Ron’s Ramblings

Hello Everyone:

What a meeting! That’s the only thing I’m going to say about it. I am looking forward to the roundtable meeting coming up in June. I’ve been spreading the word to as many people as I can. I always run into people who seem interested but never take advantage of the opportunity to stop in and check us out. This is the perfect time, no pressure, a chance to mingle with the members, nothing expected from anyone. I’m trying to get my son-in-law and his father to come, but we’ll see.

By the time this comes out, the field trip to the US Forest Products Lab in Madison, organized by Jay Pilling, will have come and gone. I’m hoping Jay will have a good report with pictures.

On a final note, I’d like to be taking a turning course at Woodcraft on Thursday, May 14th, with Dave Drickhamer. We’ll be working on a Wine Bottle Stopper. This will be my third time with an instructor on a lathe. Any bets on whether Dave finds religion? Update next month.

Ronald Reuter

Reflections:

The topic for our May membership meeting was cooperage. Mr. Gary Hess, grandson of Frank J. Hess, Sr., founder of Frank J. Hess and Sons Cooperage, was our guest speaker. Hess Cooperage was the longest and last running oak beer barrel cooperage in the United States.

Mr. Hess donated a copy of his book, Roll Out the Barrels, June 15, 2014, to WWG. Mr. Hess retired after 31 years as a machinist for Oscar Meyer in Madison, Wisconsin.

Part I of his book covers the Hess Cooperage business history and then goes into detail on how the wooden barrels were made. Part II contains biographies of Hess family members.

Frank J. Hess Sr. was born in Bohemia (a region in the Czech Republic) on April 10, 1870. At the age of 14, he started a four year cooperage apprenticeship at Pilsner Urquel Brewery in Pilsen, Bohemia. At 19, he traveled to America by ship and then by train to Chicago. He worked as a cooper, manufacturing white oak beer kegs, for seven years at Westside Brewery in Chicago and later in Prairie Du Chien, WI.

In 1904, Henry Fauerbach of Fauerbach Brewery in Madison persuaded Frank to move to Madison to start an independent cooperage business. The Frank J. Hess and Sons Cooperage factory was on Schenck’s corners for 62 years. They manufactured and repaired beer kegs for the Fauerbach, Hausmann, Berckheimer, Brunkow and Mueller, Potosi, Stork, (Continued on page 3)
**WWG Officers**

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**Friends of the Wisconsin Woodworkers Guild**

- **Homestead Finishing Products**, Cleveland, OH  
  (216) 631-5309  www.homesteadfinishing.com
- **Rockler's (The Woodworker’s Store)** 1725 S 108th St, West Allis, (414) 774-1882
- **Woodcraft**, 14115 W. Greenfield Ave New Berlin, WI 53151  
  Phone: (262) 785-6770
- **Woodline USA** (800) 472-6950
- **Green Man Tree & Landscape Services**, owned by Guild member Peter Gustin, Sr. (414) 659-0753

**Raffle and Door Prizes**

May raffle winners were: Don Doss, Mark Enderle, Bill Godfrey, Lyle Morrison (2), Ron Pederson, Ron Reuter, and Andy Wagner (2). Congratulations to you all!

Door Prize winners were: Don Doss, Jim Murphy, Ron Reuter, and Jim Schlarb. Congratulations and happy shopping to all the winners.

**Rockler Class Schedule - Tuition assessed**

- Basic Lathe Operation & Tools Class, June 13, 2015, Time: 12pm - 5pm
- Making Bowls on a Scroll Saw, June 20, 2015, Time: 1pm - 5pm
- Fathers Day Pen Turning, June 21, 2015, Time: 11am - 3pm

**Rockler Demonstration Schedule**

- 6/6  Shark Owners Group Meeting: 9AM
- 6/6  Rockler Innovation Day: Dado & Coping Jigs - 11AM
- 6/13  Rockler Turners Club Meeting: 9AM
- 6/13  Rockler Innovation Day: Small & Large Box Spline Jigs - 11AM
- 6/20  Rockler Scrollers Club Meeting: 9AM
- 6/20  Rockler Innovation Day: Thin Rip, Cove, & Taper Jigs - 11AM
- 6/27  21st Century Woodworking: CNC Shark - 11AM

*For further details, call Rockler: 414-774-1882. Location: 1725 S 108th St, West Allis*

**Woodcraft Class Schedule - Tuition assessed**

- Raised Panel Doors - Start to Finish, Instructor: Dan McClanahan, Tues, June 02 & June 09, 6:00 PM - 9:00 PM
- Turn some Father's Day Gifts, Instructor: Melanie Wegner, Sun, June 07, 11:00 AM - 3:00 PM
- Woodworking For Women, Instructor: Dan McClanahan, Thur, June 11, 5:00 PM - 9:00 PM
- Turning 101: Spindle Turning, Instructor: Mark Trenier, Sun, June 14, 10:30 AM - 3:30 PM
- HAND TOOL SHARPENING, Instructor: Kevin Seigworth, Sat, June 27, 9:30 AM - 1:30 PM

