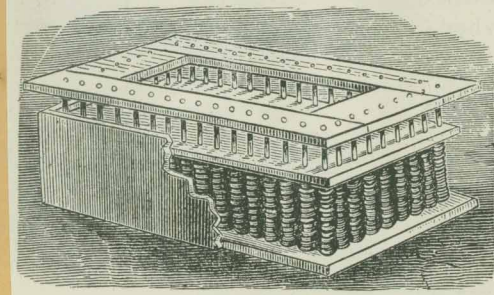


bronze smooth bore gun, weighing but one hundred and eighty-five pounds, and fires a cylindrical line, carrying shot, weighing about eighteen pounds, some six hundred and ninety-five yards. This projectile has a shank protruding from the muzzle of the gun to an eye in which the line is tied—a device which prevents, to a degree, the line from being burned off by the ignited gases in firing. As further protection against this happening, the life savers wet that part of the line liable to become burned. When the gun is fired the weight and inertia of the line cause the projectile to reverse. The shot-line is made of unbleached linen thread very closely and smoothly braided, is waterproof, and has great elasticity, which tends to insure it against

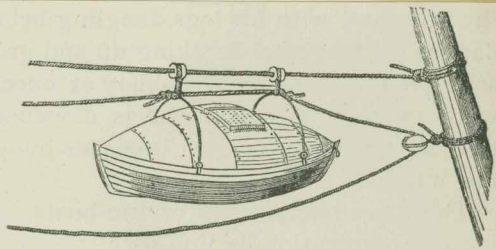
breaking. The lines in use vary in thickness according to circumstances. They are of three sizes, designated as number 4, 7, and 9, being respectively $\frac{4}{32}$, $\frac{7}{32}$, or $\frac{9}{32}$ of an inch in diameter. Any charge of powder can be used up to the maximum six ounces.

The Lyle gunshot line is



FAKING BOX.

carried in a faking box, so called, a wooden box with handles for convenience for carrying. The line is coiled on wooden pins, layer above layer. When brought into use the pins are withdrawn, and the line lies disposed in layers ready to pay out freely



LIFE-CAR.

and fly to the wreck without entanglement. While six hundred and ninety-five yards is the greatest range to be obtained by a Lyle gun, about two hundred yards is considered the working limit. The line sags so, at more than two hundred yards, and the currents are usually so swift, that the crew of a stranded vessel could not haul the whip aboard their craft at a much greater distance, and in addition any one being pulled ashore in the breeches-buoy further than that would most likely perish from the cold and buffeting of the seas before they could be rescued.

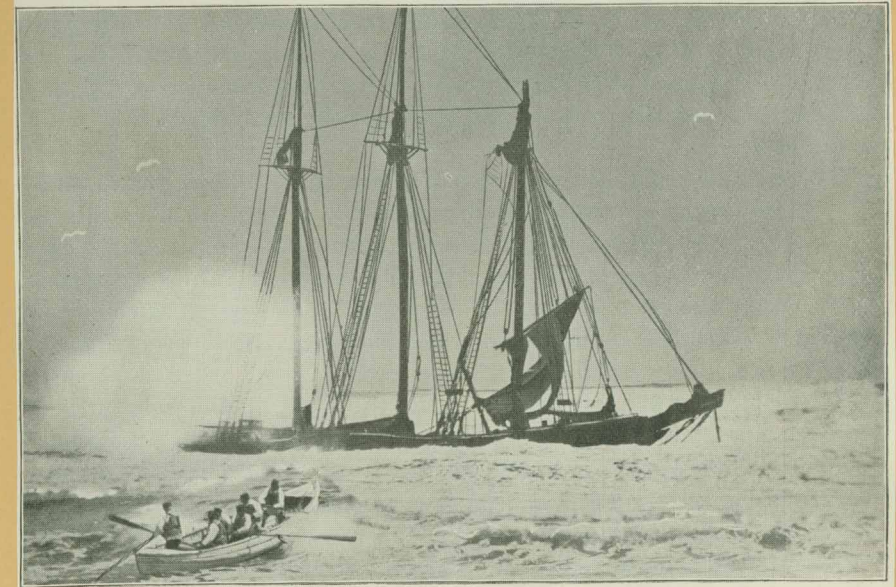
The crotch is made of two pieces of wood, three by two inches thick, and ten feet long, securely bolted together, and crossed near the top so as to form a sort of X. The sand anchor is two pieces of hard wood, six feet long, eight inches wide and two inches thick, crossed at their centers, bolted together, and furnished at the center with a stout iron ring. It is laid obliquely in a trench behind the crotch. An iron hook, from which runs a strap of rope, having at its other end an iron ring called bull's-eye, is fastened into the ring of the sand anchor. This strap connects with a double pulley-block at the end of the hawser behind the crotch, by which the hawser is drawn and kept taut. The trench is solidly filled in, and the imbedded sand anchor, held by the lateral strain against the side of the trench, sustains the slender bridge of rope constituted by the hawser between the stranded vessel and the shore.

The large majority of vessels now stranded on the shores of the Cape being coasters, with crews from six to ten men, the breeches-buoy is invariably used in preference to the life-car. It weighs but

twenty-one pounds. It consists of a common life-preserver of cork, seven and one-half feet in circumference, to which short canvas breeches are attached. Four rope lanyards, fastened to the circle of this cork, meet above an iron ring, which is attached to a block, called a traveler. The hawser passes through this block, and the suspended breeches-buoy is drawn between ship and shore by a whip, an endless line. At each trip it receives but one person, who gets into it with their legs down through the canvas breeches legs, holding to the lanyards, sustained in a sitting position by the canvas saddle, or seat of

the breeches, with his legs dangling below. When there is imminent danger of the vessel breaking up and great haste is required, two persons get into the breeches-buoy at once, and to further expedite the work of rescue, the hawser is dispensed with, part of the hauling line being used for the breeches-buoy to travel on to and from the wreck.

There are many kinds of life-boats, and various devices for effecting communication by line with stranded vessels. The type of boats in use on Cape Cod are the Monomoy and Race Point models. All these boats are distinctly known as surf-boats. They are constructed of cedar with white oak frames, and are from twenty-two to twenty-four feet in length. The surf-boats have air chambers at the ends,



"A PERILOUS TASK." LIFE SAVERS GOING TO A WRECKED VESSEL ON PEAKED HILL BARS.

and are fitted with cork fenders along the outer side to protect them against collisions with hulls or wreckage, and to further aid in keeping them afloat, and righting lines by which they can be righted if capsized in the surf. They weigh from seven hundred to one thousand pounds. In the hands of the skilled surfmen of Cape Cod they are capable of marvelous action, and few sights are more impressive than the surf-boat plowing its way through the breakers, at times riding on top of the surge, at others held in suspension before the roaring tumultuous wall of water, or darting forth as the comber breaks and crumbles, obedient to the oars of the impassive life savers. All these boats are so light that they can be readily transported along