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U.S. Lighthouse Society News

In support of lighthouse preservation, education, history and research

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Category: Kate's Corner

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Kate's Corner #25

November 2, 2018 · Wickie from NH · [Leave a comment](#)

Kate Walker here, keeping the light on Robbins Reef on the edge of New York Harbor.

Fog was frequent at Robbins Reef. When I saw it coming, I went down into the deep basement and started the engine that sent out siren blasts from the fog signal at intervals of three seconds. What a huge advance

Follow



Kate Walker at Robbins Reef Lighthouse, from a nineteenth century newspaper

from the cannon that was used as a fog signal at Boston Harbor 200 years ago. Fog bells run mechanically were introduced in the early 1850s. They were operated by a striking mechanism and weight that was raised by either a flywheel or clockwork. Steam-powered whistles were introduced in the late 1850s. In 1866 the reed horn signal powered by a caloric engine was also introduced.

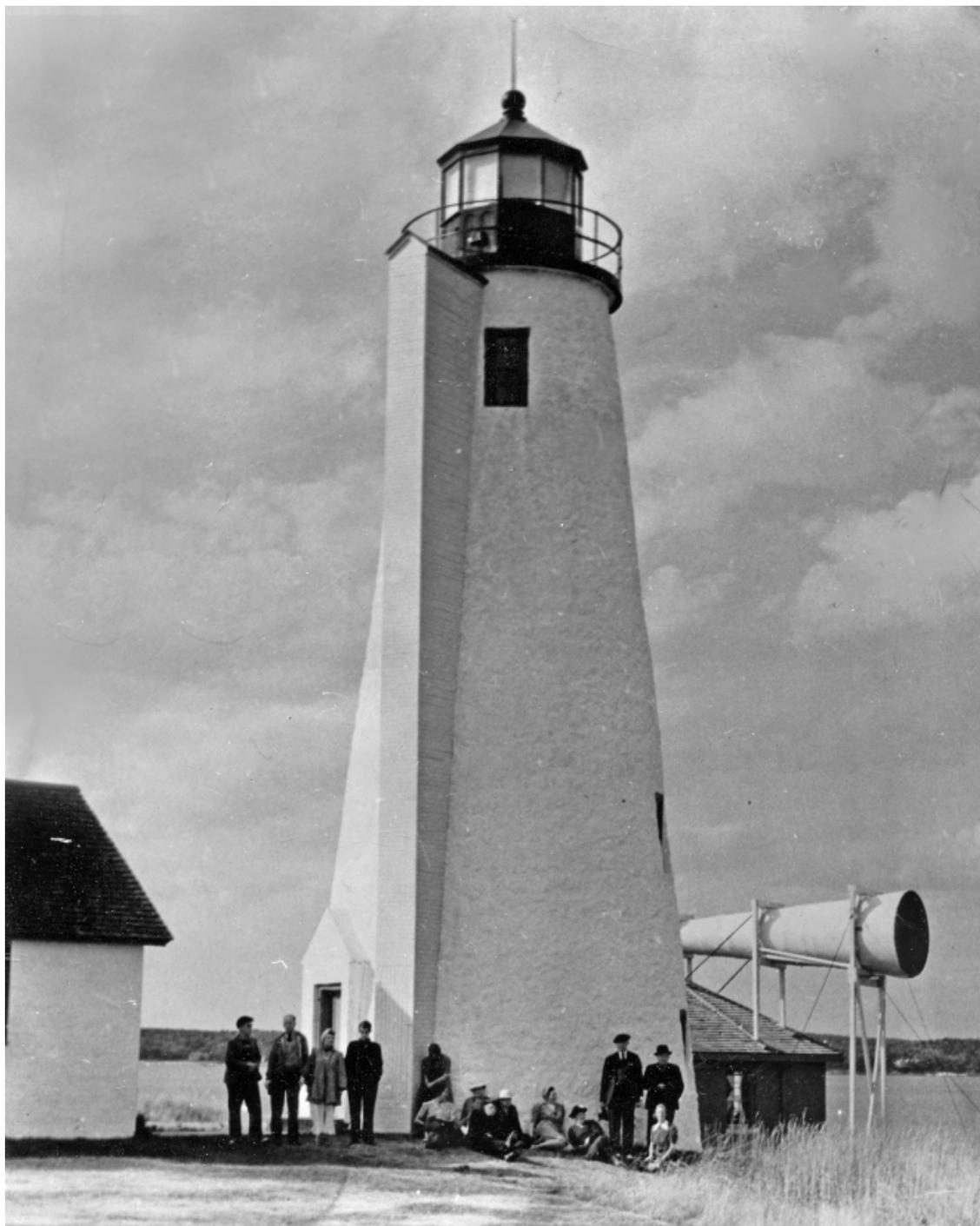
On April 25, 1893, our fog bell was removed and a blower siren was installed, operated by a Priestman engine. This engine only lasted for a few years before a Hornsby-Akroyd oil engine replaced it in 1896. Two years later, a larger trumpet for the fog siren was installed, and the fog-signal apparatus was overhauled and repaired.



Children of Keeper Ralph Norwood atop Boston Light's fog cannon in the 1930s; photo courtesy of Willie Emerson. This cannon, North America's first fog signal, went into service in 1718 and is still on display at the lighthouse on Little Brewster Island in Boston Harbor.

The siren made so much noise that Jacob and I didn't even try to sleep.

A siren installed at Alcatraz Light Station in San Francisco Bay caused a storm of complaints from residents who found it grating.



