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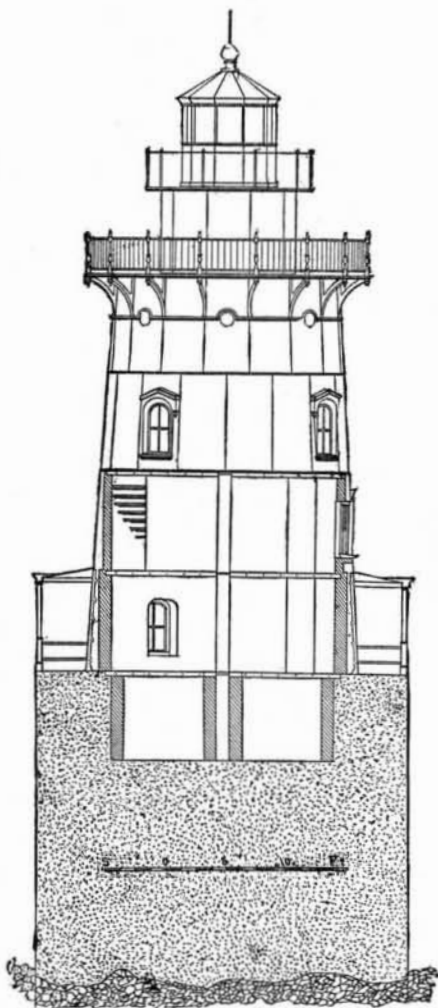
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NEW LIGHTHOUSE, HUDSON RIVER.

On the Hudson River, off Kingman's Point, Tarrytown, is a lighthouse recently built by the Government, under the direction of Gen. J. C. Duane, Engineer Third Lighthouse District.

A short distance below the water level a good foundation of gravel was found, upon which was laid a mass of concrete confined by a cylinder of iron, and extending sufficiently high to be above the reach of the greatest tides, and of ample strength to withstand the action of the ice. This is solid, with the exception of the cellar, which is divided into four compartments by walls of masonry radiating from the center.

The tower is circular in section, built of flanged cast iron plates bolted together, and having the thickness of five-eighths of an inch. The diameter of the exterior decreases regularly from the base, which is 22 feet, to the top, which is 18. This portion of the tower is divided into four stories, each 8 feet in height, all of which, except the top one, are lined with masonry, making the interior 18 feet in diameter. The construction is shown plainly in the drawing, the lower half of which is in section, and the upper half in elevation. The floors consist of flanged cast iron plates, of the same thickness as the sides, supported at the center of the tower by an iron column extending through the four stories and to the floor of the cellar, and at the sides by the masonry lining. These plates are set with the flanges up, and upon the latter the wooden flooring is secured. Surrounding the lower story is a gallery whose roof is supported upon iron columns, resting upon the outer edge of the concrete foundation. The watch-room, constituting the fifth story of the structure, is 10 feet 10 inches in diameter, 7 feet in height, and has vertical sides. Around this room is a balcony, having an external diameter of 23 feet, the projecting part being supported by brackets, as shown in the drawing. On top of the watch-room is a fixed light of the fourth order, which can be seen for ten or twelve miles, the height above water being about 50 feet. A railed



balcony surrounds the lantern. Within the watch-room is the clockwork, which during foggy weather strikes a bell, placed upon the large balcony, once every two minutes. The weight operating this clockwork descends through the center column of the tower.

