

Perinton Historical Society HISTORIGRAM

18 Perrin Street
Fairport, NY 14450

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585-223-3989

Inventors from Perinton: Daniel C. Rand and Mortimer Wadhams

Improvement in Drying Grain and Similar Substances. Patent no. 35,469, June 3, 1862

Daniel Rand and Mortimer Wadhams were both engaged in one of the most dangerous occupations in the 19th century. They were black powder manufacturers. Black powder was used for mining operations before the invention of stick dynamite that was easier to use and more stable. Safety in manufacturing black powder was of prime concern. One spark and your entire operation could be blown off the map.

Daniel Curtis Rand was born in Charleston, New Hampshire, in 1820. He went to Wesleyan College in Middletown, Connecticut, and boarded with his sister Lucia. Her husband had a small powder mill which manufactured black powder for the local granite and brownstone quarries. After graduation, Daniel Rand stayed on to help in the mill and to study the safety measures that were put in place there. In the 1850s Daniel visited relatives in Honeoye Falls and decided to form a powder company in the area. At the time there were two powder companies on Allyn's Creek in Brighton. They were A.J. Harlow's Genesee Mill, and the Fairbanks and Connelly Mill. Both companies were known for their less than stellar safety record and multiple explosions over the years. Rand bought equipment from one of these mills and began to look for a location and a partner for his venture.

Daniel found a partner in his wife's cousin, Mortimer Wadhams. Mortimer was a flour miller at Railroad

Mills in the town of Fishers. He was very familiar with the area and helped choose a plot of land close to his mill near Bushnell's Basin known today as Powder Mill Park. The site is in a small valley along Irondequoit Creek surrounded by hills. It was secluded and within easy hauling distance of the Erie Canal where their product could be shipped. The company was known as the Rand and Wadhams Powder Company. They built over a dozen buildings on the site, each to house a separate operation in making the powder. The buildings were linked by a wooden rail system designed to prevent sparks that could cause a fire or explosion. There were barns for the horses that hauled the wagons, woodsheds, charcoal kiln, soda house, grinding mill, corning mill, glazer and packing house, work shop, dip house, storehouse, water wheels, tenant houses all located in the valley and overlooked by the Rand House located on a hill known as Oakridge. Warehouses were built at Bushnell's Basin on the Erie Canal. In these buildings were kept soft maple and willow used for charcoal that had been floated down the canal in 4 foot lengths from the swamps in Mendon, and salt peter and nitrates from Chile. The finished black powder was also shipped from here in wooden barrels sealed on the inside by a coating of tar. Later, iron barrels were used. Most of the early powder was made for quarries near Medina and Holley, N.Y., and the coal mines of Pennsylvania.

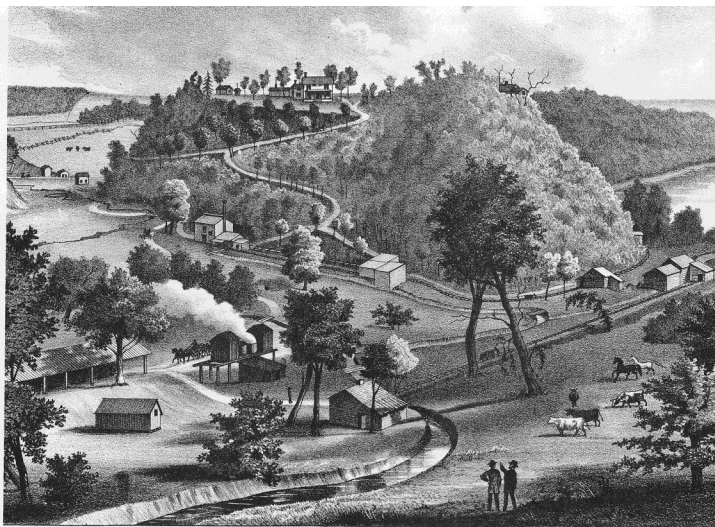
The Rand & Wadhams Powder Company made black powder for mining but not gun powder. The blasting powder made by the company was 40% sodium nitrate, 30% charcoal and 30% sulfur. This formula was preferred because the resulting lower level blast produced fewer fractures in the rock resulting in

✧ Our Mission ✧

"The Mission of the Perinton Historical Society is to promote interest in preserving and sharing local history."

more usable stone. Gunpowder, on the other hand, had a higher nitrate content and was ground to a finer consistency. It is interesting to note that during the Civil War the Union forces captured several wooden kegs of black powder from the Confederates and shipped it to the company to be reconditioned. One of these containers is on display in the Fairport Museum.

