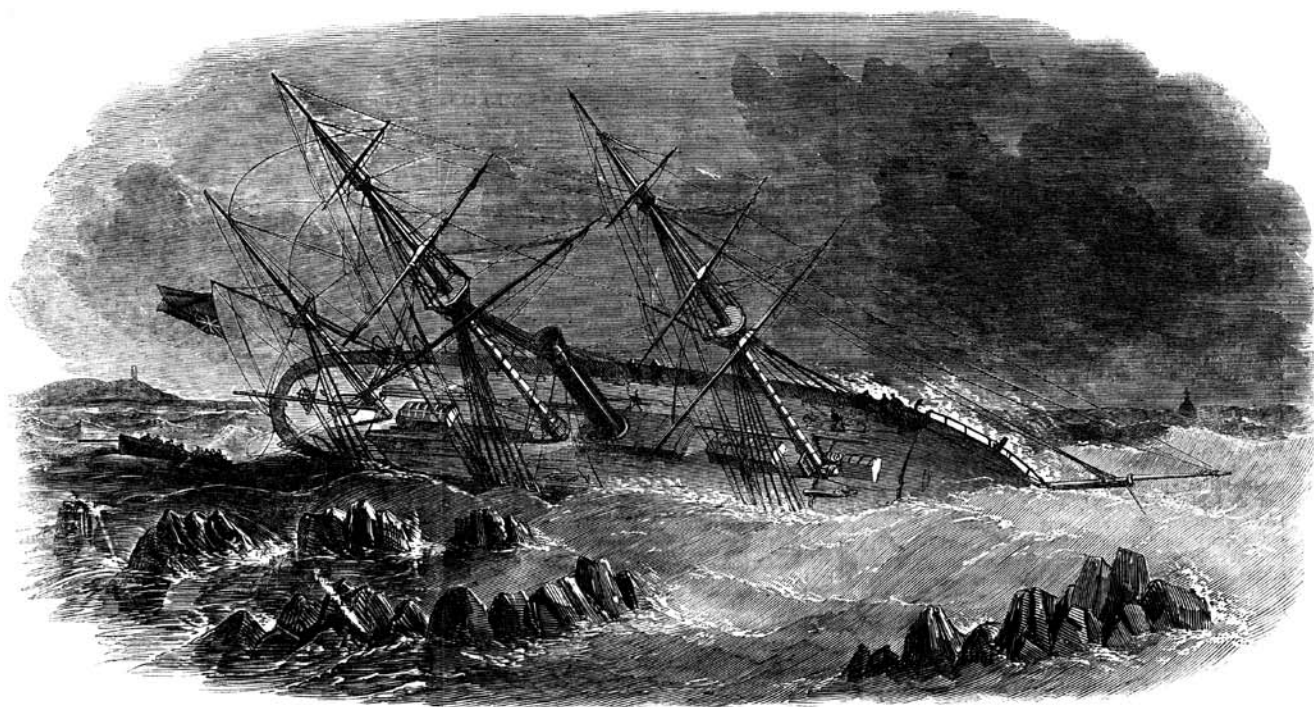


The First Minots Ledge Lighthouse

by Candace Clifford



The approach to Boston is ... very difficult in thick weather ... Ships entering with a northeast gale, if they fail of hitting the [Boston] light-house channel by drifting to the southward, are often wrecked on the lee shore of Cohasset, where a dangerous reef extends about two miles to the northward, and is annually the scene of the most heart rendering disasters. For a long series of years petitions have been presented to Congress, from the citizens of Boston, for erecting a lighthouse on these dreadful rocks but no action has ever yet been taken on the subject. One of the causes of frequent ship wrecks on these rocks has been the light-house at Scituate, four miles to the leeward of the reef, which has been repeatedly mistaken for Boston Light, and thus caused the death of many brave seamen and the loss of large amounts of property. Not a winter passes without one or more of these fearful accidents occurring. Notwithstanding this fact of the mistaken location of Scituate light (which is of no local importance whatever, standing at the entrance of an obscure harbor, which is dry at low water ...) [being] notoriously public for years, and nine out of ten of the wrecks on Cohasset rocks attributed to its evil influence; still no report upon this subject has even been made to Congress by the Superintendent ... one of the most interesting objects of this inspection was to ascertain the feasibility of erecting a light-house on the extremity of the Cohasset reef; and it was found that formidable difficulties would embarrass the undertaking, still they were not greater than such were successfully triumphed over by a "Smeaton" or a "Stevenson."

Excerpt from I.W.P. Lewis's report and inspection of the lighthouses of Maine, New Hampshire & Massachusetts - February 24, 1843

The demise of the first tower built to mark the hazardous Minots Ledge off Cohasset, Massachusetts, is one of the most dramatic episodes in lighthouse history. Standing on a pile foundation, a relatively new construction technique at that time, the tower succumbed to a gale within 16 months of completion.

Two assistant keepers perished. Although the event has been well documented in the past, primary source material recently uncovered by the author in the National Archives, expands and enriches our understanding of this tragic event.

When construction of the first tower was being considered in 1845, Alexander Parris, a noted architect and engineer who constructed many granite towers in New England, was asked by Stephen Pleasonton, Fifth Auditor of the U.S. Treasury and Administrator of the Lighthouse Establishment, to make a survey of Minot's Ledge or Cohasset Rocks, as well as "to make a Plan and Estimate of the expense of erecting a substantial Light House of stone." On September 12, 1845, Parris reported, "There is no doubt but a Light House can be erected on the Minot by first levelling the surface of the rock and placing there a structure much on the same plan as the one built on the Eddystone (coast of England)

by the celebrated Engineer Smeaton. Owing to the great exposure to the N. Easterly gales which are frequent and of the severest kind on this coast, a Light House to be erected on the Minot should be built of the best materials and workmanship to ensure durability."

