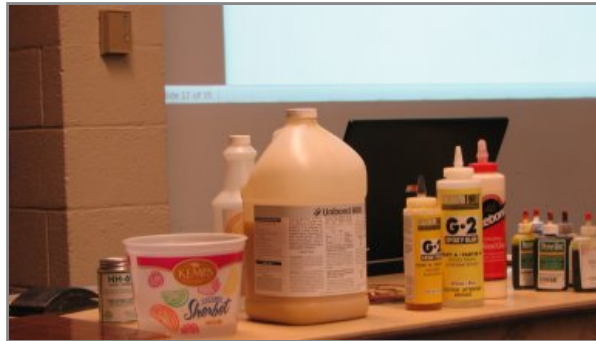
Another tip Jeff gave us is to use a layer of muslin cloth on top of the object to soften any sharp edges to prevent bag punctures. The muslin cloth also helps to even out the pressure.

A good vacuum pump with 6 cubic feet per minute capacity can be expensive, but may be necessary for some large applications. A good pump should have a particle filter and moisture trap.

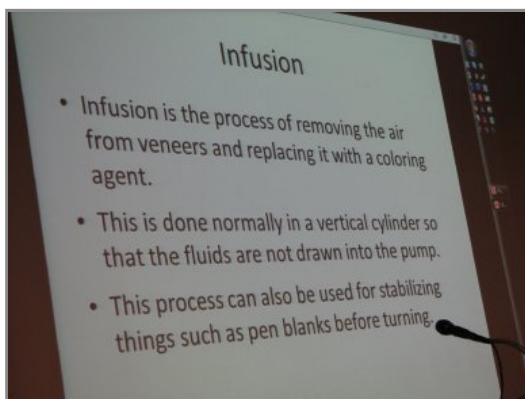
In a flat veneering application it is conventional to use a platen, such as a piece of MDF, plastic or masonite on top of the veneer to equalize the pressure.

A vacuum bag can also be used to draw wood into a curved shape. This technique requires a form cut to the desired curve and then multiple laminations with glue between them are set on the form and everything is put into the bag and the pump is turned on. Getting all these steps completed before the adhesive sets is critical.

Speaking of adhesives, Jeff talked about PVAs, urea formaldehyde, epoxies, and some newer ureas that have eliminated formaldehydes. Each type has its advantages and disadvantages and the woodworker should understand open time, creep characteristics and water resistance needs for each application when selecting an adhesive.



Jeff finished his presentation with a demonstration of the infusion process using a shop made infusion pump. He suggested visiting the joewoodworker website to learn how to build a similar pump.





The infusion process is used to create colored veneer sheets. The veneer is placed inside a tube, dye is added and the tube is sealed. The vacuum pump is then used to pull the air out of the tube and out of the cells of the wood causing the dye to penetrate the wood. Jeff said that it typically takes 6-10 minutes to complete the infusion process.

Following the presentation Jeff stayed around to answer questions and give members a chance to look closely at the equipment. Thanks Jeff!

Visit the MNWG Web Site:

| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
Copyright 1982-2022

Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

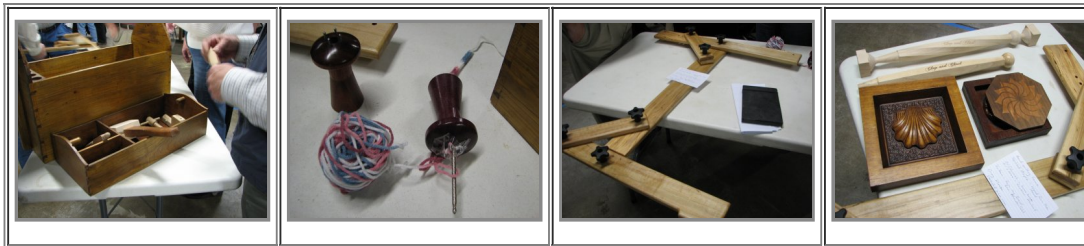
Issue: February - March 2012

January Meeting

Story by Ron Corradin

Photos by Bob Bridigum/Jerry Beutel

The Mill in northeast Minneapolis generously hosted the January, 2012 Guild meeting. Over 80 Guild members, including a few first timers showed up, and half a dozen people brought items for "instant gallery." It's always fun to see what other woodworkers are doing and discuss their projects.



Some of the member made items on display prior to the meeting at "Instant Gallery."

Educational Opportunities

Mike Siemsen's School of Woodworking in Chisago City, MN was highlighted in the educational portion of this meeting. This is a recently added feature that will be part of most future meetings.

Jerry Beutel spoke about the class offerings at The School of Woodworking referencing the school's [website](#) for examples. Classes range from basic skills to the complex - handplane sharpening to cutting dovetails to building detailed furniture pieces. Mike's shop is very well equipped and his classes were described as informative, full of personal attention, productive and enjoyable.