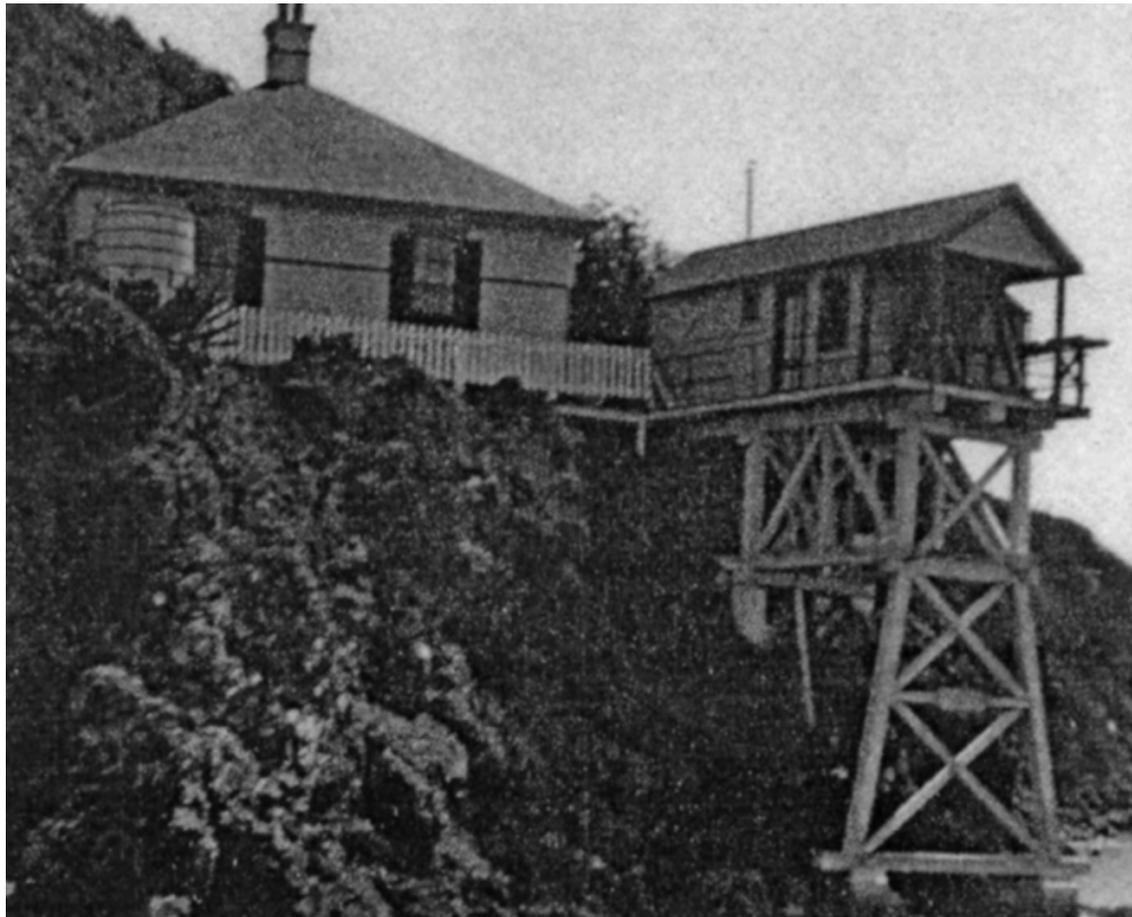
Bakers Island Lighthouse, Salem, Massachusetts. When a powerful new fog siren replaced a fog bell in 1907, the complaints of island residents over the noise were vehement. Eventually, the signal was aimed at the sea through a megaphone, seen above, so that it was barely audible on the island. From the collection of Edward Rowe Snow, courtesy of Dolly Bicknell.

Juliet Nichols tended the Angel Island Light and Fog Signal Station in San Francisco Bay while I was at Robbins Reef. A new striking apparatus was installed on Angel Island in 1905. In 1906 Juliet was watching the fog roll in through the Golden Gate, as it regularly does, and listening to the fog signals start up in the lighthouses on both sides of the channel. She rushed to start her

own equipment, only to have the machinery cough into silence. Juliet struck the bell by hand for 20 hours and 35 minutes.

Occasionally my fog horn machinery broke down, and then I climbed to the top of the tower and banged a huge bell. When the men at the nearby lighthouse depot on Staten Island heard the bell, they knew they must visit Robbins Reef and make repairs to the fog signal as soon as wind and weather permitted.

Mechanical fog bells were notorious for breaking down. The mechanical pounding of the bell produced strong vibrations, which caused tension bars and hammer springs to break, even snapping the rope attached to the clockwork weight. Juliet Nichol's whole career at Angel Island [1902 – 1914] was a battle with fog. Her log recorded periods of fog as long as 80 hours at a time and the many times she was forced to strike the bell by hand.



The fog signal building at Point Knox, Angel Island. (U.S. Lighthouse Society)

On the fourth of July, 1906, the machinery [at Angel Island] went to pieces., the great tension bar broke in two and I could not disconnect the hammer to strike by hand. I stood all night on the platform outside and struck the bell with a

hammer with all my might. The fog was dense, with heavy mist, almost rain.

What a way to celebrate Independence Day!



