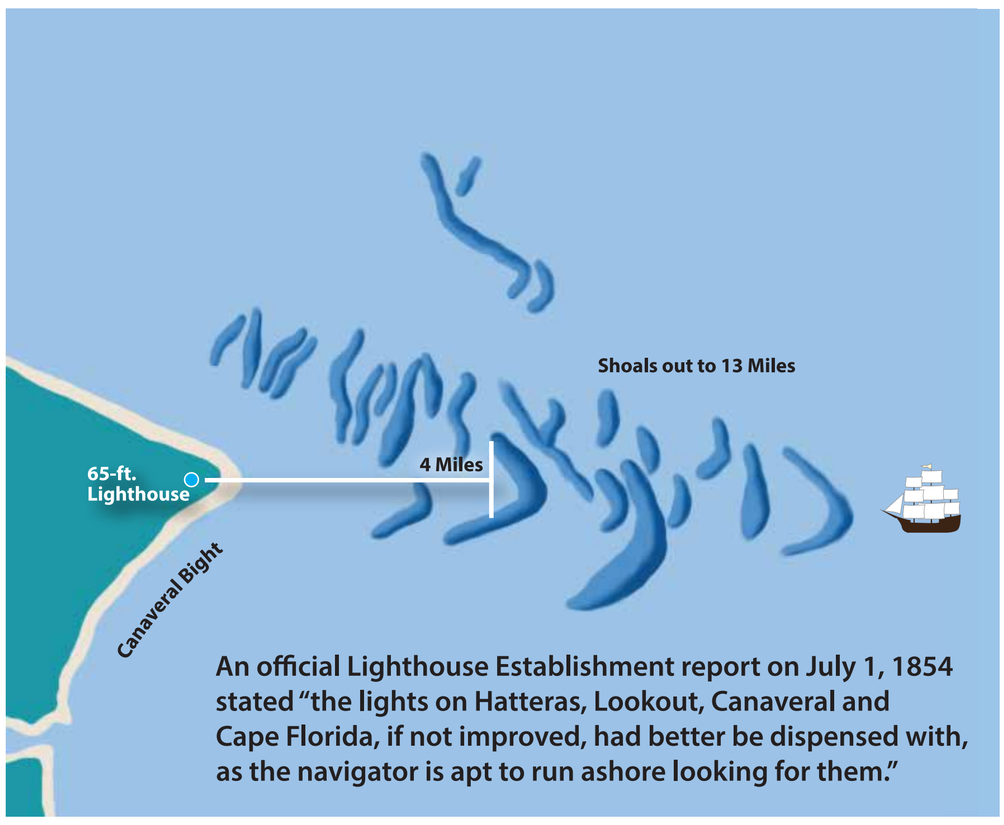
1849 - 1861

Too Short and Not Too Bright?

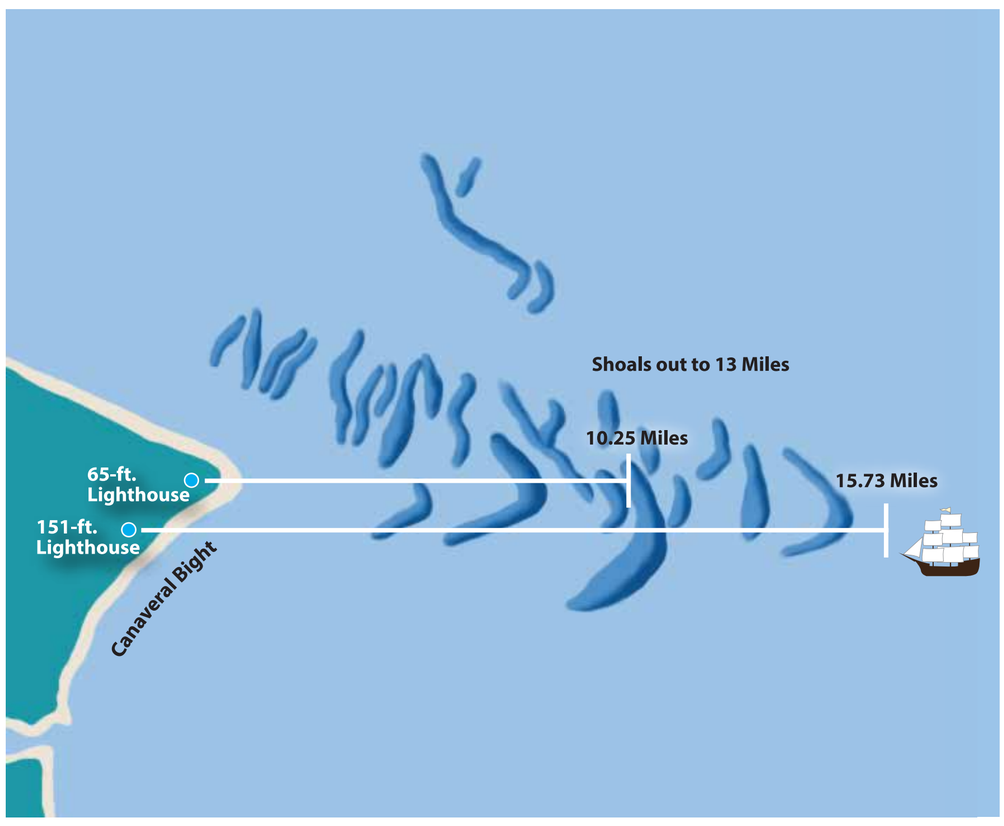
I Know There's a Lighthouse Around Here Somewhere!

