



Pine Mill News

Friends of the Pine Creek Grist Mill Spring 2019 Issue

President's Column By Tom Hanifan

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The next meeting of the Friends of the Pine Creek Grist Mill will be our annual pot luck and business meeting. It will be April 13th at 5PM at the Muscatine County Extension office on the North side of Isett Ave. Come to the side door on the west side of the building.

Hundreds of eager and inquisitive young faces are coming in a few weeks. Let's hope spring actually comes in time. Field trips take many days of staff and volunteer dedication. We thank our donors for making it possible.

Friends of the Mill is experiencing the same fund-raising difficulties as most non-profits that rely on family and business donations. The new tax code is causing lots of confusion for tax preparers and tax professionals. Our interpretation program depends on donors. Gifts keep the mill open to visitors during warm months and allow us to offer field trips to area schools. The Department of Natural Resources is exceedingly supportive. But we receive no interpretation funding from them or any other government source.

The new tax law has a feature that could benefit us. If you have an IRA from which you must take a Required Minimum Distribution each year, you may now have that distribution sent directly to a qualified charity like Friends of the Mill. Check with your tax preparer.

We are looking for history-minded volunteers to tell visitors the log cabin's story on weekend afternoons. We will give you the information that you will need. When we open the cabin we see a constant stream of curious visitors. If you are interested contact Tom Hanifan at 563-554-4819 or tomhanifan@yahoo.com.

Want to learn more about what we do? Interested in volunteering? Come to a meeting. Meet other volunteers and the park staff. We normally meet at 9 AM on the 2nd Saturday of each month. We meet at the Muscatine County Extension Office on Isett Ave. Come to the side door. Check our Facebook page for details or contact Tom at

563-554-4819 or tomhanifan@yahoo.com. We also place notices in local news sources. Our next meeting is the annual family potluck dinner and annual meeting. It's mostly about food and conversation. It is Saturday April 13th at 5 PM. We meet at the County Extension Office on Isett St. Bring your own place setting, drinks and food to share.

A new, and very successful, event was organized by Park staff member Karri Rutenbeck. The First Day Hike on New Year's Day drew many more hikers than expected – 60 to 80.

A new modern rest room was added to the camp ground in the upper area. Park visitors will appreciate this greatly.

The new five star Merrill Hotel in downtown Muscatine, Iowa that opened in 2018 has given Benjamin Nye special recognition. The hotel has named one of its conference rooms after Nye to commemorate his importance to the area. Nye was the first Permanent European settler in what would become Muscatine County.



The Benjamin Nye Room on the 5th floor of the Merrill Hotel

Restoration & Cabin Report

By David Metz

It has occurred to me more than once that I write just about the same thing for the spring issue of the restoration report. This year will be pretty much the same, me and my crew will open up the mill around the second week in April depending on the weather. From there it will be the same machinery problems, cleaning and getting the turbine to turn that we go through every year.

This makes writing the spring column difficult so I am going in a different direction this issue, the problems that still face the mill and our efforts.

One of my concerns is staffing of the restoration crew. The number of us on the crew has dwindled over the years as the amount of work that needed to be done decreased. In a way we are a victim of our own success. We need to recruit at least one or two new restoration workers every year to make up for our losses. I have often joked that I get my volunteers between ages 65 and death. I have found that statement less funny as I have grown older.

The problem is this, it takes a new recruit about two years of work at the mill to learn all of the systems in the mill and techniques it takes to repair and operate them. Doing restoration and maintenance work at the mill takes an odd assortment of skills, most no longer taught. What were once called "handymen" and "shade tree mechanics" are getting rare.



Dick Klauer working on a hand cranked corn sheller.

Last year due to failing health we lost the valuable services of master carpenter Dick Klauer. Dick is still alive and kicking, his infirmities will keep him from returning for the 2019 season. He will be hard to replace, even harder to replace will be his knowledge of the mill. During a bout of back problems there were days when I wondered if I would still be able to work at the mill. Thankfully those problems are behind me.

The issue is that we need at least one or two new volunteers this spring and they need time to learn the mill if the Friends is to keep the mill operating. If you think that you would be interested in keeping Pine Mills alive or if you know someone that you think would be, contact me.

The next issue is having meaningful projects to do. All of the machines that are practical to restore to operating condition, that is the ones the public can see, have been restored. Our restoration mission is just about over. The cabin is for all purposes completed as well.

This leaves us with two foreseeable projects this year, first to complete the wood ceiling beam reinforcement that we started last year. The second project is to build a non-functional outhouse for the log cabin. This along with the usual repairs should keep us busy for most of the summer.

