

QUINEBAUG VALLEY ENGINEERS



The Zagray Quarterly

September 8, 2013

President's Notes

We've had two very successful shows already this year and I hope that our October show will do as well. I'd like to see more members volunteer to help at the show. A task such as collecting parking fees at the gate for an hour or so is an easy job, but can be drudgery if you're stuck there for hours on end. Please come to the show and volunteer a little time. It will be appreciated.

In May, the membership approved adding up to five members to the Board of Directors. There were seven nominees for the five openings as of the August meeting; Jerry Squire, Frank Shaw, Craig Cyr, Karl Hansen, Pete Bucci, Al Bezanson and Mark Sloan. Five new directors will be elected from that list of seven at the October meeting. An absentee ballot is included in this newsletter for those who wish to vote but don't attend the meeting.

We are working on retrieving several donations to the farm. The highest priority has been assigned to getting the two tractors and assorted smaller items from the Gardiner family in Niantic. The tractors are Case Model 1200 and Case Model 1470; both very large, four wheel drive, turbo diesel tractors. The 1200 also has four wheel steering. Other donations on the list to retrieve are:

- A Lane/Chase hybrid saw mill in Broad Brook
- A smaller unnamed saw mill in Lebanon
- The Atlas Imperial diesel engine in Willington
- Some oak saw logs in Colchester

A very useful size International back hoe/bucket loader was donated to the farm by a friend of Billy Williams. It's in the sand pit and needs some TLC.

The "Drying Shed", which we would prefer to call the "Tractor Shed" from now on, has been completed and already has a tenant in the upstairs apartment. If space is available, a picture of the completed shed will be included in this newsletter. If not, get to the farm and check it out. It looks great with its fresh red stain and contrasting white framed windows.

In an August 2nd letter to CHS, we proposed a carriage shed type structure to be built near the saw mill to house the shingle mill, the planer and perhaps the band saw. On August 19th, we had a very good meeting at the farm with CHS Treasurer, Steve Kane and the CHS attorney, Frederick (Fritz) Gahagan. Fritz said he planned to draft a letter for CHS to approve building the shed. We also had a positive discussion regarding our proposed museum building sites. We will meet again this month and I hope to have further meaningful discussion that would include the CF&G no-mow zone boundaries/disputed areas. The no-mow zone boundaries that CHS had previously proposed, as reported in the June newsletter, were deemed unacceptable by the membership in attendance at the June meeting.

FROM THE DESK OF THE TREASURER – Art Chester

Well the terrific weather we had for May did not hold for July. To say it was HOT would be an understatement! Actually, nearly the entire summer was hot. Still, despite the weather, there was a good turnout of vendors and spectators on Saturday and it started early – like 6:00 AM early! The resulting revenues were not at all bad. Thanks to all, vendors, show personnel, and spectators for supporting the show.

If you have an email address, please email Dianne Tewksbury at dtewks@sbcglobal.net to change from snail mail! That will save our printing-sorting-folding-mailing crew some labor, and save your club a **lot** of money, as well as being environmentally 'green'.

For those of you who contribute to the United Way campaign, QVEA is now listed as a charitable organization allowing you to direct your donation to us for the support and expansion of the Zagray Farm Museum. Pfizer Foundation also has a volunteer program that provides QVEA with substantial donations each year, based on the volunteer work of members who work or are retired from Pfizer.

We appreciate all donations in any form or size.

Happening at the Farm

Drying Tractor Shed

Steady progress was made on this structure as weekend time permitted. The hot weather slowed us up some but once that eased a little (or we got used to it!) good progress was made. The doors, stairs, landing, and staining are completed as of Labor Day weekend. It's a first class farm building that all who had a hand in building can be proud of, I know I am. Along with completing it, we have renamed it, as you can see from the title above. Next project!

Hough HA

The little Hough loader is in my shop in Middletown with the engine and transmission removed. The block was sent out for machine shop work, along with the head and crankshaft. All of the parts are cleaned up and ready to reinstall, awaiting the block and crank. Parts for Waukesha engine in this unit are available, but the prices were quite high. Since this machine is not going to be used extensively, we have elected to flat hone the engine and install new rings, rather than boring and replacing the pistons to keep the cost down. The crank needs to be turned also. The block is back in my shop, awaiting parts and time to do it. Outside projects are taking precedent at the moment.

The 1953 GMC Dump truck at my Rocky Hill shop is still waiting for its push rods.

