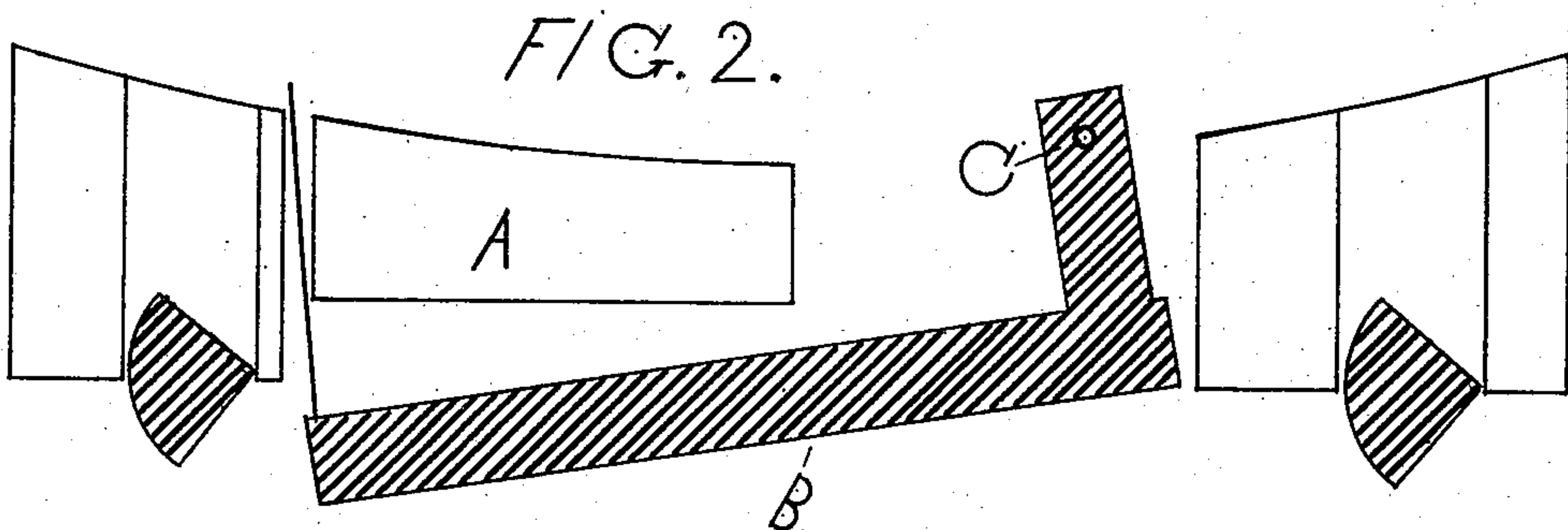
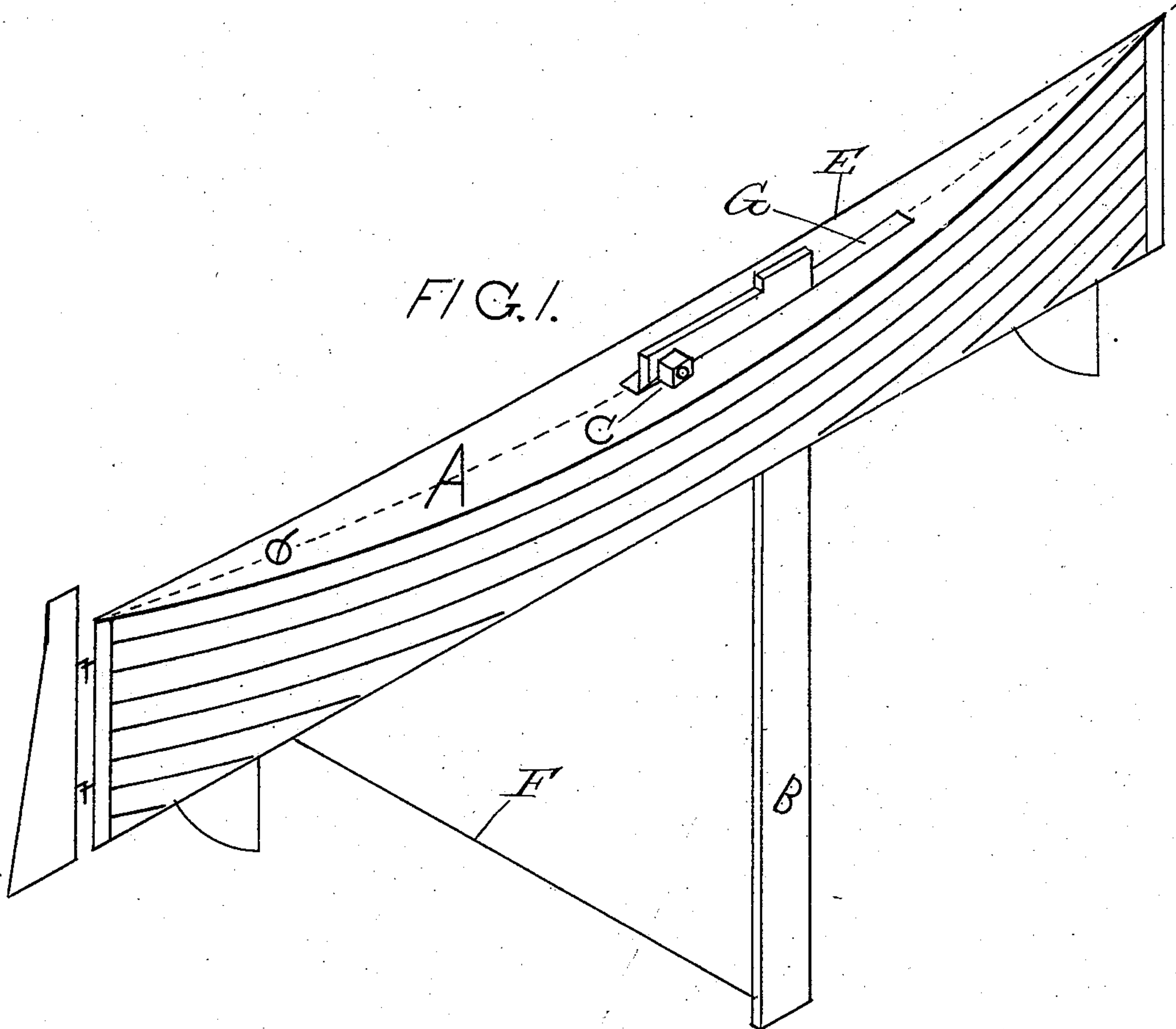