To keep our restoration crew intact, we will need additional future projects, anything you can think of that will improve our visitors experience or the mill I would like to discuss with you.



Clarence Klauer (Dick's brother) is repairing a window that had a mullion broken out of it.

The mill faces a problem this year that is too large for the restoration crew. Many of the windows in the mill need be reglazed and painted. Removing the old putty and replacing it followed by painting is such a slow process that we made little progress with the project last year. This is a job more suited for the DNR central shop than us. I plan to be discussing this with Tom Baston the district supervisor.

I have word that bids have been let for the staining of the exterior of the mill. In places, particularly on the creek side the nails that hold the siding on have begun to loosen. The staining contractor will have to re nail those areas before the stain can be applied.

A job that has been put off for years is cleaning out our storage container. The container sits behind the park office, it is filled with lumber, convertabenchs, mill artifacts and some sure to be useless junk. Sorting out all of it requires a lot of physical labor that we will need help with. That and a cool day as the container has no ventilation.

The convertabenchs are a park bench that converts into a picnic table. The Friends purchased several as kits a few years ago to use for Heritage Day, now no longer needed we need to find a use for them to get some space back in the storage container.

Wildcat Den Park Activities

By David Metz



Karri Rutenbeck, The Natural Resources Technician at Wildcat Den State Park sent photos of two recent events at the park. Above shows the installation of the new restroom located in the upper camp ground. The restroom is a prefabricated concrete module that was delivered by truck and then set in place by a crane.

At left shows hikers at Karri's January first "first day" hike on the park's trails. While it was cold, the trails were free of ice and snow for safe hiking. The hike started at the upper picnic area shelter. During the hike park staff pointed out the park's many unique geological features.

Memories of Muscatine 1891



Back in 1891 the R.A. Homes Company published a slim souvenir book of photo engravings of the noted homes and businesses of Muscatine, Iowa. The accuracy of the some of the illustrations may be questionable. If you look close at the river front scene you can see the old "High Bridge" is shown with railroad tracks and a swing span!

It is time to return to the beginnings of the story of Pine Creek Grist Mill. This month we start with the life of Benjamin Nye.

The story of Pine Creek Grist Mill is a complex one, encompassing Iowa's early settlement, its agriculture, and the history of Industrial technology. While there are many detailed histories of Iowa, its settlement and politics, there are very few histories of Iowa's early business enterprises. Rarely does anyone record the history of a business and the families that owned it. Pine Creek Grist Mill is such a business, one that we look back on from the present-day picking bits and pieces of its story from scant records. Slowly what emerges is the story of Iowa's pioneer times, and of hardworking men with great ambitions.

In the early 1830's what would become the State of Iowa was part of the Wisconsin Territory. Other than the lead mining settlement of Dubuque the U.S. Government had forbidden settlement of this land on the west shore of the Mississippi River in order to prevent conflict with the Indians living there. This all changed in the summer of 1832 when Chief Black Hawk of the Sauk tribe along with members of several other tribes crossed the Mississippi River from Iowa to land they had previously inhabited in northern Illinois.

The return of Black Hawk and his tribe to land now inhabited by white settlers led to a war with the local militias. The fighting occurred in northeastern Illinois and southern Wisconsin. The federal government quickly brought in additional troops who soon defeated Black Hawk and his warriors. With the conclusion of the Blackhawk Indian War, the United States Government acquired from the Indians the land we now know as Eastern Iowa. Seventy-seven settlers, militiamen and U.S. Soldiers and 600 to 700 Indians died in the war. With the signing of the Black Hawk treaty in 1832, the federal government opened this area for settlement by whites.

If you look at the map of Iowa, you will see that the eastern border is formed by the Mississippi River. Where the River curves east towards Illinois and then back west again is the area where our story takes place. The southern side of this bulge is yet known today as the "big bend." This land included the watershed of what would come to be known as Pine Creek (called the Pine River by the early settlers), a tributary of the Mississippi.

From our present-day perspective, it is hard to imagine what early Iowa was like. There were no towns, no roads, only a few Indian trails. Virgin forests along the Mississippi River were filled with ancient hardwood trees. Along most of the river in this area tall bluffs towered above the river, acting almost as a wall to prevent the settler's entrance into this new land. Once the early settler ascended from the river to the prairie above, he saw endless flat grass covered land

with not a tree in sight. Indians still lived in Iowa and roamed the country as they had for millennia. But most of all, the settlers found land; what would soon be known as the richest farmland in America, free to those strong enough to develop it.