Allis Chalmers HD5 crawler

Our GM271 powered HD5 in in excellent condition save for track brakes and an engine that was very tired. Ken Avery helped us move it up to my workshop where we proceeded to do an 'in-chassis' rebuild on the diesel and replace the brake bands. This project is completed, except for the radiator that needed to make a 3rd trip to the radiator shop. It's done, I just need to pick it up and install it. It runs great!

Zagray Saw Mill

We have substantial piles of both short and long softwood, and a good supply of shorter oak. Longer hardwoods, 12, 14, and 16 footers (if you can lift them) are needed. We sorted and moved all of the wood that had been stored to the right of the mill onto 3 sets of ways behind the mill, hardwood, short softwood, and long softwood. That will make it easier to load the mill and make way for the planned shingle mill / planer building.

Remember that the material cut at the mill may be specific to a particular job or member. So if you need something, check with Dave @860-982-5163 so you don't inadvertently use lumber slated for another project. We will begin cutting specifically for the shingle mill building during the October show.

If you need something specific cut, or can use material out of one of our excess stacks – see one of us to discuss it. I'm sure we can accommodate you.

We have lots of slab wood that needs to be put to use as firewood and some hardwood, as well as sawdust and planer shavings (makes great fire starter!) as byproducts of this demonstration area available. See any of us if you want some.

Woodworking building

We have been looking at the area to the right of the Sawmill as a perfect location of a woodworking building to house our shingle mills, planers, band saw and joiner in an operational and displayable manner. We have proposed to the CHS to build an 18' X 36' carriage shed type structure with double doors that open both front and back to allow long material to be handled thru the planers as well as making it an inviting display area. It is planned with overhead flat belt line shafting to all the equipment powered by a single power plant. Perhaps the Farmall 450 might be just the ticket, or a 4 cylinder diesel stationary power plant housed next to the building. Plans are still somewhat in flux. The initial presentation to the new CHS attorney and the Zagray liaison was very positive, with the attorney indicating he would formally recommend to the CHS that they approve the structure. We will of course need to obtain a permit from the town of Hebron. Construction to begin in the spring of 2014.

Museum Building

There is discussion ongoing for the larger museum building we first proposed in 2006. Fresh discussions are underway that look promising. A meeting on the topic is planned for early September. We'll keep you posted!

Machine Shop Year in Review - by Dave McClary September 2013

The past year has seen the successful completion of a major objective first described one year ago. Our early iron planer, thus named to distinguish it from wood planers, has been refurbished and made to operate for demonstration purposes. This is important for showing not only a planer working but also the state of planer design some one hundred and sixty years ago as used in one of the most important machine shop industries at that time, gun manufacturing. It was decided to add the planer and a small hand bench miller to the existing line shaft and belt drive system in the small room of our machine shop museum. The work involved was outlined as including selection of hardware needed from available items at the farm and the inspection and refurbishment of the planer. Some of this had been started and the planer design was described in some detail, along with some of the problems found. In December, it was announced that the maker of the planer had been determined, a major accomplishment itself as there were no markings on it at all. A sign had been on the machine for about thirty shows asking for information, but only one person new that it had come from a local farm more than twenty years earlier. The fact that it had been made by Robbins and Lawrence in Windsor, VT, now the site of the American Precision Museum, visited by this writer several times, made it all the more rewarding. Their knowledge of early tools developed there seems to be limited to actual machines now on display which does not include this early version of a planer that saw improvement in succeeding years by succeeding companies. A real mystery had been solved.