*For further details, call Woodcraft: 262-765-6770. Woodcraft is located at 14115 W. Greenfield Ave., New Berlin*
Slinger, Rhinelander, Portage, Baraboo, Sauk City, Columbus, Watertown, Wausau, Janesville, Duluth, and Monroe breweries in Wisconsin. They also served the Star Brewery in Sioux City, Iowa, West End Brewery in Utica, New York, and Hamm’s Brewery in Baltimore, MD. In addition to the beer kegs, they also manufactured and repaired wine and whiskey barrels. In 1966 the factory closed, signaling the end of the American beer barrel industry.

An interview with Eddie Hess, son of the founder, was published in Breweries of Wisconsin. “We had as many as thirty-five men working for us at one time. We used only white oak for the barrels. The staves were purchased from a sawmill in Arkansas, but we were able to buy white-oak wood around here for the headings (tops and bottoms). The barrels were made from staves that were cured outdoors for a year and a half. If the staves weren’t dried right, they’d crack when we tried to bend them.

In addition to working with the white oak wood, and the steel hoops that were used to hold the barrel staves in place, the Hesses also used cattail leaves in the making of the barrels.

Eddie remembered, “You can’t make a beer barrel without cattails. We put a cattail leaf between every stave. This helps to keep the barrel from leaking. A tavern empties a barrel and rolls it outside where it sits in the sun. It dries out, and it could leak when refilled. When the breweries pick up the barrel, they sprinkle water on it and it expands. All the while, the cattail leaves between the staves make sure the barrel doesn’t leak. Other materials might rot, but not the cattail. We used only the leaves from the female cattails, not from those with the cigars. We got our cattails right here in Madison, from where the Dave County Coliseum is now and from where the new city bus depot is. Those were marshy places where cattails grew. We harvested them in the fall and hung them up. It took a year for them to dry.”

The following is a pictorial essay of the making of beer barrels at Hess Cooperage.

Respectfully submitted by Don Doss

(Continued from page 1)
Wisconsin Woodworkers Guild Board Briefs – May 7, 2015

Attendees: Ron Reuter, Greg Waldo, Jay Pilling, Don Doss, Kevin Seigworth, Andy Wagner, and Ken Ochs

Treasury Balance: $6,558.91

Membership: Paid 2015 membership is at 115 members

Secretary: Fifty (50) members/guests attended the May meeting.

Other: Much discussion was dedicated to revising and updating the Guild’s Constitution and By-Laws. Ken Ochs plans to submit proposed changes for discussion at the next several Board meetings taking on a portion of the Constitution and By-Laws each time. When the Board has completed their review, a proposal will be presented to the membership for comment, additional revision if needed, and approval.

At this month’s meeting the Guild’s structure of officers, directors, and committee positions was discussed.

A reminder that all items for publication in the Ripsaw should be sent to both Leila Crandall-Frink (leila.frink@gmail.com) and Don Doss (FourPartHarmony@att.net).

Respectfully Submitted,
Ken Ochs

WWG at Forest Products Laboratory in Madison, WI

On Wednesday, May 13th, WWG was privileged to be given a personalized guided tour of the Forest Products Laboratory (FPL) in Madison, Wisconsin.

FPL was established in 1910 to find ways to conserve scarce timber resources. Their mission has been to use our Nation’s wood resources wisely and efficiently, while at the same time keeping our forests healthy. Their research has extended from preserving railroad ties through their current venture into nanotechnology.

Our tour began in the library where our guide, Rebecca Wallace, introduced us to Dr. Mike Wiemann. The library is home to over 100,000 wood samples, the largest such collection in the world. The samples, stored in small cabinets similar to the old library card cabinets, are all numbered with data on each recorded on computer. Information includes who collected the sample, when and where it was collected, what they thought it was, and where the leaves, flowers and fruit are found. The data is organized by family, by genus and by species.

There is a second set of these file cabinets. These contain many samples which are mounted on a slide for study under a microscope. A special table-top tool is used to cut very thin slices of wood from a sample.

On display in the library is a replica of the Lindbergh Ladder. The original ladder had been used in the abduction of Charles Augustus Lindbergh, Jr., the 20-month-old son of Colonel and Mrs. Charles Lindbergh, Sr. The ladder turned out to be one of the most important pieces of evidence that led to the conviction of the perpetrator. FPL scientists confirmed that pieces of wood found in the home of the accused, and at the lumberyard where he had been employed, were from the ladder used in the abduction.