Chief Black Hawk

The Nye Family in America

The story of Pine Creek Grist Mill starts with the story of Benjamin Nye. Life had fated him to become the first white settler² in what would become Muscatine County. Ben Nye's ancestors had what would have been called "itchy feet" at one time. Originally from Sweden, they moved to Denmark and from there to England. Fleeing religious and political upheaval there, one of Ben Nye's ancestors, his great grandfather, also named Benjamin (to ease confusion I will label him Ben Nye #1) immigrated to America in 1635. He settled in Sandwich, Massachusetts, and he and his wife Katherine had nine children. He both invested in, built and operated water mills in the community, perhaps inspiring his descendant's interest in milling.

His son Ben #2 married Hannah Backhouse and they had eight children, naturally naming one of them Benjamin (born 2-5-1717) as well. This child, Benjamin Nye #3 married Mary Swift and they in turn had four children, surprisingly not naming one of them Benjamin. Their son Iram born January 28, 1751 married Eleanor Ellis and moved to Montpelier, Vermont. He served in the revolutionary war in 1778. He and Mary had eight children, among them our Benjamin Nye #4 who would build Pine Mills. He was born in Montpelier, Vermont in 1796. Ben's father Iram Nye died when Ben was only six years of age. Fortunately for the young Ben his older brother (also named Iram after their father) saw to his education and welfare. At age twelve Ben began his

commercial education as a clerk in his brother-in-law's store. He also attended a local academy to further his formal education.

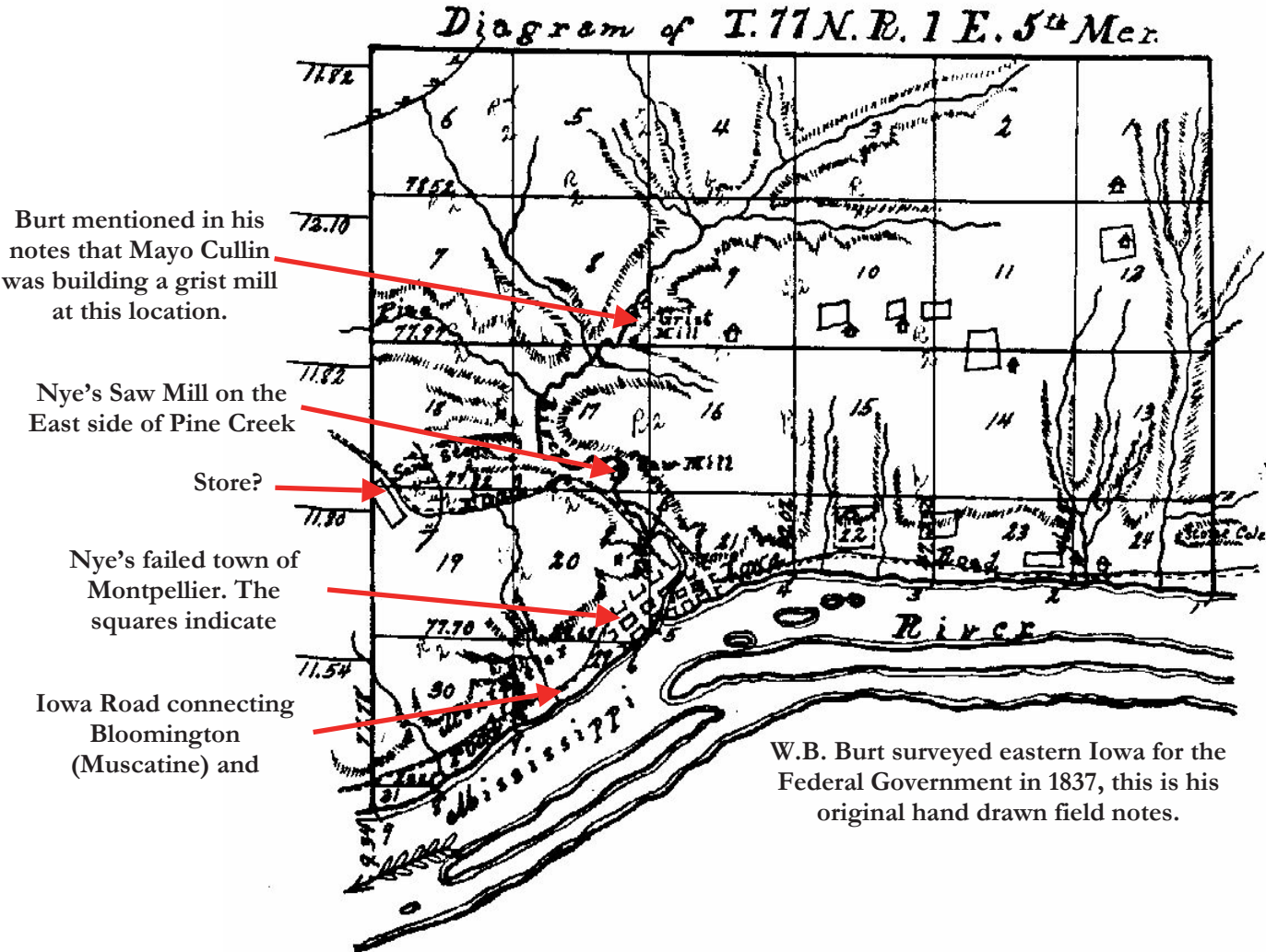
Having both mechanical aptitude and training as a merchant our young Benjamin Nye turned to selling and repairing clocks for some time. And like many young men of his era, he saw opportunity in the "West", the West of his time being Ohio. There, he worked as a schoolteacher for three years. Leaving teaching, he bought land and took up the life of a farmer. Our hero's life was not all hard work, for he found time to court and marry Azubah Webster, a former student of his in 1821. They soon had two daughters, Laura and Harriet.