Information is from Clifford, *Nineteenth Century Lights*, p. 83; National Archives Record Group 26 Entry 1, Volume 755; Annual Report of the U. S. Light-House Board; National Archives Record Group 26 Entry 8 (NC-63); Clifford, *Women Who Kept the Lights*

KATE'S CORNER · KEEPERS

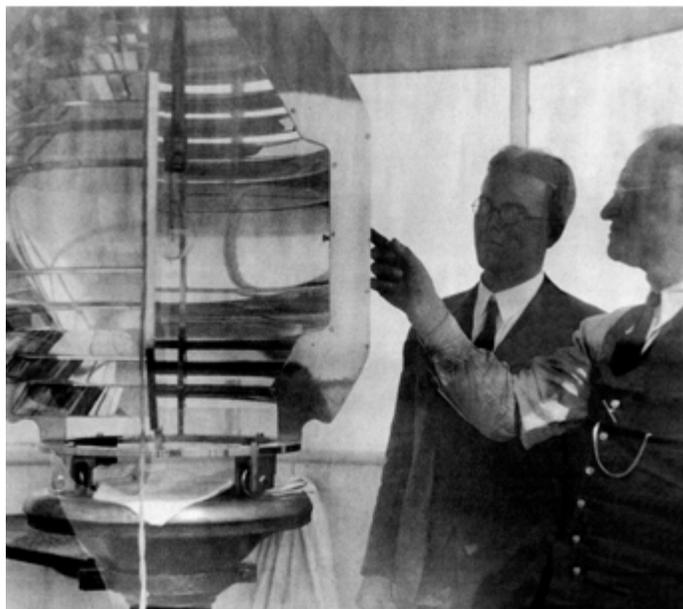
KATE'S CORNER #24

September 28, 2018 · Wickie from NH · [Leave a comment](#)

Kate Walker here, tending the light on Robbins Reef.

Once a year a lighthouse tender brought six tons of coal to burn in my stoves, a few barrels of oil for the lamps I put in the lantern every night, and a pay envelope. The tenders regularly brought supplies and workmen to make repairs, and the district inspector. My tenure at Robbins Reef was supervised by four inspectors: Inspector Commander Henry F. Pickering from 1890-1895; Inspector Commander A.S. Snow from 1895 to 1912; Inspector Commander C. D. Stearns for first six months of 1912; and in June 1912 Inspector Joseph T. Yates, the first civilian inspector, who served through the rest of my term in

1919.



Keeper George V. Coddling (right) with 10th District Inspector Roscoe House in the lantern of the Charlotte-Genessee Lighthouse. Photo courtesy of Thomas A. Tag.

Lampists visited every light in their charge at least once a quarter, to accompany the inspector during his tour of inspection, should he require their services, to visit and remain several days at those lights to which new keepers had been appointed, and made frequent inspections of the steam fog-signal in their charge.

The inspector visited all the stations in his district and reported on repairs needed to the tower and buildings; needed renovations and improvements; condition of

the station, lantern, illuminating apparatus, and related equipment.

Comparisons were made of the interval of flashes and eclipses and their duration, with the intervals given in the Light List. The inspector was responsible for making sure the keeper understood the printed instructions for operating all equipment and other attendant duties. The inspector also reviewed the keeper's journal and records relating to expenditures, shipwrecks, and vessels passing. The inspector assessed the attention of the keeper to his duties, and his ability to perform them well. Both inspectors and engineers had authority to dismiss a keeper or other employee found in a state of intoxication.



Goat Island Light Station, at the entrance to Cape Porpoise Harbor in Kennebunkport, Maine. National Archives photo 26-LG-2-25.

On August 11, 1887, the Inspector of the 1st Lighthouse District reported that he had inspected Goat Island Light Station, Maine, on July 6, 1887, and found it in an indifferent condition, its dwelling being dirty from top to bottom. The Inspector directed the Keeper's attention to his neglect of duty and instructed him to improve the condition of his station.

When a second inspection was made, the whole station was found in a dirty condition. The lantern and tower appeared not to have been swept or dusted for weeks; the lens was covered with lint and dust, the reflector was dirty and the plate glass of the lantern was streaked with dust and spotted with fly specks. The dwelling was filthy — “offensive,” the Inspector states — to sight and smell. The Board did not consider Keeper John Emerson a competent person for the position he held and asked his removal.

A woman may be more inclined than a man to keep her lighthouse neat and clean. I always looked forward to the inspector's visit because he brought news and told lighthouse stories, which I always enjoyed.

Information is from National Archives Record Group 26, Entry 1, Volume 753; Lighthouse



Service Bulletins; U.S. Treasury Department, Organization and Duties of the Light-house Board; and Regulations, Instructions, Circulars, and General Orders of the Light-house Establishment of the United States (Washington, D.C.: Government Printing Office, 1871); National Archives Record Group 26 Entry 24 (NC-31); and Clifford, Maine Lighthouses, p. 160.

