



# The Many Marvelous Machines at Thompson's Mills

and our debt to Oliver Evans

by Donald Lyon

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When you first enter Thompson's Mills, you enter a fascinating world of belts, pulleys, augers and gears--all of which were used to perform the many different tasks involved in converting wheat and other grains, to flour. These mechanical devices are all on display with signboards to explain their function. Docents will demonstrate and explain that, when the mill was first built in 1858, all of these ingenious contraptions were connected by belts and gears to the turbines that turned faster and faster as the water from the millrace rushed past. Being inside Thompson's Mills when it was in full operation was like being inside of a giant machine--and it was just as loud.

Workers at the mill earned their pay with sweat and sore muscles, but they still owed a huge debt to Oliver Evans, who lived in Delaware from 1755 to 1819. Before Evans, water or wind turned the millstone to grind the grain, but that was all they did. Those sacks of grain had to be carried to the top of the mill before the grain could be poured into the turning millstone. After milling, when the flour was hot and moist, it was dumped on the floor to be raked and sifted by hand. Then it had to be scooped up with shovels and put into sacks. All of these tasks were performed by hand--and it took many hands to operate the mill.

Oliver Evans, the most important inventor that you never heard of, can be considered the father of the American Industrial Revolution. He invented or adapted devices such as a series of buckets attached to a belt to move grain up three or four stories to silos. Using principles adapted from the ancient Romans, he developed the auger, like a big screw, that moved grain horizontally around the mill. He used conveyor belts to move materials to where they were needed. The belts ran off of the water wheel or turbines that powered all of these devices.

Evans's great contribution was not so much in the individual devices he constructed but in the overall vision for creating a continuous process of manufacturing that required little human labor. His mechanized mill was scorned in 1785 as a "rattletrap," but before long both George Washington and Thomas Jefferson had adapted their mills to Evan's design. Eventually almost every commercial gristmill in the world made use of the inventions and devices advocated by the American miller and inventor, Oliver Evans. A gristmill with Evan's devices installed required only two workers--one to dump the sacks of grain into the hopper on the third floor and one to seal up the barrels of flour at the end of the process.

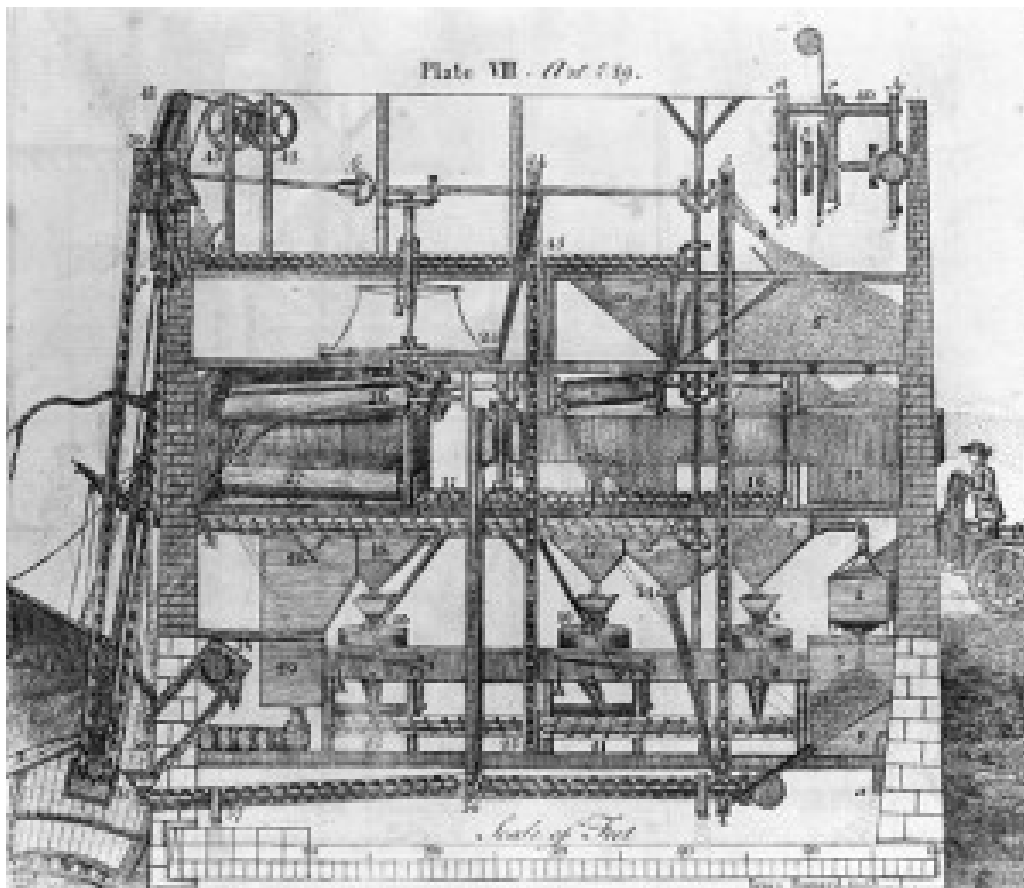


Illustration for the Evan's Mill from his 1795 book, *The Young Millwright and Miller's Guide*

When you next visit Thompson's Mill, be sure to stop at the display of gears, pulleys, belts, and augers. Then as you explore the Mill, see if you can figure out where they went and what they did. How would you improve upon the marvelous machines created by Oliver Evans and make Thompson's Mills operate again?

