C. LIPARELLI.

Ballast-Log for Vessels.

No. 216,424. Patented June 10, 1879.

Fig: 1.

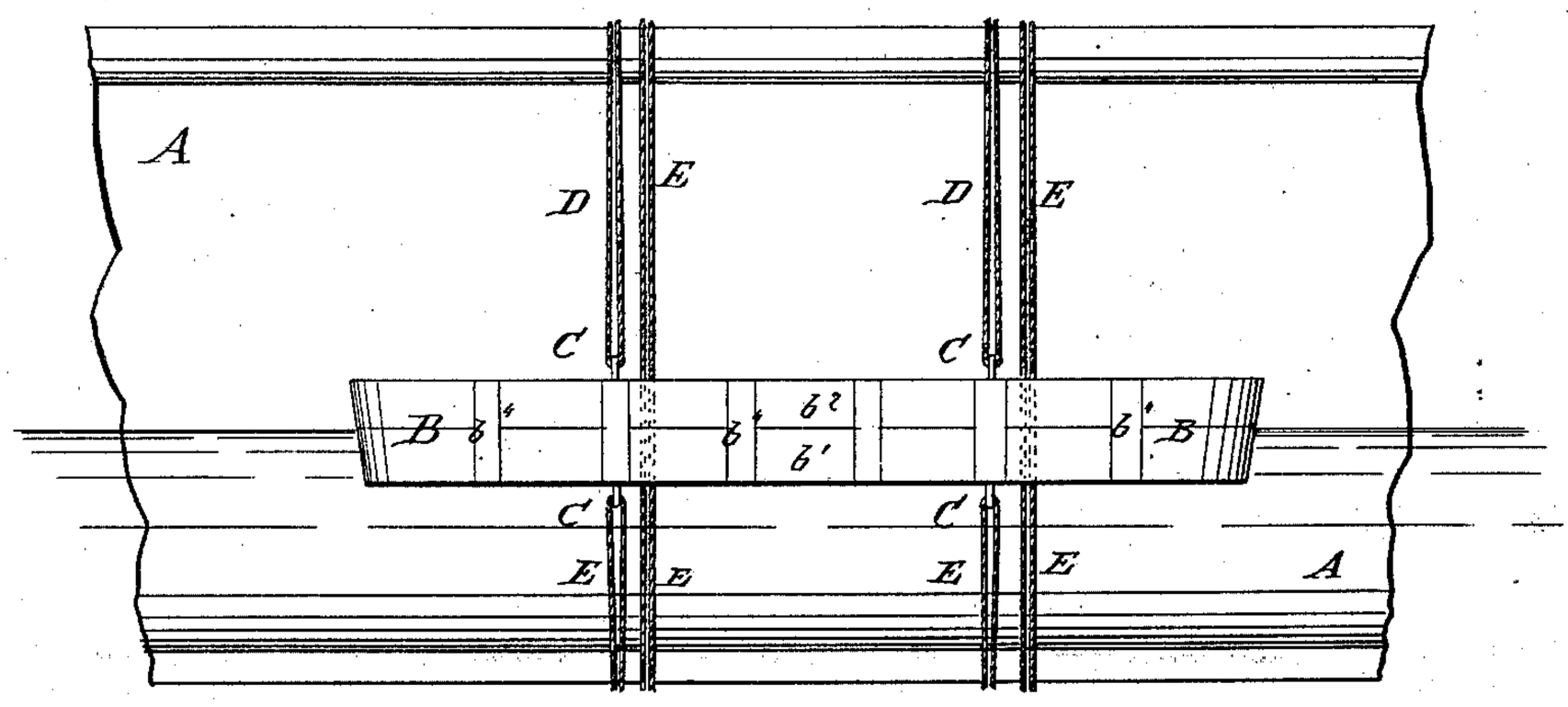
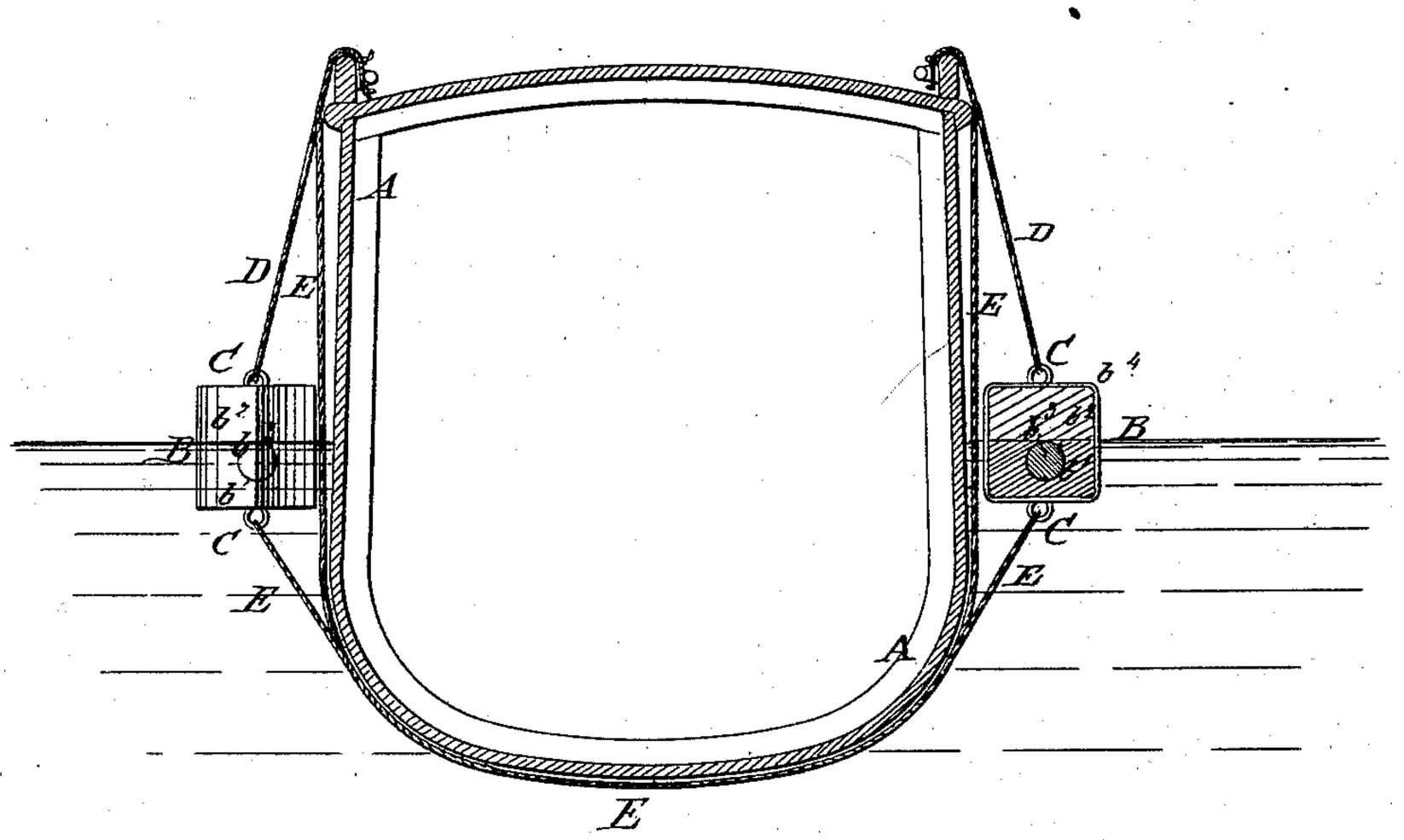


