

# QUINEBAUG VALLEY ENGINEERS



## The Zagray Quarterly

December 2014

### President's Notes

We had a successful October show, despite the weather. Unlike most shows, Sunday was the better day, with plenty of vendor spaces taken and lots of visitor's cars parked.

We received a donation of a Farmall 140 tractor with belly mower which should come in handy when we mow the alfalfa field for the May show. We will also be receiving an Isuzu street sweeper via Sean Mason. The sweeper was used at the Buckland Hills Mall until the sweeping operations were farmed out to a private contractor. It's a diesel truck with only 30,000 miles and the sweeper part (which we'll remove) has its own diesel power plant that may be used for other things. The truck may be the basis for our plan to build a maintenance vehicle for the farm to eliminate the need to run back and forth for tools, fluids, parts, etc. when we work on equipment in the field.

Efforts are underway to prepare the farm for the May show, when we will host the Allis Chalmers Club's "Gathering of The Orange". An area in the upper part of the parking lot has been cleared of small trees and large stones and will be graded to add more parking spaces. Brush and overhanging tree limb clearing along the stone wall into the North Field as well as along our roadways will be done as weather and available manpower permits.

I'm hoping that you enjoy the holidays and look forward to seeing you next year at the farm. I believe that 2015 should be a good year for QVEA and the farm.

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

It's that time of year again for me to put out the call for membership dues, due January 1 for 2015. Same as the last few years, dues are \$20.00 per year. Lifetime memberships are \$500. Your dues essentially cover newsletter mailings and insurance costs, with a little left over for other general fund uses. The rest of our projects are funded with proceeds from our shows, sales of excess equipment on the farm, and donations.

There are some substantial projects on the horizon that will need to be funded, one way or another. The stationary engine building (next up on the building project board) will be somewhat costly in that a substantial amount of concrete is needed to support the 4 cylinder Fairbanks-Morse diesel engine as well as costs associated with bringing in a new electric service to provide power to the buildings in show – auction – sawmill area. We estimate conservatively that \$45,000 will be needed to complete this work, due to get underway after the May GOTO show. Any and all help financially or otherwise is appreciated.

If you have an email address, please email Dianne Tewksbury at [qvea@outlook.com](mailto:qvea@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. 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. This year the Pfizer foundation gave us grants totaling \$3000, \$1000 each from the volunteer efforts of three members.

### **Woodworking Building**

We have moved the essential displays into the building and have them approximately placed. The small CAT 318 diesel genset we retrieved from the hospital in New York has had the generator removed in preparation for receiving a PTO setup to power the line shaft. A PTO has been located in Ohio and is on its way to us. We'll place the engine out of site of the demonstration area and provide line shafting to the machines. Dave McClary, being our resident expert in this area has volunteered to help out. We have a fair amount of line shafting in stock, and need to get more from the Willington button factory site when possible.

## **Stationary Engine Building**

Cutting has been more or less suspended for the winter, unless we get a nice day. We still need long lengths of preferably pine, 16 footers and one or two good sized 18 footer (well 17'1" is the required length for 2 more 8" X 8" support posts). Spruce also works well for rafters as it is strong, but it leaks resin making all the tools sticky and difficult to handle. However, we'll take what we can get as we need to cut 60 more 16' 2X12's! Once approved, we will need to build the foundation for the Fairbanks engine and mount the engine before the building can be erected. This is necessary to permit the 80D to lift the 22 ton engine into place. Buried high voltage electrical service is to be brought in from the first pole on our side of Route 85 up near the Johnson property, go to the road near where the band sets up, and continue to a transformer next to the stationary engine building. This central location will allow us to power all buildings in the area including the saw mill and tractor shed. It will be an interesting project, to be sure!

## **Happening at the Farm!**

Since the October show our efforts have been to prep for winter and the spring GOTO show. The play yard replacement fence project is underway. New posts have been installed in a new configuration designed to better utilize the space. The railing material is on-site for installation – probably in the spring. Grading around the woodworking shop is mostly complete, and the slab wood piles are gone, thanks to a couple of people who have outside burners.

