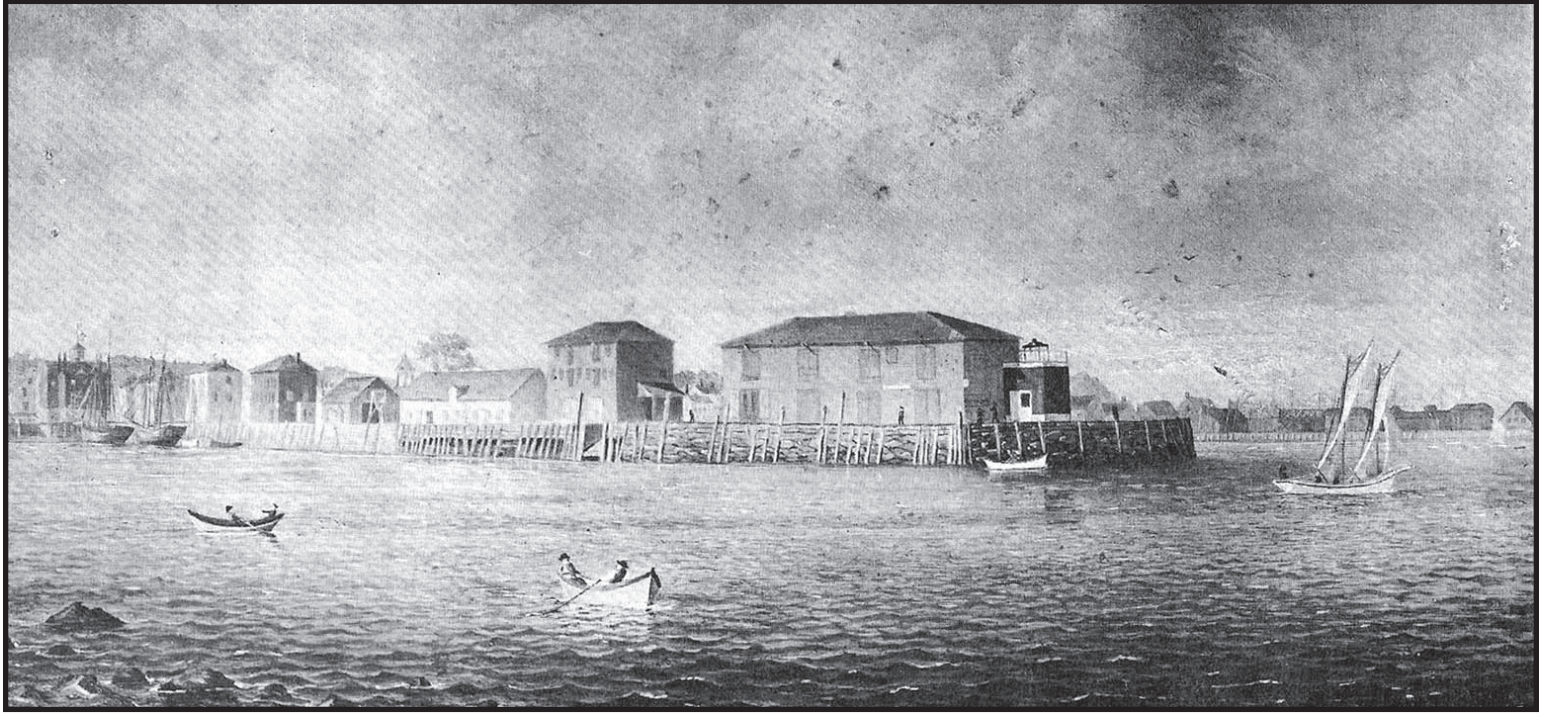




Derby Wharf and Derby Wharf Light Station



**Welcome Home from
the Farthest Ports of
the Rich East**

Lighthouses are the stuff of legends. They are symbols of safety, warning ships away from dangerous reefs and rocks; kept by men and women who braved the worst weather imaginable to save lives. In calmer weather, lighthouses are beacons welcoming sailors home from years at sea. For over 130 years, Derby Wharf Light has stood on the end of Derby Wharf, part of a system of lights meant to guide vessels safely through the rocks and shallows of Salem Harbor.

Derby Wharf



Many of the eighteenth-century three-story warehouses were still standing on Derby Wharf when this photograph was taken in the 1890s.