Fig: 2.



WITNESSES:

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CESARE LIPARELLI, OF NEW YORK, N. Y.

IMPROVEMENT IN BALLAST-LOGS FOR VESSELS.

Specification forming part of Letters Patent No. **216,424**, dated June 10, 1879; application filed April 17, 1879.

To all whom it may concern:

Be it known that I, CESARE LIPARELLI, of the city, county, and State of New York, have invented a new and useful Improvement in Ballast-Logs for Vessels, of which the following is a specification.

Fig. 1 is a side view of a portion of the hull of a vessel to which my improvement has been applied. Fig. 2 is a cross-section of the same, one of the ballast-logs being shown in end view and the other in cross-section.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved means for ballasting a vessel when in port and empty, to prevent her from rolling and allow her to be moved from place to place, as may be desired.

The invention consists in ballast-logs for vessels, formed of the heavy lower part, the light upper part, the iron bar, and the bands.

A represents the hull of a vessel. B is a ballast-log, the lower part, b^1, of which is made of heavy wood, and the upper part, b^2, is made of very light wood or cork. b^3 is a bar of iron placed in a groove or hole in the lower part, b^1, or partly in the lower part, b^1, and partly in the upper part, b^2.

The three parts b^1 b^2 b^3 are securely bound together by bands b^4, which should be let into the log, so as to leave a smooth surface.

The ends of the logs B should be rounded off or sharpened, so as to offer less resistance to the water.

To the upper and lower sides of the forward and stern parts of the logs B are attached eyes C, which may be the eyes of eyebolts or eyes attached to or formed upon the bands b^4.

Through the upper eyes C are passed ropes or chains D, the ends of which are secured by belaying-cleats or other suitable means to the gunwale or deck of the vessel. Through the lower eyes C are passed ropes or chains E, which are passed beneath the keel of the vessel, are led up her opposite side, and are secured to the gunwale or deck of the said opposite side.

With this construction, the ballast-logs B are adjusted by adjusting the ropes or chains D, and are then secured in place by drawing the ropes or chains E taut.

The ballast-logs B are designed to be secured with the seam between the parts b^1 b^2 upon the water-line, so that should the vessel roll toward either of the ballast-logs B it will tend to draw the said log B beneath the surface of the water, which tendency will be resisted by the buoyancy of the light upper part, b^2, of the said ballast-log B. Should the vessel roll from one of the ballast-logs B it will tend to raise the said ballast-log B out of the water, when the heavy lower part, b^1, of the said log B will act as a weight to resist the said movement. In this way the vessel will be kept all the time level.

The two sets, D E, of ropes or chains keep the ballast-logs B in place, so that a vessel may be ballasted by a log, B, upon one side; but I prefer to use two, one upon each side, as keeping her steadier. This quality is especially valuable in case one of the ballast-logs B should be knocked off by a collision when the vessel is being towed from one place to another, the remaining log B keeping the vessel upright, so that she can be towed to the desired place in safety.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

Ballast-logs B for vessels, formed of the heavy lower part, b^1, the light upper part, b^2, the iron bar b^3, and the bands b^4, substantially as herein shown and described.

CESARE LIPARELLI.

Witnesses:
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