



# From The Shop



The newsletter of the Lehigh Valley Woodworker's Guild

Issue 01.2008

**Next Meeting: January 15th, 2008 (3<sup>rd</sup> Tuesday!)**

**Location:** Lehigh Co. Senior Center  
1633 Elm Street  
Allentown, PA

**Speakers and topics:**

Hank Von Hollen, inventor of the Universal jig – dovetails and more. Described in past newsletters. Hank is bringing a few of these for discounted sale at the meeting. Bring money if interested.

**December meeting Highlights  
Holiday party!**

We had a great party thanks to Judy and Ken Muth doing the work. And a presentation that Judy promised would be entertaining. Frankly, I think everyone was skeptical about a vacuum cleaner presentation, but it was, in fact, very interesting and informative. More about that later in the newsletter.



Judy has the spirit of Christmas in her all year round. She and Ken worked hard not only this night, but all along in preparing for this, buying prizes, wrapping all the prizes, getting the food and prizes to the meeting, and making it all happen. When we think about folks who step up and help to make the guild a success, folks like Judy and Ken exemplify this, as well as those folks who made blocks for our annual community service effort.



Another year and another great Mary Ellen Evans cake.

This is always a fun night. Because Christmas is for everyone, but mostly for the kids. Many of us have kids who are grown and out of the house. For me, this is a rare opportunity to see kids enjoying Christmas and the spirit of Christmas, no matter what religion you may be. I think Mary Ellen's cake expressed the universal theme on her cake - Peace on Earth.

I must first confess that some of the photos were too blurry for publication – it was not my usual camera. I hope I got the names right and hope that I can read my writing. Also, folks were, after all, eating, so I got some great facial expressions. Kind of like a restaurant – they never come over to ask how everything is when you are talking – they wait till you have a mouthful of food to come over and ask how the food is. Usual response is “Mmmeery mood, mank moo..”Here goes on a sample of the folks at the meeting..



Mary Ellen “cake creations” Evans and she brought Tom.



Tom Gilbert with Sharon and Mary. Son Ben is shown later in the Woodcraft Winner's page. Very nice looking family, Tom!

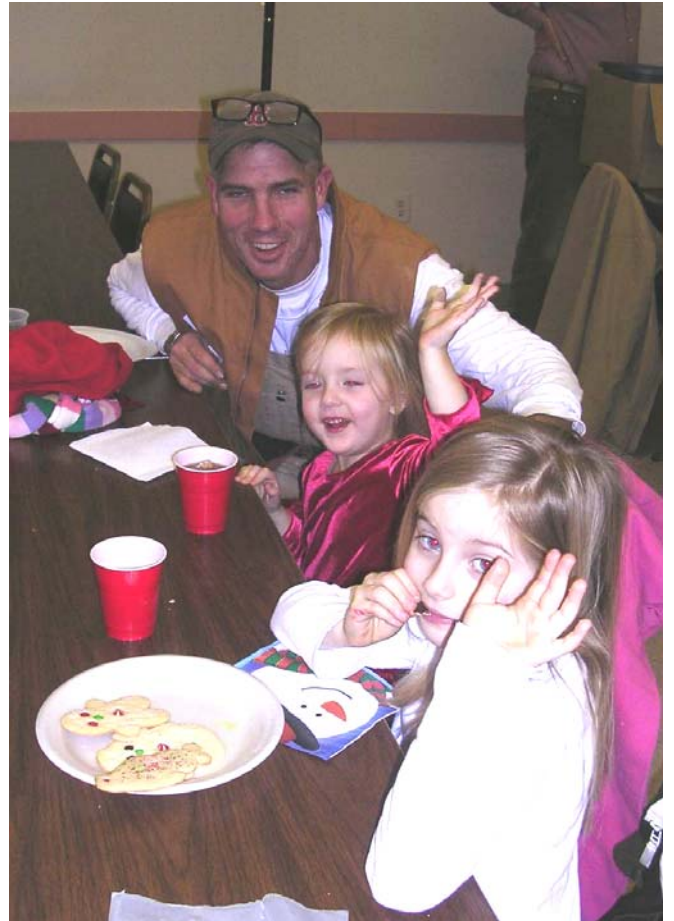
There were prizes for almost everyone. Even I, your unappreciated and often forgotten (except you cannot cause I write this silly newsletter every month) newsletter guy won a very nice and always needed heavy duty extension cord.



