(No Model.)

H. W. WELLS.

CENTER BOARD FOR VESSELS.

No. 388,098. Patented Aug. 21, 1888.

Fig. 1.

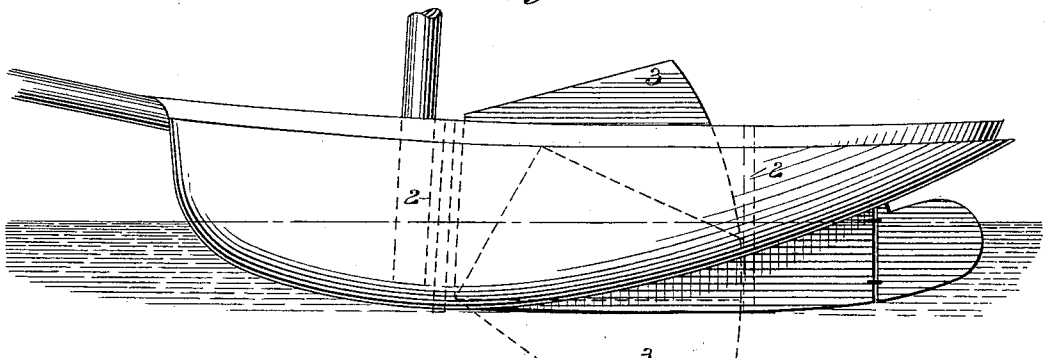


Fig. 2.

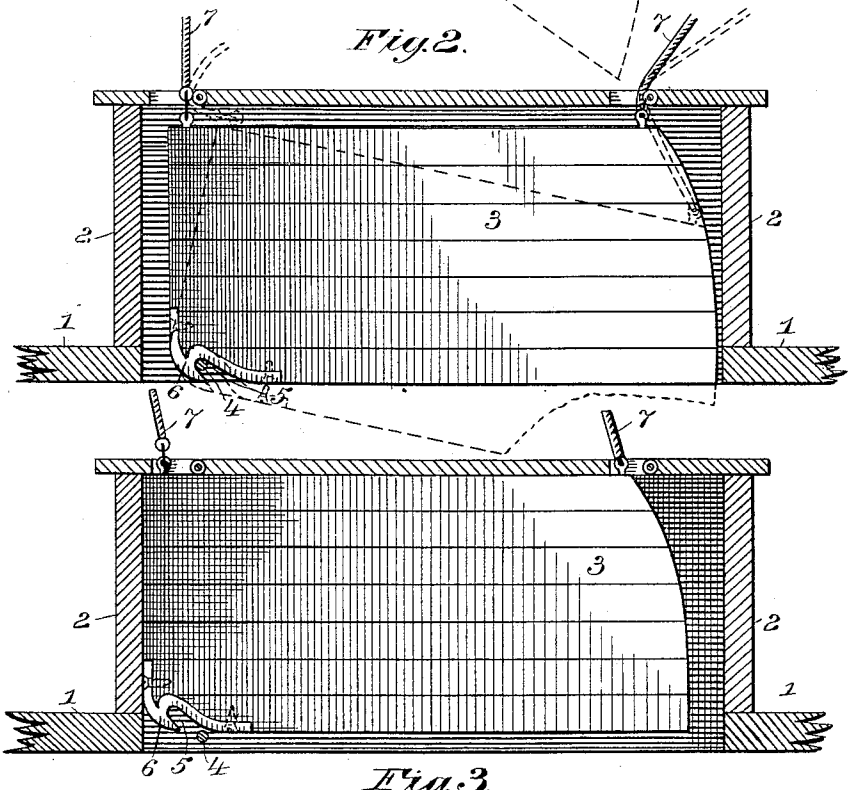


Fig. 3.

Witnesses.
Wm. L. Tanner.
B. C. Lee.

Inventor.
Henry W. Wells.
By A. M. Wooster.
Atty.

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

UNITED STATES PATENT OFFICE.

