

Modern Types of Danger Warnings on the Sea Coast.

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Lighthouses. From the earliest dawn of commerce, which is coeval with the dawn of civilization, the necessity for danger warnings on the sea coast has been recognized. 300 years B. C. the pharos of Alexandria, the prototype of our modern lighthouse, was one of the seven wonders of the world, but this was crowned by the uncertain and rude light afforded by an open fire. The historic lighthouse of Corduan, at the mouth of the Garonne, built at the close of the sixteenth century, remains to-day, in point of architectural grandeur, the noblest edifice of its kind in the World. It, too, was first illumined by burning billets of oak in a chandelier at the top. It was not until 1807 that the feeble light from a chandelier filled with 10 lbs. of tallow candles was supplanted in the Eddystone lighthouse by lamps, reinforced by parabolic reflectors, so that improved methods of lighthouse illumination began less than a hundred years ago.

Fargand's accidental discovery that the superposition over an oil flame of a glass cylinder would, by increasing the draught, that is the supply of oxygen, vastly increase the brilliancy and steadiness of the light, was the first step in the improvement of illuminating apparatus.

The direction of a considerable proportion of the beams of light by placing the flame in the focus of a paraboloidal reflec-