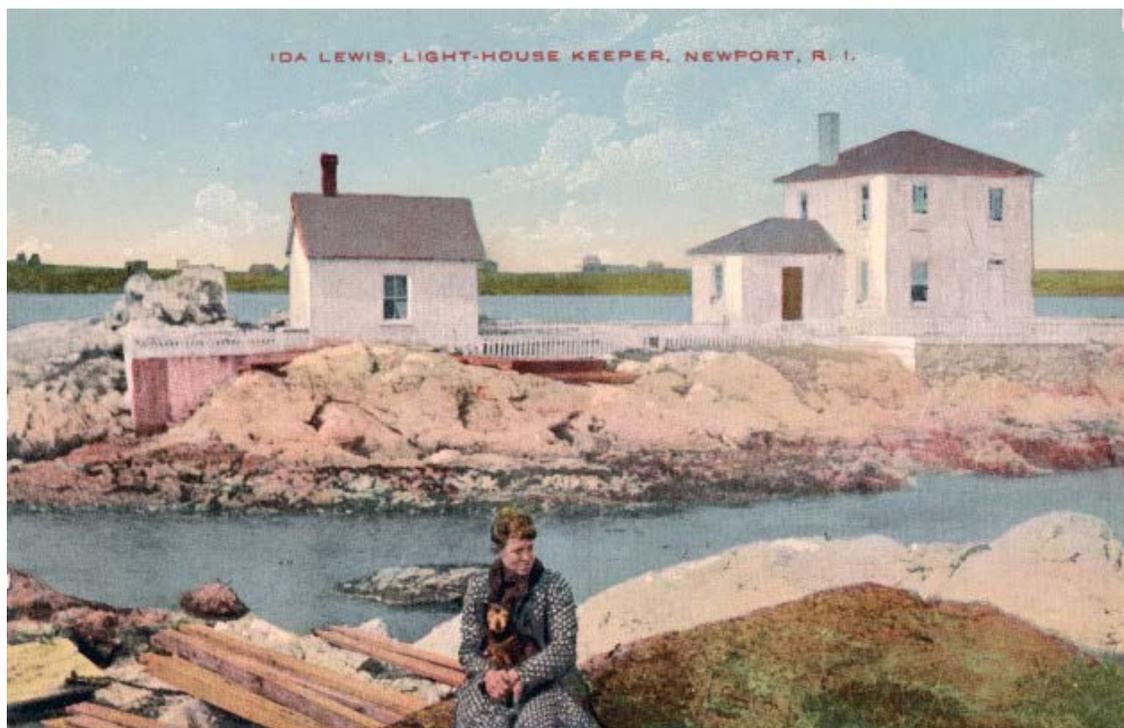
KATE'S CORNER · KEEPERS

KATE'S CORNER #23

August 29, 2018 · Wickie from NH · [Leave a comment](#)

Kate Walker here, keeping the light on Robbins Reef.

I think I've already mentioned that only a few visitors came to Robbins Reef because they had to come by boat, tie up, and climb my ladder. At other lighthouses that were more accessible, visitors came, often in large numbers. Fame for her rescues of drowning seamen brought visitors to Lime Rock in Newport, Rhode Island, to stare at Ida Lewis. Her wheelchair-bound father entertained himself by counting their numbers — often a hundred a day; nine thousand in one summer alone. The lamp and lens were located in an elevated closet, raised a step or two and reached by a door from the hall. Visitors actually walked through the family's living quarters to see the light.



Early 1900s postcard Ida Lewis at Lime Rock; from the collection of Jeremy D'Entremont

The 1881 *Instructions to Light Keepers* tells keepers that visitors to a light station were to be treated courteously and politely, but not allowed to handle the apparatus or carve anything on the lantern glass or tower windows. This meant that visitors could not be allowed in the lantern without a keeper in attendance.

Reaching the lantern at Stony

Point Lighthouse on the Hudson River involved three sets of steep steps and unlocking doors and trapdoors. Keeper Nancy Rose and her children found the repeated climbing of the stairs and the supervision of large numbers of park visitors trying.

James McCobb, keeper at Burnt Island Light Station in Boothbay Harbor, Maine, wrote in his log on July 7, 1872, "Many strangers looking around the station." By 1872, Maine had become a popular summer resort for people who could afford to build cottages there, as well as for patients who stayed at pleasant onshore resorts.

The steamship companies saw a growing market of less affluent day-trippers, who enjoyed cruising among the many islands and stopping for a picnic and



Nancy Rose, from an 1896 newspaper article

walkabout. A lighthouse was splendid entertainment — a novelty, and a tour of the premises cost nothing.



Burnt Island Light Station in 1885. National Archives image 26-LG-1-52.



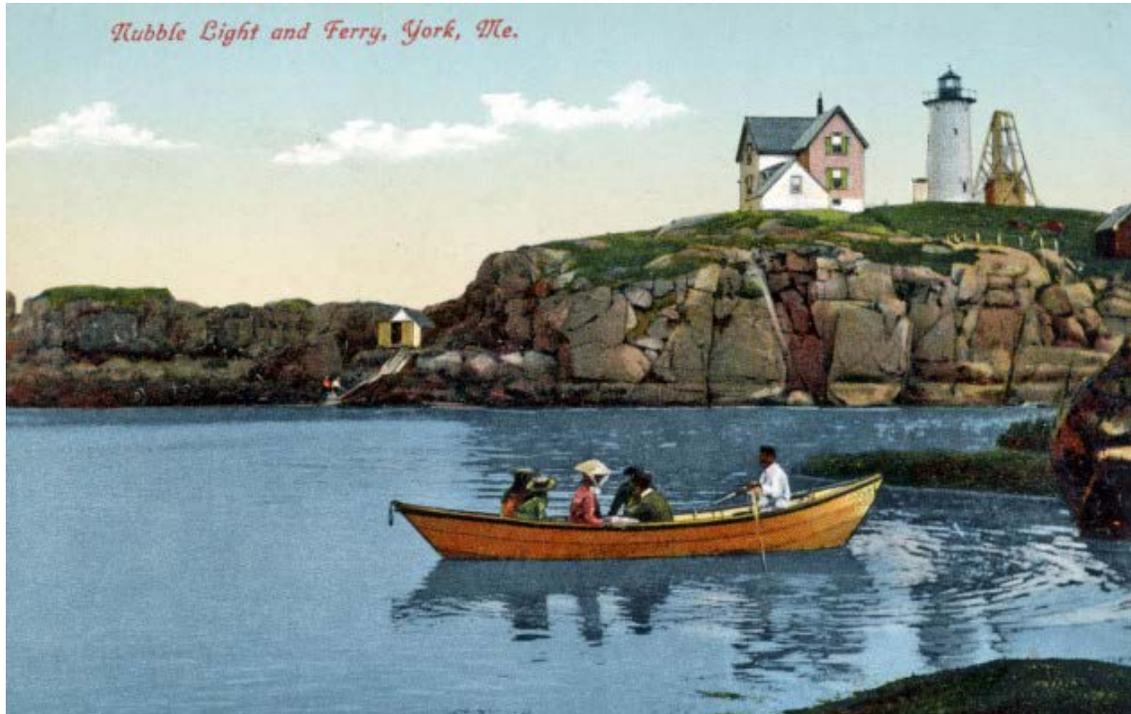
*James McCobb, courtesy of the
Maine Dept. of Marine Resources*

