

# QUINEBAUG VALLEY ENGINEERS



## The Zagray Quarterly

June 2016

### President's Notes

We had a pretty successful May show despite the rainy weather. Sections of the parking lot and show field turned to mud and ruts, but we were able to manage the parking situation. Nice weather would sure be appreciated for the July show coming up next. The consensus was that our May show was the first one where it rained on both days of the show.

We were also quite successful in taking donations. We received quite a few pieces of vintage farm equipment such as a potato picker, three bottom plow, sickle mowers, cultivator, corn sheller, chicken feed cutter, wooden wheel barrow and assorted smaller items. There were some practical things, like a 15 gallon drum of wheel bearing grease with a pneumatic grease gun, a tire bead breaker and other tools. Great thanks are also due to past president Ned, who donated a new gas air compressor, pressure washer, trash pump and like new 9000TB gas generator. No more needing to make arrangements for someone's generator to support a meeting at the farm.

We're very close to moving the Fairbanks Morse engine to its final resting place in the yet to be constructed Stationary Engine Building. Art, Ed and George will determine the schedule for the move.

See you at the July show.

### FROM THE DESK OF THE TREASURER – Art Chester

2016 dues are still \$20.00 per year. Make your check payable to QVEA, and mail it to 180 South Plumb Road, Middletown, CT 06457. There's no need to fill out a new membership form, but if you have changes to your address, phone number or email, please include the changes. A self-addressed, stamped envelope is also welcome. Any and all donations beyond the dues are tax deductible and very much needed and appreciated!

If you have an email address, please email Dianne Tewksbury at [tewksbdk@outlook.com](mailto:tewksbdk@outlook.com) 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. The 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.

I have called for an internal audit of the treasurers books at the last club meeting. Stan Barnes has offered to fill that role, and I have provided him with the appropriate QuickBooks files and bank statements. Time passes by quickly, as it appears the last audit was in 2010, done by Marc and Peter Bezanson. This audit will cover the period of January 2012 to the present, as that is how long I have been using QuickBooks. Our accountant files our tax return each year, and as part of that process he requires December bank statements. The purpose of that is to compare what is being reported by the organization with what the bank shows in its records. An internal audit focuses and looks for unusual transactions, like large checks written to an individual or company without any plausible back-up. There are no problems, I assure you, with the club's finances. It is simply good practice to have periodic oversight of the Treasurer's books, for all our benefit.

## **Stationary Engine Building**

We have been working on the engine foundations as well as the pits needed to provide services to them without having to resort to overhead piping. The third pour on the Fairbanks was done May 25 or so, and is now ready for the engine to be placed. We have backfilled everything and are getting ready for the floor. It's kind of a shame that all the hard work involved in getting the foundations ready for these large engines will be covered with a concrete floor, with only the tops showing.

George Jarvis has our 50 ton crane checked out and a crew scheduled to make up the cables needed to lift the engine. We expect that by mid-month we will have the Fairbanks in its final home – it has been a long time coming!

We are also talking about a 10 foot wide concrete pad across the front of the building to allow portable engines stored inside on carts to be put on display for shows. We'll pour that pad after the crane moves the engine.

## **Power Project**

Still waiting on Eversource to plant a pole. It seems that they will not do so until the Easements are in place, which is in the hands of the attorney's, but close to completion. I had to send a letter to the CHS acknowledging that the QVEA was responsible for any and all costs associated with the installation of the service. Nothing else stands in the way as far as I know. It has been a frustrating process, to be sure!

## **Atlas Imperial project**

Things are moving along on this project, although with warm weather our time is better spent on the building to house it. The engine has been totally disassembled and all of the small parts are cleaned and ready to build the engine back up. The crank is at the machine shop for polishing, and the cylinders with stuck pistons are there as well. Dan Grinstead from Seattle Washington has donated 6 cylinders and 4 piston, rod and ring assemblies from an engine he had in his shop for 10 odd years. We paid for the shipping, but is a huge savings over the boring and sleeving operation we were contemplating! All the parts we need for a nice running engine are in hand, or in process of being repaired. Karl Hanson has about 20 small machining jobs to do, mostly to remove slop from the governor assembly, provide for oil

seals, or replace worn shafts. Dan Grinstead has all of the fuel injectors, as well as the high pressure pump assemblies for rebuilding. It would not be a stretch to describe him as the most knowledgeable Atlas Imperial mechanic alive today. His help has been invaluable. We can't thank him enough!