Peabody Essex Museum

Salem merchant Richard Derby began construction of Derby Wharf in 1762, and the wharf remained in the Derby family until the mid-nineteenth century. By the 1780s, Derby wharf was about 800 feet long, one of the longest and busiest wharves among the nearly 50 wharves in the city. Richard's famous son Elias Hasket Derby inherited the wharf from his father, and between 1806 and 1808 Elias' children extended the wharf to its present half-mile length.

Throughout its nearly 250 year history, Derby Wharf has been a host to a wide variety of activities. During the height of the China Trade in the late 18th and early 19th centuries, the wharf was lined with shops and warehouses, and at the head of the wharf, Elias Hasket Derby ran the family's enormous trading empire from his countinghouse.

The location of Derby Wharf--near the growing industrial plants across the South River--meant that the wharf continued to be one of the busiest in the city, even after the end of Salem's China Trade. In 1897, the *Mindoro*, the last tall ship registered in Salem, tied up at Derby Wharf after its final voyage.

In the early 20th century, many of the warehouses were converted into businesses and dwellings, but the buildings gradually fell into neglect. In 1937 Derby Wharf, along with the Custom House and several other properties along the waterfront were turned over to the National Park Service to form Salem Maritime National Historic Site, the nation's first National Historic Site. Today, Derby Wharf offers visitors to Salem Maritime opportunities for exercise and relaxation, with its graded half-mile path and unparalleled views of Salem Harbor.

Derby Wharf Light Station

Salem Harbor has always been a difficult harbor to navigate safely. Ledges and rocks make the shallow harbor a hazardous place for the inexperienced or uninformed sailor. In 1870, congress appropriated \$30,000 "for the establishment of three lights to mark the main channel leading into this anchorage, with the view of its becoming a harbor of refuge which may be safely entered at any time." The three lights were located on Hospital Point in Beverly, Winter Island in Salem, and the innermost light was on Derby Wharf. Temporary lights were placed at Fort Pickering, on Winter Island, and on the end of the last warehouse on Derby Wharf.

By the end of 1871, the brick, two story high structure with an iron deck and cupola stood on the end of Derby Wharf, with a fixed red light powered by an oil lamp and magnified by a sixth-order Fresnel lens. In the early twentieth century, the signal was changed to a flashing red and powered by acetylene. Today, the powerful 300-candlepower light needs no magnification, and is powered by a solar panel. The National Park Service maintains the building, while the United States Coast Guard maintains the light. Derby Wharf Light Station is still a listed Aid to Navigation.

Top: a painting of the end of Derby Wharf and Derby Wharf Light Station by Charles Porter Brown, 1879.

Peabody Essex Museum

Keepers of the Light

Derby Wharf Light Station is a harbor light, within an easy walk of most of the city of Salem, and therefore it has never had an associated keeper's house. Like all lighthouses, however, Derby Wharf Light needed daily maintenance, especially in the days when the lamp was powered by oil.

Six keepers were responsible for Derby Wharf Light between 1871 and 1917, when the position of keeper was changed to that of laborer, and the administration of the light was combined with that of Fort Pickering and Hospital Point.

Keepers of Derby Wharf Light

Charles C. Pettengill (1871-1873)
Robert Peele Jr. (1873 - 1885)
John Lynch (1885 - 1905)
Shepley Paul Sawyer (1905 - 1908)
Charles L. Wales (1908 - 1911)
N. C. Tedford (1911 - 1913)
William M. Osgood (circa 1913 - 1917)

Fresnel Lenses



One of the most important parts of an historic lighthouse is the magnificent glass Fresnel Lens that magnifies the light. Fresnel Lenses were invented by the French Physicist Augustin Fresnel in 1821, and quickly became the standard for lighthouses in Europe and the United States. The version adopted by the U. S. Coast Guard use a combination of prisms and lenses to focus the light into a beam which, depending on the size of the light and the height of the tower, can be seen as far as 20 miles.

Left: the central lenses and surrounding bands of prisms can be clearly seen in this first-order lens at Pigeon Point Lighthouse in California. This way, nearly all the light emitted by a whale oil lamp (the original light source for most lighthouses) or a modern electric light bulb can be captured and focused into a strong beam of light.