On April 13, 1876, McCobb wrote in his log, “All who can are leaving the cities and country back of us are coming to the seashore to enjoy the sea breezes. Very many are visiting this station daily. Some days more than 100 have called and in fact so many that they are becoming a real burden, taking up half my time to wait upon them.”

By August 29, 1878, McCobb’s patience had run out. “Much company here today to see the Light House and to make themselves troublesome generally as they could. Wish the Board would issue one more regulation, and that would be that no more strangers could be admitted into the lantern under no consideration.”

Instruction 18. Keepers must not make any charge, nor receive any fee, for admitting visitors to light-houses.

William Brooks took over as keeper of Cape Neddick Light Station in Maine in 1904. He charged 10 cents to visitors who came to the island; for another 5 cents they could tour the keepers quarters. When the district inspector learned of these activities, the keeper resigned.



Early 1900s postcard of Keeper William Brooks and his "Nubble ferry." From the collection of Jeremy D'Entremont.

St. Augustine, Florida, grew as a tourist destination and the lighthouse became increasingly popular among the city's visitors. In 1901 Keeper Peter Rasmussen reported 1,500 visitors. By 1912 the figure had risen to 8,500, with 5,500 visitors already in the first three months of 1913. He concedes that these numbers are likely inaccurate because "as easily one-fourth gets away with not registering, it being impossible to watch all of them."

Information is from *Women Who Kept the Lights*; *1881 Instructions to Light Keepers*; and Keeper James McComb's and Peter Rasmussen's logs.

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EDUCATION · KATE'S CORNER · NEWS

KATE'S CORNER #22

May 29, 2018 · Keeper Kate · [Leave a comment](#)

Kate Walker here, keeping the light on Robbins Reef on the edge of New York Harbor.

Every morsel of food we ate had to be brought by boat from Staten Island. The perfect lighthouse would have a vegetable garden, some fruit trees, a flock of chickens, a cow to supply milk, maybe even a horse to get around on. These would provide much of the food a keeper's family ate, but would also add many tasks to the keeper family's daily life: planting, tending, and harvesting the vegetables and fruit; collecting eggs every day; milking the cow every morning and in the evening; feeding the animals.

Fannie Salter had the perfect lighthouse at Turkey Point at the head of Chesapeake Bay. In December 1861 the District Engineer built "250 yards of new fencing at Turkey Point light station" to keep cattle from invading the

lighthouse garden. This protected about four acres of ground.



Fannie Salter and her son feed turkeys on the lawn of Turkey Point Light Station at the head of Chesapeake Bay. Photo courtesy of the U.S. Coast Guard.

How big was Fannie Salter's four acres? As big as a football field? Or a soccer field? Or a baseball field? Or an average city block?

Black Rock Harbor Light Station on the north shore of Long Island Sound was on Fayerweather Island, shrunk by erosion to three scraggly acres of tall grasses and ailanthus trees, planted by Kathleen A. Moore. Kate assisted her invalid father in keeping the light. She said, "I never had time to get lonely. I had a lot of poultry and two cows to care for, and each year raised 20 sheep, doing the shearing myself—and the killing when necessary. You see, in the winter you couldn't get to land on account of the ice being too thin, or the water too rough. Then in the summer I had my garden to



Black Rock Harbor Light Station off Bridgeport, Connecticut, around 1880. Kate

make and keep. I raised all my own stuff, and as we had to depend on rain for water, quite a bit of time was consumed looking after that. We tried a number of times to dig for water, but always struck salt.”

Moore assisted her father there from 1817 to 1871, then acted as official keeper from 1871 until 1878. The 1823 tower still stands.

Courtesy of the National Archives, #26-LG-11-3

Kate carved duck decoys, selling them to visitors as souvenirs or to sportsmen who hunted. She also planted, gathered, and seeded oyster beds in Long Island Sound. She tended the Black Rock Harbor Light until she was 83 years old, then bought a retirement home with her savings and lived to age 105.

Was hers a perfect lighthouse?



Information from National Archives Record Group 26 Entry 3 (NC-63), Volume 354; and from the *New York Sunday World* in 1889 and the *Bridgeport Standard*, March 28, 1878.

Submitted May 29, 2018

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EDUCATION · KATE'S CORNER · NEWS

KATE'S CORNER #21

May 10, 2018 · Keeper Kate · Leave a comment

Kate Walker here, keeping the light on Robbins Reef.

Let me dispel a bit of misinformation that is circulating, prompted by self-appointed experts who never check the accuracy of their assumptions. As far as I've been able to research, women who kept the lights were paid the same salary as male keepers. My husband John was paid \$600 a year; and when I finally received his appointment, I was paid \$600 a year. With their housing provided, in the 1890s a family could live, frugally, on less than \$2 a day.

