

KIDS TALES FROM JAIL

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KIDS

TALES FROM JAIL

Lighthouses in Bristol

Did you know that Bristol had a lighthouse? What is a lighthouse? Why would Bristol need a lighthouse?

Bristol, RI's lighthouse is known as Bristol Ferry Lighthouse (BFLH), and is located off Ferry Road, under the Mount Hope Bridge at Bristol Point. Even though it is no longer in service, it is still an important icon in Bristol's history.

A lighthouse is basically a structure with a light at the top. You may have heard lighthouses referred to as "beacons of light" or "aids to navigation". A lighthouse's function is to guide mariners and their ships traveling on the water, especially near land. What is a mariner? A mariner is a person who works professionally on the water. Lighthouses were the responsibility of the U.S. government and protected by it.

It was important to mariners to have a lighthouse in Bristol. Bristol, RI, is a twin peninsula that extends into the bay, and is called Bristol Neck. The land at the very end of the peninsula, the tip of Bristol Neck, is called Bristol Point. At Bristol Point, there is a narrow water way (also referred to as a passage, channel, or strait) that was the entrance off Narragansett Bay into the Mount Hope Bay. This narrow passage is referred to as Bristol Ferry because the historic Bristol Ferry once crossed over to Portsmouth there. Mariners pleaded for the establishment of a lighthouse. The lighthouse would help mariners navigate that narrow water passage between Narragansett Bay and Mount Hope Bay.

The BFLH was important for its role in the history of Rhode Island's commerce and transportation. It helped to guide ships heading to the textile mills of Fall River and passenger steamers navigating between cities and towns on Mount Hope Bay and into Narragansett Bay.

In 1846, the Bay State Steamboat Company established a private light, a short wooden tower structure with a lantern on top, on land at Bristol Point that was originally owned by George Pearse. Pearse became the first lighthouse keeper; therefore he maintained and kept the light going. However this structure did not work well, because it was not very tall, the lantern was not bright, and the light would blow out frequently. In 1853, a petition was established to replace the lighthouse. Congress set aside \$1500 to build a new lighthouse. In 1854, the land that the lighthouse stood on was acquired. In 1855, a new lighthouse, now made of brick, was built about 50 feet northwest of the old tower. The new brick tower was 28 feet tall and topped with a metal lantern room consisting of a sixth order fresnel lens, with an attached brick keeper's quarters (house). The new structure was similar to the Nayatt Point Light in Barrington, RI. The new Bristol Ferry Lighthouse was lit on October 4, 1855. George Pearse continued to be the lighthouse keeper, as well as others over the course of the years.

Bristol Ferry Light was discontinued in 1927. It was replaced by an automated light at the top of a steel skeleton tower on a small parcel of land south of the lighthouse that the U.S. government's LH service owned. With the building of the Mount Hope Bridge, even this light was eventually discontinued and the skeletal tower removed. A lighthouse in Bristol had served its purpose for seventy-four years.

Between 1928/1929, the lighthouse tower and keepers quarters were sold and are now owned by a private party. They can still be seen from the land and the water. People need to be respectful of the property owners because it is private property.

In 1988, the Bristol Ferry Lighthouse was listed on the U.S. National Register of Historic Places as an important icon in Bristol's history.



Bristol Ferry Lighthouse
(before the Mount Hope
Bridge was built)



Bristol Ferry Lighthouse
(with the Mount Hope Bridge in
the background)



Point Judith Lighthouse,
Narragansett, RI
(example of a painted pattern,
unattached, tall, multi-sided
[octagon] lighthouse)

Lighthouse structures

A lighthouse is a structure with a light on top. The structure of a lighthouse can be very different depending on its location. In addition to those located right on the shore, one can find lighthouses high on cliffs, on breakwaters or piers, on shoals or shallow waters out on the water, to name just a few locations. They warn mariners of land and other obstacles.

