The Granite Empire of C. J. Hall

Belfast and Mount Desert Island, Maine

Douglas Pierce

March 2021

There is no granite beneath the city of Belfast. Yet one Belfast man dominated the commercial granite industry in Maine for nearly 20 years. Devastating fires in the 1870s destroyed large sections of the Belfast waterfront and spread to some residential areas. Wood was the principal building material, and if a building caught fire it would likely burn to the ground and ignite any nearby wooden structures. This was a common story throughout New England, and it created a demand for bricks and granite.

Compared to other rocks, granite is stronger and harder, is more resistant to chemical weathering, and develops exfoliation fractures (like onion skins) that make quarrying more efficient and predictable. Granite was preferred in public buildings, such as post offices, libraries, and courthouses. It can create classical-looking buildings, as well as such purely functional structures as bridge abutments and building foundations. Granites are beautiful in their natural state, and they can be precision-cut, polished, and intricately carved, to create monuments of lasting beauty.

Cyrus James Hall (1834 - 1907)

Cyrus James Hall (1834-1907) was born on the family farm in south Belfast. He was just 10 years old when his father died, leaving Cyrus's older brother, William Henry Hall (1824-1900), to take on the role of head-of-the-family. Young Cyrus did his share of the farm work, but he didn't like the drudgery of it. He did well in school and studied to be a teacher. Cyrus was by all accounts a brilliant man. But he grew tired of school and teaching. He wanted a challenge.

According to Cyrus Hall's obituary, in about 1860 William and Cyrus "…purchased considerable timberland in Hancock County and for a number of years carried on a large lumber business." However, one writer identified it as a "…small but prosperous lumber and granite business…" started by Cyrus Hall alone. These and other conflicting accounts notwithstanding, it seems most likely that William and Cyrus began a highly successful lumber and granite business, as partners, and that William managed the lumber business while Cyrus managed the granite side of the business. In any case, Cyrus Hall took an interest in granite quarrying after the Civil War at about the time the commercial granite industry was already revving up. Despite his late start, Cyrus believed that if he found a granite that was distinctive and attractive, he could make

his fortune. But first he had to learn about granites and granite quarrying. He looked around Maine, observed, read, asked questions, and "…worked with Colonel Bangs and opened the granite quarry in Norridgewock." Then he began to focus on the granites of Mount Desert Island (MDI). Why MDI? Probably because of the nearly 30 square miles of granite beneath most of the island, and the absence of any commercial competition on MDI at that time.

The Belfast Free Library is built of Otter Creek granite.

The Maine Geological Survey (MGS) recently mapped three Silurian-age granite plutons on MDI. The most extensive is Cadillac granite, which underlies most of eastern, central, and southern MDI. The granite at Otter Creek, in the southeastern corner of MDI, is Cadillac granite.

(To Acadia National Park visitors familiar with the Loop Road, Otter Cliffs and Otter Cove are just around the corner from Thunder Hole.)

When Cyrus Hall first saw the granite at Otter Creek, he knew this was where he would make his fortune. It was a very hard, hornblende granite, and its colors were distinctive and beautiful, ranging from deep red to a softer red, with pinkish tones.

Hall wasted no time. He sent samples of the granite to builders in Boston, Philadelphia, and other northeastern cities—giving the granite a chance to sell itself.

Starting a quarry involves a lot of work before it can begin operating. The owner must have enough money or credit to cover those costs. Cyrus Hall was known as a "local mining magnate" and a "venture capitalist of considerable practical skill," and Cyrus demonstrated that he had the requisite means. Generally, the necessary steps or stages for starting a granite quarry were:

Acquire land or mineral rights:

Clear the site of all trees, stumps, brush, soil, and boulders;

Hire quarry workers;

Provide or arrange housing for the workers and families;

Set-up blacksmiths to make, repair, and sharpen tools;

Hire teamsters and oxen for hauling and heavy lifting;

Build docks and wharves as necessary,

Lay out roads and railroad tracks; and

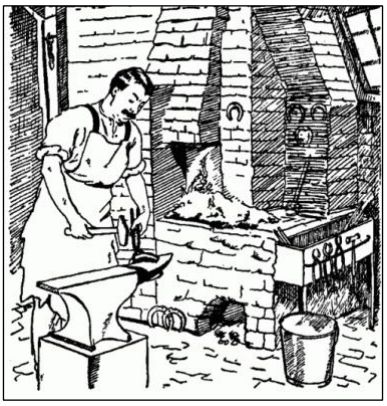
Obtain signed contracts with customers.

