

1867 - 1868

The New Iron Lighthouse Had all the Latest Features

Built to Survive

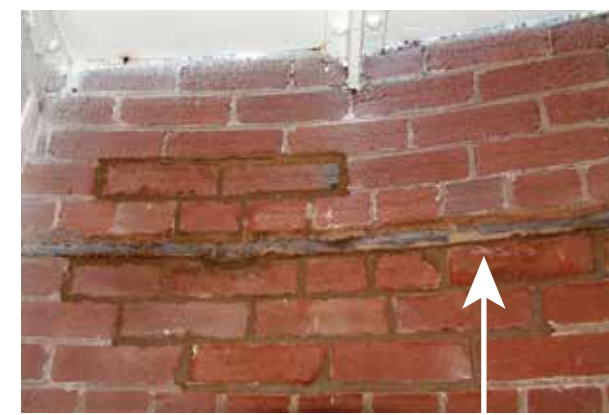
Cast iron architecture was just starting to be popular. Compared to bricks, it was less expensive, lighter, stronger, slower to deteriorate and could be made water-tight – all good features for a lighthouse. To make the Lighthouse even stronger, bricks would be used to line the inside walls. To help withstand flooding and storm surge from Florida hurricanes, the door was placed on the third floor, with an outside stairway. The iron I-beams used were a new invention from the Phoenix Ironworks in Philadelphia.

Built to Move

Cast iron can also be made into nearly any shape and then bolted together. This design would allow the Lighthouse to be easily assembled, taken apart, and moved, if necessary, to avoid an eroding shoreline. To make sure it could be put back together, each cast iron plate had a 3-point numbering system of Arabic and Roman numerals where, if you matched the numbers in the right order, you could easily assemble the entire Lighthouse.



The new iron Lighthouse looks down on the old tower



Brick lining; notice iron plate



3rd floor entrance door



Steps

↑ Steps to entrance on 3rd floor



I-beam, Phoenix Ironworks, Philadelphia, PA



Spiral staircase



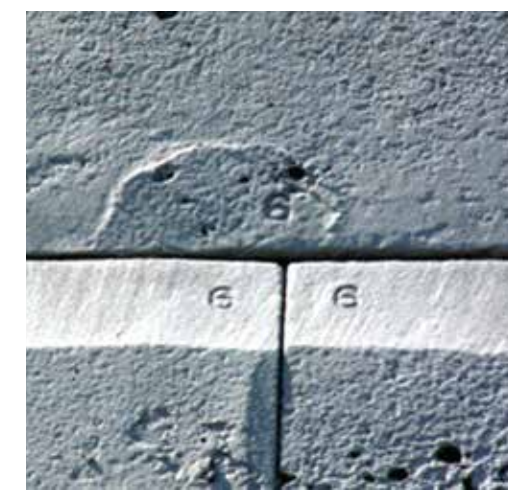
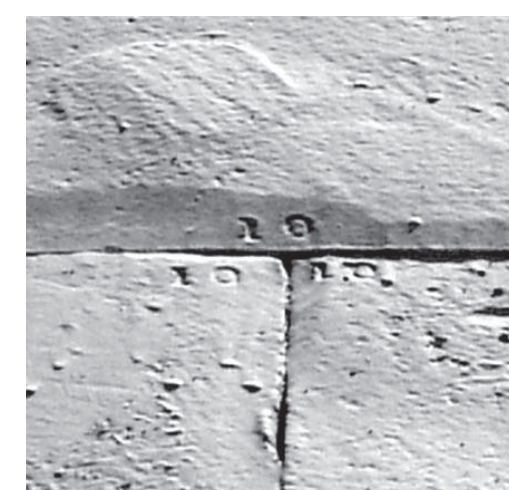
Matching roman numerals.



VII



XI



Series of 3 Arabic numerals were used to mark iron plates

Built in a Year

Construction of the 151-foot tower began in May 1867 when the granite foundation was laid. The schooner Yankee Doodle (and others) made trips to the Cape with supplies. The tower was completed a year later and a 1st Order Fresnel lens, made by Henry-Lepaute and Company of Paris, France, was lit for the first time on May 10, 1868. It had the ability to shine up to 22 miles.