(No Model.) 2 Sheets—Sheet 1.

J. H. McPARTLAND.

CENTER BOARD FOR VESSELS.

No. 433,955. Patented Aug. 12, 1890.

Fig. 1

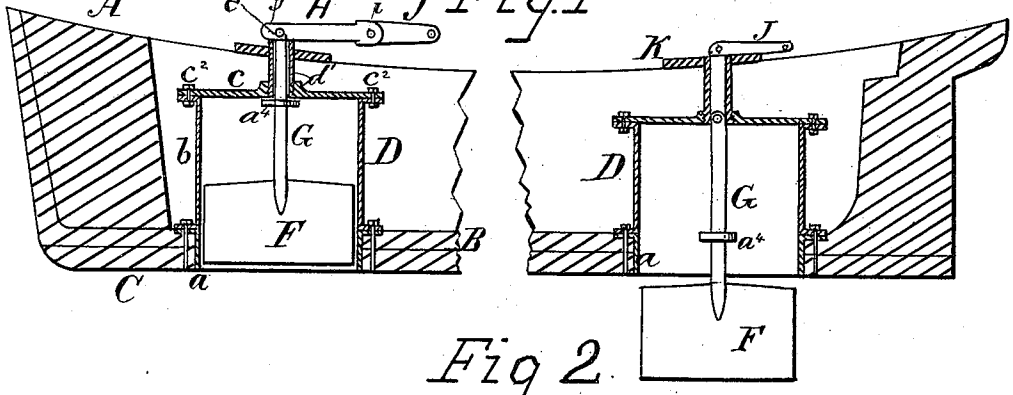
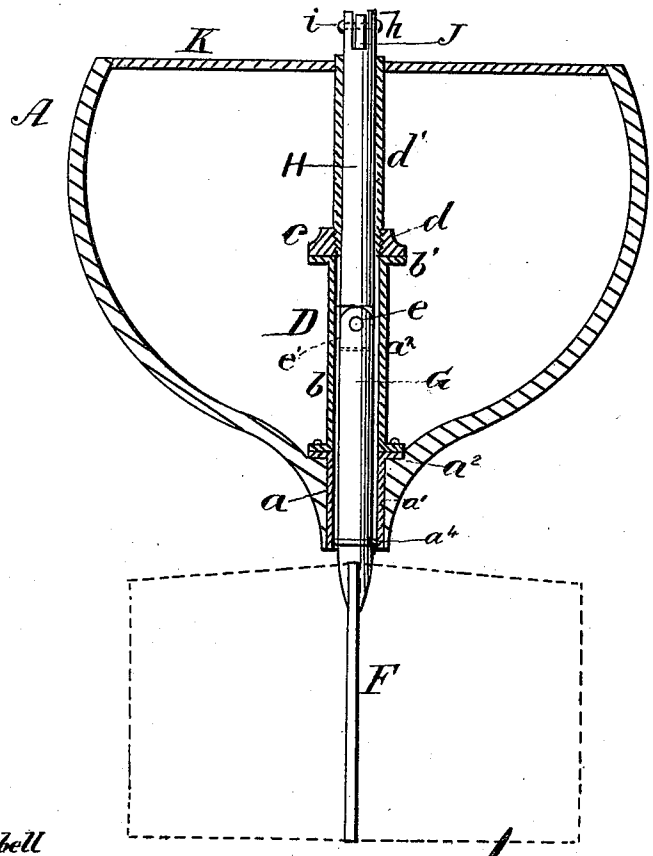


Fig 2.



Witnesses
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Inventor
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

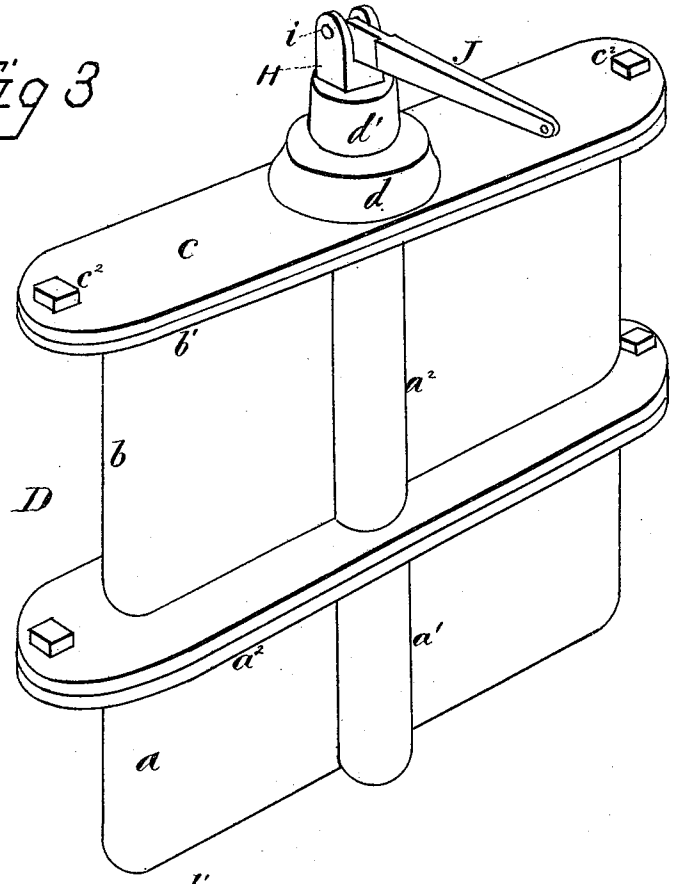
(No Model.) 2 Sheets—Sheet 2.