## **Case 1200 Restoration Project**

Most of you have no doubt heard about the Case 1200 / 1470 donations from last year. The 1470 is at the farm – engine stuck, tire problems, etc, etc. It's been sold to a collector in New York and due to move soon. The 1200 ran but was in need of some 'cosmetic' repairs as well as the usual – brake work, hydraulic steering work and more. Now this is not a tiny tractor by any stretch. Ed Bezanson decided to tackle the repairs and had the tractor moved to his workshop, rather than the farm. From there the project blossomed into a full blown restoration! It's happened to me as well. It sneaks up on you so you don't notice it. First you remove the hood – then you see an issue. Then you tell yourself - well I might as well fix that while the hood is off. That line repeats itself until the entire tractor is apart and every piece is being repaired, sand blasted, and painted. The end result, however, is very satisfying.

Such is the case with the Case here (pun intended)!

Visit: <http://www.smokstak.com/forum/showthread.php?t=124314&page=4> for an in depth look at the progress to date. You need to register on Smokstak to see the pictures full size. It's going to be awesome!

## **2014 Projects yet to do**

- Remove line shafting from button factory in Willington.
- Prepare grounds for GOTO show May of 2015
- Move and sort tires to tractor shed upstairs. We'd like to eliminate the ugly and not very useful corrugated tubes, so all clean-up in this area will help us progress in that direction.
- Move insulation panels to upstairs of tractor shed.
- Install additional vendor spots around pond
- Pick up the Cat 22 from Hamden
- Pick up the MM forklift

**Just like my project list at home (AKA 'honey-do list'), we have run out of good weather before we ran out of things to do. We'll start back on it in the spring, of course.**

### **Machine Shop News - By Dave McClary**

The restoration work on the Henry & Wright drill press is nearing completion. Both the upper and lower parts of the column and the table have been cleaned and painted and the lower column with the table mounted is on location in the shop. Also, the drive shaft with idler and drive pulleys and the two step pulley along with shaft and bearings have been restored and are now mounted on the lower column. The upper column is waiting for completion of the machining work needed to replace the upper two thirds of the spindle and join the two parts together. A jack shaft has been mounted off ceiling joists in position over the drill press location next to the front door in the small room. An initial effort to create a belt shifting mechanism utilizing the existing post and guide, which is part of the left side drive shaft bearing cap, led to interference with the belt that drives the spindle. This part of the drill was completely missing. A 1905 advertisement picture of this drill shows a part there but it cannot be determined what it actually consisted of. The conventional method of shifting belts using a shifter, or "swifter", will now be used that utilizes a wooden handle suspended on a pivot at the top to move the belt from an idler to a drive pulley. Instead of having the two guides that physically move the belt mounted on a shifter rod part of the hanger system for a counter shaft, the guides will be mounted on the wooden handle and straddle both runs of the belt. The shifter will be convenient to the drill operator alongside the column on the left side. A pulley has been mounted on the line shaft for the belt that will drive the jack shaft. A second belt, the one that will be shifted, runs from the jack shaft down to an idler and drive pulleys on the drive shaft. The third belt then runs from the two step pulley on the drive shaft up over an arbor mounted pulley to the spindle pulley, back over another arbor mounted pulley and back to the drive shaft. It will take some adjusting of the arbor mounted pulleys to get that third belt to stay in place when it is running. But it has been done before and can be done again. Look for a picture in the next news letter.

A unique combination forge/vise/anvil/blower was donated and has now been refurbished and was on display this season. The four functional parts are mounted as a single

unit on an angle iron frame at waist height making a compact work station for small blacksmithing jobs. The patent application drawing is shown below and will help to understand the description that follows. The anvil and vise form a single unit consisting of a frame (4), the anvil (5) and a vise where the anvil end forms the fixed jaw of the vise (6). The frame is mounted on a formed plate (1) that serves as the top of the stand. The forge hearth (3) is cantilevered off one side of this stand near the top. Under the stand top a blower (2) is mounted with the air discharge directed up through the center of the hearth. Made by the Champion Blower and Forge Co. of Lancaster, PA, it has a patent application date of January 12, 1920, and that was approved on May 10, 1921. Overall it was found to have been made very well and has been used relatively little from its appearance.