In a follow-up dated September 26, 1845, Parris suggested a plan of an existing stone lighthouse that could be adapted as a tower on Minots:

"In regard to a suitable Light House to be erected on Minot's Rock, I think one on the plan submitted to you in 1838 for the rebuilding of the Light-House on Whales Back in Portsmouth N.H. Harbor, with the dimensions enlarged would be most suitable... I should think that a suitable Light House could be erected on Minot's Ledge for one hundred thousand dollars."

No immediate action, however, was taken to begin construction. Local mariners continued to argue the pressing need for a lighthouse on Minot's Ledge. On December 29, 1846, Capt. Josiah Sturgis wrote Pleasonton,

"There is hardly a winter passes that we don't have to record some fatal accident on or near Minots Rocks, owing to the want of a Light House. The first this season that is known occurred [during] the first snow storm a few weeks since, a very fine Brig bound to Boston struck one of the Rocks and bilged, and by great skill and management all hands were saved by the Life Boat which located at Cohasset by the Humane Society of Boston. Her cargo was as follows viz. 1022 boxes of sugar, 51 [barrels] of molasses, 577 boxes of cigars and other articles. The duties under the present is estimated about 1000 dollars. There are no doubt many vessels wrecked both here and on the Londoner [another hazard in Boston Harbor] when no one escapes to tell of the sad disaster."

A few months later, on February 12, 1847, Capt. Sturgis reported another incident,

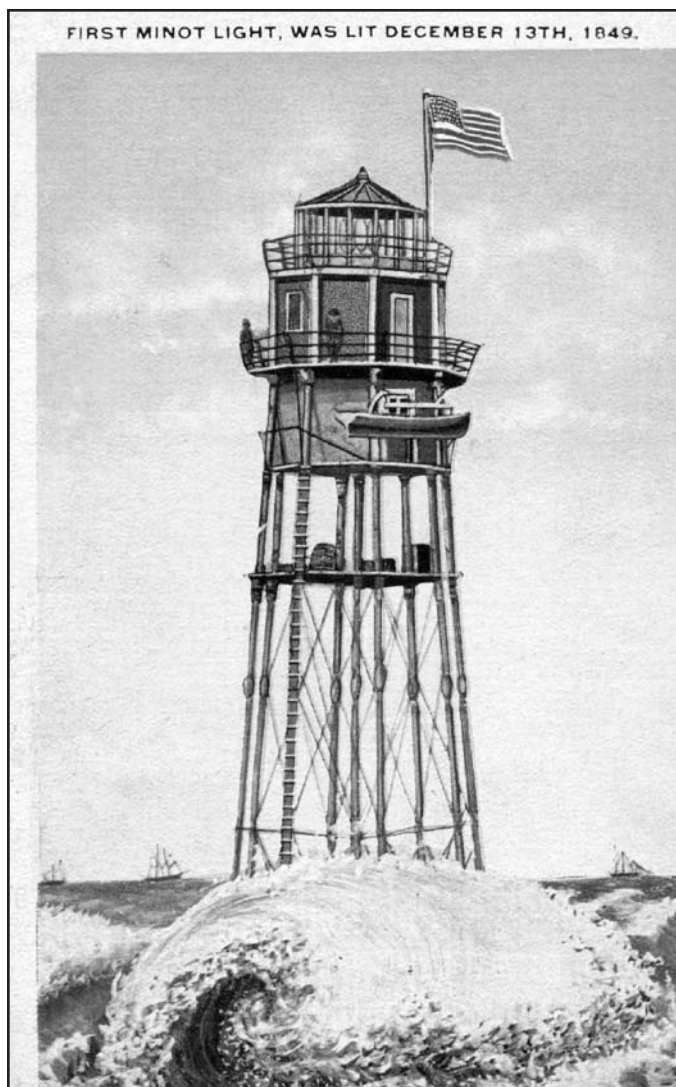
"I have again to inform you of another disaster on Minots Rocks. The Brig Albath from New Orleans for Boston came into the Bay with thick weather. She struck on one of the Minots but the wind was moderate otherwise she would have been a total wreck. The Brig reached Boston with nine feet of water in her hold. How much of her cargo is damaged, I am not informed."

An Act of March 3, 1847, allocated \$20,000 towards constructing a lighthouse on Minot's Rock. On April 17, 1847, Capt. W. H. Swift of the Corp of Topographical Engineers, reported to Col. I. I. Abert, Chief of the Topographical Engineers, on his examination of Minots Rock and submitted a plan for the lighthouse to be constructed thereon by the Corps.

"As this position was examined principally in reference to a light house erected upon the principle of the Iron pile, it was not considered necessary to make an estimate of the cost by erecting a stone tower, which it may be remarked may readily be done, if it should be considered expedient, this however would involve an expense of from five to ten times the amount of the present appropriation while an Iron pile, it is believed, can be put up within the sum now appropriated, and instead of two or more years which would be required to put up a stone structure, the Iron pile may be erected in a single season.

"The plan which I would recommend as a suitable one for this locality then is that known by the name of the Iron pile light, a modification of Mitchell's screw pile light, several of which have already been erected in England."