Perhaps the hard life of a farmer did not appeal to Ben for he eventually took up an offer to go on the road selling clocks in Kentucky for \$75 a month plus all expenses. Adjusted for inflation to 2019 dollars Nye's \$75 in pay equals \$2,190. His family remained on the farm as he traveled about Kentucky selling his clocks. After three years on the road, Ben returned to his farm and tilled the soil until the conclusion of the Black Hawk War in 1832.

Benjamin Nye, Pioneer Iowa Settler

We do not know what transpired in Nye's mind that made him decide to move from his established Ohio home to the wilds of the Wisconsin Territory frontier. Certainly, as an educated man he had read accounts of the Black Hawk War in newspapers. His ancestors had been millers and he a merchant, so perhaps he saw in the opening of the new Iowa lands a way to escape the life of a farmer and to grow his prospects. And just as certainly he knew Iowa would be what the early settlers called a "howling wilderness" when he headed for it in the spring of 1834.

With no roads yet developed, with nothing but a few crude Indian trails in Iowa, no doubt transportation loomed large in his thoughts. Like most settlers, he intended to farm as he had in Ohio. On the frontier his farm would have to supply most of his family's food. Ben also knew there would be a market for supplying the wants of the other settlers flooding into the territory. Therefore, his plans included a trading post or store to serve the other settlers. That meant for his new endeavor in Iowa, he had to have ready access





**Ben Nye's wife Azuba.
Born 1799, died 1879**

to eastern suppliers. For this to be possible, he had to be located very close to the vital Mississippi River. In those days the river was the only sure means of transport and even then, in the winter ice closed it for five months of the year.

Nye first arrived in the area at Clark's Ferry, a pioneer outpost on the Illinois shore of the Mississippi River operated by Ben Clark. Stopping at Clark's house, Nye inquired if there were any sites in the area suitable for a water-powered mill. Clark said yes, he took Nye in a row boat to see Pine Creek on the Iowa

side. Finding the site to his liking Nye established a claim in 1834. He brought along with him his nephew Stephen Nye so both could claim land, thus increasing his holding. Ben Nye claimed land on one side of Pine Creek and his nephew Stephen on the other.

At first, there being no government to speak of in the Wisconsin Territory, a settler merely had to claim the land they wished to own. To obtain legal and lasting title to land in Iowa at this time, a settler had to make "improvements" on the land claimed. Breaking to the plow five acres of ground would be considered sufficient improvement to hold the claim for six months. The construction of a cabin on the property "8 logs high with a roof" gave the settler another six months of legal title. Nye and his nephew quickly built cabins and started on the hard job of making the land they claimed their own.

As there was no government to register the claims, these early settlers formed clubs with one member keeping a book describing the claims of each member. This book became the only legal record of who had a claim (but not legal title) to each piece of land. It was not until 1838 that the federal government finally opened a land office in Muscatine County. When the office opened, a settler could formally register his claim and obtain a lasting legal title for a payment of \$1.25 in gold coinage per acre.