The cast frame forms the base for mounting both the anvil and vise. The moving jaw of the vise has two parallel one inch diameter rods (9,10) that ride in bored holes of the frame with very little play. An adjusting screw (11) attached to the moving jaw between these two rods threads into a loose "nut" captured by the inside cast shape of the frame. The jaw is captured by a shoulder on the screw and a round hand wheel (13) on the outer end. That hand wheel appears to be quite small for tightening the vise and there was a jury rigged flat bar attached to improve that capability. A replacement was made that has a spinner handle and is more like the missing (18) crank. The anvil rests on top of the frame with a lug (21) extending down into a slot (22) in the frame to provide rigidity to the fixed jaw of the vise. The anvil when lifted slightly can be swung into an up right position as shown in figure 2 of the drawing. The hinge pin or bolt (19) passes through cast holes in the frame and anvil. The purpose of this was found in the patent application and is to provide a backstop or table for a drill as seen in figure 2. The hand crank and a gear drive are missing but would be mounted in a recess in the movable jaw. A full threaded half inch bolt and nut had been used as the hinge pin but had to be driven out. A pin slightly smaller in diameter was made to replace it. The bolt showed flattened thread areas from hammering on the anvil but the new pin allows the anvil to rest firmly on the frame. There is a square hole in the top of the anvil for a hardie although none were a part of the donation.

The hearth (7) is a fifteen by twelve inches by two inches deep casting. A central hole for blower air is covered with a heavy perforated casting. The stand to which it attaches is original. There are two bosses on the end of the hearth with flat surfaces and it was intended to mount on the stand legs with two bolts. But the hearth was too high, causing an interference between the edge of the hearth and the top plate. Because of that, the hearth would not seat firmly and some nut spacers had been used. All joints on the stand have been welded by an amateur, probably to improve rigidity lacking with just small bolts. The welds at the top of the legs where the hearth mounts were ground away and a flat bar across the two bolt holes now allows the hearth to seat as intended. The stand top is a formed heavy plate to which the legs were riveted. The legs are heavy one inch angle iron and a piece of three quarter inch pipe has been welded to pairs of the splayed out leg ends for added stiffness and better support if used on soft ground.

The blower had been oiled well but had to be cleaned to remove accumulated dirt. Cast pipe fittings connect the outlet to the underside of the hearth. No crank handle came with the donation. A replacement was fabricated. Not evident on the drawing is a small gear train that is mounted on the side of the fan housing and that increases the fan speed over the

