(No Model.)

G. W. SCHERMERHORN.

BALLAST FOR BOATS.

No. 329,088. Patented Oct. 27, 1885.

FIG. 4.

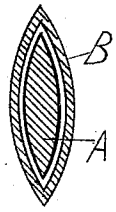
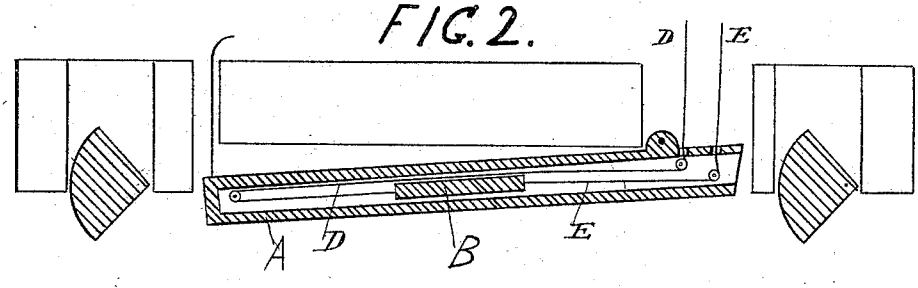


FIG. 1.

FIG. 3.

FIG. 2.



WITNESSES:

George. B. Vanneman -

C. Allen Shimp

INVENTOR

George W. Schermerhorn

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. SCHERMERHORN, OF PHILADELPHIA, PENNSYLVANIA.

BALLAST FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 329,088, dated October 27, 1885.

Application filed July 21, 1885. Serial No. 172,253. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WHEELWRIGHT SCHERMERHORN, a citizen of the United States, residing at No. 423 Arch Street, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Ballast for Boats or Ships, of which the following is a specification.

My invention relates to improvements in the ballast for boats in which a center-board is used for ballast, in combination with shifting ballast that shifts from end to end of the center-board either upon or within the center-board in such a way as to prevent the center-board from throwing the boat out of trim as the center-board is lowered or hauled up. I also furnish the boat with one or more supplemental center-boards to be used to counteract the effect of the ballast center-board, giving the boat sometimes too much after and sometimes too much head center-board; and the objects of my improvements are, first, to provide a boat with a ballast center-board so combined with shifting ballast that it will not throw the boat out of trim as it is lowered and hauled up; second, to combine the shifting ballast with the ballast center-board in such a way that the shifting ballast is lowered and hauled up at the same time that the ballast center-board is lowered and hauled up. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a boat furnished with my invention, showing the ballast center-board A lowered down, and also two supplemental center-boards lowered down. A portion of the side of the ballast center-board A is broken away, so as to show the shifting ballast B upon the inside of the ballast center-board A. Fig. 2 is a vertical fore-and-aft or longitudinal section taken at the dotted line C in Fig. 1. Fig. 3 is an enlarged cross-section of the ballast center-board A, and is what I consider one of the best forms for the ballast center-board A, and also shows a section of the shifting ballast B upon the inside of the ballast center-board A. Fig. 4 is a cross-section of the ballast center-board A with the shifting ballast B upon the outside of the ballast center-board A, instead of upon its inside, as is shown in the other three views.

Similar letters refer to similar parts throughout the several views.

The ballast center-board A shown in the views is different from an ordinary center-board. First, its main object is to furnish ballast; second, it is usually longer and narrower than an ordinary center-board; third, its combination with the shifting ballast B shifting from end to end of the ballast center-board A upon or within the ballast center-board A makes it different from any other center-board. The ballast center-board A is either hollow with the shifting ballast B shifting from end to end upon its inside, or the shifting ballast B is hollow and shifts from end to end of the ballast center-board A, upon the outside of the ballast center-board A, whichever arrangement is preferred. The shifting ballast B may be shifted from end to end of the ballast center-board A by a system of ropes and pulleys, or it may be shifted with a screw. The rope D is secured to the after end of the ballast B, and leads aft around a pulley at the after end of the center-board A, then forward around a pulley at the forward end of the center-board A, then up on deck. The rope E is secured to the forward end of the ballast B, and leads forward around a pulley at the forward end of the center-board A, and then up on deck. By hauling on the rope D the ballast B is shifted toward the after end of the center-board A, and by hauling on the rope E the ballast B is shifted toward the forward end of the center-board A. As the ballast center-board A is lowered, the shifting ballast B is shifted toward its after end, and thus prevents trimming the boat too much by the head, and as the ballast center-board A is hauled up the shifting ballast B is shifted toward its forward end, and thus prevents the boat from being trimmed too much by the stern.

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

In a ballasting device for vessels, the combination of the weighted center-board pivoted at its forward end to the center-board box, the movable ballast shifting from end to end of the weighted center-board, and the ropes D and E, each secured to the movable ballast and passing over pulleys at the ends of the weighted center-board and passing up to the deck, all so connected that as the ropes are hauled upon the movable ballast will be shifted from end to end of the weighted center-board.

GEORGE W. SCHERMERHORN.

Witnesses:

MATT. CLIFTON,

MORRIS A. BRADFIELD.