It is recorded in the area's county histories that the settlers came in mass to the land office the morning it opened. They armed themselves with their club's claim books and their firearms, letting it be known loudly that any speculator who tried to jump a settler's claim would pay for his crime with his life. Few in the criminal element had the

courage to challenge the settlers and the recording of their deeds.

To secure their future legal claim to the land along the creek, Nye broke the virgin ground to the plow and put in crops. In 1834 Nye opened a trading post on Pine Creek. Local Indians and settlers traded with him for the "necessaries" of the time: flour, baking powder, gun powder, lead for bullets, sugar, vinegar, molasses, salt, salt pork, cloth and naturally, whiskey. Nye purchased all of his goods from merchants in St. Louis and other points east and had the goods transported to Pine Creek via the steamboats that traveled the Mississippi River. River men of the time considered the mouth of Pine Creek to be the finest natural landing on this stretch of the Mississippi making it the perfect location for Nye to receive his goods. Nye also established a warehouse on the bank of the river where merchandise could be received and farm produce could be stored between calls by the steamboats.

Nye's First Mill

With his land secured and business open, Nye returned to Ohio in the fall of 1834 and brought his wife Azuba and two daughters to Iowa. Being ever on the outlook for business opportunities, in 1835 Nye seeing the need for lumber by the increasing population of settlers in the area, built his first saw mill.



**Ben Nye's daughter Laura Patterson
with her husband Robert and children.**

The history of Nye's early mills is confused with accounts sometimes being contradictory. The family oral tradition of the Kemper family is that Nye first built a sawmill at a location down Pine Creek closer to the river. The sawmill then being on a crude dirt wagon road that ran along the river to the east. Early settlers like Nye were blissfully unaware that the Mississippi River could and often did flood in the spring. When the inevitable flood did come, the river water backed up Pine Creek. The high water interfered with the operation of the mill wheel, preventing the mill from operating. Nye then moved the saw mill (no doubt after a great deal of cussing) to a location on the east side of Pine Creek directly across

Benjamin Nye at Pine Mills Continued

from the location of the present mill. This location is confirmed by Burt's government survey done in 1837.

At the time territorial law required that the State Territorial Legislature authorize the construction of mills and mill dams in the territory. The gears of government must have ground slowly for the bill to authorize Nye's mill dam did not get passed and Governor Robert Lucas did not sign it till January 12, 1839 long after Nye had his mill in operation. This was four years after Nye had built his first saw mill. Such were the needs of the early settlers that few paid much attention to the niceties of the law. Obtaining lumber for homes and farm buildings and grinding grain into foodstuffs were far too important tasks to wait for legal paperwork.

Nye's new mill sawed a considerable amount of lumber. In the 1980's the Iowa Department of Natural Resources dated the trees in Wildcat Den State Park by studying the trees growth rings. The DNR discovered that there are no trees in the park (except for one isolated stand) that are older than the time when Nye had his sawmill in operation. There is a possibility that having exhausted the supply of timber on his property Nye saw increasing his milling business as the best possible use for his water power site on Pine Creek.

The early settlers grew a variety of other crops to feed themselves and their livestock. Both wheat and corn were grown as cash crops to bring in some badly needed money. Indeed, Iowa soon became the breadbasket of American with wheat being the dominate crop, corn being grown mostly to feed livestock.

This would be in the future for in the 1830's a settler's mind was mostly on survival for to eat the grain the settler grew there had to be a mill nearby to grind the grain into something edible. Seeing this need Nye added a set of grist stones to his sawmill.

In March of 1839 Aristarchus Cone, the founder of modern day Conesville Iowa leaves us this account of his trip across the wilds of Iowa prairie to Nye's first gristmill:

"The next morning I took up my line of march. You may well think that there was nothing about here that looked like a mill so I squared off towards the timber a long distance off. I came to the timber and after driving a while came to the saw mill. I inquired for the gristmill; I could see nothing of any. They told me it was under the saw mill so I drove up and looked around and found a little cubbyhole under the mill where they cracked corn.

I had been two days and a half in finding this little corn cracker. They commenced to work on my grist and ground it out against the night. I loaded up my sacks of cracked corn and drive a short distance and

stopped for the night. The next morning I started homeward (the snow had mostly left). I got back that night to where I first stayed the night after leaving home and the next day home."

His "corn cracker" must have been a success for Nye soon improved his grist milling facility. At some point in the 1840's he began to plan a new dedicated grist mill. The old sawmill would be abandoned and torn down to be replaced with a new mill on the west side of Pine Creek. It would be a three story building built of native oak using traditional European timber frame construction.

