

# QUINEBAUG VALLEY ENGINEERS



## The Zagray Quarterly

MARCH 2010

### President's Notes

Not much happens at the farm these days. However, that should change real soon. Frost is out of the ground and mud season just about over and members are getting antsy to get started on this year's projects. We will never run out of projects. The saw mill needs to be realigned to the saw and other than that it's ready to go. We have accumulated a sizeable pile of logs over the winter of both soft and hard wood. I guess I was unduly concerned a couple of years ago about not having enough logs to supply the mill. Thanks to all that have donated we are doing just fine. Member Andy Milardo and company will be refurbishing the drying shed this year and most of the lumber will be produced right at the farm. Nice feeling and cost savings.

Show time is coming up real soon May 1<sup>st</sup> and 2<sup>nd</sup>. Hope to see many of the members to help out and to participate. If you haven't been in a while I think you will notice quite a few changes. All to better the show experience. Attendance has been growing so we must be doing something right.

If anyone out there would like to write an article about anything related to the farm or an experience you may have had, you are more than welcome to submit it to Linda Towne our secretary and editor of this news letter at [enwot61@sbcglobal.net](mailto:enwot61@sbcglobal.net) . We are always looking for something new to read.

Hope to see you around the farm.

## FROM THE DESK OF THE TREASURER – Art Chester

If you haven't paid your dues yet, another reminder in the form of an envelope is attached to this newsletter for that purpose. For those of you who receive your newsletter via email, the treasurers mailing address is – QVEA, 180 South Plumb Road, Middletown, CT 06457. The \$20.00 per year membership fee basically covers the insurance on the farm and shows, our newsletter costs and perhaps a little left over for other needs. We thank you for your continued support of the Club and all that we are attempting to accomplish.

Newsletters are now printed quarterly – March, June, September, and December.

Please, **everyone** who can receive their newsletter via e-mail rather than by USPS, make that request to Linda at [enwot61@sbcglobal.net](mailto:enwot61@sbcglobal.net). It 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

The F12 restoration is still in progress, now that we've overcome a couple of obstacles. We had been searching with only partial success for transmission parts when we got a call from Ryan Vertefeulle saying that he had a couple of F12 transmissions out back. One was brought over to my shop and was in excellent condition (read that – no rust inside!). At the same time the engine block was at the machine shop to get the head surface machined. A visual check after tank cleaning revealed two cracks between the cylinders. And that was the best of the three blocks we had! The most economical and best repair approach was to pin it, a process where the crack is drilled and a pin screwed and locked in place. The block is repaired and back now and ready for reassembly. Thanks goes to Ryan and Popeye for their transmission contributions.

Since the F12 project was stalled out a little and I had finished a couple of my own projects, I've been wanting to replace the starter ring gear on the IH350 utility and get the gas tank out for a cleaning. Replacing the ring gear of course requires splitting the tractor, and thus is no quick and easy task on a 2 ½ ton tractor.

Then the '**while it's apart we might as well...**' thinking starts and I decided to remove the head for inspection and valve work. We had noted that the tractor smoked and was difficult to start cold, so I had a feeling as to what I was going to find. The sleeves showed a very heavy ridge and the intake valves deeply grooved and requiring replacement. Definitely time for a sleeve and piston kit, grind the exhaust valves and replace the bearings. There was a compression ring end gap of .200 (.008 to .012, is typical when new). No wonder it was having trouble sucking in a fuel charge with an updraft carburetor! The engine is all cleaned up now, waiting for parts to arrive. It will be a good addition to our IH collection at the Farm, and a strong working tractor.

Next up after that is the Clark forklift. We've moved all of the parts except the chassis to Rocky Hill, and as soon as it gets unfrozen from the mud, we'll move that and get started on it. That is, once I drive the IH350U out.