After providing specifications for the tower, Swift discussed the



proper distance between the platform and the waterline. He believed that if the piles were of sufficient height, the platform and house they supported would not be in danger from rough seas.

"The only condition required in this is that the bottom of the cellar, or store room, be sufficiently elevated to be out of reach of the sea in a gale or wind."

"In the English Light Houses of this description, from 12 to 14 feet is allowed above the line of high water, but as the lights in all the cases of which I have knowledge, are built upon banks or spits, where the wave would roll before breaking, and thereby rise to a less height, than it would in the case of an isolated rock. I consider it necessary to give the platform an elevation, say of 50 to 55 feet above the base of the shafts. This last would be coincident nearly with the line of low water, and as the tide rises ordinarily to 10 feet, and at Spring tides and in gales to 12 and 14 feet, it would leave a space of 29 or 40 feet between high water and the bottom of the store room, which would seem to be more than ample allowance for the break of the sea."

Swift's plan was adopted and on August 12, 1848, an additional appropriation of \$10,000 was allocated towards completing the tower. On March 3, 1849, \$4,500 was appropriated for an illuminating apparatus. On November 15, 1849, a Notice to Mariners announced, "The Light House recently erected on Minot's Ledge is now so far completed that it has been determined to exhibit a fixed Light thereon of the first order, on and after the evening of January 1st 1850." A keeper and two assistants were hired to tend the light on Minot's Ledge, allowing one man to regularly rotate off the station. Alternative housing for the keepers was provided in Cohasset.

On February 2, 1850, Pleasonton heard again from Capt. Sturgis:

"In all my conversation with Ship Masters in relation to the Lighthouse on Minots Ledge, I find it is the universal opinion of its being a very superior light and neither have I heard any complaint in regard to dispensing with Scituate lights. I have seen the keeper but once since he took charge [of Minots], he informed me every thing was well, and there was very little vibration during the gale we had the early part of last month, I think a large quantity of Granite thrown around will be of great service, as it will tend to break the force of the Sea striking the lower part, granite is easily obtained, and at a small expense..."

On August 27, 1850, the Secretary of the Treasury, the head of the department overseeing the Lighthouse Establishment, recommended to Col. Abert that the tower be strengthened,

"The Hon. John Davis, in view of the effects of the wind and sea during last winter, has called my attention to the necessity of strengthening the Light House Structure known as Minots Rock, on the coast of Massachusetts, and upon the recommendation of Captain Swift, suggests that the safety of the Structure would be promoted by the addition of braces to the frame work."

"In a desire to do what the necessity of the case requires, I will thank you to let me know the specific character of the work referred to, and furnish me with an estimate of the probable cost."

On September 17, 1850, Collector Philip Greely, superintendent of the lighthouses around Boston, wrote the Secretary of the Treasury,

"The Keeper of the Light House on Minot's Ledge has resigned his office, and the two assistant keepers have also resigned, the resignations to

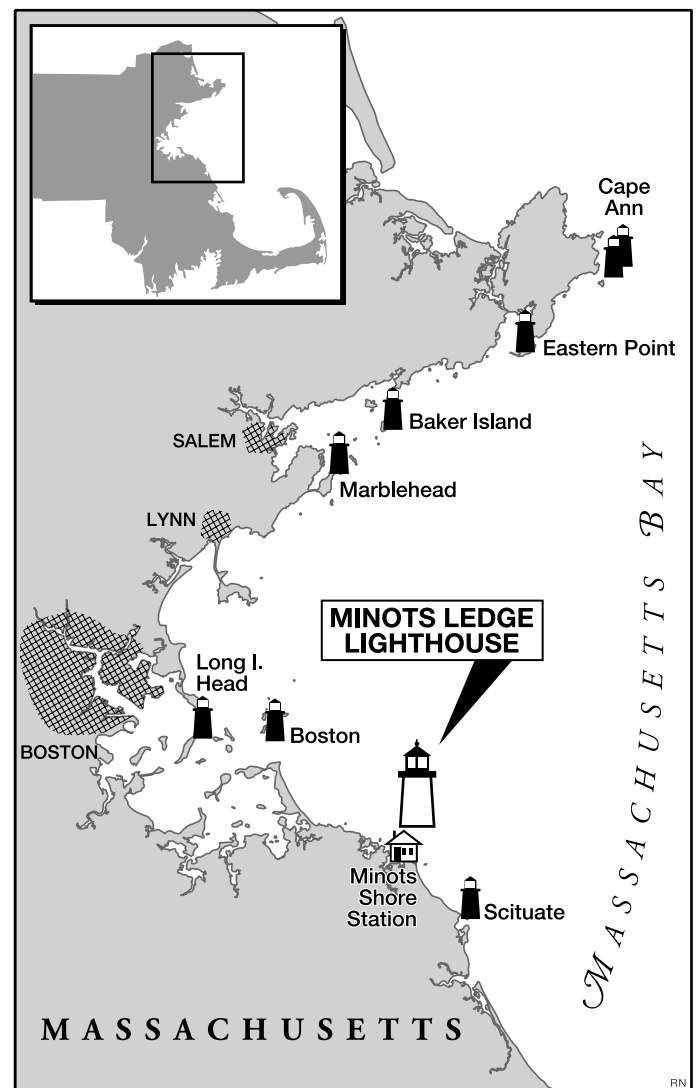
take effect on the first day of October next.

"The general reasons stated for these resignations, are inadequate compensation, and the imminent danger of loss of life to those who may remain on the Light during the winter season."