Progress in refurbishing the planer and selecting counter shaft hardware was described in December with the May 2013 show still the target for operation. The March newsletter contained information about the refurbishment of the planer and selection and installation of hangers for the countershafts. Doubt was expressed about the ability of the automatic reversing mechanism on the planer to work with a slower than normal working speed. Most later planers have a two belt system with two idlers and a single drive pulley instead of the single belt and two drive pulleys with an idler in between used on this planer. The later planers usually have a quick shifting capability that is not practical with this design. But, hand shifting is available as an assist to shifting. In June it was reported that although the planer and miller were operating, neither was functioning as designed. There was an arbor and cutter problem on the miller and the planer would not travel properly due to too much friction. Both problems were subsequently resolved, the planer by re-aligning the drive gear shafts and re-lubricating the ways that the table slides on with way oil, a lubricant designed for that purpose. The July show demonstrated operation of both machines as intended, including the stepper on the planer that automatically moves the cutting tool transversely for each succeeding stroke. And the automatic reversing is working to some degree at the end of the return stroke when the table is moving twice as fast as on the cutting stroke. All told, more successful than expected. Two repairs remain, making a new thread piece for the vertical adjusting screw on the clapper and making a new pinion gear for driving the bull gear. Both are seriously worn but still functioning and both are not standard designs. The thread piece involves a left handed thread similar to an acme thread in a curious shape bolted to the slide. The pinion was originally used as cast and now has teeth worn to a sharp edge. That has a non standard pitch of about 4.8 which would require a special cutting tool to be made, or a new casting made. Gear teeth made in 1850 were not shaped using the involute standard used today and may not have been made to the earlier epicycloidal design. The pinion gear has been pressed off the shaft and measured accurately for manufacture of the replacement. It is interesting to note that the gear bore has a 5 mil taper and there is a

matching taper on the shaft. Pressing this keyed gear on or off the shaft is made easy with this feature. A wooden pattern was made for a replacement casting and a willing foundry was found and is now working on it as this is written.

As to my question about where the armory got the iron and steel, that has been answered by a knowledgeable individual associated with the museum in Windsor, but there is no documentation confirming his information. There was an iron mine and blast furnace in the town of Tyson, about seventeen miles to the west of Windsor. Also, there was a foundry across the street that seems to have been a supplier of castings. The Tyson plant also made castings and sold items such as wood stoves. The railroad came through Windsor about 1851, so there was a means of transportation making an improvement over the horse and wagon that would have been used earlier.

Note from the Secretary

You can sign up to receive the Connecticut Dept. of Agriculture's Connecticut Weekly Agricultural Report by going to their web site: <http://www.ct.gov/doag/cwp> and click on the link for the Ag Report. You can sign up to receive the report via USPS for two years for \$40 or you can sign up to receive it electronically – I'm not sure if they charge for it electronically.

Here are before and after pictures taken from the same angle of the Zagray "Drying Shed" which we would prefer to call the "Tractor Shed" from now on.



ELECTION OF OFFICERS

A vote is held at the general membership meeting in October. An absentee ballot below can be used in lieu of attending the Oct. meeting. Also acceptable is a ballot by email. Telephone calls are not acceptable. Absentee ballots should be mailed to the current Secretary, Dianne Tewksbury, 90 Park Road, Colchester, CT 06415 with a postmark **before** October 15th.

E-mail ballots can be sent to dtewks@sbcglobal.net and need to be received **before** October 15th.

ABSENTEE BALLOT

		<u>YES</u>	<u>NO</u>
PRESIDENT	GEORGE LEHR	<input type="checkbox"/>	<input type="checkbox"/>
V. PRESIDENT	ED BEZANSON	<input type="checkbox"/>	<input type="checkbox"/>
TREASURER	ART CHESTER	<input type="checkbox"/>	<input type="checkbox"/>
SECRETARY	DIANNE TEWKSBURY	<input type="checkbox"/>	<input type="checkbox"/>

BOARD OF DIRECTORS

Vote for up to 5

	<u>YES</u>	<u>NO</u>
Al Bezanson	<input type="checkbox"/>	<input type="checkbox"/>
Pete Bucci	<input type="checkbox"/>	<input type="checkbox"/>
Craig Cyr	<input type="checkbox"/>	<input type="checkbox"/>
Karl Hansen	<input type="checkbox"/>	<input type="checkbox"/>
Frank Shaw	<input type="checkbox"/>	<input type="checkbox"/>
Mark Sloan	<input type="checkbox"/>	<input type="checkbox"/>
Jerry Squire	<input type="checkbox"/>	<input type="checkbox"/>

Dianne Tewksbury
QVEA Editor
90 Park Road
Colchester, CT 06415

APPLICATION FOR MEMBERSHIP

QUINEBAUG VALLEY ENGINEERS ASSOCIATION, INC.

NAME _____

STREET _____

CITY _____

STATE/ZIP _____

PHONE _____

E-MAIL _____

DUES ARE \$20.00/YR PER PERSON. PAYABLE WITH APPLICATION.
INCLUDES QVEA DUES AND INSURANCE.

RETURN TO: QVEA, 180 SOUTH PLUMB RD, MIDDLETOWN, CT 06457