Amt. @ \$450 authorized July 27, 1896.

✓ Number of Assignments: *3* ✓ *Robbins Reef Light Station, District of New York.*

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KEEPER	ASSISTANT KEEPER	SALARY	DATE OF APPOINTMENT	DATE OF VACATION	HOW VACATED	WHERE BORN	WHENCE APPOINTED	ARMY OR NAVY RECORD
<i>John Walker det.</i>		<i>\$600</i>	<i>December 30, 1875</i>	<i>July 12, 1886</i>	<i>Short. Appt.</i>	<i>Sweden, N. Y.</i>		<i>Army</i>
<i>John Walker</i>		<i>600</i>	<i>July 12, 1886</i>	<i>February 20, 1890</i>	<i>Died</i>	"	"	"
<i>David B. Decker, a</i>		<i>600</i>	<i>March 10, 1890</i>	<i>? ? ?</i>	<i>Declined</i>	<i>N. Y.</i>	"	<i>None</i>
<i>Christian Hansen, a</i>		<i>600</i>	<i>April 2, 1894</i>	<i>April 30, 1896</i>	<i>Cancelled</i>	<i>Norway</i>	"	"
<i>Mrs. Kate Walker, a</i>		<i>600</i>	<i>June 1895</i>	<i>June 6, 1895</i>	<i>absolute</i>	<i>Germany</i>	"	"
<i>" " " ✓</i>	<i>Jacob Walker</i>	<i>450</i>	<i>July 1896</i>	<i>27</i>		"	"	"

Kate first served as a laborer when her husband John died. When no one else permanently accepted the position, they offered it to her. National Archives microfilm publication M1373

Salaries have changed over the years. The first woman who received an official keeper's appointment on the Chesapeake Bay was Ann Davis, appointed in 1830 at Point Lookout Light Station at the Potomac River entrance. She received a salary of \$350 per year.

Baltimore 4 Octo 1842

Sir

At the Request of Miss Davis

I take pleasure in introducing her to your acquaintance - Miss Davis is the Keeper of Point Look - our light house and as such is doubtless favorably known to you, as in my estimation she ranks with the very first in the Maryland Districts. She informs me that her object in visiting Washington is to solicit from your hands an increase of her small salary.

I had told a Miss Davis that you were fully apprised of her merits as an officer of the Government and that were it in your power to reward her merits by a comply and of her merits I felt assured you would take much pleasure in doing so - appreciating her ~~merits~~ as I am sensible you did

I am very respectfully
Your obt. Serv
Raymond

D. S. Pleasanton Esq.
5 Anston of the Treasury

Ann requested a salary increase in 1842 through the local customs collector who supported her request.

Apparently her request was denied, she was reportedly earning \$350 in 1847.



The Gold Rush in 1849 in California led to a steep increase in everyone's salary on the West Coast because skilled labor became very hard to find. After several vessels experienced difficulty in the waters along the West Coast,

Although Alcatraz keeper Michael Cassin's salary was increased from \$700 to \$1,100 in 1854, he soon resigned. The salary reduced from \$1,100 to \$800 in 1859 and continued to fluctuate. National Archives photo.

Congress passed acts in 1850 and 1851 that provided funds for eight lighthouses to be built along the Pacific Coast. Light from a fixed, third-order Fresnel lens was first shown from Alcatraz Lighthouse on June 1, 1854, with Michael Cassin

eventually receiving an annual salary of \$1,100 as head keeper and John Sloan being paid \$700 to serve as his assistant.

During the Civil War average principal keeper salaries elsewhere had increased to \$500-\$600 a year. But in remote stations like Cape Flattery in Washington State and Minots Ledge in Maine or dangerous locations like Frying Pan Shoals Light Vessel in North Carolina and Martin's Industry Light Vessel in South Carolina principal keepers received \$1,000 a year. Betsy Humphrey who assumed her husband's position on Monhegan Island in Maine in 1862, was paid the same salary as her husband—\$820. In 1876 she was reappointed at a reduced salary of \$700. All salaries fell back closer to the average after the war. In 1896 Margaret Norvell at Port Pontchartain Light Station in Louisiana received the same salary I did.



The reduction of Betsy's salary at Monhegan Island could also have been triggered by reduction in her duties. In 1870, her fog bell was replaced by a steam fog signal on nearby Manana Island which had its own keeper. Photo courtesy U.S. Coast Guard Historian's Office

As I've already told you, I earned \$600 a year in 1894. Emma Taberrah, who in

1904 was appointed keeper of the Cumberland Head Light Station, earned only \$480, but she was keeping a minor station on Lake Champlain in Upstate New York and did not tend a fog signal.



Cumberland Head ca. 1910 courtesy of the Herb Entwistle Collection.

In 1918 Congress decreed that the average salary for light keepers should be \$840. These salaries were supplemented by food supplies brought by tender to locations where there was no suitable land for gardening or keeping livestock.

Information is from F. Ross Holland, *Maryland Lighthouses of the Chesapeake Bay* (Maryland Historical Trust Press and The Friends of St. Clements Island Museum, 1997); <Lighthousefriends.com>; Clifford, *Women Who Kept the Lights* (available from the [Keeper's Locker](#)); and *Lighthouse Service Bulletin*, Vol. II, No. 7, July 1918.



Submitted May 10, 2018

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KATE'S CORNER #20

April 10, 2018 · Keeper Kate · [Leave a comment](#)

Kate Walker here, keeping the light on Robbins Reef.

We talked earlier about lighthouses with caisson foundations. Let's look at two caisson lights.