Cyrus Hall and his men worked their way through these stages.

Cyrus was a tall, slender man, always courteous and genial. He liked people, and they tended to like him. He typically wore a light-colored suit, black bowtie, and derby hat—even in the quarries. But, if he needed to get down into the dirt and muck to investigate something or explain something to a worker, he would strip off his outer clothing as necessary and climb right in.

In 1868 Cyrus married the young widow Sylvina (Gilmore) Davis, and they had two daughters.

In 1870 Cyrus founded the Standard Granite Company and in 1871 he launched commercial-scale production from his Otter Creek quarry.



Blacksmithing is a centuries-old profession in which the smith uses an open forge to heat wrought iron to a glowing red, and then beats or hammers it into a desired shape. At granite quarries blacksmiths were needed to make and sharpen tools.

Eventually, Standard Granite Co. (Cyrus Hall) operated four small quarries at Otter Creek, with two on each side of the inner cove. Cyrus was a little late getting into the granite business in Maine. His first large contracts were for the Royal Insurance Co. in Chicago ($70,000) and the residence of the President of the Royal Insurance Co. ($10,000). The architectural plans called for large and small precisely dimensioned pieces, which had to fit together exactly, and carved motifs beneath most of the windows. The bids were based on 100 to 150 men working for about two years. Most of the stone was Otter Creek granite, which was transported to Belfast for finishing. Completed work was shipped to Chicago by rail. The products met all of the customer's requirements, and Cyrus Hall's reputation grew.

In the quarries he spotted opportunities to adjust procedures or modify tools, for moving or lifting large stones. He is credited with inventing the stiff-legged derrick for loading granite onto ships, and a boom that was operated by cables.

Ship traffic in the Cove began choking productivity. Hall had a small steam-powered barge built to perform the job of a tugboat. It pushed and pulled and nudged the large wind-powered schooners and thereafter kept the travel lanes clear.

Tidewater access was a great advantage at Otter Creek, but the Cove was shallow—as little as 9 feet deep at low tide. To manage this problem, a ship tied at the wharf would be allowed to become grounded, at which time it would be loaded with its granite cargo. Then, on the rising tide, the ship would float free, fully loaded, and head out to sea.

Hall was the consummate entrepreneur. He traveled widely at a time when it was unusual to do so, meeting with owners, architects, and builders. Otter Creek granite was used in public buildings such as the Philadelphia Mint, the Capitol Building in Washington D.C., a prominent New York church, an Omaha Bank Building, and on Boston's Back Bay Bridge. Hall built the Belfast

Free Library with Otter Creek granite, and Otter Creek granite was used in many other Belfast buildings, and in the Episcopal Church in Northeast Harbor.

Mr. Hall had a telephone connection between Otter Creek and Belfast (55 miles), and he could talk as readily with his foreman at Otter Creek "…as though he was at the yard in Belfast."

Hall Quarry in Somes Sound, looking southeastward from the quarry to Somes Sound. In winter there generally was no quarry work. (Maine Memory Network)