"The two assistant keepers offered to remain, or find substitutes, if the pay of each of them could be raised from \$360 per annum to \$550 per annum and Mr. Dunham, the keeper, offered to remain also, on his present salary of \$600, provided I would allow him to be the relief man on shore during the winter or about five months in the year—but no assistant keepers could be obtained if such a condition were made with the keeper, and hence I have accepted all the resignations to take effect as before mentioned."

"Having done this I made diligent enquiries for other keepers and failing to obtain satisfactory applications I then advertised for such applications through the newspapers. The result of such advertisement is that several applications are received from persons who are willing to keep the light, but, with one exception, they are not from persons in whom I have confidence. That exception is Mr. John W. Bennett, in whom I have entire confidence. He is a mariner by profession, and a man of courage as well as character."

"I respectfully recommend Mr. Bennett as a suitable person to keep



the Light and hope you may be disposed to send me an appointment for him immediately, as no time should be lost in securing a successor to Mr. Dunham.

“Mr. Bennett says he shall have no difficulty in obtaining services of assistant keepers.

“You are probably aware that next to Boston Light, Minot’s Ledge Light is the most important of any on the whole coast of New England, but it is certainly a dangerous place so far as it respects human life and I feel bound to express the opinion that unless the compensation of the keepers be increased, the time is not far distant when the light must be abandoned.”

In a separate letter to Pleasonton of the same date, Greely recommended that the keeper’s salary be increased to \$1000 and the salary of the two assistants to \$550 each. On October 4, 1850, Greely wrote Pleasonton:

“In the Act (No. 53) making appropriations for the Light House establishment for the ensuing year, I am glad to notice the sum of \$5000 for completing the light house on Minot’s rock. It is very important to add strength to the structure, and make other necessary additions to the lantern, etc., as soon as possible, while the weather will admit of workmen remaining on the Ledge; and I, therefore respectfully suggest that I have the proper authority given me to order a survey of the premises, with a view of reporting what is necessary to do, with an estimate of the probable cost. The new keeper, with his assistants, took charge of the Light on the first of this month.”

Greely received the following report from William Dennison, one of the structure’s contractors, and Israel Lincoln on October 17, 1850:

“The undersigned in accordance with your directions visited the Minots Ledge Light House on Friday the 11th inst. for the purpose now particularly of examining the various joints of the structure with a view to discover whether the reported vibration of the house had loosened the connection and also to decide upon and recommend some further strengthening ties should any such ties, in their judgement be needed.

“Mr. Dennison as you are aware was connected with the engineers who had charge of the construction of the Light House. He made a

critical examination of all the connections of the several parts of the structure, and is clearly satisfied that they have not undergone the slightest changes, and that the whole work is as stiff or as rigid now as it was the day it was completed.

“The vibration of the structure (which we are satisfied has been greatly exaggerated in the current rumors) is occasioned by the elasticity of the piling, and most of the yielding or springing is below the lower set of horizontal radial ties. This can be materially corrected by applying to this part of the piling a set of wrought iron diagonal stays or braces precisely similar to those now on the piles above the lower set of horizontal ties. This set of braces was embraced on the original design, and are already prepared and it was the intention of those charged with the construction of the light house, to put them on, but the lateness of the season and the roughness of the weather prevented.

“We would recommend that these should be carefully put on and as soon as possible, as they would unquestionably stiffen the structure materially.”

On October 26, 1850, a Notice to Mariners indicated “that a Fog Bell, of the weight of about 640 lbs., has been placed upon the Light-House on Minot’s Rock, which will hereafter be rung by the Keeper during fogs and snow storms, or other thick weather. Those interested will govern themselves accordingly.”

On December 25, 1850, we hear directly from Assistant Keeper Samuel Gardiner, who wrote Keeper Bennett about a gale that took place during his rotation off the tower:

“During your absence we have had a very heavy gale and tremendous sea from the N. E. such a one as there has not been before since the Light House has been built. So bad has been the sea that at one crash, the braces that Mr. Dennison put there, were most of them broken short off—The house was shaking very bad from 9 am until 4 pm. The watch bell was constantly ringing and it was almost impossible for us to stand on our feet. There was a barrel of water standing in the cellar which was half emptied by the shaking of the house. I ventured out in the height of the gale to see how bad she shook and I can safely say that she shook all of one feet each side of the centre. This may seem rather exaggerated but I trust you know me well enough by this time, to know what dependance to place upon my word, and I again repeat that it is a solemn fact—The piles beneath us are now one solid mass of ice nearly as big as a three barrel cask. As for the ladder, that cannot be found. There is a mound of ice where they last were and I think they must be there somewhere. We had a “lead” suspended from the top of the room by a cord, and it swung about 14 inches, but the contraction of the house was so much that it could not swing far before it was stopped and swung back again. I assure you sire that it was the most awful situation that ever I was placed in before in my life, and I begin to think that the many stories which were told about it before I came were mostly true. At any rate it is much worse than ever I imagined it could be, and now sir you cannot think [it] strange that we are not contented to remain here for the paltry sum of one dollar a day [it] is what we call madness. If we were sure of the wages being raised there would be some encouragement, but we are not willing to risk our lives for the present pay any longer. We do not wish to make you feel uneasy about our leaving, but we hope you will secure others as soon as possible who do not set such value on their lives as we.”

Four days later, on December 29, 1850, Capt. Bennett wrote a four-page letter to Collector Greely from Minots Rock Light House.



Landing supplies at Minots Ledge. The line from the lighthouse was secured to a large boulder on the seabed and may have helped cause the destruction of the tower.

