



# Newsletter

Volume 9 Issue 6

June 2009

## *AGAINST THE GRAIN*

*By Rollie Johnson*



President Rollie Johnson

### Putting the Pressure On

This month's meeting is all about pressure, or the lack thereof. The pressure of the air above us, our atmosphere, is measured by the weight of a square inch column of air extending from sea level to outer space and is called atmospheric pressure. At sea level one square inch of atmosphere weighs 14.7 pounds or a little over a ton per square foot. We don't notice the pressure because we are surrounded and infused with air, equalizing that pressure. Take away the equalizing air, which is what happens when we create a vacuum, and all of that pressure tries to get inside the receptacle holding the vacuum, the result is a static pressure of 14.7 psi (pounds per square inch) pushing on the receptacle.

Static pressure is uniform in all directions making vacuum pressing a great way to laminate or veneer irregular shapes. It's pretty amazing to think that by placing an 18-inch square panel in a plastic bag and removing the air in that bag the vacuum will create the pressing weight of a Buick on that panel.

A perfect vacuum is practically impossible to achieve, but we can get close enough to provide considerable clamping pressure for not only laminating but also for vacuum clamping which is the typical method for holding stock in place with CNC machining. Vacuum clamps are easy to make, hold extremely well on smooth surfaces, and can be a real asset in the woodshop. Vacuum clamping is also used by woodturners to clamp bowls to a face plate for turning without the need for glue, screws or a jawed chuck.

Vacuum can be generated by using a venturi vacuum pump powered by compressed air or by piston or vane vacuum pumps powered by an electric motor. It's relatively inexpensive to buy a basic venturi setup if you have a compressor large enough to provide the air the generator needs; about 4 cfm at 125 psi. Rotary vane or rocking piston pumps are more expensive but typically evacuate the air quicker.

Dave Blenkush is going to give a demonstration on using vacuum bagging for laminating and veneering. Dave has quite a bit of experience working with this technology and the seminar is one that you should attend, it will be an eye opener. It's also a real treat to visit Dave's shop. Dave has built quite a few of the tools he uses for producing architectural millwork and his shop is not only a well equipped woodworking shop but is also a complete machine shop and metal fabrication facility. Be sure to make this meeting!

**Rollie**

**Central Minnesota Woodworker's Association**

The CMWA is a group of men and women from around the St. Cloud Minnesota area who share a common interest in the art and business of woodworking. We meet monthly in Sauk Rapids and share information, techniques and topics of interest in the area of woodworking.

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June 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17 mtg	18	19	20
21	22	23	24	25	26	27
28	29	30				

**Next Meeting:** June 17th at 7:00 PM at Dave Blenkush's Shop.

**Board Meeting:** June 17th at 6:15 PM at Dave Blenkush's Shop.

**Happy Birthday!**

We'd like to wish Roger Johnson a Happy Birthday. Our most senior CMWA member, and Rollie's father, Roger celebrated his 98<sup>th</sup> Birthday on June 8, 2009. We wish him many more!

**June CMWA Meeting Subject  
 is  
 Vacuum Bagging with Dave Blenkush**



Those of you who know Dave, know that his wealth of experience and down to earth demeanor make him a very enjoyable speaker.

Dave will be talking about and demonstrating vacuum pressing systems. He will discuss electric pumps, venturi generators and hand pumps.

There is a vacuum force demonstration planned to give us a feel for what type of forces these systems can generate. Part of the demo will include how to make forms and the materials used.

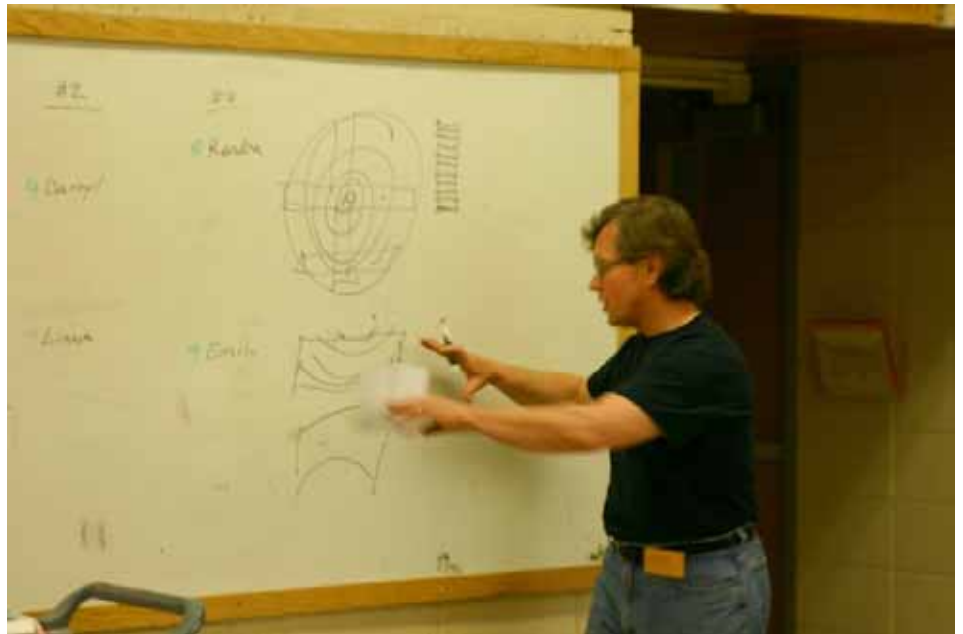
Dave will also share his experiences with us on the 3 different types of glues used in vacuum pressing: flexible, semi-rigid and rigid. It should be an informative presentation.