Over the summer we'll get all these parts back together and ready for reassembly over the winter. This engine can go into the building with a large forklift, so it can be done after the building is completed.

## **Happening at the Farm!**

The focus has been primarily on the Engine Building, along with power to the site. We purchased the '94 F250 plow truck. It needs a couple of things (a driver's side door), but overall should serve us for several years.

We also bid on a grading plant that the town of Pepperell, MA has, and won the bid. It is capable of screening sand as well as topsoil, two things we are in need of as we build out the Museum. We need to have it moved at the moment on a drop deck or low deck trailer. The service truck has its box and rear step, and final installation of the needed items is underway.

The 4 large (as in 29" MBH) pine trees in Manchester have been dropped, hauled out to a staging area and are ready to be picked up. There are about a dozen logs. My contact with the Land Trust has contacted a contractor working in the area with a large loader to load them up. Hopefully in the next week or two, we will get them out. The site is a bit of a challenge as there are narrow woods roads to reach it, so twisty that I do not believe a gooseneck trailer will negotiate it. We'll need to use bumper pull trailers. I pulled one load out with my new truck and 18 foot trailer, so I know it is doable.

Even though we received a substantial number of logs, we are still on the lookout for more. The old adage of get while the getting is good comes to mind.

16'6" pine, hemlock, poplar, and even spruce logs that are 20 inch diameter or more on the small end will make good rafters. 12'6" logs of similar size will be used for 2X4's and siding. We have received enough for this building, but having extra material in stock would be nice.

## **WANTED!!!**

**A rock crusher to complement our screening plant!!!**

## **MACHINE SHOP PROBLEM SOLVED** by Dave McClary

AT the May show a problem developed with the belt drive system when operating the 1850 Robbins and Lawrence iron planer. First there was a problem with shifting and then the belt from the motor drive jackshaft to the line shaft started to slip. Some tinkering with the stops and shift lever on the planer helped somewhat but then the Henry and Wright drill press wouldn't run. That was caused by the problem with the line shaft drive belt. It was obvious that the belt needed to be tightened and there was discussion about using some belt dressing. However, it could be seen that the three inch pulley was quite well polished. It was decided to move the belt from the 3 inch pulley to the next larger 4 1/2 inch diameter pulley. This would increase the line shaft speed from 43 rpm to about 64 rpm but that would have to be tried on all five machines being run. The concern being that too high a speed might introduce a safety consideration. After the show a small length of belt was inserted into the drive belt at the existing lacing joint. This is never done exactly right because of the difficulty measuring the length needed and it remained too loose on the larger pulley. The

motor mount is made in two parts such that the part mounting the motor can be moved relative to the base using two long threaded bolts and adjusting nuts. The adjustment was made and the motor started. The line shaft immediately started turning without a few pulls by hand on the large pulley as is usually required. With the large step down in speed between the motor and line shaft the motor has plenty of torque to overcome the static friction present in the line shaft bearings. Next each machine was run to observe how it operated at the higher speed. All ran well and no safety concerns were observed. Even the planer now shifted almost entirely by itself. That shifting problem had been recognized when the planer was first considered as a candidate for running off the line shaft because of the slow belt speed compared with what would be used in a factory setting. Most planers and all later planer use two belts and the shift is almost simultaneous, each belt moving from an idler to the single drive pulley. The single belt design has an inherent problem having to shift the belt across the one idler pulley and without enough momentum the planer would tend to stall.

During the show a couple visiting the shop was heard to remark that we had an Armstrong-Blum No. 2 power hacksaw. They offered information that they had the correct size saw blades and would send me some. Also as they heard some of the discussion about the slipping belt, they said that they would send along a piece of the old style solid belt dressing. I recalled having seen such dressing that my father had and knew it was quite effective. A week or two later I received a mailing tube containing a good sized piece of that tar-like belt dressing and thirteen ten tooth per inch saw blades and four four tooth per inch saw blades. A very generous donation indeed. Dave

## **“The Farm I Love”**

It's been quite some time since I have made any contribution to the newsletter so I've decided to make a few observations on the past present and future of the Zagray Farm. I have been closely associated with the farm since we received our lease back in 1999. It is hard to believe that 17 years have passed since we first heard that we would be receiving a 99 Year Lease on the farm. I remember we got the first word about this development while attending the Annual Beiler Auction in New Holland, PA in February 26, 1999. I still have a T-Shirt For Sale sign with the information about the farm scrawled on the back.