### **The Zagray Saw Mill**

**Waiting for Spring – coming soon!!!!!!**

We need to install a small retaining wall for the softwood log storage area, trench and install the rain drains on the south side, complete the sawdust removal apparatus, install the cedar rain gutters, and align the carriage to complete this showcase project.

### **ITEMS NEEDED!!!!!!**

There are always a few new items on our 'needed' list. Call Art at 982-5158, or Ned at 537-2252. The help in this area we've received in the past has been terrific! Thanks to all of you!

A 9 foot dump body for our yellow Ford dump truck

A load or two of cow manure for the corn patch

A grain wagon for harvesting the corn

Two track pads for our 1929 Universal Shovel

A pair of 6788 IH front wheel weights (fits A,B,C,H,M,W4,W6)

Steel 11 inch belt pulley for a Farmall H

a leaf blower for the saw mill area

### **PROJECTS**

**A complete refurbishment of the drying shed – see Andy Milardo to volunteer!**

**Carriage shed (near the machine shop) rebuilding.**

Repair and assembly of a bleacher set for the sawmill.

Sawmill framework painting.

Lighting in the machine shop 'working' area

We have a couple F20's in need of refurbishment / repair.

Another bleacher set or two for the Garden Tractor Pulling Pit

Fairbanks Morse engine pad

A cover for the customer area of the food trailer

If you see something that needs doing, speak to one of us about it and your ideas to correct it. **This is your club, we need your input and assistance!**

### **FOR SALE !**

Model 146 John Deere loader from our 2150 tractor (QVEA owned) \$750.00; call Dave @860-982-5163

