

QUINEBAUG VALLEY ENGINEERS



The Zagray Quarterly

12 March 2023

FROM THE PRESIDENT, CONNOR BISHOP

While there are many exciting projects at the Farm to look forward to this year, we started off on a sad note. For those who have not heard, our beloved member and 80D operator George Jarvis has passed away at the age of 93. He touched all of our hearts over the years he spent at the Farm, and left lasting impressions on innumerable children who had the fortune to sit on his lap and run the Northwest 80D shovel. We will all miss his famous pies, stories of the past, and endless knowledge of Northwest machines.

This year will be another busy year as always. Check out the forum at ZagrayForum.com to see our running project lists for this year and next. This is a great opportunity for those who want to get involved but don't know where to start. We have projects and tasks of all sizes and skill levels, so find something that interests you and get involved!

As the weather warms up, I will begin moving all of the Kent engine collection into the new Engine Building, build a new skid for the Clark, and working on grading the area behind the two engine buildings to control water runoff. Once the loading dock is moved, the whole area can be topsoiled, seeded, and will be open for future displays.

See you at the Farm!

FROM THE DESK OF THE TREASURER – Art Chester

Dues for 2023 are due, and still \$20.00 per year.

Lifetime memberships are \$500 and help the museum grow!

Donations for the Ray DeZara engine collection for the third of four payments (\$35,125) are welcome. I need to make the payment in late April. Please note on your donation that it is for this purpose.

We are saddened with the passing of George Jarvis (at 93 ½!). A memorial gathering for him is planned at the Museum at a later date. The family has asked that donations in his memory be made to the Zagray Farm Museum. We will all miss George!

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.

Amazon has elected to discontinue their Amazon Smile donation program.
No reason was given.

Saw Mill

The saw mill was busy during the shows providing some additional material for our construction needs. As of now, we pretty much ran out of almost everything in stock. Time to regroup for the next set of projects. I have a list to give to the sawyer for future projects!

NEEDED!! Pine logs 8'6" to 16'6' as always. Our supply of shorter material is rather thin.

Bob Chester Engine Building

The pine siding on the interior has been completed and looks great! Electrical panel is in place and powered up, outlets installed and functioning, and lighting is complete. Milder temps have allowed work to proceed most all winter. Even some outside work on the fascia boards and soffits is underway. Our 'punch list' is being cleared rapidly! We'll be moving engines before you know it.

We still need to complete some final roofing, soffits, staining and odds and ends, as the weather permits. Then it's on to the Clark exhaust piping, a pad for the propane tanks, and an entrance apron on the west side door (that was waiting on the Clark exhaust installation).

These pictures are from the inside of the new Bob Chester Engine Building. All of the inside paneling is done, electricity has been installed and 15 lights are hanging from the ceiling. Cabinets have been installed inside the room designed for a large air compressor.



Wanted!

As we have grown we have noticed that our hand tools are being spread out between buildings, and a good portion of those qualify as antiques! To that end, we need mechanics tools, wrenches, sockets, punches, screw drivers, etc. and a good quality tool chest for the new engine building. Needing to go to the repair shop for a wrench is time consuming and often results in the tool not returning so take a look at what you might have an excess of – we need it!

THE OLD GRIST MILL by PAUL TOWNE

Back in 2017 when QVEA acquired the Zagray Farm there was a stipulation that QVEA would not engage in activity adverse to the remains of the historic grist mill on the Miller Road property. I was curious why this old pile of stones attracted this special attention, so I decided to find out more about the site.

A timeline of the mill indicates that –

- Hosea Foote Sr. established the grist mill sometime in the mid to late 1700's.
- In 1808 Hosea transferred the mill to his two sons, Joseph and Hosea Jr. The two sons expanded the mill by adding a sawmill and a shingle mill.
- In April 1839 Hosea Jr. sold the mill to Henry T. Utley.
- In March 1841 Utley sold the mills to Joseph D. Packwood. Thereafter it was known as Packwoodville Mills.
- Thirty years later, in 1874 Packwood sold the mills to George C. Cotton who subsequently sold them to David B. Strong in April 1879.
- David B. Strong might be the great grandfather of Jim Strong, who is a QVEA member living across the street from the farm. David Strong was the last man to operate the mill. The mill has slowly fallen into disrepair since the close of the 1990s when most mills of this type went out of business.
- What was the mill like – as you read about a generic grist mill look at the photos of the mill remains as they appear today and try to picture what it may have looked like back in the old days. Keep in mind that Amston road (RT 85) had not yet been built when the dam, pond and mill were operational.