Over the next few years we spent a lot of time trying to figure out how to proceed with the massive cleanup that was facing the members of the club. The farm was in a terrible state of disrepair and covered with hundreds of pieces of old machinery, building in conditions from good to falling down and brush covering everything except the main fields. To say this was a daunting task for our volunteers is a major understatement. Needless to say we all went to the farm as much as we could and kept hacking away at the job.

One of the biggest jobs was getting rid of the hundreds of clumps of brush that covered the whole back of the property around the sawmill and the complete north field. As many as possible were pulled out by the roots and piled for burning. I remember one pile that was located right where our present kitchen sits that was nearly 30 feet in diameter and 20 feet high. Once it was set afire we used the TD-14 dozer to push it together and quickly reduced to ashes.

Once we had cleared away most of the brush and had access to the whole property we started the next phase of the cleanup. Except for the main fields we found tractors, trucks, old machinery, piles of used tires, scrap metal, waste oil and gas, and anything else you can imagine covering every nook and cranny. The Zagray's really loved old International Harvester tractors and related farm machinery and for some reason larger GMC trucks. An early inventory listed no less than 45 International Regular, F-20 and later Farmall tractors.

There were also about 30 GMC 1/12 and 2 ton trucks scattered through the property some with 10 inch trees growing up through their frames.

It was decided to hold a big field auction to get rid of what we determined were excess equipment and materials of all kinds. The auction took many months to prepare for since everything to be sold had to be pulled out of the woods and lined up out in the main field. The auction turned out to be very successful and netted the club our first bank account.

Over the next few years of the new century we continued moving forward with the development of the farm museum as Harry had directed us to do. We decided that our first major rebuild job was the Lane Sawmill down in the back. It was in fair condition but the building above it was close to collapse. The original structure was torn down and using most of the original poles a new and improved building was erected. It was built longer and a bit wider to cover the power plant. The mill itself was also cleaned up, rebuilt and a new improved power unit was added for more efficient operation. Since coming back on line we have used the mill to cut all the lumber needed to improve and build new structures on the farm.

Our dedicated work crew have also carried out many other improvements at the farm. Those that come to mind are the blasting and lowering of the entrance road, moving the front wall back 8 feet from the road, new Quonset hut at the machine shop, rebuild of the original machine shop and opening up all our beautiful fields.

This is just a short list of what has been accomplished over the past 17 years but I can say the best is yet to come. The new engine building is now ready for the installation of the Fairbanks Morse 32E Diesel Engine. At 22 tons it will be the largest running engine on site well into the future. Plans are also in the works for many more exciting projects at the farm. Our members are looking forward to the day when the Zagray Farm Museum will be one of the top destinations for those interested in the preservation of this country's Agricultural, Mechanical and Construction heritage. We want to make Harry's Legacy to our club a full reality.

This brief biography only touches on a very small part of what our dedicated volunteers have accomplished over the years. I am making a plea to anyone with some interest to come and join the group and get involved. It can be at any level but we always need help no matter how small it is. This is especially true during our shows. These shows are our lifeblood without which none of our future development can be accomplished. We have a great group at work on a daily basis. It will take thousands of man hours to accomplish all our future goals and we welcome everyone who can give us a hand. Please think about coming out to the Farm and joining the fun. I know you will never regret your choice.

Thanks, Ed Bezanson

### **A Note from the Club Secretary/Editor**

There are no openings on the Board of Directors, however if anyone wants to run for one of the 4 officer positions, you must convey your intent **before** the August 30<sup>th</sup> meeting.

Thank you,  
Dianne Tewksbury

Dianne Tewksbury  
QVEA Secretary & Editor  
90 Park Road  
Colchester, CT 06415

**APPLICATION FOR MEMBERSHIP**

**QUINEBAUG VALLEY ENGINEERS ASSOCIATION, INC. (QVEA)**



NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

STATE/ZIP \_\_\_\_\_

PHONE \_\_\_\_\_

E-MAIL \_\_\_\_\_

Dues are \$20.00 per person for one year, payable with application.  
Dues include liability insurance at the farm.

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