HENRY W. WELLS, OF ROWAYTON, ASSIGNOR OF ONE-HALF TO ALDEN SOHNANO, OF SOUTH NORWALK, CONNECTICUT.

CENTER-BOARD FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 388,098, dated August 21, 1888.

Application filed January 26, 1888. Serial No. 261,947. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. WELLS, a citizen of the United States, residing at Rowayton, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Center-Boards for Vessels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to so construct and attach a center-board that it may be readily shipped and unshipped, and cannot become locked in position in use, while at the same time leakage around the trunk shall be wholly prevented, the use of independent parts be avoided, the durability of the board increased, and the cost of production lessened. With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is an elevation of a small sailing-vessel, showing the raised and lowered positions of the board where an open-top trunk is used; Fig. 2, a longitudinal section of a closed-top trunk, the center-board being shown in elevation in position ready for use and in dotted lines a partially-lowered position thereof; and Fig. 3 is a similar view showing the center-board lifted away from the supporting-pin, as when the latter is to be removed, or in open-trunk boats when the center-board is to be lifted out at the top.

1 denotes the keel of the vessel, and 2 the trunk, which may be of the usual or any preferred construction, and with either an open or closed top.

3 denotes the center-board, and 4 a pin passing through the keel, by which the center-board is held in position.

The special feature of my improved construction is that I provide at the bottom of the center-board, near its forward end, a slot, 5, which extends upward and forward from the lower edge. This slot may be made in the center-board itself and re-enforced in any suitable manner. I preferably, however, make the slot in a casting, 6, which is secured at the forward lower corner of the center-board by screws or in any suitable manner. The casting is thus made to form a guard for the board, and also to serve as a means for attachment. The operation is as follows: I preferably place the pin in the keel, as that avoids all danger of leakage, which it is practically impossible to prevent if the pin passes through the trunk, as great strain necessarily comes upon the pin in use.

In boats having open-top trunks the center-board may be entirely removed from the trunk and replaced in position from the top without beaching or docking the vessel. This in small vessels is a great advantage, as it enables the center-board to be readily moved whenever there is danger of the trunk freezing up, and as readily replaced when required. In placing the center-board in large-sized vessels, or those using a closed trunk, the board is drawn up into the trunk back of the pin, and then forward to the position shown in Fig. 3. It is then ready to be dropped down to the position shown in full lines in Fig. 2, when it is ready for use. The board in being lowered in use swings freely on the pin which rests in the top of slot 5. The center-board is operated and retained in any desired position by means of ropes 7, attached at the upper corners thereof.

So far as I am aware, in other detachable center-boards the slot extends inward from the front toward the back, instead of toward the front, as in my improved construction. When the slot extends inward from the front, a key or some sort of retaining device is required to keep the board in position, which must be very strong, as the entire wear is upon it. As the tendency of a center-board is always backward, my improved center-board stays in position without retaining devices of any sort other than the usual ropes, and cannot get out of place unless lifted. In use center-boards that have retaining devices are constantly getting out of repair. Furthermore, as all center-boards necessarily spring more or less in use, those having retaining de-

vices are apt to get wedged in place, so that they cannot be moved either up or down.

Having thus described my invention, I claim—

A center-board for vessels, having at its forward lower corner a casting, 6, provided with a slot, 5, which extends from the lower edge upward and forward.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY W. WELLS.

Witnesses:
A. M. WOOSTER,
B. E. LEE.

Correction in Letters Patent No. 388,098.

It is hereby certified that the name of the assignee in Letters Patent No. 388,098, granted August 21, 1888, upon the application of Henry W. Wells, of Rowayton, Connecticut, for an improvement in "Center-Boards for Vessels," was erroneously written and printed "Alden Sohnano"; that said name should have been written and printed *Alden Solmans*, and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 18th day of September, A. D. 1888.

[SEAL.]

D. L. HAWKINS,
Assistant Secretary of the Interior.

Countersigned:

BENTON J. HALL,
Commissioner of Patents.