The Mill

President and founder of The Mill Brian Boyle and Director of Operations Greg Flanagan were on hand to explain their new facility (still under construction in a space the size of a school gym) and to demonstrate two of the tools they have available, a 3-D printer, and a CNC laser that was making rulers out of 1/4" plywood. The Mill is part of the growing maker movement that aims to give people training on and access to fabrication tools for wood, metal, plastics, and electronics hardware and software. For more information on the benefits of membership in The Mill go to www.mnmill.org. For information on the maker movement go to makezine.com, the web site of Make magazine.

[Newsletter Home](#)

Articles:

[December Meeting](#)

[January Meeting](#)

[What's On Your Bench?](#)

[President's Notes](#)

[Members in the news](#)

[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)

[Supplier Discounts](#)

[Classifieds](#)

[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)





80 plus members attended this meeting



Lots of interest in inspecting saw making equipment

Demystifying Hand Saws

Mike Siemsen presented a program on hand saws, not just using and sharpening them but making them from scratch.



“Scratch” for Mike means making the handle from quarter sawn hardwood and the blade from 1095 polished and blued spring steel from McMaster Carr. The thickness of the blade can vary from 0.020” to 0.042” depending on the kind of saw, with a rip saw having a thicker blade than a dovetail saw.

Jeff Hand of the Guild Board described the steps to make a handle. First trace the pattern of an existing handle that fits your hand well (Jeff recommended using a Disston saw handle) on to a piece of hardwood. Next, use a forstner bit to cut the inside radii and the ends of the hand hole in the handle. Then cut out the shape of the handle on a band saw, and the hand hole with a scroll saw. The most difficult part is matching the kerf inside the handle to the contour of the back edge of the saw blade. You can either trace the blade contour on to the handle and use it as a guide or use a gradual cut and fit approach. If you need a reference plane to cut the kerf, then cut the handle’s outer



contours after you have fitted the blade into the handle. Use the mounting holes on the blade to lay out where the blade mounting screws will go through the handle. Finally, sand the contours of the handle for appearance and comfort.

Making the blade was the heart of the project. Mike said that 1095 spring steel was hard enough to dull even carbide drill bits, but it could be sheared or punched. Saying there were a number of ways to cut the steel, he brought out a pair of tin snips that could be used to give an elephant a pedicure. They cut the 1095 spring steel into pieces that would make good cabinet scrapers, but were too big for cutting saw teeth.

Mike explained that saw teeth could be laid out manually and cut with a smaller pair of tin snips or a die grinder. Then of course he brought out just the right machine for the job, a Foley toother that at first looked like a big disc sander.



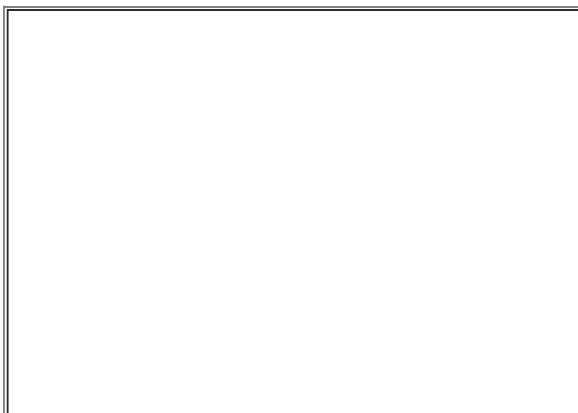
The toother works with a carrier and a ratchet for a layout bar to cut the saw teeth. As a motor turns the flywheel on the toother, the saw blade is advanced and the teeth are cut one at a time. Different carriers are used for different sized saw blades. The toother sets the basic tooth shape, the pitch, and the rake angle.

But that's just the start. After the saw teeth are cut the blade is put in a saw vise and the tops of the teeth are lightly filed to make sure they are all the same height. They are then given their left/right set with a saw set to produce a kerf wide enough to keep the saw from binding. Some saws used to be ground so that they were thinner at the top than at the teeth, but that is seldom done today. The teeth are then sharpened with a saw file.

Mike said a good saw file is vital to saw sharpening. It is an equilateral triangle in shape, twice the height of the tooth. Even a good one doesn't last long, and on a cheap one, Mike said, the teeth will come off the file the first time it's used.

Mike also discussed fleem, an extra bevel found on crosscut saw teeth and log saw teeth but not rip saw teeth.

He explained how the efficiency and comfort level of a saw depend on the hang (the angle of the blade to the handle), the sharpness (a dull saw has to be pushed down into the wood while a sharp saw glides into it), and the pitch – the number of teeth per inch (TPI) or points per inch (PPI). Some saws have a progressive pitch, with smaller teeth at the front to start



a cut and larger teeth in the middle to cut faster.