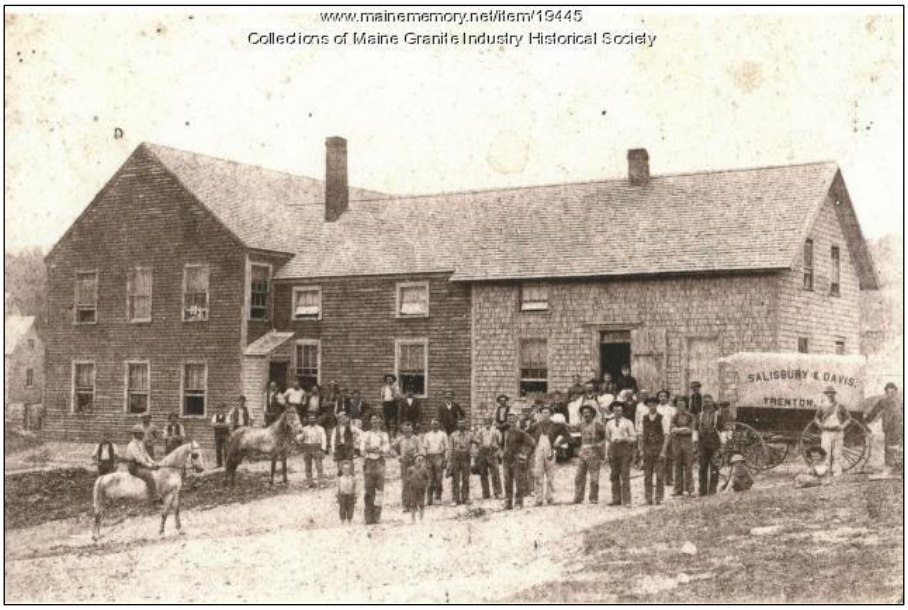
Hall was too smart and too driven to become complaisant. He renewed his search for high-quality granite on MDI, and he found it on the west shore of Somes Sound. It was a beautiful biotite granite whose color ranged from light pink to shades of gray, and grain-size that ranged from fine to medium. Based primarily on grain-size, the Maine Geological Survey (MGS) in 2018 identified these officially as separate but adjacent granite plutons, and officially named them, respectively, "Somesville fine-grained granite" and "Somesville medium-grained granite." But in the commercial granite industry, more

Most quarries were named after their owners. Thus, at Somes Sound, Cyrus Hall's first quarry became known as Hall Quarry, and each new nearby quarry became known after its owner. Hall's influence was so dominant that, despite a large number of other quarries and owners, the whole village that grew up there became known as Hall Quarry, and eventually a Post Office was established there, officially named Hall Quarry.

than a century before the MGS study, those lithologies were generally treated as one granite: "Somes Sound granite," with variable color and grain size.

The land at Hall Quarry was originally owned by the Robinson family, who had fallen on hard times and lost their property to the bank. Hall leased the land from the bank, for his quarry. We find no record of when quarrying actually began at Somes Sound, but it likely was underway by about 1875. This was a much larger operation than Otter Creek, and Hall sometimes employed more than 1,000 men at work in the quarry. The work force varied. Some of the workers were local men, but most came from Scotland, Italy, and Sweden, and sometimes Finland. In winter the work slackened.

Standard Granite Co. (Cyrus Hall) provided boarding houses for its transient workers, consisting of large wood-framed structures such as the one pictured below. The small sleeping rooms upstairs were unheated. Downstairs consisted of a heated dining hall and a lounge area where workers could rest, socialize, and play cribbage. Each boarding house had at least one cook. At times there were 700 people living in the boarding houses. Small individual houses for the families of workers sprang up all over what became known as Hall Village.



A boarding house at Hall Quarry. Note the supply wagon of Salisbury & Davis, Trenton

All the tools and clothes for work could be purchased from the "Company Store," at prices which Cyrus Hall explained were "less than retail."

But life was not all hard work. The company had a building available for social functions. Travelling troupes of minstrels would come and perform frequently, knowing they would always get a big crowd. The town had a nice music band of workmen. It was started by several granite workers who had come from Rockland, where they had played in a granite worker's band. The band was composed of about 25 members, with a young quarryman and clarinetist, Mort Arey, as its leader. Mort Arey went on to become one of the leading clarinetists in the country. There was a concert about every other evening.

In 1851 Maine passed a total prohibition of the manufacture and sale of liquor, which was not repealed until 1934. Some hard-core granite workers would always find liquor, others would distill their own. Some of the Finns were known to drink straight vanilla extract. The workers were paid on a Friday, and some of them would drink from Friday evening until work on Monday,

hungover. [*It seems likely that the quarry foremen would be on the lookout for drunken quarrymen, because they would be a danger to themselves and to other quarrymen*.]

As another attraction, in the 1910s there was a brothel over at Echo Lake, near Hall Quarry.

Initially, dressing and finishing operations were done at the quarry sites. Most of the quarried granite required some "finishing" before it was ready for shipment to the customer. Some of the finishing was performed at the quarries, while the rest was shipped to Belfast for completion. Paving blocks, which were in increasing demand in New York City and elsewhere, did not require skilled craftsmen. They were manufactured and shipped from the quarry directly to the customer.