Nye planned to equip the mill with three runs of millstones powered by a water wheel located in the basement to protect it from winter ice. He began construction in 1847 by hiring men to cut the trees that would be used to construct the mill's framework. A curious thing is even though Nye had a sawmill of his own all of the main beams of the mill were cut and squared off by hand. Today visitors marvel at the hard work it took to shape those beams as they see the tool marks that are clearly visible on the beams



A modern day reenactment of squaring off a hard wood log just as Nye's workers did it.

Construction of the new grist mill began in 1849-50 once all of the components of the timber frame were completed. Timber frame restorers have told me that once all of the parts were on hand it took no more than three days to erect the building and get the floors in. The building consists of four frames that were assembled flat on the ground and then raised into place with a team of horses and blocks and tackle. All of the beams are fastened together by mortis and tendon joints, the joints in turn are secured by having wooden pegs driven through them. The whole mill is held together by what look like broomsticks.

An Early Business Failure

Nye like many other early settlers along the west bank of the Mississippi tried his hand as a land developer. He had claimed land around the mouth of Pine Creek when he settled in Iowa and had decided to start a town on the land in 1836. He had the property laid out with streets and lots for homes and named his prospective community Montpelier (after his own hometown in Vermont). Fortune failed to smile on Montpelier as the territorial legislature made nearby Bloomington (now Muscatine) the county seat. There being no good reason to settle in Nye's Montpelier the town lots failed to sell as Nye hoped they would. He bought back the land he had sold and abandoned plans for his town farming the land instead. The Montpelier, Iowa that exists up river from the mouth of the Pine is a later development not of Nye's doing.

Sadly we do not have a photograph of Ben. During his life time photography was still primitive and difficult (he died in 1852), it would not be till the Civil War when photography became common place. Unfortunately Ben Nye left behind no known dairies or letters. We have only one document that we know for certain that he wrote with his own hand, it is below showing his dealing in farm land. Note that he mentions that one plot above his existing mill on Pine Creek would make an additional good mill site.

Newspaper advertisement from May, 12 1843

Farm and Land for Sale

The subscriber would sell a first rate prairie farm, one of the best of in the county, situated near the head of Pine Creek, five miles from the Mississippi River and about nine north-east of Bloomington, containing 240 acres, 60 under good improvement, with a good rail fence, frame house 18 by 28 feet, story and a half high, with the lower story finished, with stables, threshing floor, out houses and yards convenient for a farm, with a fine grove of timber, about 80 acres adjoining.

Also 200 acres or more, situated on Pine Creek, about one and a half miles from the mouth, at the forks of the creek, well situated for a farm, with a cabin and five or six acres broke, and plenty of timber and prairie, and the best mill site on the creek, where can be had sixteen feet head and fall with a six foot dam and a race about fifty foot long. Also eighty acres lying between James L. Husted and widow Chamberlain, about one and a half miles from the Mississippi river, and about the same distance west of my grist mill, with a cabin on it and four or five acres broke, well situated for a small farm, immediately on a public road leading from Bloomington to my grist mill; all of which will be sold a bargain to anyone wishing to purchase.

Ben J. Nye

Laura Patterson Remembers her father

Written some twenty years after his death Ben Nye's daughter Laura wrote this in her brief biography of her father for the Muscatine Journal:

"Mr. Nye went to St. Louis and bought goods and traded with the Indians. He took furs for goods. He and his nephew cut and put prairie hay enough for ten horses. To claim land they had to cut logs for a cabin and lay up two rounds and plow two furrows around five acres of land.

The first pig and cat, Mr. Nye owned in Iowa he brought of the Indians. He bought venison (deer meat) and geese, ducks and feathers.

Mr. Nye tried to get the Indians to work for him, but they were too lazy to work. They make the squaws do all the work. In the fall Mr. Nye went for goods to St. Louis, he brought a man with him to stay with his nephew Stephen, while he went to Ohio to get his family. He brought is family and hired men and three wagons, six horses and some light goods with him and sent all of his heavy household goods by water and a man with them. And it was the last boat in the fall of November, 1834, when he came.

They all slept in their wagons until he built on the West side of Pine Creek. He built a double house, with four rooms in it, and hired all the men that came along who wanted work and put them to chopping wood on the island. He had cut twelve hundred cords that winter and a number of winters afterwards had cut more. In the spring of 1835, he broke prairie with eight horses—the first rod turned in the county.