Fourteen Foot Bank Lighthouse in Delaware Bay is still an active aid to navigation. National Archives image 26-

LG-71-68

Fourteen Foot Bank Light Station stands in Delaware Bay near Bowers Beach. It was America's first pneumatic caisson lighthouse structure, built in 1887. The U.S. Light-House Board (USLHB) Committee on Engineering reviewed and approved all lighthouse plans, sometimes recommending modifications or additions to the design. A letter from the Committee on Engineering to the Chairman, USLHB, on June 4, 1883, outlined their plan:

The Committee considers that . . .
. . . a cylinder 35 feet in diameter

would present the most advantages. This cylinder should be sunk into the sand not to exceed 23 feet. The sand should not be excavated from the inside but remain at the same level as the sand outside. The rest of the cylinder should be filled with concrete, except the necessary space for cellar, fog signals, etc. To prevent scour, brush mattresses should be placed outside the cylinder, extending about 30 feet from the base, and then be loaded with a rip-rap of heavy stone for a distance of 6 to 8 feet above the bottom. The cylinder should extend 24 feet above high water mark. This will make the total length of the cylinder 73 feet.

On July 5, 1885, the wooden caisson, with three tiers of the iron cylinder built upon it, was towed to the site and sunk into position by letting water into it. The caisson was then filled with compressed air, and on July 23d had penetrated to a depth of 13 feet. On August 28 the required depth of 23 feet below the surface of the shoal was reached, and by the middle of September the contractors had finished the work of setting up the plates and filling into the cylinder 2,000 cubic yards of concrete.

Sabine Bank, Texas, was the only lighthouse along the Gulf Coast to be built with a caisson foundation. The caisson was towed to the site of the station, a distance of 16 miles, and was anchored to special clusters of mooring piles.



Sabine Bank, TX, courtesy of U.S. Coast Guard Historian's Office

A working pier in the shape of a horseshoe, 90 feet by 60 feet in plan, was built at the site of the station, the caisson being located between the wings of this pier. On the pier were two stiff-leg derricks, boilers, engines, compressors, pumps, dynamo, cisterns, and quarters for the working party. About 300 tons of ballast rock was placed around the outside of the caisson to prevent scouring. The station was completed in March 1906.

On October 24, 1906, the District Engineer reported that a gale had pushed the sea so high “that it raised the roof of the gallery off of the gallery columns, and broke some of them . . .”

In October 1915, “the sea washed the hatches off gallery floor, broke in the storm shutters on that floor, tore off the iron gallery roof and stanchions supporting it for three-quarters of the circumference of the tower, carrying away two boats in the davits.” The keepers were commended for staying on station until the need for fresh water compelled them to go ashore.



Information is from National Archives Record Group 26 Entry 9; 1886 and 1904 *Annual Report of the Light-House Board*; and *Lighthouse Service Bulletin* No.46, pp. 181-182.

Submitted April 10, 2018

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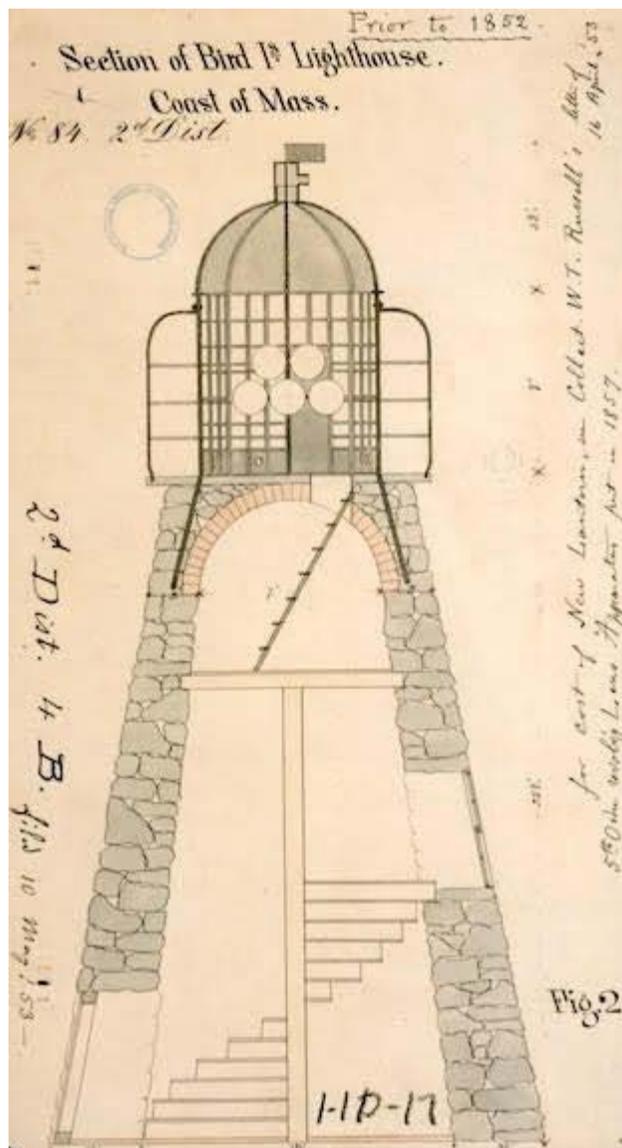
EDUCATION · KATE'S CORNER · NEWS

KATE'S CORNER #19

March 14, 2018 · Keeper Kate · [Leave a comment](#)

Kate Walker here, keeping the light on Robbins Reef, with more on lighthouse architecture.