In about 1882, Standard Granite Co. (Mr. Hall) opened a stone yard in Belfast on a large wharf, located approximately at what is now Heritage Park, at 25 Front St., near French & Webb boat builders. Here he undertook all stages of dressing and finishing granite from his MDI quarries—red hornblende granite from Otter Point and pink or gray biotite granite from Somes Sound. This operation employed sometimes more than 200 men. In 1883 Hall's operation included the Foundry Co. and the Belfast Machine Works, and the work continued until 1890 and supplied granite for the Library of Congress, the State Capitol of Illinois, and others.

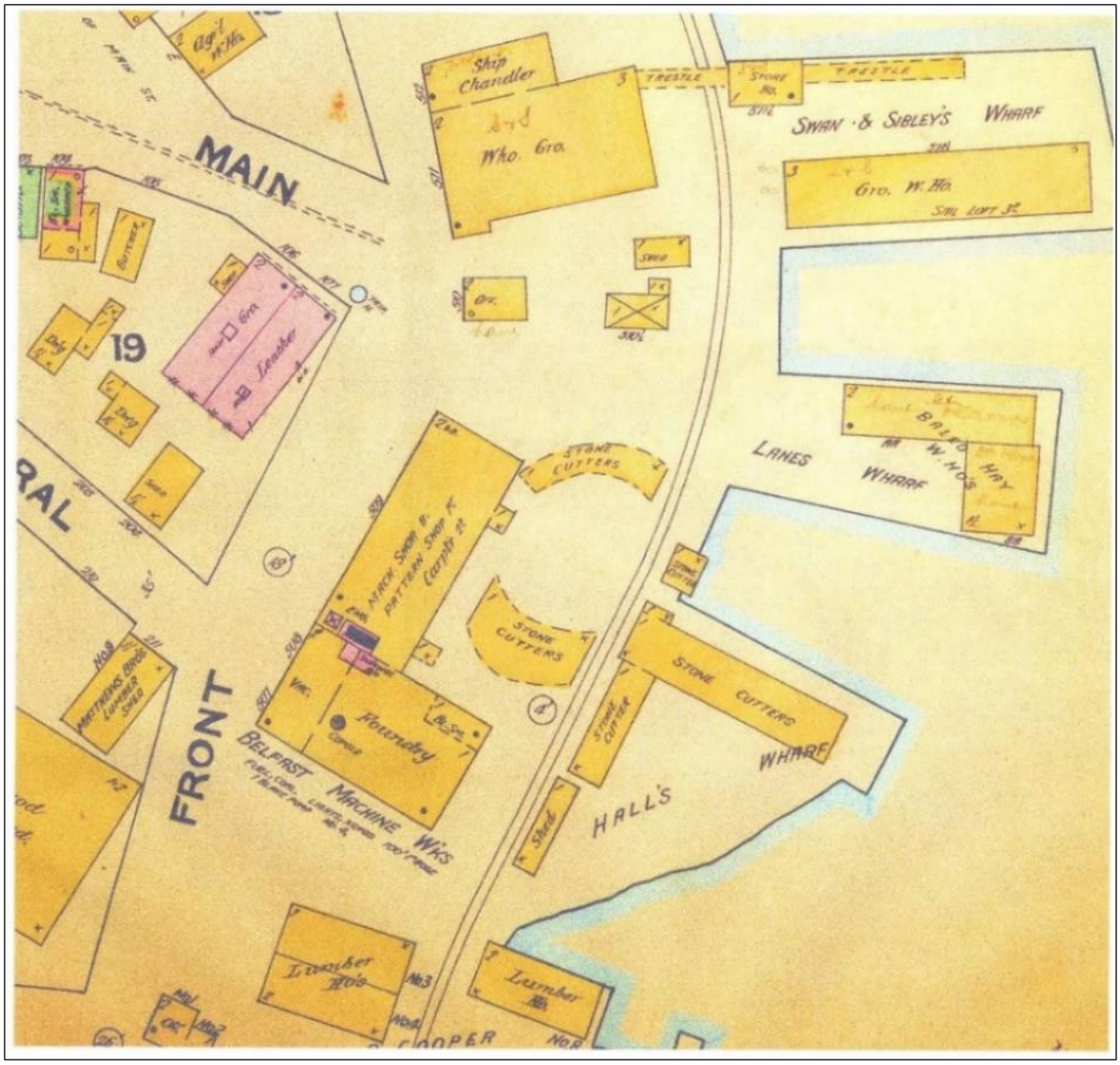
[*Note: The dates of some of these milestones, as reported in the Maine Industrial Journal, are somewhat unclear.*]

A Foundry is a factory that produces iron castings. Sand is placed in a refractory mold, a pattern is made of the object to be cast, and the pattern makes an impression in the sand. Molten iron from a furnace is poured from a crucible into the mold. The combination of a Foundry and a Machine Works enabled Cyrus Hall to keep his finishing operations running efficiently.