There were several steps in the manufacture of blasting powder. First the charcoal has to be made in kilns far away from the other buildings. After the charcoal was made it was placed in wheeled wagons and pushed on wooden rails to the grinding house. There the raw charcoal was placed in tumbling barrels. The mill had two water wheels which operated long metal jack shafts, some almost 100 feet long. On the shaft were multiple wooden wheels which were connected to wheels on the tumbling barrels by leather belts. Several metal balls were added to the raw charcoal in the tumbling barrels. The tumbling motion and balls broke down the charcoal into a fine powder. The next operation involved the mixing of the ingredients. This was a delicate operation because the products had to be combined without blowing up. Sodium nitrate came down the canal in 175 pound bags and kept moist to make it more stable. It was combined with the charcoal, sulfur and graphite in a large tumbling barrel in a slightly moist state (Graphite was used to coat the mixture and make it more stable.). Before the powder could be shipped it had to be dried. Drying in an oven was dangerous and drying the mixture in the sun was impractical given the nature of the weather in western New York. To solve this problem, Rand and Wadhams invented a specially designed tumbling barrel (patent no.35,469.) that would not only mix the powder but dry it as well. A regular tumbling barrel was modified with a hinged door on one side. As the powder turned in the barrel, it kept the door closed when the powder was at the bottom of the barrel but as the barrel turned and the door was on the top side and the powder on the bottom, the door opened and released the moisture from the mixture. A small amount of heat was generated by this turning motion which aided in drying the powder. There was also a safety feature

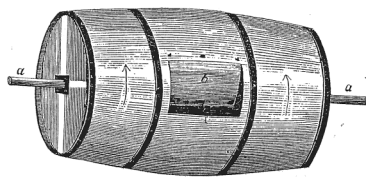


Engraving of Rand's Powder Mill from the History of Monroe County, New York published in 1877.

built in. If the barrel turned too fast, the powder in the barrel would press itself up against the door by centrifugal force thus preventing the door from opening and the contents spilling out or becoming overheated.

In its most productive years, the Rand & Wadhams Powder Mill produced 100 kegs of powder a day. Daniel Rand died in 1883 and his partner Mortimer Wadhams died in 1889. For over 40 years, while the owners were alive, there was never a major explosion. After Daniel's two sons, Samuel and Mortimer, took over the business there were two major explosions. The one in 1899 blew up a building and scattered planks over a wide area. One plank was thrown into the top of a large elm tree and was still in the tree when Monroe County bought the land in the 1930s to make it into a park.

Samuel and Mortimer Rand, who inherited the mill, moved the operation to Uniontown, PA in 1910 in order to be closer to their main customers in the coal mines near there. In 1929 the Rand Powder Company was sold to the Dupont Company.



SPECIFICATIONS
OF AN IMPROVED METHOD OF DRYING GRAIN, GUNPOWDER, AND OTHER SUBSTANCES, INDEPENDENTLY OF FIRE AND THE SUN, WHEREBY DANGER FROM FIRE AND EXPLOSION IS OBTAINED.

Drawing of the grain and powder drying tumbling barrel. Notice the door at the top which released the moisture from the barrel.

If you would like to see the original patent application, go to Google Patents on the internet and search for the patent number given above.

The President's Letter

by Catherine Angevine

In an earlier newsletter I indicated to you that volunteers would be needed on several fronts. Following are specific jobs that have to be filled in order to keep our organization going. Many of us enjoy the annual picnic, we all look forward to the arrival of the Historigram and our presence at Canal Days brings us much needed revenue and provides an opportunity to showcase the Society. Following are the jobs we need to fill. Contact us online via email at: info@perintonhistoricalsociety.org or leave a message on the Museum phone at 223-3989.

Historigram

Desktop Publisher (1)

Person familiar with formatting and organizing a newsletter using desktop publishing software

Editorial Board (2-3)

People needed to layout and prepare the newsletter for the upcoming year (8 to 9 issues); solicit articles; news features; book reviews etc. Experience not necessary; a nose for news helpful

Picnic Committee (3)

People to assist with preparations: shopping, grilling, setting up at the park pavilion, coordinating food donations, cleanup.

Canal Days Booth (3-4)

Volunteers needed to set up and take down tent/table/gift shop goods. Several volunteers needed to man the booth for both days (16 hours)

Events Committee (3-4)

People needed to be ready to man the Museum or prepare for an event on short notice or plan a one time only event.