Some excerpts follow.

"I feel it my duty to write you respecting the effect the late gales have had upon the Light House, would that there was no necessity for it, I would rather bear all than speak or write them upon this subject; but in justice to the government, I feel it incumbent upon me to guard against the certain destruction of this edifice by sending you a statement couched in language & sentiment entirely free from exaggeration.

"My firm belief is that unless something is done and that without procrastination to secure the edifice more firmly it cannot stand & I fear something awful will happen. The foundation, "altho' a rock," is but a sorry one. The northern front is split, and if such gigantic seas as are now lashing against from the north east continue but a few hours longer, I question if this report will ever reach you.

"... The wind is from the N.E. and at intervals of about every two minutes a tremendous sea strikes us causing the Light House to rock so badly that I am obliged to pause in writing.

"My assistants as you will perceive are determined to leave me feeling they are not adequately remunerated for risking their lives. They are both stout hearty seaman, have been accustomed to whaling, & it is not a small matter that would shake their nerves. Our privations are beyond description. The situation is truly awful. . . Through our residence room, the blast howls most fearfully, and the snow beats in so badly that even with a good fire, we are so cheerless that it is impossible to sleep. . . No language can convey to you the unpleasantness of my present situation & with the prospect of being deserted by my assistants on whom I have bestowed unceasing pains to school into their respective duties. . . They can obtain a dollar per day on shore very readily & knowing this, one can hardly expect them to remain in this situation. . . .

"Our communication from shore is very difficult, requiring six men to come off in a moderate gale! My boat is not large enough, nor is it safe unless fitted as a life boat with cylinders. One of the seas struck us and smashed the chimneys of Light lamps into atoms, and our fresh supply being on shore I was compelled to hoist a signal to have them brought off. To obtain men in a gale of wind is very expensive as their prices are exorbitant . . .

"It is evident that the structure requires additional strength and I think the plan I have laid before you will be efficient in every way & which I shall be happy (if permitted) to attend to personally, thereby saving expense. The N.E. quarter is all we have to dread and in order to obviate this, four additional braces could without much difficulty be placed at opposite angles, each brace to be about five inches in diameter and to be long enough to enter the ledges outside, five feet deep, running up to the lower part of the residence room.

"I have no doubt that the original designers will object to such an addition, on the grounds of appearance, but I do not feel it right to admit of such an argument, or permit it to deter me from laying before you an honest suggestion! The structure as it now is does credit to all who have been engaged in its erection, but it requires something more by way of support owing to the faulty state of the foundation . . .

"I have been careful in submitting for your consideration anything relating to my own personal benefit, feeling assured that you will do your utmost for the promotion of my comfort in my trying and precarious situation, from which to be assured, I will never flinch so long as a vestige remains

"The importance of the Light to the mercantile community is great, and I trust the Government will be led by your advice & influence

promptly to adopt immediate measures to save the edifice from total destruction. I have the honor to enclose for your perusal a letter from the assistants, it will be impossible to obtain men of good character to remain permanently, without they are better paid."

Many of Capt. Bennett's reservations regarding the safety of the tower were repeated in a first-person newspaper account:

"These last forty-eight hours have been the most terrific that I have witnessed for many a year ... The raging violence of the sea no man can appreciate, unless he is an eye witness. Unceasingly we have been lashed with its fury, and should the wind back again to the North East, I fear all will be up with us.

"When I engaged to keep this Lighthouse, little did I think that my heart, which had never, for 25 years, in the most boisterous regions, failed me, would tremble at anything here. But there are things, I perceive, still in the back-ground, to shake a stouter heart than mine; and so precarious is our present situation, that there is a prospect that this may never reach you. The rods put into the lower section are bent up in fantastic shapes; some are torn asunder from their fastenings; the ice is so massive that there is no appearance of the ladder; the sea is now running at least 25 feet above the level, and each one roars like a heavy peal of thunder; the northern part of the foundation is split, and the lighthouse shakes at least two feet each way. I feel as sea-sick as ever I did on board a ship.

"... When I accepted this post, I closed my ears against the reports of the former keeper, treating them (as I now find) too lightly, and here I shall remain so long as a vestige of the light-house remains; but the truth must be told. My report to the Collector contains a more minute account of the effect the gale has had upon us. At intervals an appalling stillness prevails, creating an inconceivable dread, each gazing with breathless emotion at one another, but the next moment the deep roar of another roller is heard, seeming as if it would tear up the very rocks beneath, as it bursts upon us—the light house quivering and trembling to its very centre, recovers itself just in time to breast the fury of another and another, as they roll in upon us with resistless force.

"Our lanthorn windows are all iced up outside an inch thick, although we have a fire continually burning; and it is not without imminent peril that we can climb up outside to scrape it off, which I have done several times already. I have a dread of some ship striking against us, although we have kept the bell constantly ringing all night. Our water is a solid mass of ice in the casks, which we have been obliged to cut to pieces with an axe ere we could obtain any to drink. Our situation is perilous. If anything happens ere day dawns upon us again we have no hope of escape. But I shall, if it be God's will, die in the performance of my duty.

"P. S. I have put a copy of this in a bottle, with the hope it may be picked up in case of any accident to us."

On January 5, 1851, former keeper Isaac Dunham wrote Pleasonton,

"I take the liberty to write you now as I am away from the Minot Light House with my family at North Bridgewater where I enjoy myself much [sic] better than on that Rock. The reason of my leaving the Light was I considered it unsafe. I informed the Collector that if nothing was done to it to make it more secure I should leave it the first of October. We [were] on the Light a little short of a year and have had sum [sic] hard gales of wind that would try any mans courage. I have seen the sea run through the piles 30 feet high, going with the speed of an engine

and it seemed impossible for it to stand it long ...”

