Stoner, Mendelson & Crommelin,
Ballasting Device.

No. 83,120. Patented Oct. 27, 1868.

Fig: 1.

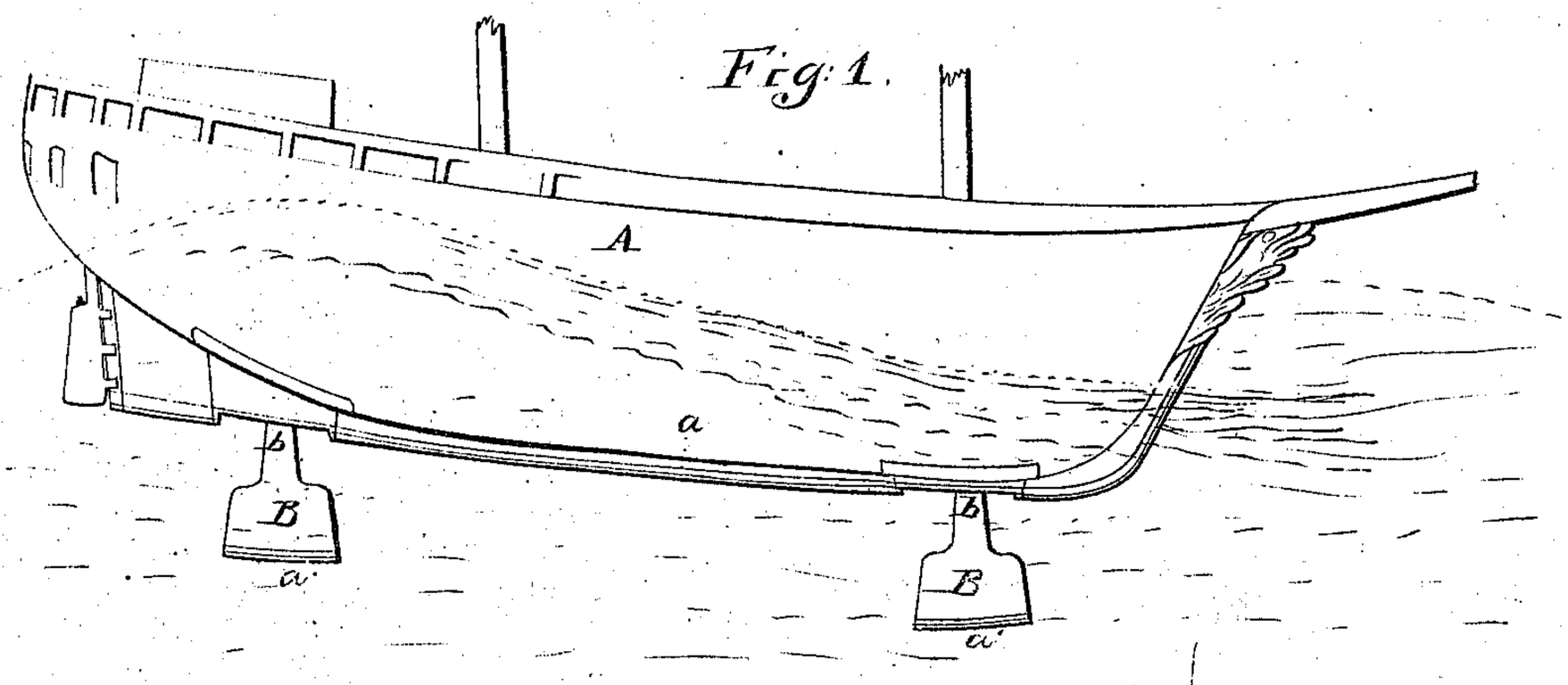


Fig: 2.