The light in the tower is what really mattered in a lighthouse. The tower of a lighthouse was there to support the lantern which housed the optic. The light needed protection from the weather and birds and anything else that might fly into it. The protective lantern was typically constructed of cast iron; round, square, octagonal, or hexagonal-shaped; and surrounded by a stone or cast-iron gallery.



An early drawing of Bird Island, MA, with its birdcage lantern. National Archives

Until the adoption of the Fresnel lens in the United States in the 1850s, there was no uniform design for the lantern. Pre-1850s lanterns are rare and are often referred to as old-style or bird-cage lanterns because of their bird-cage appearance. Selkirk (Salmon River) Lighthouse, New York, built in 1838, retains its bird cage lantern. The bird cage lantern on Cape Henry Lighthouse, Virginia, is a reconstruction of one built in 1792.

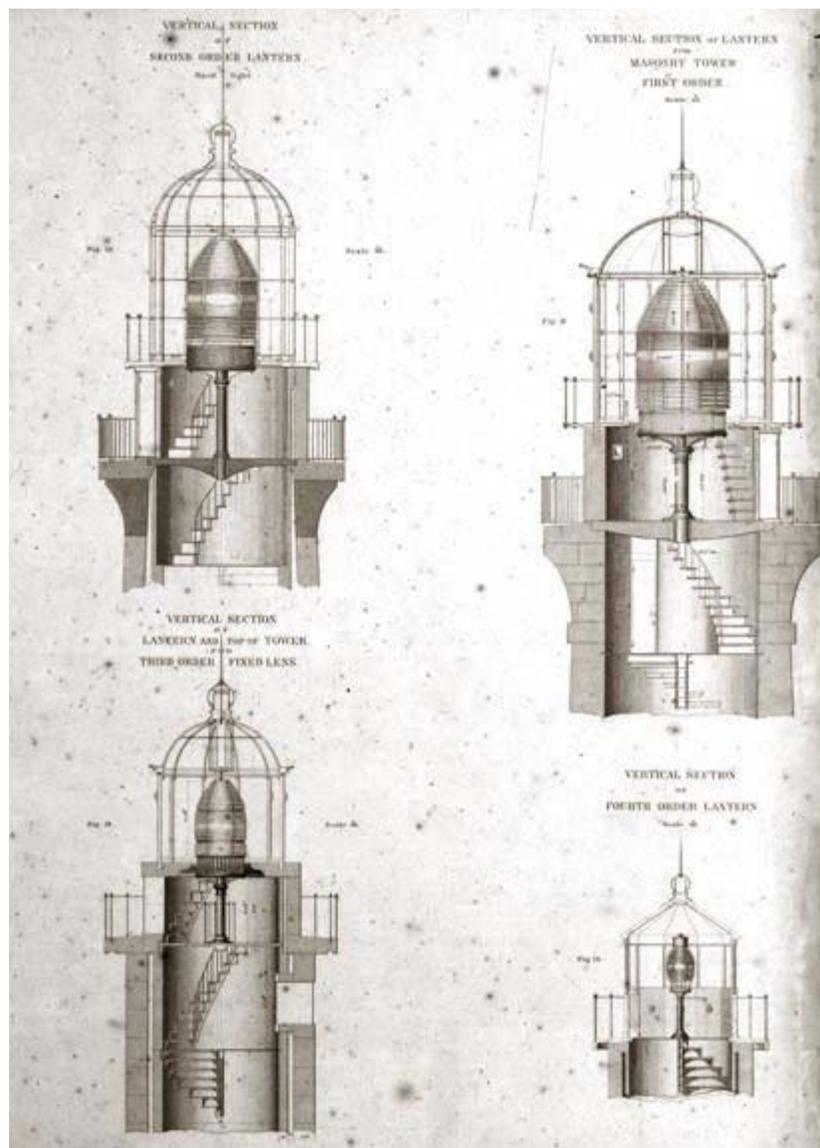
Many pre-1850s light towers had their older



*Old Cape Henry, VA. Photo by
Ralph Esbelman*

lantern removed and new cast-iron lanterns installed when Fresnel lenses were added to a light station. Most light stations in the United States were fitted with Fresnel lenses by 1860. In addition to the replacement of the lantern, the tower supporting the lantern was often modified to accommodate the larger lenses.

Fresnel lenses were developed in seven standard sizes, depending on need. The largest first-order lenses were designed for important coastal sites while the sixth order, the smallest, was designed for small harbors and rivers. In a new lighthouse the Light-House Board decided what order lens would be used.



Standard plans for first-, second-, third-, and fourth-order lanterns. National Archives

To accommodate these new lenses the Lighthouse Board designed four pre-made, ready-to-assemble cast-iron lanterns for first, second, third, and fourth orders. (The fourth-order lantern could accommodate fourth-, fifth-, and sixth order Fresnel lenses.) While it was possible to install a smaller order lens in a lantern of a larger order, it was not possible to increase the lens size for a lantern of a lesser order except for the fifth or sixth. Detailed plans for these cast-iron lanterns can be found in the National Archives, as well as plans for many other lanterns—often the exact plan for the lantern of a specific lighthouse.

Windows in towers were positioned to provide daylight onto the stairs. For taller



Access to the lantern room was via stone, wood, or cast-iron stairs which either wound around a central column or spiraled along the interior sides of the tower walls. Stairway at Absecon, NJ, by Ani Berberian

towers, landings were provided at regular intervals. The top landing ended at the watchroom where the keeper on duty ensured that the light was functioning properly. The lantern room above was usually reached by a ladder.

Information is from the [*Historic Lighthouse Preservation Handbook*](#).

Submitted by March 14, 2018

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