On January 25, 1851, Collector Greely wrote Pleasonton his views regarding Minots:

“So much has been said about this Light that I confess to you it is not a very pleasant subject for me to write about. The keepers we have had are not very judicious, and are quite too much disposed to consider themselves heroes, and I do not know as if it is possible to prevent them or anybody else from “magnifying their office,” and telling exaggerated and frightful stories. I have reprovved and cautioned the present keeper, Mr. Bennett, but it is hard to keep him in the traces.

“... I have always said to you that, in my judgment, the Light House is perfectly safe, and that is my opinion now, but I have thought it was best to get an appropriation from Congress to be expended in strengthening the House, if Commissioners should so decide, and I have recommended also, in strong terms, an increase of the Salaries of the Keepers.

“... I may add also that I had a thorough examination of the Light House yesterday, by Capt. Jones and the officers of the Revenue Cutter Hamilton, [who] also report to me that the Light is in perfect order, and that the structure has not started or given way in the least degree.”

Greely concluded his letter by stating that the \$5,000 appropriated had been expended.

In March 1851, the keepers were granted an increased compensation. Greely reported on another gale at the lighthouse in a letter dated April 9, 1851,

“The structure was not in the least injured by the storm, and altho’ the vibration was very great, I am inclined to think the Asst. Keeper’s published account was somewhat exaggerated. The boat belonging to

the establishment was lost during the gale and I shall furnish a new one forthwith.”

Eight days after this letter, on April 17, 1851, Collector Greely reported the complete destruction of the Minots Ledge Lighthouse along with the death of the two assistant keepers, Joseph Antoine and Joseph Wilson. Capt. Bennett survived, being delayed on shore. A newspaper account, “Sad News From Minot’s Light!” dated Thursday Evening, April 17, 1851, in Boston’s *Daily Journal* reported:

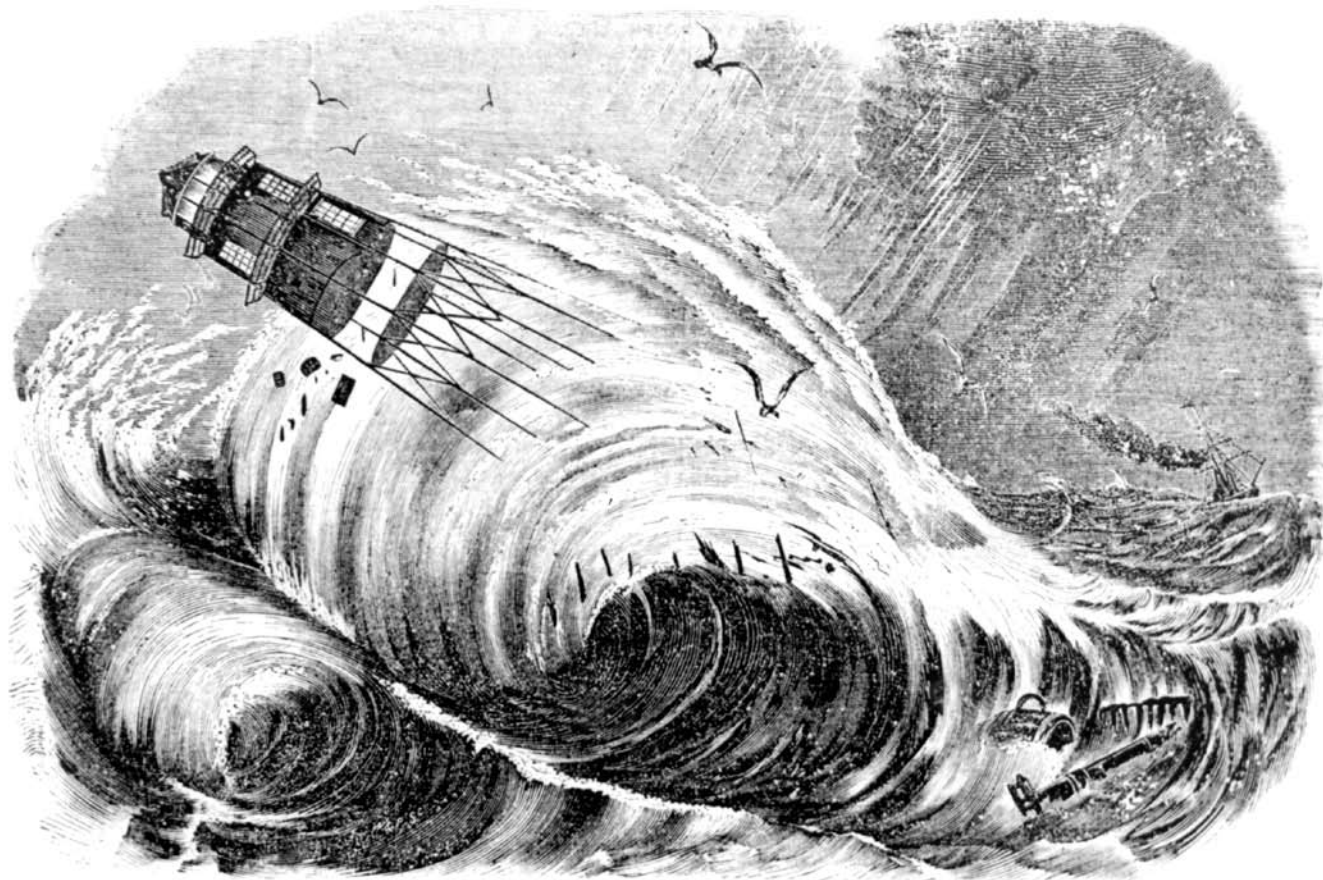
“We have just learned from Cohasset of the destruction by the severe gale of Minot’s Rock Light House and the loss of the two Assistant Keepers. The news was communicated to us by Mr. Bennett, the Keeper of the Light, who arrived in the city this morning, with fragments of the structure.