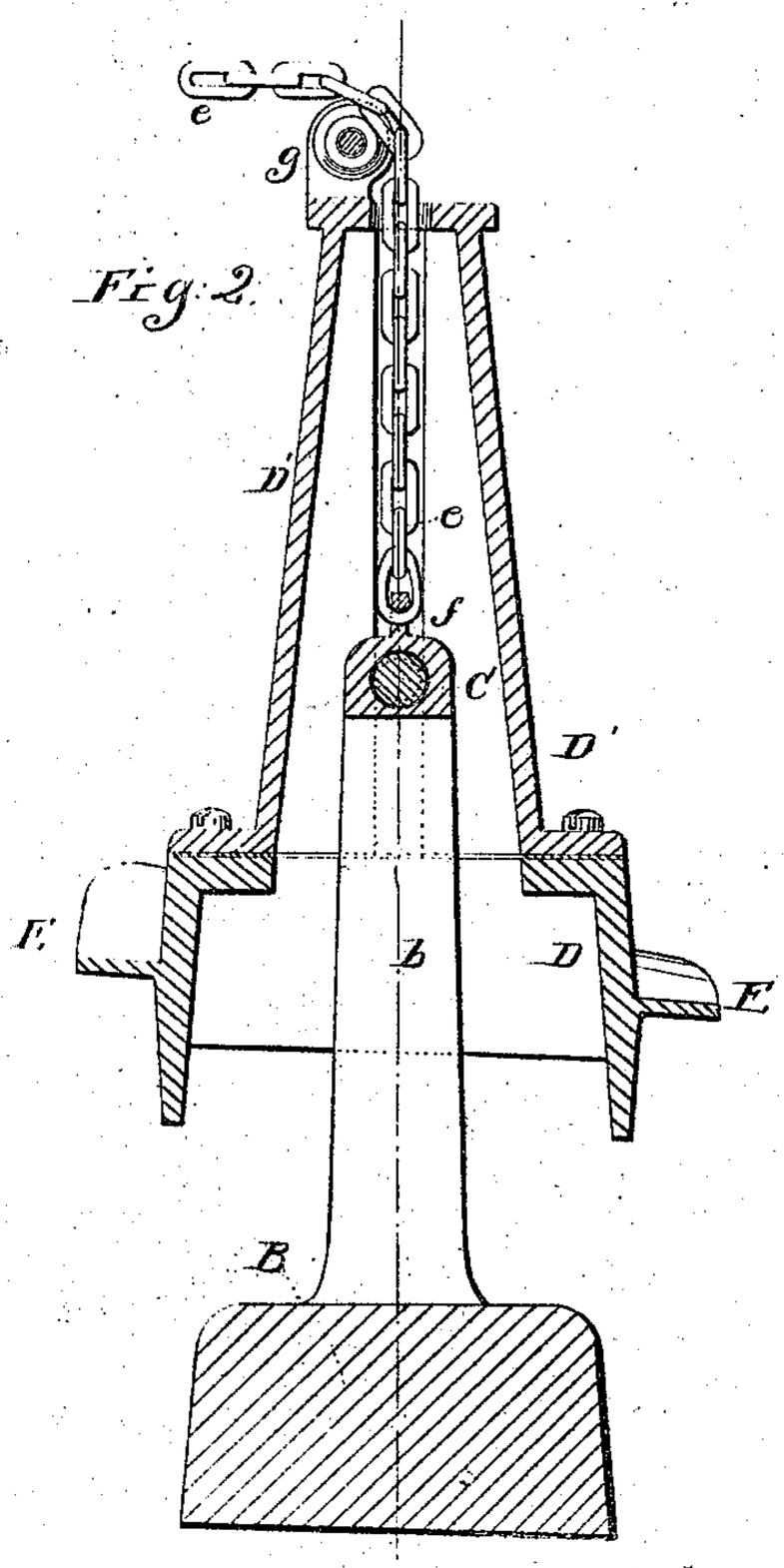
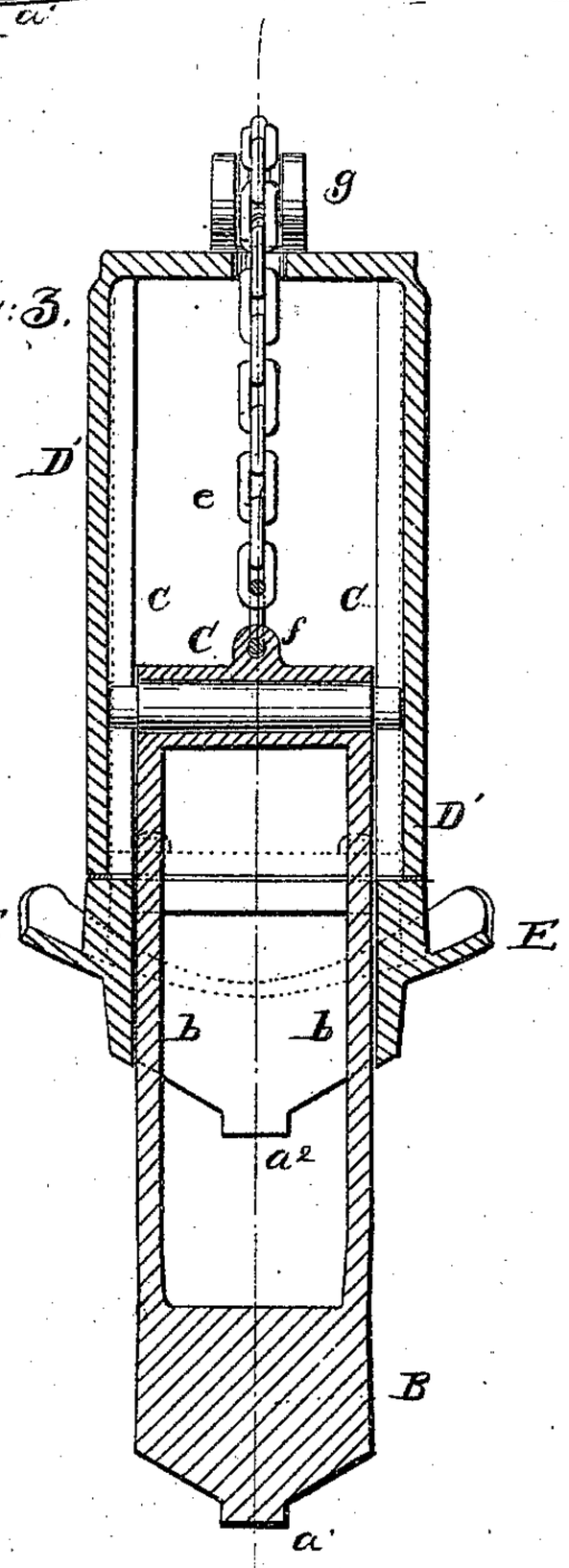