Lighthouses can be a tall tower or can be a short tower, depending on location or terrain and depending on the need. If the shore has a high cliff, it would have a short lighthouse, but a lighthouse that sits close to the water shoreline would be tall. In the case of the Bristol Ferry Lighthouse, it was short because it just marked an entrance between Narragansett and Mount Hope Bay.

Lighthouse structures can be round or square or multi-sided. The Bristol tower was square.

These towers can exist by themselves or be attached to another building. The Bristol tower was attached to a keeper's quarters (house).

Towers can be made of wood, brick, cast iron or concrete. The Bristol tower is made of brick.

Lighthouse towers can have painted patterns. The Bristol tower is plain white.

Towers can sit directly on land or out in the water on a foundational structure known as a Caisson Tower. A Caisson Tower is a huge foundational base structure that a building or lighthouse sits on. The Bristol tower sits directly on land.

Other lighthouses are Skeletal Tower structures that look a like an erector set. Another type is a Cottage Style Lighthouse that looks like a home with a lantern on top or in a window.

Some lights were located on top of a stationary ship, called a Lightship. There was a Lightship near the Bristol Ferry Light, just to the southwest, known as the Hog Island Shoal Lightship of 1886.

How a lighthouse is built, how it looks in structure and characteristics, is based on what the need is at a particular location.



Hog Island Shoal Light
Hog Island, RI (1901-current)
Example of caisson style lighthouse
(Replaced 1886 Lightship)



Ida Lewis or Lime Rock Lighthouse
Newport, RI
Example of cottage style lighthouse
(Replacement skeletal light tower in the
background)



1886 Hog Island Shoal Lightship
Hog Island, RI
Example of a Lightship style lighthouse

The LIGHThouse

There are different types of lights that are used in lighthouses.

The glass-enclosed space at the top of a light is known as the lantern or lantern room. This space houses the lens and protects it. There is a narrow walkway around it known as the gallery. The galleries are typically made of cast iron and have a number of separate window panels or window panes in octagonal or hexagonal shapes, or even like a birdcage.

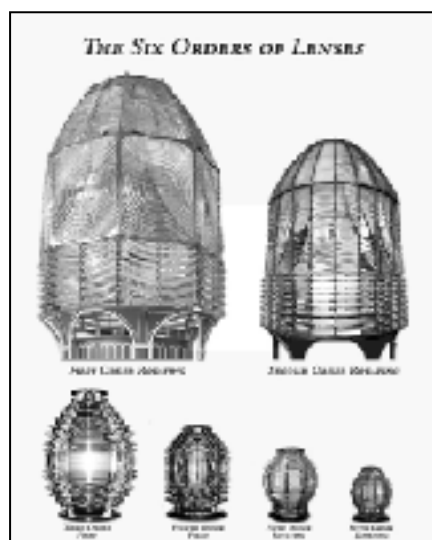
Initially, lighthouses were lit with tallow candles or oil lamps (like kerosene or whale oil). Eventually, American Winslow Lewis introduced an idea from Frenchman Armand of a mirror or some form of reflective material that would better reflect the light, known as a lamp-and-reflector system. Eventually, the Fresnel lenses were introduced. In 1822, Augustin Jean Fresnel from France developed an optical invention of chandelier-like lenses that consisted of glass prisms arranged in a bronze frame. These lenses could concentrate the light into a powerful beam that could be cast and seen significantly farther.

The United States took interest and began inserting fresnel lenses in their own lighthouses. The Fresnel lens came in various sizes known as “orders”. A first order was the largest and a sixth order was the smallest. The Fresnel lens also came in various shapes such as bull’s-eyes or clam-shaped. Larger order lenses were used along larger bodies of water and smaller order lenses were used in bays and harbors. Then they became electrified.

