Alley Spring

National Park Service
U.S. Department of the Interior

Ozark National Scenic Riverways

Alley: A Spring, A Mill, A Story

Alley Mill as viewed from the bluff above Alley Spring circa 1900

Introduction

The story of Alley is a tale of nature, people, and a century-old mill sitting at the heart of a beautiful Ozark scene. Whether this is an annual trip you've made since your childhood, or your first visit, take time to soak up the splendid scenery and get acquainted with Alley's lively past.

A Grand Setting: Alley Spring

Cold, clear waters rise from deep within Alley Spring at an average daily flow of 81 million gallons. The spring basin is funnel-shaped with a depth of 32 feet. Tiny snails and colorful minnows live among clusters of watercress. Mink, muskrat, and banded water snakes may be observed swimming in the spring. Though trout are not native to Missouri's springs, you may see suckers or grass pickerel.

A short hiking trail along the spring displays a thriving abundance of life. Slick rock walls are adorned with hanging gardens of columbine and lush ferns. These fragile yet hardy beauties thrive in small pockets of soil amid the cracks and crevices of dolomite rock. Swallows nest among the bluffs in the warmer months and eagles may be seen soaring during the winter.

Springs are fragile ecosystems that are very sensitive to disturbances. They are home to many unique species that are not commonly found in rivers and need special protection to survive. You can help protect Missouri's springs. Please fish, swim, and play in the river, NOT in the spring or spring branch!

A Novel Enterprise: Alley Roller Mill

A mill was vital to community life, where grain was ground to provide daily bread. The present building was constructed in 1894 by George Washington McCaskill as a merchant mill and was equipped with modern machinery that utilized steel rollers for grinding. It was larger than most mills in the Jacks Fork area and replaced an earlier grist mill on this same site that was built by 1868. Originally unpainted, it was first painted white with green trim, then later the famous red color associated with Alley Mill today.

The process of converting wheat into flour was lengthy and time-consuming, while grinding corn was relatively easy. The farmer brought his wheat or corn to the miller, who made an agreement to either buy or make a trade for the grain. If the farmer brought the grain to be milled for his own consumption, the miller would often take a "toll" or percentage of the grain in exchange for grinding.

Since the water supply of Alley Spring was constant, it seemed to be an ideal place for a mill. Whereas an exterior water wheel powered the mill stones in a traditional grist mill, a submerged turbine powered the machines in a steel roller mill. Free water power was especially alluring for the owners of Alley roller mill; however recurring floods made the operation only marginally successful.

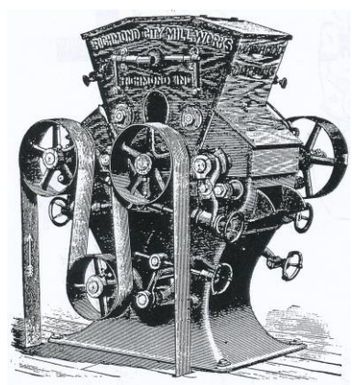
The Alley roller mill was a very progressive business venture for its time and place. The complex design and machinery could only be provided by specialized factories such as Richmond City Mill Works, which also supplied a master millwright to oversee construction. However, this type of mill was designed to process wheat flour for commercial markets in an area where corn was the main crop. This marketing error presented another setback for mill owners.

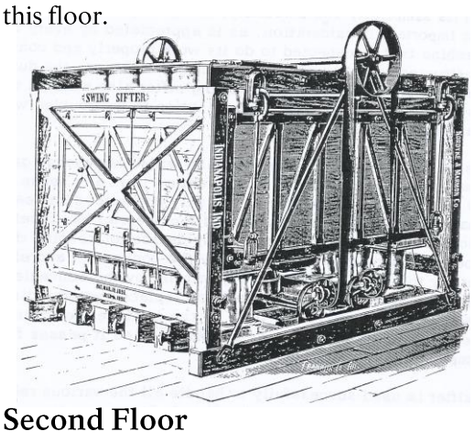
A Tour of the Mill

The Back Porch
Located under the back porch is the turbine pit. Within it sits a thirty-five inch Leffel turbine. A control wheel on the porch allowed the miller to control how much water entered the turbine and thereby control its speed. This ability to control the speed was one of the innovations that made turbines preferable to the old water wheels. Belts from the turbine brought power into the basement.