Fig: 3.



WITNESSES:

R. F. Campbell
J. F. Campbell

INVENTOR:

A. B. Stoner L. Mendelson
Chas. A. Crommelin
by
Munn & Fennided Lawyers

United States Patent Office.

JOHN B. STONER, LEOPOLD MENDELSON, AND THEODORE CROMMELIN, OF NEW YORK, N. Y.

Letters Patent No. 83,420, *dated October* 27, 1868.

IMPROVEMENT IN BALLASTING VESSELS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN B. STONER, LEOPOLD MENDELSON, and THEODORE CROMMELIN, all of the city and county of New York, and State of New York, have invented a new and improved Ballasting-Device for Vessels; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a vessel having two of the improved ballasting-devices applied to it.

Figure 2 is a section, taken longitudinally through the improved ballasting-device, in a vertical central plane.

Figure 3 is a section, taken transversely through the same, in a vertical central plane.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful improvement on the ballasting-device for which Letters Patent of the United States were granted to JOHN B. STONER, on the 4th day of February, 1868, numbered 74,169.

The device set forth in said Letters Patent consisted of a weight, which was applied to the bottom of a vessel, and suspended by means of rods and a rope or chain, so that the weight could be raised or lowered at pleasure. The rods to which such weight was secured were held by guides, so that the weight was held perpendicularly to the keel, and partook of all the movements of the vessel.