Cleaning Committee (12 at least)

The Property Committee will sponsor a Clean Up Day at the Museum. All you have to do is show up and be prepared to sweep/dust/swish. More information will be coming soon.

Historic Structures Committee (2-3)

People needed to do on line research for the Barn Project. Not difficult; involves researching old maps; training provided, historical curiosity helpful.

Museum Volunteers (3)

Volunteers to help researchers for two hours a month and sell gift shop items in the museum. We are in need of volunteers for the third and fourth Sun-

day of every month from 2 to 4 in the afternoon and the first Tuesday of the month from 2 p.m. to 4 p.m. Training is provided.

We have brought to a close the 75th anniversary year of the Perinton Historical Society. Wouldn't you like to know what those 10 women were thinking about when they first met in 1935? The country was in the depths of the Great Depression and times were tough. Maybe they wanted something else to think about in those dark days, something that would make them feel good about their community and its residents. Whatever their initial intentions, once they were organized, they promptly set out to document the people of Fairport and Perinton, their history and their times, a formidable feat that we need to recognize this anniversary year. Their voluminous fact gathering about early settlement history, maps, genealogies and oral histories went on over a period of 25 years and provide us with the basis for our collections, a treasured and invaluable window to our past. The Society celebrated our 75th anniversary by publishing a cookbook entitled 'Cooking By The Canal', and it is available now in the Museum gift shop.

Finally, please join us on February 15th for "Historic Landmarks Of The Village Of Fairport" presented by Bill Poray, a PHS Trustee and a member of the Fairport Historic Preservation Commission.

~ Catherine Angevine

Perinton Historical Society Board of Trustees

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February Program to Highlight "Historic Landmarks of the Village Of Fairport"

On February 15 at 7:30 p.m. at the Fairport Museum, 18 Perrin Street, **Bill Poray**, of the Fairport Historic Preservation Commission, will share a presentation on the historic landmarks of the village of Fairport.

The Fairport Historic Preservation Commission (FHPC) is charged with implementation of the Fairport Historic Preservation Law. The Commission seeks to protect, enhance and perpetuate Fairport landmarks and historic districts, in a manner consistent with our changing society, and by so doing promote the economic, cultural, educational and general welfare of the Village of Fairport and its residents.

The Fairport Historic Preservation Law was approved in June 2007. Since that date the Commission has developed a consistent set of procedures for a designation process, to help preserve properties and structures that provide architectural beauty and historic significance to Fairport. The Commission has designated seventeen individual landmarks thus far.

With the use of a digital projector, Bill Poray will show photographs of Fairport's designated landmarks, and also provide details related to the architectural features of each structure. In addition, profiles of the people who made Fairport history related to each landmark will be shared with the audience.

Bill Poray has been a member of Fairport's Historical Preservation Commission since its inception in 2007. He also is a Trustee of the Perinton Historical Society. Mr. Poray's recent projects include the restoration and relocation of a depression-era bronze sculpture to the Fairport Post Office, and the discovery of an 1898 Fairport Village census, which he has digitally reproduced and has transcribed, for use by historians, genealogists, and others interested in local history.

Please join us at the Fairport Museum for this interesting and informative program, and be sure to bring a friend.

New Gift Items in the Museum

If you haven't written those Christmas thank you notes yet, the Fairport Museum Gift Shop has a deal for you. We now have packs of note cards of Fairport scenes from the early 20th century. There are 10 cards per pack with invitation size envelopes which are of scenes and buildings from Fairport's past. The cards are copies of postcards from the early 20th century from our extensive postcard collection. Each pack of 10 is \$8.00 plus tax.

If you are looking for some different recipes to try in this new year look no farther than the Perinton Historical Society Cook Book. Favorite recipes from our members are in the book which is organized by type of recipe whether it be a soup, salad, bread, cake or main dish. The price for the cook book is \$8.00 plus tax.

Finally, over 100 years ago the village of Fairport Celebrated Old Home Week. As part of the celebration the Old Home Week Committee published a souvenir booklet with pictures of prominent businessmen, vintage homes and histories of the community and its people. This 1908 booklet has now been reprinted and available in the gift shop for \$15 plus tax.

Come check out our gift shop and our new products.

Belated Correction

In the November 2010 edition of the Historiogram on page 3, the author should have acknowledged the passing of Bill Hartigan not Bob Hartigan. Bill was a long time member of the Society and worked on the third Tuesday of the month shift at the Fairport Museum. The editor regrets having missed this obvious error before publication.