Basement
This is where all power was transmitted to the machinery. Elevators and belts operated from a driveshaft running the length of the building. **This section of the mill is not open for public visits.**

First Floor
Whole grain (corn or wheat) entered the mill here. The grain was put into bins, then elevated to chutes that were connected to milling machines. These are the large iron and wood machines near the back of the room. Here the grain was ground, picked up in another elevator, taken back up and dropped down into the next machine. This process allowed the grain to be ground repeatedly to fine flour suitable for baking. The miller's office and bins for storage were also located on this floor.





Second Floor
Sifting was the main activity here. The large cube-shaped machine was called a swing sifter. It shook the ground grain through a series of sieves to achieve a uniform consistency. The rectangular machines were an earlier way to do the same thing. In these machines, flour was filtered or sifted through silk.

The Attic
Belts that operated the second floor machines were located here. **This attic is not restored and is not open for public visits.**

A Gathering Place: The Alley Mill Hamlet

Alley was home, farm, and school for the people who lived there more than a century ago. The heart of the community was the spring basin and its milling operation, which provided a social center for the families in the adjacent river valley and hollows. One of those families was the source of the name given to this Ozark mill hamlet. It is easy to imagine a "spit and whittle club," as folks swapped fishing tales and caught up on local news while waiting for their grain to be milled.

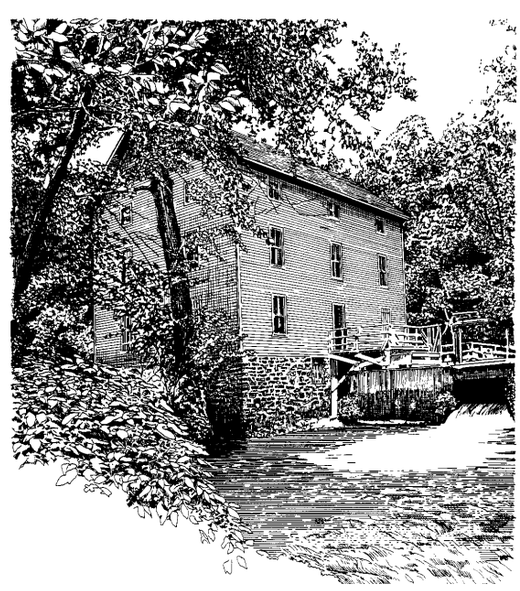
Dances, baseball games, and picnics were all part of Alley's busier days. John Knotts purchased the site in 1902 and diversified the enterprises to include a well-stocked store and blacksmith shop. Alley's school in 1903 had an enrollment of 42 students. Church services were also held at the schoolhouse.

Conrad Hug became the owner in 1912, and made Alley one of Missouri's first resorts, known as Crystal Spring Town Site. Glider swings for tourists were scattered around the spring, and July 4th was one of many festive events.

There were even earlier inhabitants at Alley, yet the records of their lives are vague. Archeological evidence suggests that Native Americans camped throughout the area. Alley Spring with its natural abundance of fresh water and game was used as a camp some ten thousand years ago!

Preserving Our Heritage

Alley Mill is just one of over 100 historic structures found within Ozark National Scenic Riverways. These structures are invaluable remnants of a cultural heritage that has become interwoven with the unique natural landscape of the Ozarks through many generations.

You can help protect our heritage by respecting the natural resources, historic objects, and archeological artifacts in the park. It is illegal to remove artifacts, including arrowheads, from National Park Service or Federal lands.

Please experience and enjoy these wonderful natural and historic objects in a manner that will leave them unimpaired for the enjoyment of future generations.