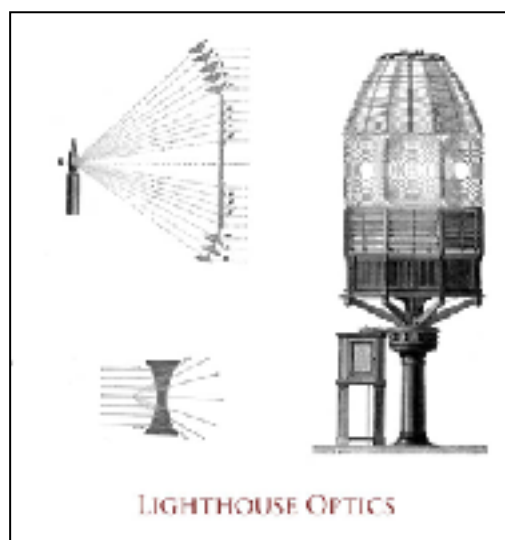
The Bristol Ferry Light initially had what is similar to a kerosene lantern, but it was not enclosed and this is why it kept blowing out. When it was rebuilt in 1855, it was given a Fresnel lens with an enclosed lantern room. The different lenses used at Bristol Ferry Lighthouse over the years were fourth, fifth, and sixth order bull’s-eye lenses.

Each lighthouse has a designated characteristic to its light so that the mariner knows where he is. Some lights are fixed lights, meaning they remain on the whole time, while others have a light that flashes. The flashing is a rotating light driven by gears, weights, and pulleys, like in a clock. Some even flash two different colors intermittently. Some lighthouses will have a colored light rather than white. These decisions are made when lighthouses are constructed and to be different from the lights of other nearby lighthouses. Annually, a publication called the Light Lists was issued to ship captains, giving them precise location and characteristics of each government lighthouse to aid their navigation.

It was the responsibility of the Lighthouse Keepers to keep the light burning.



Fresnel lenses
(top L-R: First Order Rotating, Second Order Rotating
bottom L-R: Third Order Fixed, Fourth Order Fixed,
Fifth Order Rotating, Sixth Order Rotating)



Drawing showing how the prisms cast a larger beam

Lighthouse Keepers or “Keepers of the Light”

Lighthouse Keepers were mostly hired by the U.S. government or U.S. Lighthouse Service.

The responsibility of a lighthouse keeper was to keep the lantern/light lit for mariners safety on the water. There were no holidays or days off; it was a 24/7 job. They performed their job dressed in uniform. Lighthouse keepers were typically thin and fit because they were constantly up and down the lighthouse stairs, keeping the lights lit from dusk until dawn. Since inspections occurred regularly, lighthouse keepers had to keep things in ship shape.

Mostly men have been lighthouse keepers. There have, however, been a few women lighthouse keepers. For instance, after Henry Dimon passed away, his widow, Elizabeth Dimon, became the keeper. Typical responsibilities, besides operating and maintaining the light, were winding clock work mechanisms (before electricity), polishing the lens, polishing the brass, operating fog signals, grounds and building repairs, getting necessary supplies (oil or kerosene for the light), and maintaining a log of weather and other mariner happenings. At larger lighthouses there were two lighthouse keepers, a head keeper and an assistant keeper. In some cases, if a lighthouse keeper passed away, his wife or son would take over the responsibilities. This was the case at Bristol Ferry Light when Henry Dimon passed away. Bristol's light had only one keeper at a time.

The following were keepers of the light at Bristol Ferry Lighthouse:

George Griswold Pearse (1854-1855)
Henry Dimon (1855-1856)
Elizabeth Dimon (1856-1857)
Daniel W. Coggeshall (1857-1861)
Charles Sanford (1861-1870)
George T. Gladding (1870-1871)

James W. Waldron (1871-1875)
William Dunwell (1875-1882)
Edward P. Hoxsie (1882-1886)
Edward Sherman (1886-1916)
Arthur J. Baldwin (1916-1925)
Leo R. Roode (1925-1927)

Nearly all current working lighthouses have become automated and no longer need a full-time keeper to be physically present. However, that does not mean a lighthouse keeper's job is no longer needed. Even the automated lights need occasional attention. The responsibility of “keeping the light” now falls to members of the U.S. Coast Guard. Yet still another variety of lighthouse keepers exist: the lighthouse preservationists who work to save old lighthouses.