Like Otter Creek, Somes Sound was a tidewater site, but at Somes Sound the water was deep right up to the shore. Four schooners could tie up to the dock, one behind another.

In 1884 Hall had the steamer *May Queen* fitted up for towing vessels between his MDI quarries and Belfast. In 1885 McDonald & Brown had a contract to build a small schooner of 75 ft. keel and about 125 tons, to be commanded by Capt. George Sargent of the schooner *Flora Grindle*. In 1886 the 116-ton-registered *Puritan* was launched by McDonald & Brown for Hall to employ in his granite business.

Cyrus Hall began to focus his attention less on quarrying and more on the finishing, where different skill sets were necessary. Soon he was involved in the Foundry work and the Belfast Machine works. Here Cyrus showed his creative brilliance and his mechanical proficiencies, as he invented and improved machines that became industry standards. Sales of the machines became another source of revenue for the Standard Granite Co. He invented and patented Hall's



Hall's Wharf, Foundry, and Machine shop, as mapped in 1890. Sanborn Map, Belfast Waterfront, 1890.

counterpoised stone-polishing machine, several of which he operated in his finishing line and several more which he sold. He also invented the "Nilsson polisher."

There was a big wharf where granite-laden vessels discharged the stone, being easily handled by a steam derrick. He had large stone-cutter sheds, two of them built in a semi-circular form so that the boom of the large derrick in the center could swing a stone to any part of those sheds. The long shed on the wharf was provided with an overhead carriage running upon trucks by which large stones were easily hauled along the length of the shed. Atop of that carriage was another carriage, which moved along, right and left, across the width of the shed.

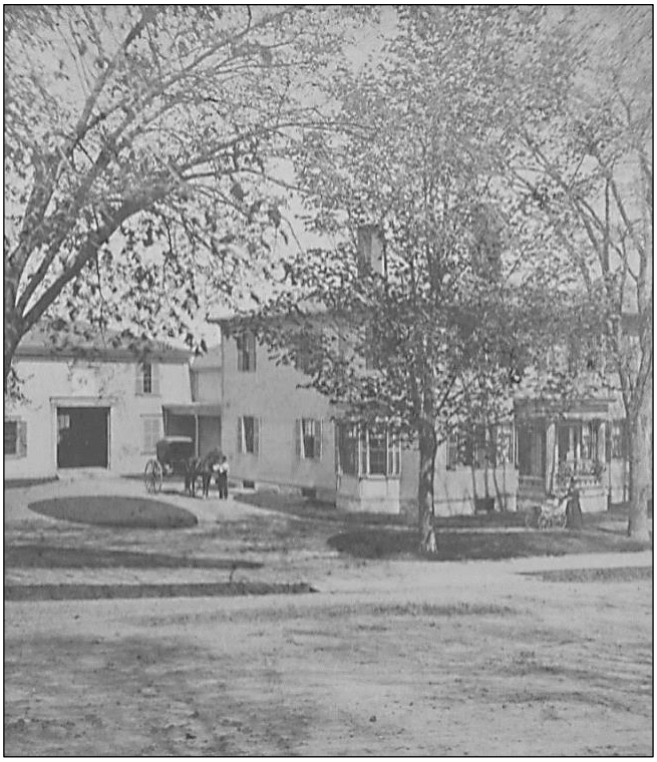
Somehow, Mr. Hall became involved in the manufacture and sale of Hege's patented circular sawmills. They were not invented by Cyrus, and they were not related to the granite business. Hege's Sawmills were for cutting lumber from very large-diameter trees, to very exacting

tolerances. This opportunity may have come from Cyrus's brother or someone at the neighboring Cooper's lumber yard. The machines were large and complex, and they were popular. Cyrus manufactured them under license to the Boston patent owner. They were sold and shipped to customers in the southern United States; Illinois; Knox, Friendship, and Warren, Maine; Mexico; South America; and New Brunswick. On more than one occasion Cyrus built, packaged, and shipped a machine only two weeks after receiving the order.