# Thompson's Mills - Through the Eyes of a Child

by Jim Ballard  
TMPS President

Observing young students visiting Thompson's Mill State Heritage Site reminds me that children see the Mill and its surroundings with fresh eyes. From the moment they arrive until they depart, these young visitors see and experience different aspects of the park. Some have reported that before their visit, their expectations were low, not knowing what they would find at the Mill. After being here, though, many have attested to what a rewarding experience it was. They declare that they would love to come again, and many do return with family members to share in the delight offered by the Mill.

While at the Mill, what did these young people see and experience?

- 1- The power of water, ducks swimming in the Mill Pond, and some of the effects of flooding at the Mill property,
- 2- Making flour as the early pioneers did, and feeling first a grain of wheat and then the softness of the powdery flour after grinding,
- 3- Watching powerful machines in action and actually having a hands-on experience with some of that machinery; the sights and sounds of many moving parts of machinery that still works,
- 4- Seeing and touching the millstones that had been used to make flour,
- 5- Learning about (and appreciating) in some cases how hard people worked, first, to build the Mill and then to produce the goods here,
- 6- Feeding the chickens, perhaps glimpsing Bucky the cat, and, if the timing is right, viewing the swallows building their nests high up on the Mill.

Every visitor to the Mill may look at the same points of interest, but each one will probably see these things differently. An adult who accompanied a school group summed it up well by noting the interest and joy in the eyes of the students on tour. Those young visitors had seen a great deal.

Have you toured the Mill recently? Have you recommended the Mill tour to a friend or relative? You might be surprised at how much you and others will "see" while here.

## **Silo Restoration Project**

Progress on refurbishing the silos continues. We look forward to the day when the brightness of the silos is fully restored.

Many thanks to the donors who have helped us to raise dollars to fund the new paint job.  
We will acknowledge your gifts in our next newsletter.

# Some Events of the 40's and 50's

at Thompson's Flouring Mills

recalled by Larry Thompson

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I was a member of the fourth generation of the Thompson family. Great-grandfather Martin, grandfather Otto, and my father Myrle laid the foundation for the family. I remember one day in 1952 when Grandpa asked me if I knew how to drive the (four-speed) Chevy pick-up truck. Of course as an excited young lad, I told him I could (steer), so he wanted me to go to the dump pit to dump a bag of tin cans behind the old barn. After several major jerky runs and even trying to start the truck, I learned that the clutch was a very important part of the process. Self-training can have its consequences. I quickly decided that if I took just a few cans per trip I could make more trips and thus gain more driving experience. Worked for me!



My first job for hire at the mill was the lawn. I would mow the one acre plus lawn in 1952 with a push rotary four cycle lawn mower. It took me about four hours to complete, and Grandpa Ott would pay me \$3.00 cash when I was finished. Just try to find someone to mow your lawn today for \$3.00.

## Bucky the Mill Cat

by Carolee Hanson StClair

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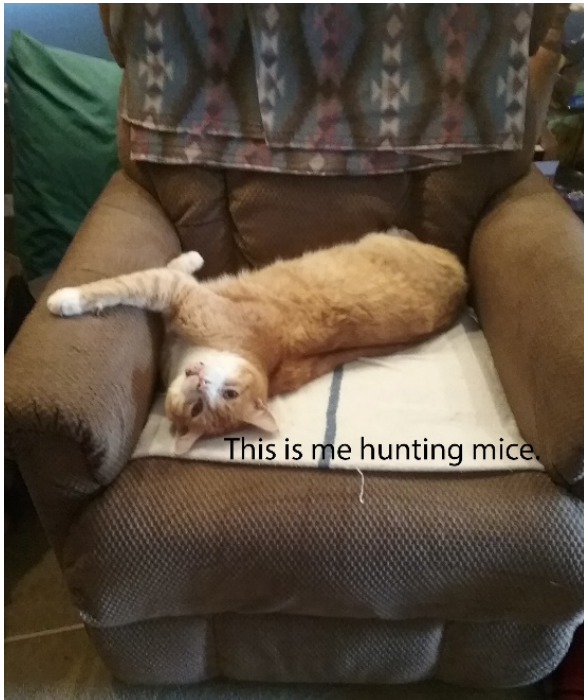
**Bucky is Royalty!** As such, he should have a royal name! How about Sir Buckminster Moritz Thompson? Moritz in honor of the family that bestowed Bucky upon the Mills when he was just a kitten, in 2007. Thompson to honor that wonderful, historic place – Thompson's Mills – that has been his home for all these years.