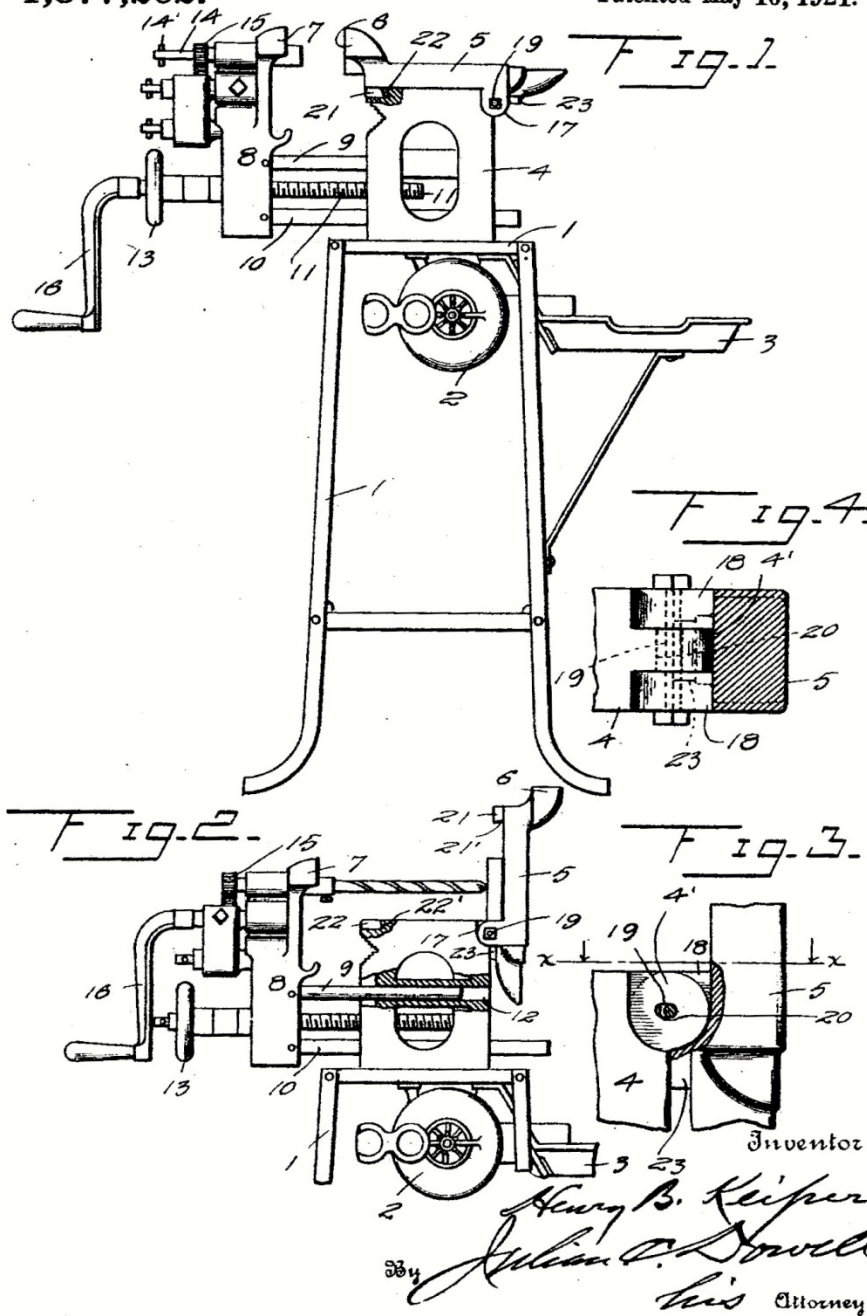
cranking speed. Light surface rusting of the stand in particular as well as some of the cast pieces was wire brushed and sanded as necessary, and treated to better preserve these items. All parts were painted a flat black for appearance.

H. B. KEIPER, DEC'D.  
L. R. KEIPER, N. K. LONG AND G. HAMMOND, EXECUTORS.  
COMBINATION TOOL.

APPLICATION FILED FEB. 28, 1920.

1,377,202.

Patented May 10, 1921.





**IMPORTANT NOTICE:** A motion was made during the Nov. meeting to cancel December's meeting. It was seconded and passed.

**SHOW DATES FOR 2015:** May 2 & 3 / July 18 & 19 / Oct. 3 & 4

**VISIT OUR WEBSITE:** [www.qvea@org](http://www.qvea@org)

---

**Bob Chester sure was happy when the club members got the donated Case 1200 to run for the first time in about 20 years.**



**Here's just a little of what Ed Bezanson wrote in his Forum "Big Case Tractor Donation 1200 and 1470" on the Smokstak web site in the Antique Tractor Talk section.**

"We next moved over to the nearby 1200 to see if we could get it running. Checked everything as we had on the 1470 and the pan had no water or antifreeze in it, the fuel was clean and we had fluid in the radiator. Hooked up the batteries but had no key so decided to cross over the terminals on the starter. While doing this another crew was blowing up the big tires. They jacked up each corner and they all held air but it took forever to get 15 lbs. in each one. At this point we decided to at least turn it over if possible. When I jumped the starter the engine immediately came to life on about the 3rd turn. We shut it down and checked for leaks etc. and then fired it up again. It ran perfectly as if it had been turned off yesterday and not 20 years ago. After a bit of warm up Bob our operator, seen in the pics, put it in gear and off it went."

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**