In 1885 Cyrus closed a contract for a $100,000 granite job for the new state capitol in Springfield, Illinois. The work included finished stonework for the building, including two large porticos with balustrades and polished columns. In 1885 Hall also sold 150,000 paving blocks to the city of Pawtucket, RI.

In 1886 Standard Granite Co. (Cyrus Hall) secured a $30,000 granite job from the Omalia National Bank in Omaha, Nebraska, and secured a contract to supply 40,000 feet of granite for the Boylston Bridge in Boston.

In February 1887 Mr. Hall placed for immediate disposal his machine shop stocked with modern tools and the adjacent foundry building also well equipped. "Mr. Hall is ready to dispose of this property either by sale or lease on easy terms, and at a bargain. Mr. Hall's sole reason for selling is that his time is so absorbed with his large granite interests is that he cannot look after the machine and foundry business."



Belfast home of Cyrus J. Hall and his family, located on Primrose Hill north of the intersection of High Street and Bridge St. The courtyard, sidewalk, and High St. itself appear to be surfaced with paving stone.

He held on to the granite works. In November 1887, about one hundred men were employed at Hall's granite works. His most important contract on hand was one for the Westinghouse building, in Pittsburg. Mr. Hall had completed and shipped his part of the work up to the name-stone over the entrance. Work on the Pequot Library in Connecticut was nearly complete. The contract had been filled for the Keystone Bank building, and work for the Drexel building in Philadelphia was nearly done.

In the Maine granite industry, Standard Granite Co. was a one-man company and a late starter. It was founded after the Civil War, when Hall's competitors were already well established in the granite business. Hall could not produce enough capital to match the investments of well capitalized competitors such as Goss Corporation on Crotch Island (Stonington), Bodwell Granite Company (Vinalhaven), and Hallowell

Granite Co. Moreover, the large single contracts for federal granite projects and buildings often exceeded $500,000, and for Standard Granite Co. those contracts were out of reach.

"Eventually Hall could not compete and had to sell out."

"Mr. Hall had secured a large government contract and had begun work on it when the contract was annulled by the Democratic House, causing him serious loss. Long litigation with the government followed and although something was recovered it was not sufficient to makeup the loss."

By the late 1880s the market for granite was declining. The available granite work was mostly in monuments and paving stones. As building stones, concrete was much faster and cheaper. Builders could form, mix, and pour concrete one day, and the next day it would be hard and ready to build upon. Forms could be made of almost any shape. Concrete was not particularly attractive, and it would never "take a polish." Both Portland Concrete and granite both have high compressive strength.

In 1888 (as reported in the Maine Industrial Journal), C. J. Hall started on the Congressional Library building as the granite contractor. He recruited 190 quarrymen and cutters and built a large boarding house for them. His stone yard was busy, and he had several large contracts in hand. Hall's machine shop was having a busy season with turbine water wheels, sawmills, derricks, and others sent to different parts of the country.

In 1889, the Maine Granite & Improvement Co. secured a $70,000 contract to furnish dressed granite for Prospect Park, in Brooklyn. The contract would be executed at C. J. Hall's yards in Belfast and keep a large crew busy for 4 or 5 months.

In 1890, Cyrus Hall, of Belfast, shipped a fine granite monument to a customer in New York. It was made in the form of a cross, stood 20 feet high, and cost $1,300. Other than that, a crew on-site was cutting paving stones.

In 1891, Mr. Hall announced that he was "going south" and wished to dispose of his machinery.

In 1892, The Standard Granite Co., with a capital stock of $50,000, and office and works at MDI, re-organized in Belfast. The officers of the company were: C. J. Hall, President; H. Mixer, Vice President; E. L. Warren, Secretary and Treasurer; H. Mixer, Superintendent of Work; E. L. Warren, General Manager. The company bought of C. J. Hall all of his extensive granite quarries, plant, houses, etc., and proposed to carry on the general granite contracting business in all of its departments. Mr. Gorhman Aborn went to Somes Sound to begin erection of a two-story building, 30 x 60 feet, to be used as a store by the new company. This corporate re-organization was an excellent move, but it should have happened earlier.