Mike's assistant Dean Jansa said that the quality of a saw's handle shows the quality of the saw, and that a saw is only as good as the last guy who sharpened it. If your "last guy" left you with a dull saw and your sharpening skills also need sharpening, then take it to Twin City Saw on University Avenue in St. Paul.



Varying hang angles on three saws

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Northern Woods

The Newsletter of the Minnesota Woodworkers Guild, Est. 1982

Volume: 137

Issue: February - March 2012

President's Notes

In December I told you about some recent changes to the Board of Directors, and today I have another change to announce - Jeff Anderson has accepted a position on the board.

Jeff has been active with the Guild for a few years. Besides being a member of the Program Committee he presented a great program on conventional and unconventional vacuum bagging techniques at the December meeting.

Not only that, but Jeff is a great woodworker! He has shown some beautiful pieces at the Northern Woods Exhibition and he owns Phoenix Wood which specializes in restorations and custom woodworking projects.



Jeff Anderson

Speaking of Northern Woods; I would like to acknowledge the people who make it a reality. The Northern Woods show is the biggest event of the year and it takes a whole committee of people to make it happen. Planning for the Northern Woods show begins in the fall. By January planning is transitioning to "doing" and the pace quickens.

There are 9 volunteers on this year's committee.

Fran Peterson	Show Chair
Craig Johnson	Judges
Charlie Kocourek	Booth Schedule, Banquet
Tony Kubalak	Show Catalog
Mark Powell	Promotions and Advertising
Joe Santos	Award Trophies
Angie Kopacek	Awards Ceremony
Richard Tendick	Assistant Show Chair, Sponsors
Rutager West	Award Trophies, Show set-up , Photo Shoot

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)





Committee meeting at Richard Tendick's house

It is typical for Guild committees to meet at each committee member's houses. This is a great way to get to know each other. For this particular meeting Richard drove 20 miles in the snow (uphill both ways) to get special treats for the meeting. What a guy!

In addition to the committee members there are a host of others who help to make the Northern Woods Exhibition not only the premier event of the Minnesota Woodworkers' Guild, but one of the best Woodworking Exhibitions in the entire country! I want to offer my sincere thanks to everyone who helps with this.

The reason we do this is because we love it. We genuinely enjoy getting together, and we really enjoy seeing all the beautiful pieces at the show!

This year's show is April 26 – 29. Don't miss it!

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Supplier Discounts

One of the many benefits of belonging to the Minnesota Woodworkers Guild is the discount available to members on wood, finishes, tools, hardware and more.

See the complete list of supplier discounts [here](#).

[Newsletter Home](#)

Articles:

[December Meeting](#)

[January Meeting](#)

[What's On Your Bench?](#)

[President's Notes](#)

[Members in the news](#)

[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)

[Supplier Discounts](#)

[Classifieds](#)

[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)



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| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |

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Upcoming Meetings

Wednesday, February 22, 2012 6:30 PM

- Hand Tool Olympics
- Forest Products Supply.
- Address and details [here](#).

Thursday March 1, 2012

- Special Gabberts Presentation by Mike Danial, Stickley Corporate Historian
- Time and location TBD
- More information [here](#).

March 24, 2012 (Saturday), 10:00am to 2:00pm

**Replaces normal 3rd Tuesday of the month meeting.
Pinewood Derby Competition and Guild Lunch**

- This special hands-on meeting is sponsored by The Mill, see www.mnmill.org. We will be building and racing Pinewood Derby cars on a custom track in two classifications. This event is being modeled after Greg Flanagan's annual Pinewood Derby party where over 50 people built and raced cars last year.

The Mill is located at 2300 Kennedy St NE, Minneapolis, MN 55413. Take the Stinson Blvd exit south off of Hwy 36. Turn right on Kennedy, which is just after Stinson crosses Broadway.

- Watch for more information on the guild web site and in guild emails regarding the kits and how reserve them. We plan to have both Stock and Modified classes. Cars entered in the stock class will be built on site the morning of the race. Modified class entries will be allowed a one-week lead time prior to the Saturday event. You may bring your own hand tools to build and modify your entry. Both Stock and Modified class races will begin after lunch. Prizes will be awarded to the winners of the races as well as in special categories to be announced. Watch for e-mail notices.

[Newsletter Home](#)

Articles:

[December Meeting](#)
[January Meeting](#)
[What's On Your Bench?](#)
[President's Notes](#)
[Members in the news](#)
[Northern Woods Show](#)

Other Info:

[Upcoming Meetings](#)
[Supplier Discounts](#)
[Classifieds](#)
[New Members](#)

On Our Website:

[Web Links Listing](#)

[DVD Library Listing](#)



Visit the MNWG Web Site:

| [Home](#) | [Meetings](#) | [Newsletters](#) | [Northern Woods](#) | [Membership](#) | [Gallery](#) | [Links](#) | [Contact](#) |
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