“The last time that the Light was seen standing was at about half-past three o’clock yesterday afternoon. The Light was not seen burning last night.

“About 4 o’clock this morning Mr. Bennett was on the beach, and discovered, strewn all around fragments of the building. Parts of the residence room and of the lantern itself were on the beach and also portions of the bedding, Mr. Bennett’s clothing, etc.

One of Bennett’s Life Buoys came on shore, having the appearance of having been used by one of the unfortunate men who were in the Light House. He had lashed it to his back but the waves probably washed him out of it.

“Mr. Bennett was absent from the Light when the sad catastrophe occurred. He had been ordered up to the city by Collector Greely, to



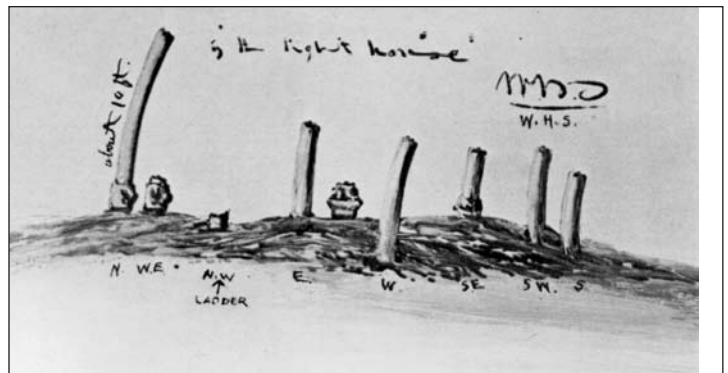
purchase a new boat, and, on his return, Tuesday afternoon, found the sea too high that he could not get out to the Light House. To this he is indebted for the preservation of his own life.

“The names of the two who were on board were Joseph Wilson and Joseph Antonio (a Portuguese). Wilson, we learn, was about 20 years of age; Antonio was 25, and formerly kept a boarding house at Cohasset. They were both true and faithful men.

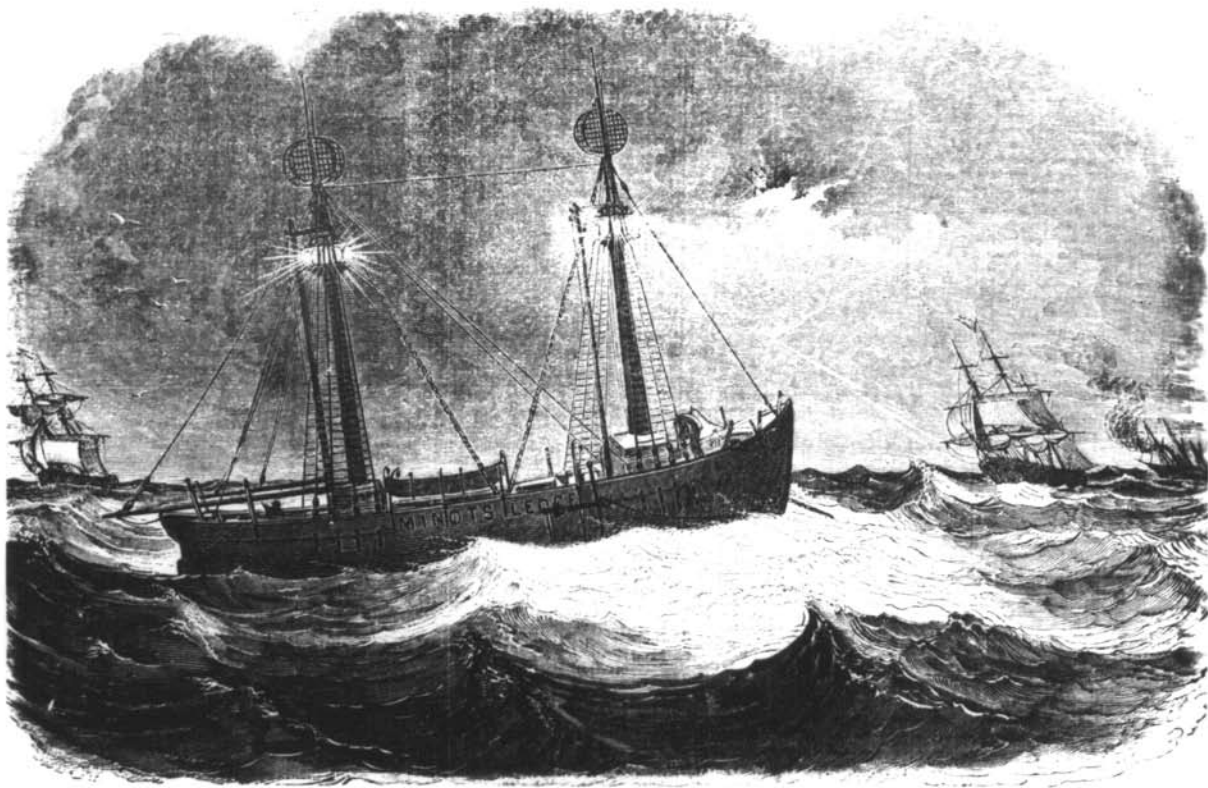
“... The whole height of the light was 75 feet. From the rock to the keeper’s house, 60 feet. The diameter of the iron piles was 8 inches at the base and 4 1/2 inches at the top. Breadth of base 25 feet. Keeper’s room, 14 feet. The diameter of the lantern was 11 1/2 feet, and it contained 15 reflectors or 21 inches each...”