Mike and Louise Peters of SHADY LANE TREE FARM..



Yes, we had some food! I took 5 photos of the food table at different times, and it seems that Andy Anderson and Allen Powell were in all of them. I guess they were hungry.



Think this one is Dave Creelman with Edna and Eleanor - they seem to have some fun going on...



Doc and Kathy McGuire - Doc was having a conversation with someone off camera - What's up, Doc?...



Poppy Popovich with Shirley and some young guests Savannah and MaKayln. (hope I spelled that right..)



It's Dave Bivans and Karen pause to allow me a photo/



Lou Supina, Andy Anderson, and Mary Supina enjoy the refreshments. Actually Andy looks like is is posing for a mug shot.



Chris and LeAnn Hittinger enjoy some cake.



Allen Powell and his wife Carol.



Tim "don't call me Tom again.." Enot and Bob Enot, a father and son team, with Tim's wife Pam.



Norm Bachman with Wendy and Hannah.



OK, everyone knows my favorite numbers guy, Bob Lindemuth, here with Gail Anderson, Andy's wife.



Our featured speaker, Bob Kautzman and his wife enjoyed the party too. This meeting ran late and we appreciate the fact that he gave us a very full presentation and even a demo of some of these machines. The machines sort of reflect the industrial revolution in many ways.

### Drag and Brag



Wil Schmidt brought in gifts for the council, a very nice gesture from a very nice and talented person. Thanks, Wil.



Christmas Ornament donated by Bill Grumbine is made from a sea urchin. Very nice, delicate work. Thanks, Bill!

### The VAC HUNTER – Bob Kautzman!

OK, I confess. A VACUUM CLEANER PRESENTATION AT OUR PARTY? ARE YOU NUTS? Well, it was superbly done, entertaining, and very informative. Bob Kautzman is, in fact, likely the supreme authority on a subject that touches all of us and the evolution of the vacuum so closely parallels the process of the American home, it is spooky. I lifted some data from Bob's excellent web site, [www.vachunter.com](http://www.vachunter.com).

#### Bio -

Bob grew up in a suburb of Pittsburgh, Pennsylvania. During that time, his family owned a flooring business. They traveled to clients' homes to clean wall-to-wall carpeting and sold new carpeting in their shop. During

the early 1960's, his father decided to complement the business by selling and servicing vacuum cleaners. As a result, he became a Hoover Dealer. Bob was always intrigued by tools and machines. He spent a lot of time with his father, watching him repair used, misused, and abused vacuums. He would assemble and test new models for some lucky customer who would purchase the latest Hoover for their home. To insure that business would "pick up", he started servicing all makes and models of vacuums. Bob's interest in cleaners grew as he began to see their tremendous diversity in design and features. As time passed, his father showed him how to dismantle, test, repair, and reassemble the machines. So this started out as a father passed on to son interest.