Prior to the Letters Patent aforenamed, ballasting-weights were suspended from the sides of a boat by means of rods, which were pivoted amidships, and allowed to swing in a direction with the length of the keel. Such weight was provided with a rope or chain, carried over the stern or bow of the vessel to the deck, for the purpose of raising or lowering the weight.

The improvement which we have made consists in so constructing and applying a ballasting-weight to the bottom of a vessel, that while such weight can be raised or depressed at pleasure, and, when desired, brought within a chamber formed in the vessel, it is free to vibrate in a direction with the length of the keel when it is depressed in a position to operate for steadying the vessel, as will be hereinafter explained.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

In the accompanying drawings, Figure 1, we have represented a vessel, A, having two of our improved ballasting-weights, B, applied to its bottom, but in carrying out the invention, we shall employ one or more of such weights, according to the capacity of the vessel, and the requirements thereof.

In Figures 2 and 3 we have represented, in sectional views, a ballasting-device, which we will now proceed to explain.

The case, which is adapted for receiving the weight B and the suspension-arms *b b*, is constructed of two hollow sections, D D′, and adapted for being permanently secured into the bottom of a vessel, in a line with the keel. And as it will be necessary to cut away a portion of the keel and other bottom timbers of a vessel to apply said case, the latter should be so constructed that the strength of the hull will not be impaired, nor the vessel caused to leak about said case.

The lower section, D, of the case, is made of sufficient size, longitudinally and laterally, as well as vertically, to receive snugly within it the ballasting-weight B, whose bottom surface is shaped so as to conform to the keel transversely, and thereby prevent this weight, when raised to its fullest height, from offering any obstruction to the progress of the vessel through the water.

The upper tapering section, D′, of the said case, is grooved vertically, as shown at *c c*, which grooves extend its entire length, and are directly opposite each other in a plane which is at right angles to the length of the keel of the vessel to which the device is applied. The upper end of this section D′ of the case is perforated to receive through it a chain, *e*, by which the ballasting-weight and its arms are suspended, which chain passes over a pulley, *g*, on top of section D′, and is carried to a windlass or other object upon the deck of the vessel.

The arms *b b*, which extend up from the sides of the weight B, and which are rigidly secured to said weight, are connected together at their upper ends, and provided with a pin, C, the cylindrical extremities of which enter the grooves *c c*, and are allowed to rise and descend in said grooves, and also to rock freely.

The chain *e* is attached to an eye, *f*, which is applied centrally to the upper connecting-part of said arms *b b*, so that the weight and its arms will hang freely, and be allowed to swing in a direction with the length of the keel of the vessel.

The arms *b b*, by which the weight is hung, are rigid, that is to say, they do not allow the weight to swing laterally, independently of the vessel to which they are applied, but the pin C, working in the vertical grooves *c c*, will allow said weight to swing freely in a direction with the length of the keel, when the weight is depressed below its receptacle D.

From the above description it will be seen that the ballasting-weight B, and its arms *b b*, can be raised so as to be entirely enclosed within their case D D′, and that such weight can be depressed to any desired point below the keel of the vessel, limited only by the length of the arms *b b* and the grooves *c c*. It will also be seen that while said weight B is not allowed to swing laterally, independently of the vessel to which it is applied, it is allowed to swing freely in a direction with the length of the keel.

A ballasting-weight thus constructed and applied to a vessel, will operate to steady the vessel against undue lateral rolling motions, but will not materially retard the progressive or sailing-movements of a vessel through the water.

Having described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. So applying a ballasting-weight, B, to a casing, D D′, or its equivalent, that such weight can be raised or depressed bodily, and at the same time it is free to swing in a direction with the keel of a vessel, substantially as and for the purposes described.

2. The arms *b* of weight B, provided with a pin, C, whose ends are fitted to slide up and down, and to oscillate in grooves *c c*, formed in the case D D′, substantially as described.

JOHN B. STONER.
LEOPOLD MENDELSON.
THEODORE CROMMELIN.

Witnesses:
N. GANO DUNN,
J. H. BATES.