Although the Bristol Ferry Lighthouse is no longer operational or operated by a lighthouse keeper, the historic icon still exists and is nicely taken care of.



Keeper Eugene Larson & his family circa 1920.
PHOTO COURTESY NANTUCKET HISTORICAL ASSOCIATION

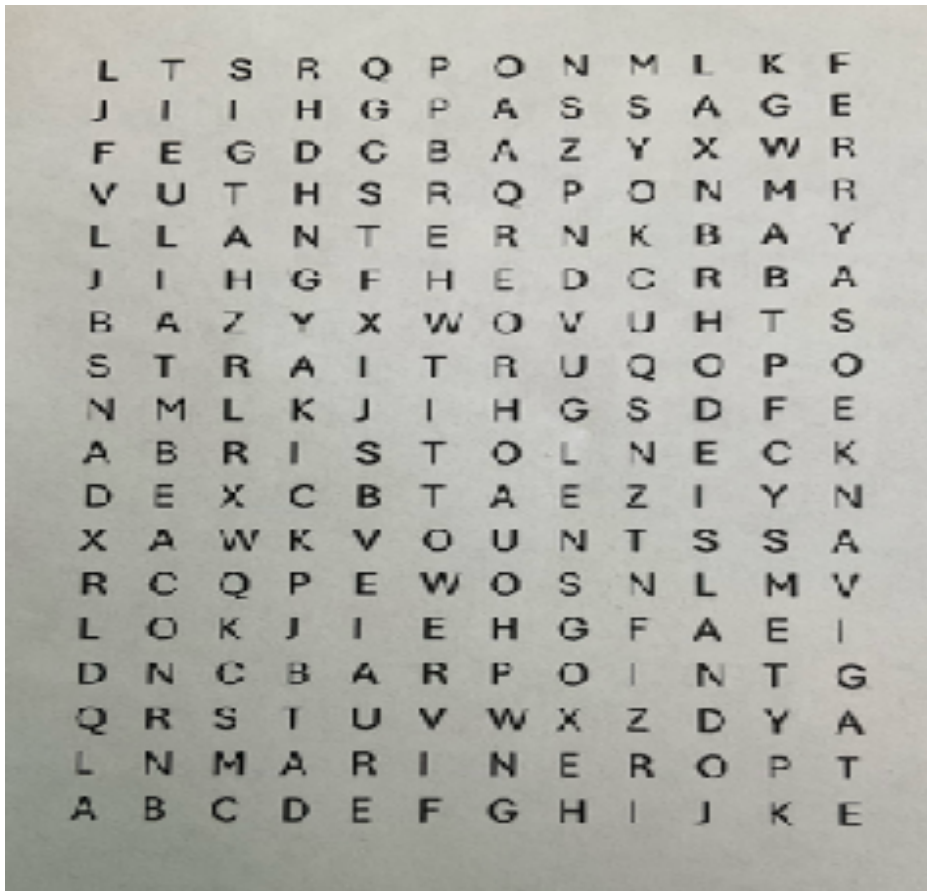
Something
to think about...
“Live your life like a
lighthouse and be a
beacon of hope to others.”

—Pat Schwallie-Giddis,
President, National Career
Development
Association



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Attention KIDS members: Would you like to contribute to a future issue? Let us know!!!
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Can you find these words?

BAY
BEACON
BRISTOL NECK
FERRY
KEEPER
LANTERN
LENS
LIGHTHOUSE
MARINER
NAVIGATE
PASSAGE
POINT
RHODE ISLAND
STRAIT
TOWER

Can you find
these names and places?



Older photo of Bristol Ferry Lighthouse
A view of the lighthouse from the water
(Notice there is no bridge.)



More recent photo of Bristol Ferry Lighthouse
A view of the lighthouse from the water
(Notice bridge foundation in the background)



Can you find the Bristol Ferry Lighthouse on this map?

(Hint: It marks the entrance to Mount Hope Bay off Narraganset Bay)

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