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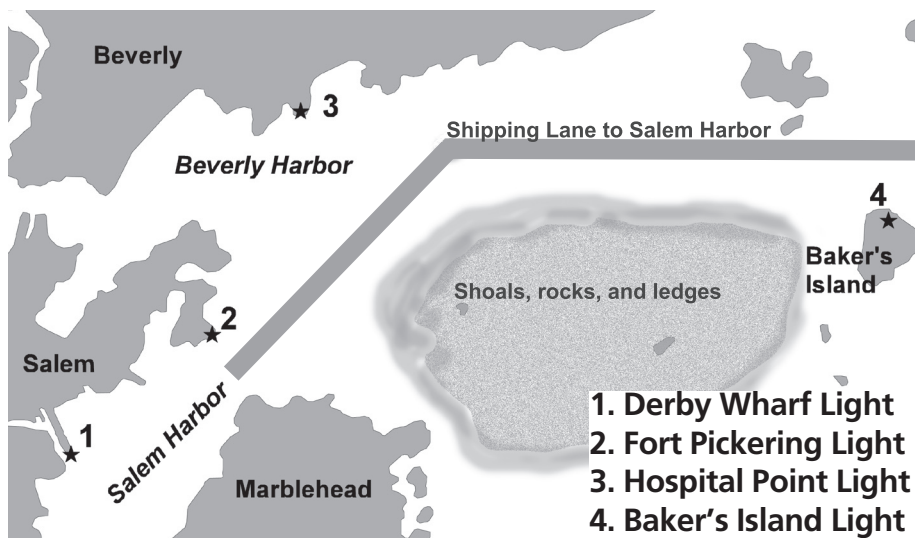
The Coast Guard uses six orders of Fresnel Lens, starting with first order lenses (used at major coastal lights) that are about 18 ½ feet tall and weigh nearly 13,000 lbs. Derby Wharf Light originally had a fifth-order lens, but from 1910 to about 1930, it had one of only seventeen sixth-order lights in the country. The sixth order is the smallest of the Fresnel lenses, and stands about seventeen inches high and weighs about 220 lbs.

Other Lighthouses in Salem Harbor

Derby Wharf Light is one of four lighthouses used to navigate into Salem Harbor. In traditional navigation, lighthouses are used to create lines of position; a mariner uses a compass to get an angle between two fixed points; when the angle is drawn on a chart, the mariner can plot his position. The other lighthouses in Salem Harbor include:

Fort Pickering Light

Fort Pickering Light is a short cylindrical lighthouse just off shore of Winter Island, near the end of the Salem peninsula. Because of its distance from the city center, a small keeper's house was built near the light. When the Coast Guard Air Station was built on Winter Island in 1934, the keeper's house became the officer's club. Today, Winter Island is a park and campground operated by the City of Salem. The lighthouse can be seen from the ramparts of the fort.



Hospital Point Light

Built at the mouth of Beverly Harbor, Hospital Point Light has a 45-foot tower that still contains the light's original 3rd order Fresnel Lens. The keeper's house is now the home of the Commander of the First Coast Guard District, and is not open to the public. Salem Willows Park in Salem and Lynch Park in Beverly have good views of the Hospital Point Light.

Baker's Island Light

Baker's Island is five miles out in Salem Sound, and is the site of the first lighthouse in the area. The Salem Marine Society built a lighthouse on the island in 1798, which was replaced in 1821 by the current lighthouse. Baker's Island Light originally had a 4th order lens, which is now in the collection of the Maine Lighthouse Museum in Rockland, Maine. Baker's Island Light is not open to the public.

Salem Maritime National Historic Site

Salem Maritime National Historic Site was designated in 1937, the first National Historic Site in the National Park Service system. The nine acre site includes the homes of merchants and mariners, the Salem Custom House in which the famous author Nathaniel Hawthorne worked, and a replica of the

three-masted cargo vessel *Friendship*. Today, the rangers and volunteers of Salem Maritime NHS continue to inform and inspire visitors with the maritime history of New England and the United States. For more information, visit us on the web at www.nps.gov/sama or call 978-740-1650.

For Further Reading

Books:

James W. Clafin. *Lighthouses & Lifesaving along the Massachusetts Coast*. Charleston, SC: Arcadia Publishing, 1998.

Jeremy D'Entremont. *The Lighthouse Handbook: New England*. Kennebunkport, ME: Cider Mill Press, 2008.

Jeremy D'Entremont. *The Lighthouses of Massachusetts*. Beverly, MA: Commonwealth Editions, 2007.

Sarah C. Gleason. *Kindly Lights: A History of the Lighthouses of Southern New England*. Boston: Beacon Press, 1994.

Francis Ross Holland. *America's Lighthouses: An Illustrated History*. NY: Dover Publications, 1988.

Edward Rowe Snow. *The Lighthouses of New England*. Beverly, MA: Commonwealth Editions, 2002.

Web Sites

National Park Service's Inventory of Historic Light Stations, www.nps.gov/history/maritime/itsum.htm

United States Coast Guard's web site on lighthouse history, www.uscg.mil/history/h_index.asp