The four Eddystone Lighthouses

Probably the best known lighthouse in the British Isles, the Eddystone is on the treacherous Eddystone Rocks, 9 miles from Rame Head in Cornwall, while the actual rocks are in Devon.

From the time it was first lit in 1698 there have been four lighthouses which illustrate the changes in construction and means of illumination over some 300 years.
The first lighthouse was an octagonal wooden structure built by Henry Winstanley and put into operation in 1698. It is said to have been lit by candles. After severe storm damage it was changed to a 12-side main tower with a timber frame and stone clad exterior. It was destroyed in a storm in 1703.
This is another illustration of the first Eddystone.
The second Eddystone 1705-1755

A new lighthouse was designed by John Rudyard (or Rudyerd) who built a conical wooden structure around a core of brick and concrete. Still lit by candles the top of the lantern caught fire in 1755 and the lighthouse was destroyed.
The third Eddystone 1759-1877
The third lighthouse was built by John Smeaton, a civil engineer. It is said that he modelled the shape on an oak tree. He built the tower of granite blocks secured by dovetail joints and marble dowels. He also pioneered the use of a concrete that could set under water (hydraulic lime).

The light used in the lantern, 68 feet above the waves, was a two-ringed corona containing 24 tallow candles of two-fifths of a pound each; 24 oil lamps to the best design of the period were also provided, but they sooted up the panes of the lantern so badly that the candles were preferred as a more practical proposition. Stocks of oil kept good longer than candles, so the lamps were still kept in reserve.

The duties of the lighthouse keepers included snuffing these candles every half-hour (trimming the wicks) as well as keeping the reflectors and lantern panes clean. (Lighthouses, Patrick Beaver, 1971)

This third Eddystone remained in use until 1877 when erosion to the rocks under the foundations caused it to shake under the impact of large waves. While the foundations remain, the tower was dismantled and rebuilt as a memorial on Plymouth Hoe.

The 4th Eddystone, designed by James Douglass and commissioned in 1882, is still in use, pictured here with the remaining stub of Smeaton’s tower. Now automated it also has a helipad above the lanterns,
Smeaton’s lighthouse tower now standing on Plymouth Hoe