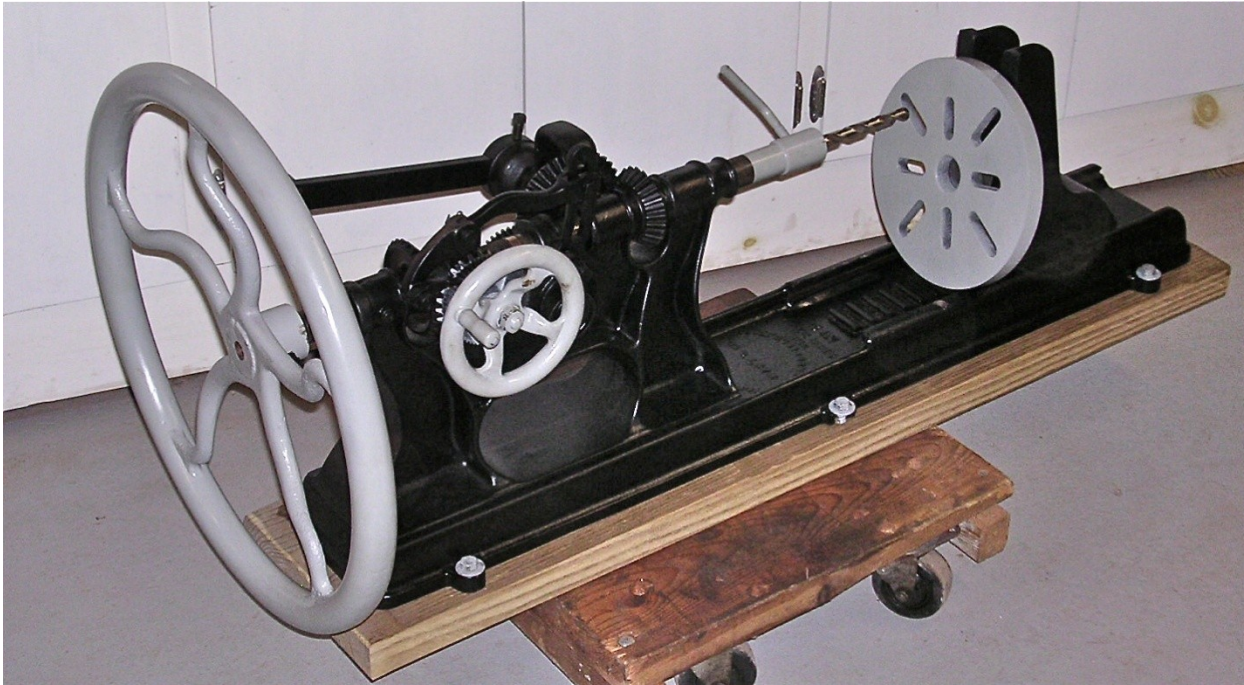
### **WINTER PROJECTS FROM THE MACHINE SHOP**

Dave McClary

Two of the donations received last fall and an earlier donation, all related to blacksmithing, were selected as winter projects for restoration. First was a box vise, or blacksmiths vise or leg vise, one of those that have a leg down to the floor and are attached to a bench top usually. A manufacturer name was found, A. T. & F. Co., but no information could be found about the company or location. Mostly it needed clean up and painting. A leaf type spring was missing that holds the vise jaws open. These are formed with side lips to hold them in place but a piece of flat bar was substituted. A wooden base was made to allow display in the foundry shed. These vises are made of forged iron so as to withstand the pounding that is likely to occur in a blacksmith's shop. A middle sized one with five inch jaw it weighs sixty pounds.

The second donation tackled was a post drill that appeared to be in reasonably good condition. It is a little different than others seen in that it has a large flywheel mounted on top of a one piece spindle instead of on the side and it has a cast iron base instead of being mounted on a board or simply attached to a post. When cleaning the base, it was discovered that it was made by Wiley & Russell Man'f'g Co. of Greenfield, MA and was called a Green River No. 2. The company was established in 1872 and the product line included tools and machinery for farriers, blacksmiths and wheelwrights, including drilling machines, both post and free standing. Pictures of a Green River No. 2 found on a web site shows a nicely restored model made in 1878 that is different in the feed drive details which probably dates the QVEA unit as earlier. The pictured feed mechanism is less complex from a manufacturing standpoint as it uses an eccentric mounted on the spindle rather than a pair of gears, shaft and eccentric off to the side. A replacement for a missing hand crank was made and a replacement for a missing spur gear for the feed mechanism was located in the

Quonset hut tooling inventory and used as a replacement. The spindle support is bolted to the cast iron base while the table support fits in dovetail grooves and is held in position with a pawl and large teeth cast in the base. Pictured below, a table substitute was fashioned using a lathe faceplate.



The large flywheel was the only part badly rusted and that was smoothed up with putty where large pits existed. After painting the reassembled drill was mounted on a board for display purposes and weighed in at 145 pounds.

The third item was another post drill that has been in the foundry shed for a few years. This is a larger drill made by Geo. Burnham Co. of Worcester, MA. An 1895 supply catalogue comments that there were a large number of makers of these drills but they favored four or five manufacturers, one of which was Wiley & Russel and another the Burnham which was the best in their experience. This design has a flywheel mounted on the side and a small feed hand wheel on the top of a two part spindle, a common configuration. A unique feature is an attachment that bolts to the support board, has a shaft with a rubber friction wheel, that presses on the rim of the flywheel, and a grinding wheel with a support for sharpening a drill bit. Unique is the feed drive that uses a link chain between a sprocket on the hand crank shaft and another on the shaft that supports the flywheel. That flywheel shaft is mounted on a separate frame that is free to pivot for the purpose of adjusting the chain tension. The large chuck had two tapped holes for set screws that were both stripped and the drill shank hole was oversized and badly worn. This piece is cast iron and it was bored oversize, sleeved and a new tapped hole for a set screw was made. It was noted that for two sprockets and the flywheel, there had been shallow rounded hand made grooves for set screws to seat in. On the hand crank shaft, this had failed more than once and a large hole had been drilled all the way through the shaft. The set screw was placed at an angle to clear the bevel gear teeth but it had been bent and had to be removed by drilling. The tapped hole was beyond use so a pin was made and wired in place as a substitute. Pictured below, this drill also weighs about 145 pounds.