He farmed and was building mills both. His first timber was sawed with a cross cut saw. And that was the first lumber sawed in Muscatine county. Mr. Nye's first mill was a saw-mill, and in a few months he put in a pair of burrs to grind corn (Corn meal at that time was a \$1.50 a bushel). In a another year he put in another pair of burrs and to grind wheat and turned it into a flouring mill.

He built a sawmill half a mile down the creek and sawed a great deal of lumber. Mr. B. Nye laid out a town in 1837 and called it Montpelier, thinking he might get the county seat there, but when the county was surveyed it was too close to the county line. Bloomington was laid out the same summer and got the county seat. Mr. Nye then bought back the lots and buildings and made a farm of them."

A Historic Loaf of Bread

By David Metz

I have often wondered what the flour was like that Nye's mill produced and what the resulting bread would have been like. In my research I have found no clear answers. For example if you lived in one of the major east coast cities in the 1840's there were sophisticated mills producing white super fine flour not unlike we have today.

Frontier mills if they had sufficient bolters could in theory also made white flour and I am sure that many did. Others particularly in the first settlements made more what we would call "whole wheat" today. There would have been little cleaning of the raw wheat going into the millstones and perhaps just a single bolting (sifting) if any at all after milling.

We have one account where in his old age the son of a family that settled in southeast Iowa in the 1830's states that he did not know that bread could be white until he reached the age of 18. He went on that the wheat his father took to the mill was so dirty from being threshed on the bare earth that one night at supper his mother complained "father we are eating our farm one loaf of bread at a time!"

I suppose if one wanted a recipe for what those pioneers ate for Iowa bread you could start out as follows. Use two cups of whole wheat flour, two cups of white flour, some salt, lard, starter (wild yeast) and a tablespoon of top soil.

My interest in historic bread became awakened again one night when as I watched a documentary on the ancient Roman city of Pompeii. When the nearby volcano Mount Vesuvius erupted in AD 79 the entire city was buried in 13' to 20' of ash. The Romans abandoned the city and it was not rediscovered until the 1700's.

Bread made up a large part of the Roman diet, bakers were wealthy and well respected part of the community. Roman bakers knew of and used several varieties of wheat and other grains. A good deal of that grain they imported from other regions around the Mediterranean sea. Although



The remains of a Pompeii Bakery. In front is a row of mills, to the left rear is one of the ovens.

the Romans had well engineered water and wind mills the



My modern version of a loaf of Roman Bread. I used a spatula to make the divisions in the loaf.

development and use of machinery did not interest them a great deal since slaves were affordable.

The bakeries of Pompeii were large well organized operations. You would have found in each several hour-glass shaped mills powered either by donkeys or more likely slaves. There were benches where the bread dough was mixed and the loaves shaped and stone ovens.

The Roman bakers could make what we would call today white flour by repeated sifting of the meal and regrinding of the larger particles. They also made cakes and used nuts and fruits in some of their more expensive baked goods.

In one oven in Pompeii modern archeologists found eighty loaves that had been burned to carbon by the heat of the falling volcanic ash. Methodical scientific analysis of the loaves showed that they were made from a recipe that is easy to reproduce today. What is interesting is that the loaves were all of a standard shape and size. The bakers did not use pans for shaping the loaf as metal pans were too expensive to use for common bread. Instead as the loaf began to rise they tied a cord around the loaf to force it to rise upward and retain the desired round shape. The bakers also used a wooden tool to indent the loaf before it began to rise dividing it into eight segments. Why this was done is not known.

Following instructions I found on-line I baked a loaf of Roman bread. The recipe is simple, three cups of whole wheat flour, 1 teaspoon salt, one tablespoon lard, 1 teaspoon yeast and 1 cup of warm water. Not wanting to attempt restraining the loaf with a cord I let it rise in an 8" cake pan. I baked it for 27 minutes at 375 degrees F.

I found the resulting loaf to be quite edible, chewy and it had loads of fiber. You would want to eat it with a lot of olive oil as the Romans did. Note that the Romans used the stale loaves as an ingredient in soups and stews as a thickener. Also that what we buy as "whole wheat bread" in stores is made from a recipe that contains a lot of white flour. Not being as tough as those old Romans today's consumer likes a softer loaf of bread.

From the American Miller Magazine 1907

In the July 1, Issue we learn of a deadly boiler explosion, milling in that day was not the safest of professions!

Boiler Explosion Wrecks Mill

The Wilsonville Roller Mills of Wilsonville, Nebraska were completely wrecked by the explosion of the boiler on the morning of June 8. One man, Louis Foley, the fireman, was instantly killed, and two other men, including Manager and Head Miller F. P. Armstrong, slightly injured.