Bucky is an impressive, imposing, orange cat of about 16 pounds. On a sunny day, you'll find him lounging on the warm asphalt in front of the office stairs.

When visitors arrive, he saunters over and greets them in his own talkative manner, all the while weaving himself in and out of the visitor's legs. Definitely a trip hazard!!

He is a delight to adults and children alike. In fact, many people come to the Mills just to see Bucky! Oftentimes, Bucky inserts himself into the tours by jumping up on displays during the presentation. His Highness very much enjoys being the center of attention!

In his younger days, Bucky ruled his kingdom with an iron paw. Interlopers and trespassing cats were not tolerated. More recently, however, I watched him observing the trespassers as they crossed through the property. As long as they didn't linger, he didn't get upset.



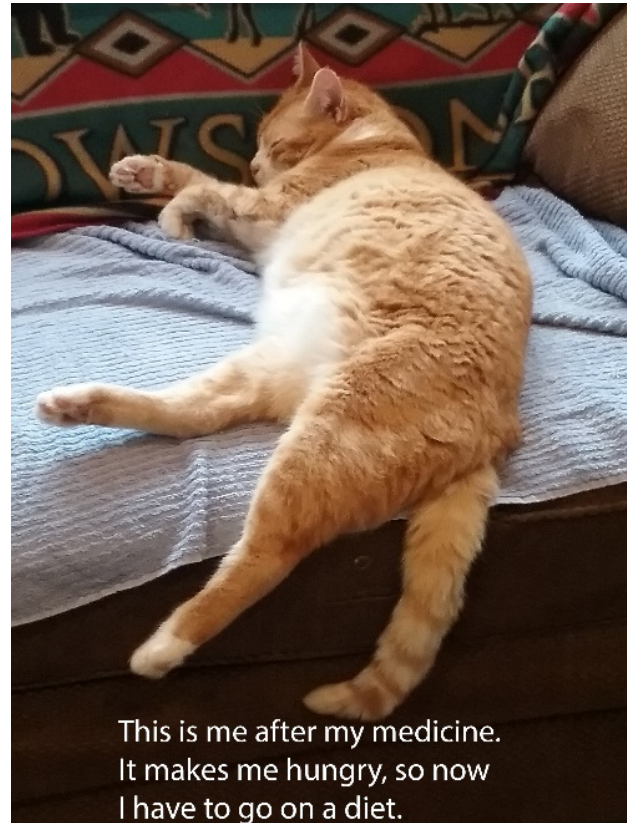
He actually had a "job" at the Mills when he first arrived. He was to patrol the Mill and keep the mouse population under control. He was pretty good at it for years, oftentimes leaving "prizes" in the Mill and on the office porch for all to see.

Now that he is older, Bucky has the same aches and pains we humans suffer from, and he was recently diagnosed with asthma. So, most of the hosts that volunteer at the Mills pamper him. We love him! It's his right as an elder statesman, I think. He takes medication daily for his ailments, and has a warm bed in the office and a cushy "condo" in the mill for those cold winter nights. He has the best of dry and canned food (we're pushing the canned food to keep his weight under

control). Needless to say, he doesn't worry about the mice much anymore. We have seen him sit next to a live mouse and simply ignore it.

Thompson's Mills certainly would not be the same without Bucky.

We love you Bucky!!!



## Thompson's Mills Preservation Society

formerly known as the Boston Mill Society

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In cooperation with the Oregon State Parks & Recreation Department: we support the mill, and the other buildings and grounds that comprise Thompson's Mills State Heritage Site.

Thompson's Mills is the oldest operable water-powered grist mill in Oregon. We are dedicated to the preservation of the history of Thompson's Mills, its supporting structures, and the way of life that developed here from its inception. We also look towards the future by aiding efforts to educate the public about the significance of the mill and its impact on the history of agriculture in our region.

**MEMBERSHIP** – We thank all of you for your past and present support of the Thompson's Mills Preservation Society (formerly Boston Mill Society). Our dues structure is \$20/year for a single membership and \$30/year for a couple. We hope you will continue to support us in helping to preserve Oregon's last water-powered mill.

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Newsletter #3, July 2019

## Membership / Renewal / Gift (Please circle one)

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Our dues structure is \$20/year for a single membership and \$30/year for a couple.

Note: Dues paid after Aug. 31 carries through the following year.

Mail this completed form, along with your check payable to:

Thompson's Mills Preservation Society  
PO Box 1, Shedd, OR 97377

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**Thank you for helping to preserve  
Oregon's last water powered mill.**