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Fig 3



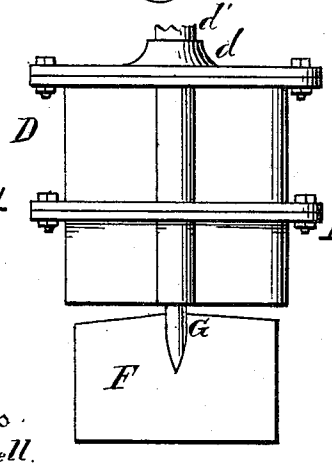


Fig 4

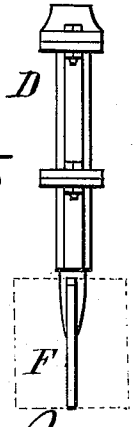


Fig 5

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UNITED STATES PATENT OFFICE.

JAMES H. McPARTLAND, OF HOULTON, MAINE.

CENTER-BOARD FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 433,955, dated August 12, 1890.

Application filed April 14, 1890. Serial No. 347,914. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. McPARTLAND, a citizen of the Dominion of Canada, residing at Houlton, in the county of Aroostook and State of Maine, 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 relates to certain novel and valuable improvements in vertically and horizontally adjustable center-boards for vessels, which improvements will be fully understood from the following description and claims, taken in connection with the annexed drawings, in which—

Figure 1 is a longitudinal section taken centrally fore and aft through a vessel, showing two of my improved center-boards applied to it. Fig. 2 is a cross-section through the vessel, taken in the plane indicated by dotted line $x\,x$ on Fig. 1. Fig. 3 is an enlarged perspective external view of one my improved center-board attachments. Fig. 4 is a side view of the device, indicating the center-board fully depressed. Fig. 5 is a front edge view of the housing detached from the vessel, showing by the aid of dotted lines the center-board adjusted at an angle with respect to the line of the keel.

Similar letters of reference indicate corresponding parts on the several views.

Referring to the annexed drawings, A designates the hull of a vessel, B the keelson, and C the keel proper. This vessel may be a simple sailing-yacht, or it may be a vessel of a large size. At suitable points between fore and aft I arrange my improved center-boards, each one of which, with its appurtenances, is constructed as follows:

D designates a metal housing, which, for the purpose of a full explanation, is composed of a lower oblongated tubular section a, having a double vertical-ribbed guide a', terminating at its upper end in a flange a^2, which is perforated to receive treenails through it to secure it to the keelson. This section passes vertically through the keelson and through the keel of the vessel, and is secured water-tight in the usual well-known manner. Above this section is another section b of the same shape and size in horizontal section as the lower section, which section b is constructed with a flange b', and also with a vertical continuation a^2 of the ribbed guide a'. On top of the section b is a flanged cap c, secured water-tight by a suitable gasket and bolts c^2 c^2, and from the center of the cap rises a stuffing-box d, which is screw-tapped to receive a guiding-tube d', which may be of any suitable length or height.

F designates a center-board, which is adapted to enter freely the upper and lower section of the housing, and which is beveled on its upper edge. This center-board F is centrally and suitably secured in a rigid manner to a swivel post or shaft G, which is guided in its vertical and axial movements by the ribs above described formed on the housing, and at a^4 a shoulder is formed on the post G to limit its upward movement—that is to say, when the said shoulder strikes the cap of the housing. The upper end of the vertically-movable and horizontally-swiveled post or shaft is attached to a link H by a pivot e, which passes horizontally through a tenon e', formed on the said shaft, and a bifurcated portion h, formed on this pivotal end of the link H. It will be observed that when the longitudinal axis of the link H is caused to coincide with the same axis of the shaft G the center-board is allowed to be depressed fully, and in this position it is supported by a shoulder or head g, upon the upper end of the link H, resting upon the guiding tubular extension d' d'. This head g is also bifurcated, and to it is pivotally attached by a horizontal transverse pin i an arm J, having an eye in its free end, as shown in the drawings hereto annexed. It will also be observed that when the center-board is fully raised above the keel of the vessel and the link is allowed to fall into position by its own gravity the bifurcated ends of this link will rest upon the top of the tubular extension H, and thereby sustain positively the center-board in the said raised position. Furthermore, it will be seen that I may sustain by the upper deck or by cross-braces K the upper end of each one of the tubular extensions H, and I contemplate so connecting the arms J by flexible joints and continuing these joints backward, that they can be operated by the man at the wheel. It will thus be seen

that, in the event of the loss of a rudder, the center-board, either at the stern or bow, will serve the purpose of a rudder, and that by means of the combination of my swivel center-boards a vessel can, with or without a rudder, be caused to turn about on its own center. At the same time the center-boards will not interfere with the forward speed of the vessel. In fact, my improved center-board serves the double purpose of a center-board and a rudder, and in the event of the loss or derangement of the rudder my center-board will serve as a rudder.

I am well aware that prior to my invention two independent center-boards have been applied to a vessel, each being adjustable vertically and also in a horizontal plane. This feature I disclaim.

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

1. The combination, with the sectional flanged casing D, adapted to be applied to a vessel, as described, and a vertical guiding and supporting tube rising from the cap of said casing, of a center-board provided with a vertically and axially adjustable jointed rod, substantially as and for the purposes described.

2. The combination, with a center-board casing and its guiding-tube, of a vertically and axially adjustable center-board, the vertical shouldered rod to which this board is rigidly secured, and the two sections H J, jointed as described.

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

JAMES H. McPARTLAND.

Witnesses:
ROYAL S. CLOUGH,
HENRAN N. WHITEHEAD.