The cause of the explosion is unknown. It occurred about 9 o'clock a. m., and at the time the gauge registered 70 pounds' pressure and the water glass showed the boiler to be half full of water. Mr. Armstrong states positively the boiler was filled half full the previous evening. The engines were not working at the time of the accident, although preparations were being made to start up, water having been turned on to the water wheel in order to start the machinery before giving the engine power. Experts, self-appointed though experienced in steam practice, think that a clogged or defective pipe in steam gauge was responsible for the explosion.

An eye-witness states that the mill was lifted into the air as though by an explosion of dynamite, and that the men in the plant were thrown into the air. Louis Foley, who was killed, was in the engine room when the explosion occurred. He was twenty-two

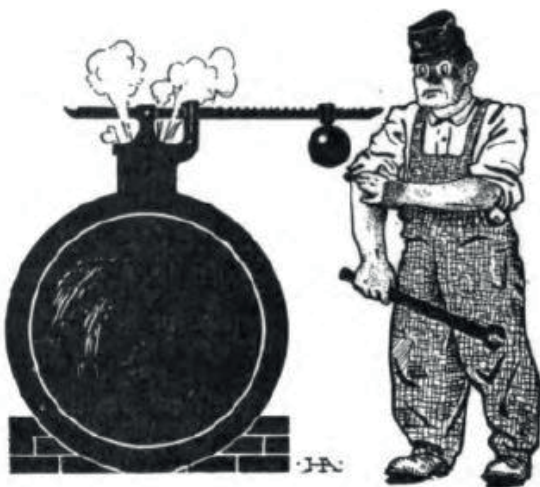


WILSONVILLE, NEB., ROLLER MILLS, AFTER THE BOILER EXPLODED.

years of age and had been employed as fireman for only a week. Mr. Armstrong was caught in the wreckage, but escaped serious injury and was able to get from under the debris. In the accompanying picture, taken immediately after the explosion, Mr. Armstrong stands just over where he found himself after the accident.

The mills were owned by Zulauf & Son of Stamford, Neb., and the machinery had just been recently been overhauled.

A 1907 Reminder that the New Electric Motor is Safer than Steam



A miller once on steam relied—
But soon the story ceases—
The "safety" stuck, the miller tried
To "ease it up" but it replied,
And spread him o'er the country side
In several hundred pieces.
If he had put a motor in
He had not quite so scattered been.—

Chicago Electric Motor Co.

The generosity of donors makes it possible for us to host visitors and provide our school program. Since the last newsletter several donors have contributed. The donations listed below had been received at the time this newsletter was printed. In addition to those listed below, many people have donated important smaller amounts.

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Learn more about Pine Creek Grist Mill at our web page

Learn more about other Muscatine area attractions



Pine Creek Grist Mill is on the web and FaceBook! Get downloads of our publications and see photos of the latest happenings. See us at:

www.pinecreekgristmill.com

Do you have something for the newsletter? To keep your newsletter interesting we need your ideas, photos and editorial submissions.

Contact editor Dave Metz with your ideas, comments or questions about the newsletter:
davemetz@machlink.com or
563-263-4222

One look at these kids faces tells you what a wonderful place to visit Pine Mills is. To keep the mill open to the public we need your help. We need your donations to help pay for our summer interpretive staff. We need volunteers to do a variety of fun jobs. Like working with kids, like history, contact us!



Donation Form Your donations keep Pine Mill open to the public

Name _____

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Zip _____ Dates you wish to sponsor _____

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Make your check payable to:
Friends of the Pine Creek Grist Mill

Mail it to:
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C/O Mr. Tom Hanifan
Box 1205
Muscatine, Iowa 52761

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The Friends of the Pine Creek Grist Mill

Pine Creek Grist Mill is located in Wildcat Den State Park in Muscatine County one mile north of highway 22 between Muscatine and Davenport, Iowa.

The mission of the Friends of the Pine Creek Grist Mill is to restore, operate and maintain the Mill and to share the historical significance of the site through educational programs, public tours and events.

The Friends of the Pine Creek Grist Mill Membership

2019 Membership

Membership is only \$25.00 per year. Your membership includes
One year membership in the Friends
The Pine Creek Grist Mill Newsletter
An opportunity to learn about and participate in a local historic treasure

Name _____

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Send this application and your check to: F.O.M. C/O Mr. Tom Hanifan
Box 1205
Muscatine, Iowa 52761