## May CMWA Meeting Recap



Laurie Larson-Dahl

Laurie Larson-Dahl spoke briefly on behalf of Habitat for Humanity. She indicated that Habitat is celebrating its twentieth anniversary this year and has built fifty-five homes in the Stearns, Benton, Wright and Sherburne County region in the last twenty years. She wanted to thank the group for their participation over the years, and from a show of hands, one half of our club has helped out with the various homes in recent years. She would like to encourage all of us to help when we can.



Rollie discusses wood drying

This month's intended speaker, Paul Herbst had to cancel, so our club president, Rollie Johnson, stepped up to the plate to share his knowledge on Moisture Meters and wood movement.

According to Rollie, the maximum amount of water that a fresh cut tree can hold, usually around thirty percent, is known as the Fiber Saturation Point. Air-drying wood will bring that down to about fifteen percent, and kiln or steam drying will bring it down even further, to eight percent or less.

Kiln drying collapses the woods cells, so it can no longer take in moisture. Once dry, the Lignin, the natural glue that holds all of the cells together, locks the fibers firmly, in a permanently collapsed state, giving the wood good stability. (continued on next page)



Les Sova

Les brought in a dozen Ukrainian Eggs. Les paints the real eggs himself. This type of work takes a great deal of talent, time and patience.



## May CMWA Meeting Recap (cont.)

Natural air-dried, and aged, lumber is highly desirable among furniture builders, primarily because of its inherent strength as compared to that of steam or kiln dried lumber, and is best suited for bending, such as chair backs and legs, as well as chair rungs and legs, but it's always a crap-shoot when making flat furniture components such as face frames and cabinet components. For these, other options are more desirable such as kiln-dried or steam-dried lumber.

Steam drying, which is often use in large commercial operations, such as those of Wood Craft and Ferche Millwork, ruptures the cells walls, enabling a much quicker release of moisture, for a faster drying operation.

Anyone can dry their own lumber, as long as the building they use for drying is at least twenty degrees warmer inside than outside, and they continuously vent the warmer, moisture-laden air away from the wood and out of the building to be replace with a fresh supply of cooler dryer air from outside the building.

Rollie wrapped up his presentation with a few tips. He says be sure all of your wood is dry, and of the same moisture content when performing joinery. Let it sit in your shop for at least two weeks prior to working it to condition it.

Other wise considerations in the making furniture are, to match lumber with similar growth rings as well as similar colors.

## CMWA News and Events

### **NEW MEMBERS:**

Lets be sure welcome Todd Theisen.our newest member to the group.

### **STUDENT OUTREACH PROGRAM:**

Our club is now seeking a volunteer chairperson for the Fall 2009 session. It requires four 1-1/2 hr Tuesday evenings to teach the class at the Sauk Rapids/Rice Middle School.

Ideally we need 9 volunteers to mentor the eighteen expected enrollee's.

To volunteer, call Rollie at 320 968-7194.

### **ITEMS FOR SALE:**

Greg Pont has opened a new consignment shop in Royalton, called Wood-N-Stuff, for those interested in selling their wares through him. He also has a wide variety of lumber available for purchase. He is open seven days a week from 10 am – 5 pm.

His E-Mail address is [www.woodnstuff.com](http://www.woodnstuff.com)

## May Woodturner's Meeting

The **CMWA Woodturners Group** met Saturday, May 16th at Dick Beumer's shop in Sauk Rapids.

The meeting opened with 30 minutes of interactive dialog and idea sharing. Members discussed current project success and challenges, new finish recipes, decorative inlance, new tools and many other topics of interest. Starting next month we will add to the agenda a tooling and supply segment. Members are encouraged to bring their recent purchases to share with the group. The intent is to learn from each other as to what are deals and duds.