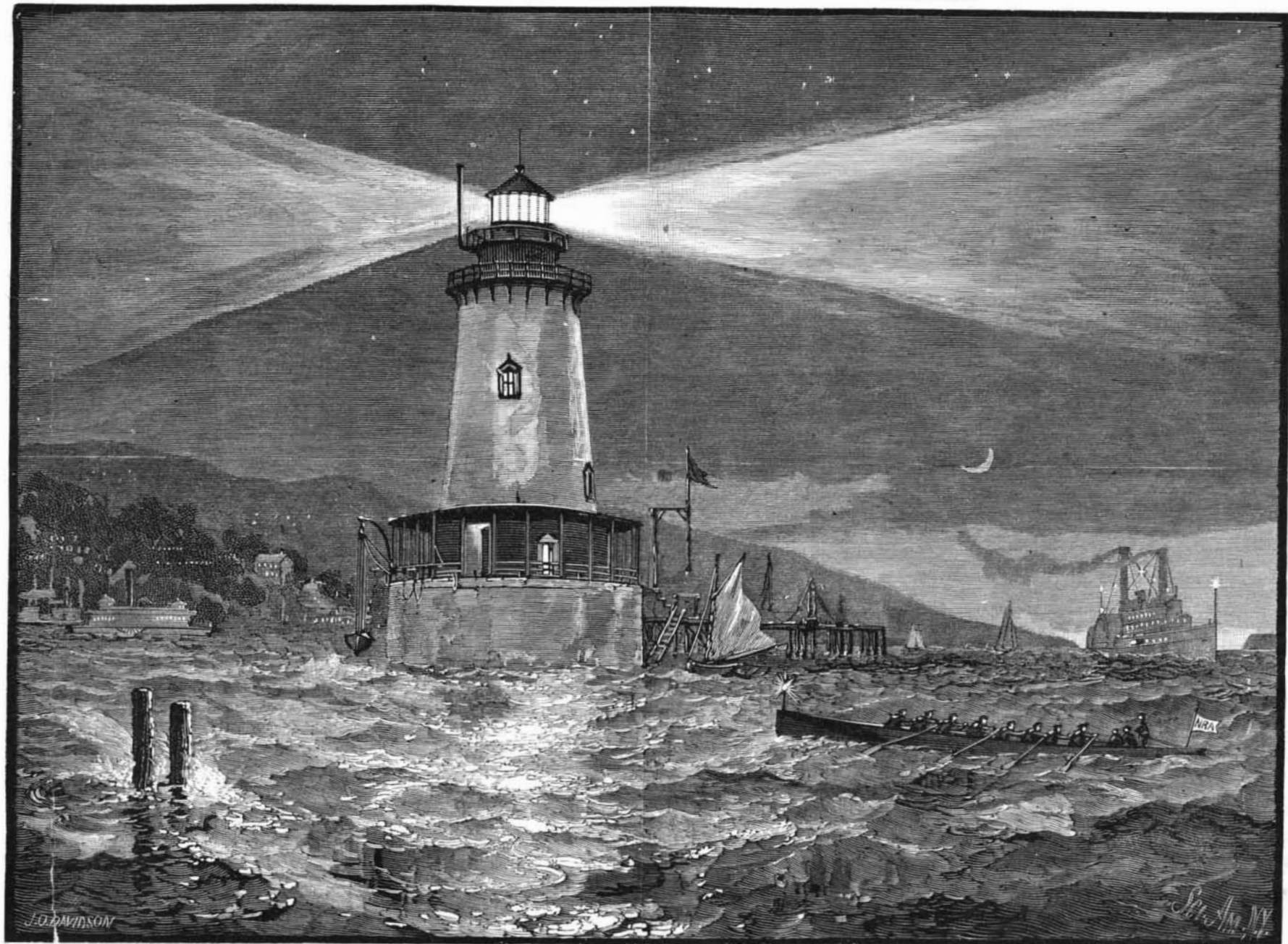
Theory of Life.

The late Professor Faraday adopted the theory that the natural age of man is 100 years. The duration of life he believed to be measured by the time of growth. In the camel the union takes place at eight, in the horse at five, in the lion at four, in the dog at two, in the rabbit at one. The natural termination is five removes from these several points.

Man being twenty years in growing lives five times twenty years—that is, 100; the camel is eight years in growing, and lives forty years; and so with other animals. The man who does not die of sickness lives everywhere from 80 to 100 years. The professor divides life into equal halves—growth and decline—and these into infancy, youth, virility, and age. Infancy extends to the twentieth year, youth to the fiftieth, because it is in this period the tissues become firm, virility from fifty to seventy-five, during which the organism remains complete, and at seventy-five old age commences to last a longer or shorter time as the diminution of reserved forces is hastened or retarded.

Court Plaster.

Soak isinglass in a little warm water for seventy-four hours; then evaporate nearly all the water by gentle heat; dissolve the residue in a little dilute alcohol, and strain the whole through a piece of open linen. The strained mass should be a stiff jelly when cold. Now stretch a piece of silk or sarsenet on a wooden frame, and fix it tight with tacks or pack thread. Melt the jelly, and apply it to the silk thinly and evenly with a badger hair brush. A second coating must be applied when the first has dried. When both are dry, apply over the whole surface two or three coatings of balsam of Peru. Plaster thus made is very pliable, and never breaks.



NEW GOVERNMENT LIGHTHOUSE AT TARRYTOWN ON THE HUDSON.