No sooner had the Lighthouse been built than seamen discovered it did little good. They couldn't see the light until they were too close to avoid the shoals. It was actually worse than not having a light there at all, because they trusted they were safe if they couldn't see the light.



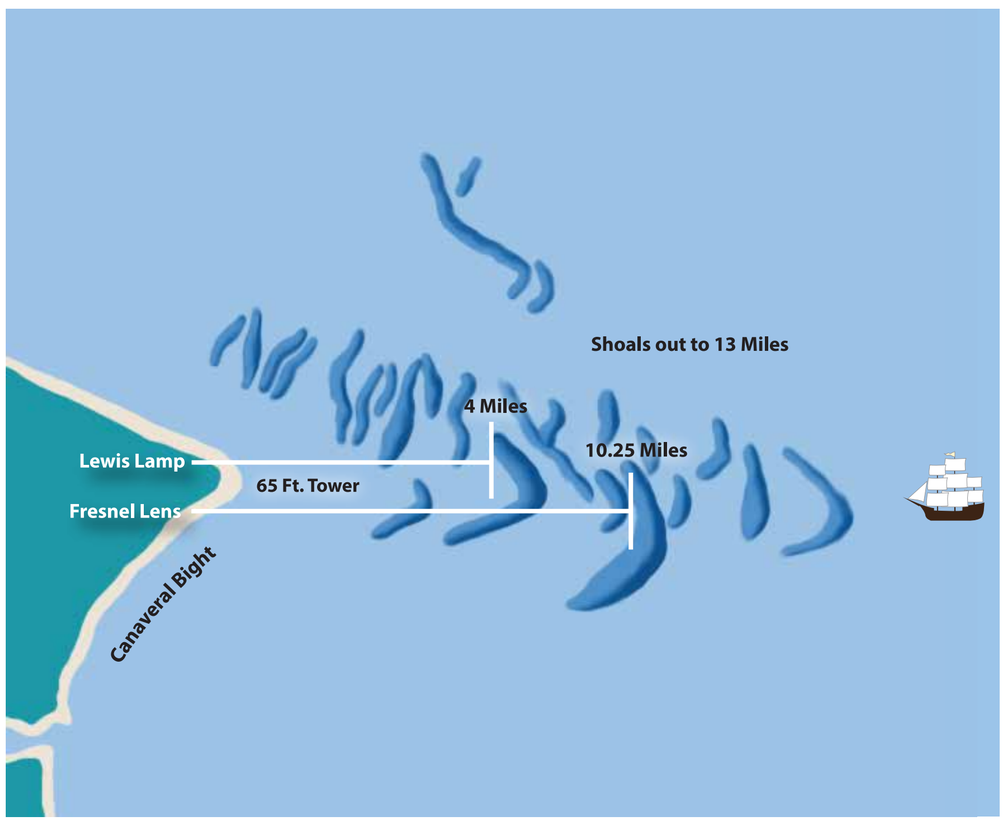
A Height (Mis)Calculation

Lighthouses need to be tall enough for their lights to shine beyond the danger in their nearby waters. For Cape Canaveral the shoals extend at least 13 miles out. The light would need to be seen several miles past that. Because the Earth is round, objects many miles away are hidden beyond the curve of the horizon. The Lighthouse was only 65 feet tall. From the deck of a ship the light could only be seen a little over 10 miles away. They realized a 150+foot lighthouse would be needed. It could be seen from nearly 16 miles away.



The Winslow Lewis Lamp - Too Dim to Do the Job

On top (literally) of the height issue was the fact that the design of the Winslow Lewis lamp was so bad that it was actually 400 times less intense than a Fresnel lens of the time. The lamp also needed constant adjustment and cleaning, but the reflector's silver finish was too thin to withstand cleaning and the thin copper of the reflector dish itself changed shape when exposed to heat. Consequently, the light made it nowhere near as far as expected. Although light from a Fresnel Lens would have gone farther, the height of the lighthouse was still a problem.



Something Had to Be Done to Fix the Nearly Useless Lighthouse!!