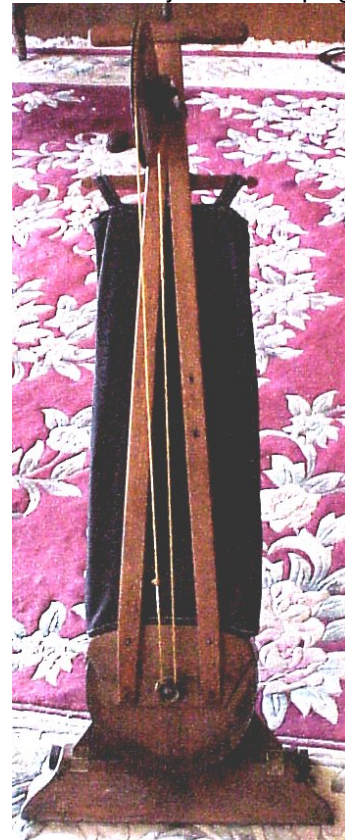


**OK, we have a hybrid pumper style, a plunger style, and an early electric model here, left to right.**

Bob eventually entered college to pursue a career in music. He graduated with a BSME and began to search for a job as an instrumental music teacher. His goal was to teach during the day and run the family business evenings and weekends. But, the early 1970's were a rough time for Pittsburgh. Because the steel mills were closing one after another, along with many other businesses, thousands of people were out of work. Families were moving out of town to find new jobs and teaching opportunities were scarce. I think we, in the Lehigh Valley can relate to that! Not wanting to abandon his college education, he searched farther away from home to find a teaching position. In 1974, he accepted a position in eastern Pennsylvania to build an orchestra program in a beautiful rural community

north of Philadelphia. Starting a music program, almost from scratch, is very demanding and it left very little time to find or fix vacuums. As a result, his cleaners (still in Pittsburgh) were gathering dust rather than picking it up. As more time became available, he would venture out on some expeditions to find vacuum cleaners. There were plenty of flea markets and shops to check out.

Bottom line is that, during an antiquing trip, he discovered some early non electric models and that started a hobby that has resulted in his appearance on A&E Presents and HGTV. He is known as the "foremost historian on early housekeeping technology"!



**The Whirlwind.**

The evolution of carpet cleaning starts with the old rug beaters, those big wire fly swatter looking things. These were usually made by bed spring companies. They actually destroyed carpets while cleaning as they would break down the fibers in the carpet pretty violently. There are cleaner patents that go back as far as 1860, and had a vacuum bellows to collect dust and move it through water which captured the dust. I can tell you this is the same principle as a very pricey vacuum called a Rainbow that is sold today (I now it is pricey cause my wife convinced me to buy one. )

The first vacuum that was sold to any volume was the Whirlwind, circa 1869. There are 4 left in the world and Bob has one, the only one existing in a private collection.



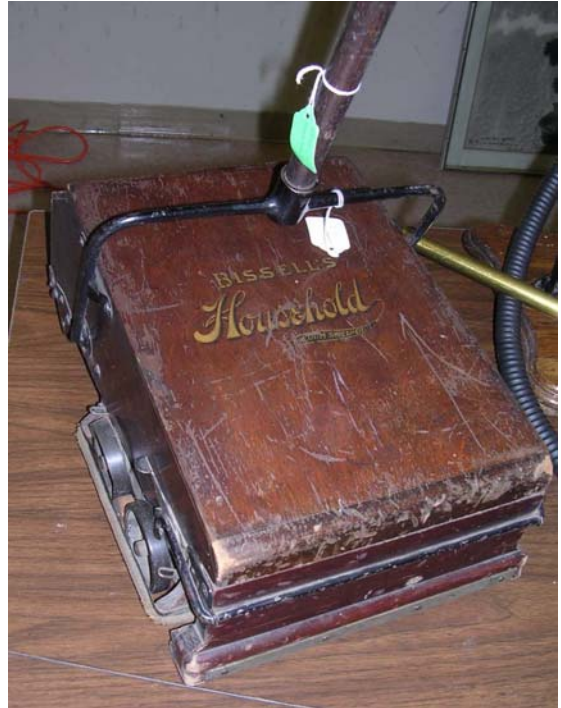
**Yes, this is a vacuum cleaner! I just cannot recall what kind...**

Vac technology did not change a lot and an English gentleman named Cecil Booth came up with a gas powered model in 1901. It was pulled on a large cart and remained outdoors while the hoses went inside for cleaning. He made a lot of money cleaning barracks for the Royal Navy as a lot of sailors were becoming infected with T.B. to the point that it was an epidemic, and the death rate dropped dramatically after Cecil's efforts pulled 26 truckloads of dust and dirt from the barracks (What ever happened to Ship Shape?). Queen Victoria was so impressed she had him present his device at state dinners.