Noticing a rapidly increasing number of broken bats, as well as the increased incidence of lawsuits, Major League Baseball presented this problem to Forest Products Laboratory along with every bat that was broken from July to September in 2008. FPL discovered that the main cause of

(Continued on page 7)
Upcoming WWG Programs

**June 4th – Roundtable**

July 2nd – Show and Tell

August 6th – No meeting this month

September 3rd – Jerry Anson; subject TBA

October 3rd - **Friday Meeting** - Jeff Miller, Furniture Design

Also, please submit your thoughts and ideas to Jay for programs you'd like to see, either for one of our meetings or as an extracurricular event.

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**Show and Tell Pictures** May 2015

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**ETC.**

A WWG member moving to Texas has items for sale. List is posted on Woodcraft bulletin board. Wood; deck table saw with a sliding crosscut; dust collector; etc.

Jay Pilling has a Hegner Multimax 18V Scroll Saw for sale. The Hegner Multimax 18V was WOOD magazine's choice as "best overall performer" of all major premium brands, and winner of American Woodworking's "Editor's Choice" Award October of 1996!

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**LAKE COUNTRY CARVERS**

**ANNUAL WOODCARVING**

**Show, Competition & Sale**

Saturday, August 1, 2015

10:00 - 4:00

Featured Carver: Jim Schlarb

Lake Country Life Enrichment Center

1306 W. Wisconsin Ave.

Oconomowoc, WI 53066

For more information, contact:

Ray Burow 920-474-4075
Cutting barrel heads and staves

1910 Fauerbach beer wagon with 37 barrels

Frank Hess, Sr. on Coopers Lathe finishing barrel exterior

All 4 Hess sons with the last white oak barrel made in 1966
broken bats was the inconsistency of wood quality, primarily the manufacturing detail called “slope of grain,” which refers to the straightness of the wood grain along the length of a bat. After implementing changes recommended by FPL, the rate of shattered maple bats has decreased by more than 50%. Although this was a profound improvement, research is continuing.

We next visited the woodshop. Pictures of some of the massive power tools are in the photo section in this newsletter.

Our next stop was at the Nanocellulose Pilot Plant. The general theme of nanotechnology is understanding and engineering matter at the atomic and molecular scales. The Nanocellulose Pilot Plant opened at FPL in August, 2012. This production facility for renewable, forest-based nanomaterials is the first of its kind in the United States and one that positions FPL as the country’s leading producer of nanocellulose materials.

Companies in the automotive, aerospace, electronics, consumer products, and medical device industries see high potential for these innovative materials. These breakthroughs would not be so significant were it not for the authority recently granted by the Federal government to allow the Forest Service to enter into cooperative agreements with private entities. Bio-based products produced through such cooperative agreements can now be sold by private partners for the purpose of determining market value. Prior to this new authority, regulations required that pilot-test materials be destroyed.

One such cooperative agreement enabled Ashland-Hercules to develop soy adhesives and commercialize them for interior plywood, Engineered Wood Flooring (EWF) and particleboard. Over half of the interior plywood market is currently using soy-based adhesives.

Our next stop was at the Engineering Mechanics and Remote Sensing Laboratory. It was here that we saw an overhead crane whose weight was supported entirely of wood. We also witnessed the firing of a huge air-cannon. It HAD to be huge the projectile was a 12’ long 2x4. It weighed about 15 pounds and was being fired at a section of wall being tested for its ability to absorb such a projectile in a tornado. Refer to the photo section to see a picture of the air-cannon as well as some walls that didn’t make it.

We were then privileged to tour the Research Demonstration House and Carriage House. It was here that we witnessed many of FPL’s research results in action. One of the ideas that I found most profound was the basement floor — no concrete! There was also extensive use of interior plywood and Engineered Wood Flooring.

Our profound thanks to Forest Products Laboratory and their gracious staff for allowing us to get a first-hand view of the valuable work they perform. Spanning research from fiber and chemical science to composites, FPL is well-justified in being proud, knowing that their research touches every American’s daily life. Whether it’s putting a self-adhesive, environmentally friendly stamp on an envelope or walking on a hardwood floor, you’re never far from enjoying the benefits made possible by Forest Products Laboratory.

Respectfully submitted by Don Doss

More Show & Tell Pictures — May 2015
Pictures from Forest Products Lab in Madison

FPL Mascot

Dr. Mike Wiemann

Rebecca Wallace with Jay

Samples on slides

Fishe carving in library

This is a full-size picture of an object that is over 400 years old. FPL helped owners treat the object to preserve it.

Big Machines

Big bandsaw

Portable bandsaw

Chop saw
More Pictures from Forest Lab

Denis contemplating his next planer

Air-cannon

End of projectile

Some samples that didn’t make it

Panel from recycled cardboard and cow manure
Uses: hollow-core doors, modular furniture, theater stage sets

Nanocellulose

Cellulose Nanofibril Aerogel
More pictures from the Forest Products Lab from Dave S.