Granite quarrying was inherently dangerous and unhealthy to the workers in almost every position—silicosis and hearing loss from prolonged exposures in the sheds—crippling accidents and fatalities from falls, workers being pinned or crushed by the heavy stones, and miss-handling

of explosives in the quarries. The owners took no responsibility for compensating workers who could not work because of job-related injuries. Widows and children faced a bleak future.

The Belfast Foundry had been destroyed by fire in 1873, and was rebuilt. Thereafter, its status is somewhat clear, including who owned the Foundry and who operated it. Operations remained largely idle until 1881, when Mr. Hall placed the Foundry in operation. Two years later, in 1883, the Belfast Machine Works took over Foundry operations until the premises were sold to the Dana Sarsaparilla Company. The Belfast Machine and Foundry Co. organized in 1891, giving it ownership and control of the foundry machinery and work.

DIED OF HIS INJURIES. Last week the Journal gave an account of the injuries received by Charles Hardison from a premature discharge of powder at the quarry of C. J. Hall, Otter Creek, Mt. Desert. It was believed for a time that Hardison might recover. His right arm was amputated and the physician thought that his eyes might be saved. On Saturday a dispatch was received saying that Hardison had died of his injuries. He was about 30 years of age, a hard-working and industrious young man. His wife and three children reside in Franklin.

The stone cutters in Hall's yard last week took up a collection of $75 for the widow of Charles Hardison, the quarryman who died recently of injuries received at Hall's quarry at Mt. Desert. The stone cutters at the Point will no doubt make the amount an even $100.

The Republican Journal, 29 November 1883

By 1895, all of the Standard Granite Co. buildings were either gone or were owned by the Dana Sarsaparilla Co.

It was around this time that the workmen formed labor unions, giving them the ability to strike. Cyrus Hall and other quarry owners would not be able to sign fixed-price contracts with their customers, knowing that a labor strike could place them in default.

According to George B. Ferguson, a grandson of Cyrus Hall, "In 1901 Hall lost an important bid for a major post-office job and, almost at the same time, a strike occurred which prevented his fulfilling another critical contract. These twin blows, coupled with severe price competition from firms whose granite was easier to quarry, brought an end to the [Standard Granite] Company."

But it was not the end of Cyrus Hall. He died on 13 October 1907 while on a business trip in New York, where he met with two architects who, with him, were carrying on the Colonial Granite Company of Swans Island, Maine.

He was up, he was down, he was up, and he was down again. But C. J. Hall never quit. That he died <u>at</u> <u>work</u> is no surprise.

Cyrus and Sylvina are buried in Grove Cemetery, in her family's lot, with simple granite gravestones.


CYRUS J. HALL
1834 — 1907
SYLVINA GILMORE
WIFE OF
CYRUS J. HALL
1839 — 1919

Acknowledgements

The research and writing of this document would not have been possible without the counsel and encouragement of Megan Pinette, Curator of the Belfast History Museum. My friend Gary Stuckey invited me to participate in this study, and he kept me on-track. My dear wife, Susan Pierce, participated in our site visits, took photographs, and reviewed drafts of this report. Jon Johansen, Curator of the International Maritime Library, provided excerpts from the Maine Industry Journal. A major resource for this study was a visit with Steve Haynes, Curator of the Maine Granite Industry Historical Society Museum in Somesville. His encyclopedic knowledge and enthusiasm were boundless.

References

Dale, T. Nelson, 1923, The Commercial Granites of New England: U.S. Geol. Survey Bull. 738.

Deur, Douglas, Acadia National Park, 2012, The Waterfront of Otter Creek: A Community History.

Green, Chris, 1989, The Maine Granite Industry and the Origins of the Granite Cutters Union. (Belfast Free Library, Special Collections).

Maine Industry Journal, 1882-1892.

Rand, John R., 1958, Maine Granite Quarries and Prospects, Minerals Resources Index No. 2: Maine Geological Survey.

The Republican Journal, various historical news item, esp. Cyrus Hall's obituary 13 October 1907.

Truax, C. V., The Pink Granites of Somes Sound, in Downeast Magazine, October 1972.

Vital Records of the City of Belfast, Maine.

Williamson, Joseph, 1913, The History of the City of Belfast, Maine, Volume II, p. 217-218.