The modern era vacuum cleaner started with a fellow named Murray Spangler. Murray worked as a janitor in Ohio. But, he was allergic to dust and his job aggravated his condition. After reading an article touting Booth's triumph, he decided to build an electric version of Booth's machine. A vacuum cleaner was created from a wooden crate, fan motor, broom handle, and pillow case in 1907. It worked! He began to sell his invention door to door. One of his satisfied customers was the wife of a prominent leather goods maker named William Hoover. When Hoover saw the machine, he instinctively realized its potential for the future. He ultimately bought the patent rights for the vacuum. The Model O, as it was called, set the standard for all upright vacuum cleaners that followed. Thus, the Hoover Vacuum Cleaner Company was born in 1908. Spangler got a very nice job for life. These vacuums cost \$150 in 1908, a whole lot of money back then, like a month's pay. He came up with a \$1 down

and \$1 a week payment plan. In 4 years, production went from 300 to 3,000 to 30,000 to 3 million.

There were all manner of machines made.



**An early Bissell! They have been around forever and started out as a music box company!**

Plunger vacuums are among the most common of the non electric vacuum cleaners. Some people believe this style of cleaner is from the 1800's. In actuality, the plunger vacuum made its appearance after 1900. There may be a few exceptions, but most of them were sold under a patent license that dates from December 26, 1911. They are normally long, slender cylinders that taper at the bottom of the machine with a nozzle connected at the end which contacts the floor. A plunger handle at the top of the cleaner is drawn upward with one hand, while the other hand stabilizes the machine. This action develops suction as air is drawn into the nozzle when the plunger seal moves up through the cleaner's body. If you can visualize a hypodermic needle in action as a nurse draws a blood sample, you will notice that these machines work on the same principle. Dust was sucked into a small diameter tube where it entered the center of the body. After the dust fell to the side of the cleaner's interior, it was trapped in the funnel shaped part of the machine. In addition, a cloth air filter, above the containment area, was incorporated into the design.

Bellows operated vacuums are some of the earliest types. They appeared in several styles and shapes. Some early vacuums utilized a single bellows. This made the cleaner less efficient because there was no suction as the bellows closed. Suction was produced only as air rushed into the bellows as it opened. To make the machines more useful, bellows were installed in pairs and offset to allow one to open while the other

closed. Some machines were mounted on a board and operated by a tiller handle.



**This machine is operated by opening and closing the handles. Bob said it was a forerunner of a breast development machine. Last used by Jayne Mansfield when she was a child.**

The pumper has a handle that one person operates while the other person uses the vacuum. There are machines that use no bag, but exhaust dust to the outside, making you a neighborhood favorite. There are wheel machines that essentially use the wheels to drive both suction devices and brushes. Some machines were made from sheet metal, some were cast iron, and still others were fabricated from wood. You often will see cleaners made from combinations of materials, for example, metal and wood. Most cleaners are mounted on a wooden board or sled runners for stability. They typically have a large handle to provide power. Every machine has a diaphragm chamber to create the suction and a compartment to capture and hold the dirt. A few creative manufacturers incorporated view glasses into the design so the user could see the dust being picked up. Certain cleaners were cleverly designed so their exhausted air was channeled into a blower tube. This innovation turned the vacuum into a mini-compressor. This feature was very handy when the homeowner wanted to clean between the segments of a heating register or the fins of a monitor-top refrigerator. The dirt was blown into the open where the vacuum then could reach it.

In their day, wheel operated vacuums approached the cutting edge of early technology. They exhibited a sophistication that was not present in earlier vacuum designs. This style of machine provided powerful and continuous suction for its user. The increase in vacuum even allowed for larger diameter hoses and

bigger cleaning tools. Typically, one person cranked the wheel while another cleaned with a wand or hand tool. Mechanical advantage was achieved through the use of belts and pulleys. The hand, or power wheel, was set into motion with a cranking handle. The large wheel drove a belt that also went around a much smaller pulley. The small pulley was fixed to a shaft which would spin a fan or pump a set of bellows.