Classical American Grist Mills

Although the terms “gristmill” or “corn mill” can refer to any mill that grinds grain, the terms were used historically for a local mill where farmers brought their own grain and received ground meal or flour, minus a percentage called the “miller’s toll”. Early mills were almost always built and supported by farming communities. Most towns and villages had their own mill so that local farmers could easily transport their grain there to be milled. These communities were dependent on their local mill as bread was a staple part of the diet.

Classical mill designs are usually water-powered, though some are powered by the wind or by livestock. In a watermill a sluice gate is opened to allow water to flow onto, or under, a water wheel to make it turn. In most watermills the water wheel was mounted vertically, i.e., edge-on, in the water, but in some cases horizontally (the tub wheel and so-called Norse wheel). Later designs incorporated horizontal steel or cast-iron turbines, and these were sometimes refitted into the old wheel mills.

In most wheel-driven mills, a large gearwheel called the 'pit wheel' is mounted on the same axle as the water wheel and this drives a smaller gearwheel, the 'wallower', on a main driveshaft running vertically from the bottom to the top of the building. This system of gearing ensures that the main shaft turns faster than the water wheel, which typically rotates at around 10 rpm.

The millstones themselves turn at around 120 rpm. They are laid one on top of the other. The bottom stone, called the 'bed', is fixed to the floor, while the top stone, the 'runner', is mounted on a separate spindle, driven by the main shaft. A wheel called the 'stone nut' connects the runner's spindle to the main shaft, and this can be moved out of the way to disconnect the stone and stop it turning, leaving the main shaft turning to drive other machinery. This might include driving a mechanical sieve to refine the flour or turning a wooden drum to wind up a chain used to hoist sacks of grain to the top of the mill house. The distance between the stones can be varied to produce the grade of flour required; moving the stones closer together produces finer flour.

The grain is lifted in sacks onto the 'sack floor' at the top of the mill on the hoist. The sacks are then emptied into bins, where the grain falls through a hopper to the millstones on the 'stone floor' below. The flow of grain is regulated by shaking it in a gently sloping trough (the slipper) from which it falls into a hole in the center of the runner stone. The milled grain (flour) is collected as it emerges through the grooves in the runner stone from the outer rim of the stones and is fed down a chute to be collected in sacks on the ground or 'meal' floor. A similar process is used for grains such as wheat to make flour, and for maize to make corn meal.

In order to prevent vibrations from the millstones shaking the building apart, they were usually placed on a separate timber foundation, not attached to the mill walls, known as a 'husk'. This foundation isolated the building from vibrations coming from the stones and main gearing and allowed the easy re-leveling of the foundation to keep the millstones perfectly horizontal. The lower bed stone was placed in an inset in the husk with the upper runner stone above the level of the husk.



Stanley Zagray and the Grist Mill

We have learned that Stanley Zagray, ever the inventor/tinkerer, utilized the water flowing under route 85 to power a small paddle wheel turbine to spin a generator and light a forty-watt light bulb. We don't know if he used any part of the old Grist Mill for this endeavor, but he must have had it in his thoughts. See the picture.



Sources for the Grist Mills article:

1. Gary Walter, Colchester Historical Society, Collections Committee Chairman.
2. Brian T. Johnston, Route 85 Colchester, Good friend of Zagray family.
3. Wikipedia-Grist Mill Early History.

From Dianne Tewksbury

If anyone has items they would like to donate to the Zagray Farm Museum, we will be selling items during the shows. Proceeds will go to the farm museum. Please bring your items to the front of the tractor barn near the center door.

The 28th Annual Yankee Spring Picnic (known by some as the Mudslinger) is scheduled for April 8 at the Zagray Farm (see the attached Yankee List for details). There's no particular time schedule – 9-10AM to whenever.

2023 SHOW DATES: May 6 – 7 July 15 – 16 Oct. 7 - 8

Vehicles in winter storage in the Tractor Barn need to be removed before our annual picnic on April 8.

Please contact Ned Tewksbury at 860-537-2252

PLEASE NOTE: Due to numerous robocalls, we do not answer the phone if we do not see a recognizable name on our phone screen. If you are looking to reserve a space, please leave a message and we will call you back.

Our club's website:	<u>Zagrayfarmmuseum.org</u>
Zagray Farm Forum:	<u>Zagrayfarm.com</u>

Zagray Engine Maintenance Records

Go to [Docs.google.com](https://docs.google.com) or [Sheets.google.com](https://sheets.google.com) and log in using this email address: zagraymaintenance@gmail.com

Password: Secureless

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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