How the Hamlet of Egypt Got Its Name

By Bill Keeler

This story begins 186 years ago, and a half a world away on the tiny island of Sumbawa in the Indonesian archipelago. On the island is a volcano called Tambora, and for 7 days in April of 1815 there was an eruption that is considered the largest eruption ever witnessed in recorded history.

Tambora is a stratovolcano that has a large chamber that fills with magma over a period of years, and sometimes centuries. When the chamber fills to capacity, these types of volcanoes erupt violently relieving the pressure from under the ground. Tambora had erupted several times before 1815, but never to the extent that it did from April 5 to 11, 1815. In that week, the volcano threw volcanic material 30 miles high, and released an enormous gas cloud of 400 million tons into the atmosphere. Over 71,000 people died from the eruption. The gas released reacted with water vapor, and formed tiny droplets of sulfuric acid that became suspended in the atmosphere. These droplets acted as a mirror bouncing radiation from the sun back into space. For the next year, the winds in the stratosphere spread these particles around the globe, and eventually to the northern hemisphere. By 1816, the particles affected the weather and climate in both North America, and Europe causing the worst famine in the 19th century.

In North America, 1816 is known as the “year without a summer.” The vast veil that shadowed the earth dropped the average temperature from 5 to 10 degrees in July and August. In some areas the temperature could vary from 95 degrees to freezing in one day. There are records that indicate that it snowed in Fairport in July of that year. There was a constant “dry fog”, or haze of particles in the air, which couldn't be burned off by the sun or washed away by the rain. The sunsets were spectacular due to the dust. They were said to glow red or orange near the horizon, and purple or pink above it. The growing season was cut in half, and most of the crops failed in New England and the northeast United States.

Agriculture in the 19th century was mainly subsistence farming. A farmer was usually able to raise just enough food to feed his family, and have enough seed left over to plant his crops the next year. When this failed, the family usually struggled, or moved on to more fertile lands. In the spring, and early summer of 1816, the ground in many places in the northeast did

not get warm enough for seeds to germinate. In this region just about every crop planted failed except those planted by Thomas Ramsdell.

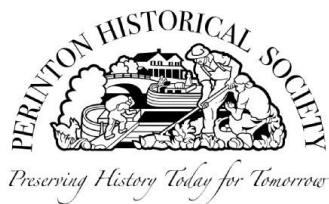
Raising plants is a tricky business. A farmer has to sow his seed when the soil is warm enough to germinate the seed. If the soil is not warm, wet enough or too wet for a sufficient length of time, the seed rots and the farmer has to resow the field. We don't know when in May or June Thomas Ramsdell sowed his corn, but we do know that all the weather and soil conditions were good enough that the seeds germinated, and his corn grew well enough to produce a healthy crop by the end of the growing season. His corn was one of the few crops anywhere in the Genesee Valley Region that survived.

Word spread fast that there was corn to be had at the Ramsdell farm, and farmers from around the area came to purchase grain from Thomas. As the farmers traveled miles in their wagons to load up on corn, these very religious people recalled the Bible verse Genesis 42:1&2 which tells of a similar famine in Canaan, and how Jacob sent his 10 sons to Egypt to procure grain for his family.

The winter of 1817 was very harsh but the next Spring was warmer than the one the previous year and more crops in the area survived. In subsequent years the community grew as business began to flourish with the coming of a stage coach route along what is now route 31. When looking for a name for the settlement the story of 1816 when farmers came from miles around to this place to get corn like they had thousands of years ago in Canaan stuck in peoples minds so they named the hamlet Egypt.

Genesis 42:1-2 from the King James Bible:

“Now when Jacob saw that there was corn in Egypt, Jacob said unto his sons, Why do ye look one upon another. And he said, Behold, I have heard that there is corn in Egypt: get you down thither, and buy for us from thence; that we may live, and not die.”



18 PERRIN STREET & FAIRPORT, NEW YORK 14450

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FAIRPORT HISTORICAL MUSEUM

18 PERRIN STREET, FAIRPORT, NY 14450

REGULAR HOURS

Sunday	2 p.m. - 4 p.m.
Tuesday	2 p.m. - 4 p.m.
Thursday	7 p.m. - 9 p.m.

The Fairport Museum will be **closed** in January & February for maintenance.

Visit our website:
www.perintonhistoricalsociety.org

*Group tours, presentations and special projects by appointment.
Call 223-3989 and leave a message.*