Interestingly, it was Hoover and Henry Ford that figured out how to cast aluminum, a huge advance in making vacuum cleaners affordable and mass producible. Also of interest is that electric companies were thrilled with vacuum cleaners, as they increased the use of electricity and they often promoted vacuum cleaners. Another interesting tid bit – we all think that the first hand held vacuum (like the Dirt Devil) is a recent invention, but they were introduced back in 1915. Also of interest is that one of the original companies to make vacuum devices, Regina, was a music box company.



**Where do you keep 1500 vacuum cleaners? In here!**

Kirby, a big name in vacuum cleaners today, was another pioneer and invented the friction style of cleaner. Friction vacuum cleaners are based on an ingenious concept conceived by James Kirby. They utilize the driving force of the rear wheels to power the cleaner. This style of vacuum derives its power when the operator pushes it across the floor. The wheels contact the floor and turn the axle. This energy is transferred to the fan via a worm gear during every forward motion of the machine. The front wheels are connected to a brush roller to create a sweeping action.

Bob has over 1500 operational vacuum cleaners in his collection dating from 1869 to 1940. For parts he cannot get to keep his machines in working order, he does his own machining.

Bottom line – this presentation did not s.. ah .. cannot say that here. Well, we are talking about vacuums. No, not going to say it. I enjoyed the presentation immensely and, even tough it ran late and thanks, Bob, for hanging in, most members stuck around to



Two early vacuum models. The one in the foreground is known as a “pumper” where one person pumps the large handle and the other one operated the vacuum.

listen to this very interesting history. Bob’s web site, [www.vachunter.com](http://www.vachunter.com), as stated earlier, is excellent. The sad part - it brought me back to a better time. Images of old Victorian homes, spotlessly kept in spite of all the hard work, families, folks who worked hard for what they had – images that are leaving our America. Thanks for a step back in time.

And the Woodcraft winner is...



Looks like Tom Gilbert! His son looks happy too!

### Steering Committee Meeting Notes

- I was not there – no notes.
- **Talking at meetings – we have ONE meeting. If you want to have a side conversation and it happens to need to take place between 7:30 and 9:30 on the 3<sup>rd</sup> Tuesday of the month, take it outside or into the hallway.**

### Wood Specials

#### SHADY LANE TREE FARM

Louise & Mike Peters  
5220 Shimerville Road  
Emmaus, PA  
610 965-5612 Please call

#### FLEETWOOD LUMBER & FLOORING

BILL BURKERT  
27 Rapp Rd.  
Fleetwood, PA  
610 944-8364 Please call  
**Member discount 5%**

#### Bailey Wood Products, Inc.

441 Mountain Rd.  
RD#2 Box 38  
Kempton, PA  
610 756-6827

#### Woodcraft

Pkwy Shopping Ctr.  
1534 Lehigh St.  
Allentown, Pa.,18103

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# *From The Shop*



*The newsletter of the Lehigh Valley Woodworker's Guild*  
**2007- 2008 Meeting Calendar:**

<b>Month</b>	<b>Topic</b>	<b>Speaker</b>
<b>January 2008</b>	A Different kind of jig! The UNIVERSAL JOINTER.	Hank Von Hollen
<b>February 2008</b>	Jesada Cabinet Template routing	Ken / Judy Muth
<b>March</b>	Tentative – furniture construction	
<b>April</b>		
<b>May</b>	Tentative – Dust collection bags and canisters – Vendor	

**NEXT MEETING – Tuesday, January 15th, Starting at 7:30, sharp. Allow time to arrive and be seated before start time.**

**Location: Lehigh Co. Senior Center**

**Topics:**

- **The Universal Jig by Hank Von Hollen – does dovetails and more and will be on sale for the guild at \$75 off if purchased at the meeting.**
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