Topic of the meeting was how to make and use jam chucks. A jam chuck is a block of wood typically mounted between centers and turned into a cylinder. This cylinder is then bored and tapped to the specific thread size of your lathe's headstock spindle. With this cylinder threaded to the lathe it is trued and the end rounded. A common use of a jam chuck is in the final shaping and finishing of the bottom or base of a bowl. After you have shaped and sanded the inside of the bowl it is reversed, placing the inside over the jam chuck. The bowl is squeezed or "jammed" between this wooden cylinder and your tail stock live center at the bottom of the bowl. It's the friction between these two points that drive the bowl. This will allow you to complete the bottom or base on the lathe with only a small nub from your live center remaining. This nub is easily removed with a chisel and sanded smooth. Often a piece of foam, rubber or sandpaper is used between the bowl and the jam chuck to prevent the bowl from slipping or to protect the bowls surface. For reversing a natural edge bowls or other unusual shapes, a jam chuck may be your best option.

Dick Beumer had samples of various sizes of jam chucks he has made and used over the years. Through the course of the meeting Dick made several more jam chucks in the thread sizes to fit the various lathes of the members. The threads are cut with a dedicated steel tap available from suppliers like Hartville Tools.



Alan Sias watches as Dick Beumer makes a jam chuck.



John Skalla, Bill Langen and Tom Markman share a laugh.

## May Woodturner's Meeting (cont.)

This month's challenge project was a weed pot. There were several items on display. In keeping with the weed pot theme, Gary Mrozek shared a different type of jam chuck. It's an internal jam chuck. It consists of a 5/8<sup>th</sup> inch steel rod (although a wooden dowel can also be used) with an area removed to create a flat spot. In this flat area a shank of a nail is placed. A weed pot with the same sized hole as the rod is slid over it. As the lathe is powered up, the nail shank is thrown to the outside by centrifugal force and jams or wedges against the inner surface of the vessel thereby forcing it to spin. This allows you to finish the bottom or base of the vessel. There was an invisible guest at the meeting named Mr. Murphy (as in the Murphy's Law guy). Try as Gary could, the nail would not engage to drive the vase. Dick Beumer suggested a hexagon shaft (via an Allen wrench). A section of the Allen wrench was cut to fit the flat on the shaft and "whella" it worked.

Our next meeting is Saturday June 20<sup>th</sup> at 9:00am at the home of Gary Mrozek, 1314 west Oakes Drive. This will be a hands-on meeting to learn the basics of spindle turning. We will have three lathes set-up and we'll learn from each other the various ways to make beads and coves. Bring your eye protection and your own tools if you like.

Our July 18<sup>th</sup> meeting is tentatively set-up for a pen turning demonstration.

August 22<sup>nd</sup> is our 2<sup>nd</sup> annual summer pot luck picnic. Gary and Faye Mrozek will host the event at their Grand Lake cabin near Rockville. This year we are adding a special morning event: a fishing contest. The "catch" is you must use lures that you have made yourself on your lathe. We'll be talking more about this and how to make a lure at our June and July meetings. Visit [www.pennstateind.com](http://www.pennstateind.com) as a source for fishing lure hardware kits.

### Mark Your Calendar:

Max Bats is having an open house at 8:00am on July 11<sup>th</sup> as part of the Brooten Bonanza Days. Baseball bats from MaxBat are the hardest maple bats in the game. MaxBat is one of the most popular bats in professional, amateur and youth baseball worldwide. Max Bats is a division of Glacial Wood Products, Inc., an industry leader in custom woodturning products. 530 First Street, Brooten, MN 56316



Internal jam chuck.



Dick prepares to tap threads in a jam chuck.

## Case hardening: Wood Movement as You Cut

This is the title of an article within an article in the summer of 2009 issue of WOODWORKING magazine. I thought it was an interesting article because I have experienced this myself and had wondered what causes it. The article goes on to give the following explanation:

“Casehardening is a symptom of improper kiln drying. The wood was rushed through a kiln too quickly. Moisture pulls from the outside surface of a board first, then as the outer surface begins to shrink, that shrinkage is restricted by the moist inside of the wood, which adds stress to the lumber.

As the process continues, the inner wood begins to dry, but is restrained by the dry outer wood. This also adds stress or tension to the wood.

As you make a cut through stressed lumber, you free the tension and your board moves.”

I have had boards spread as much as 4” when ripping them and close tight enough to stop the table saw blade. It’s nice to know why this is happening, but I find myself asking the questions:” Is there a way to know if a board is casehardened before ripping it?” and “Is there anything that I can do about it?”. I will do a little research. If anyone knows, please bring the answer to Dave’s.

Remember to bring items for the auction at the end of each meeting. One man’s junk is another man’s treasure.

The next few meeting topics will be as follows:

June	Vacuum bagging for wood by Dave Blenkush
July	Pig roast at Pont’s Logging
August	To be announced
September	Intarsia basics by Bill Sampson
October	Make the perfect inlay by Rollie Johnson
November	Shaping wood with hand tools Spokeshaves, inshaves, travishers,

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The June general meeting is at Dave Blenkush's shop between Rice and St. Stephen. Dave's address is 7791 422<sup>nd</sup> St., Rice, MN.



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