Soon after the tragedy, a lightship was placed on the station and eventually a cut granite tower was completed in 1860. The 1860 tower continues as an active aid to navigation; a memorial commemorating the two keepers who died in 1851 was dedicated in Cohasset on May 21, 2000.

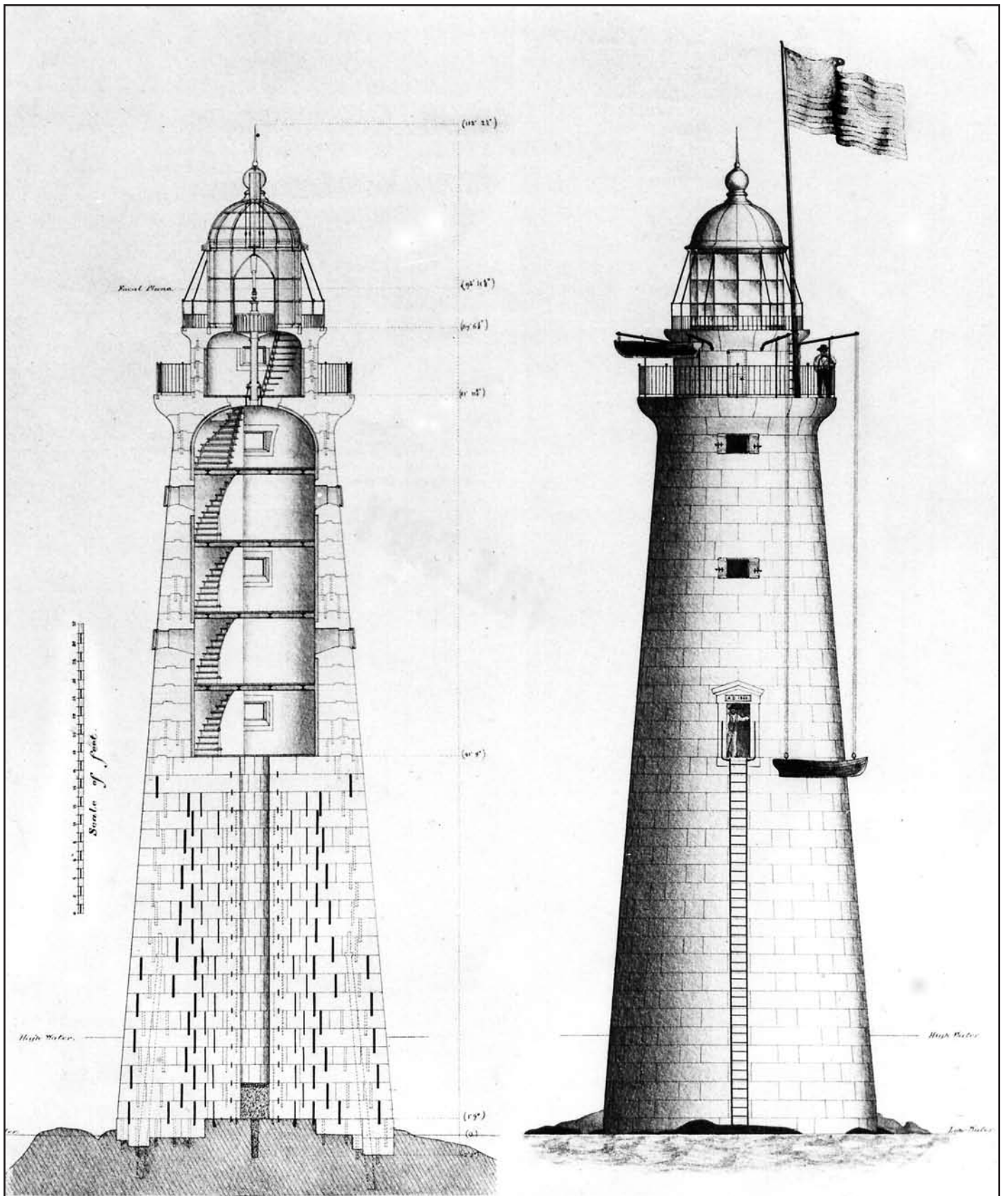
Author Credit: Candace Clifford, historian and author of several lighthouse titles, found this material in Record Group 26 in the National Archives, Washington, D.C. When not performing freelance research projects, Ms. Clifford collects primary source material relating to lighthouse keepers and builders for possible use in future books. Endnotes are available for this article upon request.



SWIFT'S SKETCH OF THE BROKEN PILING



Between 1851 and 1860, until the new tower was completed, the Lighthouse Service anchored a lightship off Minots Ledge.



VERTICAL SECTION.

ELEVATION.

MINOT'S LEDGE LIGHT HOUSE.
 MASS.

Built by Capt. B. S. Alexander, Corps of Engineers U.S.A.