(No Model.)

G. W. SCHERMERHORN.
SHIFTING BALLAST CENTER BOARD.

No. 352,934.

Patented Nov. 23, 1886. D



WITNESSES:

A. S. DeGroot

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INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE W. SCHERMERHORN, OF PHILADELPHIA, PENNSYLVANIA.

SHIFTING-BALLAST CENTER-BOARD.

SPECIFICATION forming part of Letters Patent No. 352,934, dated November 23, 1886.

Application filed November 3, 1885. Serial No. 181,793. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. 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 valuable Improvement in Shifting-Ballast Center-Boards for Boats, of which the following is a specification.

My invention relates to improvements in the ballast for boats in which a long heavy ballast-keel or center-board is hung in a box near its forward end by a shifting bolt or pivot that may be shifted or slid fore and aft as the ballast center-board is lowered or hauled up, and the said ballast center-board also operates in conjunction with one or more supplemental center-boards, if the model and rig of the boat are such as to require such supplemental center-boards; or it may be used alone; and the objects of my improvements are, first, to provide a weighted center-board which can be lowered and hauled up, the same as any ordinary center-board, and which can also be shifted fore and aft as it is lowered and hauled up, so as not to throw the boat out of trim, which it would evidently do if it were secured to the boat in the ordinary way. 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. A is the hull of a boat. B is the weighted center-board. C is the shifting bolt or pivot that connects the weighted center-board with the boat, and which slides or rolls fore and aft upon ways formed by or upon the deck, and which incline toward the after end of the boat. Fig. 2 is a vertical fore-and-aft or longitudinal section taken at the dotted line D in Fig. 1.

Similar letters refer to similar parts throughout the several views.

The center-board box may be built like an ordinary center-board box; or it may extend right out through one or both ends of the boat; or the boat may be built in two halves, like the two boats of a catamaran, and fastened together so as to leave space enough between for the center-board box or boxes; or the weighted center-board may project below the bottom of the boat without any other box than the one that its forward end shifts fore and aft in.

If the ballast-board when hauled up extends below the bottom of the boat, then the box need not extend out through the stern of the boat; but if the ballast-board is so constructed that it must be hauled up into the box, then the end of the box must extend right out through the stern of the boat, (in that case the top or cover of the narrow or low part of the box is virtually part of the bottom of the boat,) so that if the boat runs upon a shoal the ballast-board will be forced up with its after end away astern of the boat without doing any damage.

The weighted center-board B may have its forward end extend upward to form a place for the pivot C; or the center-board B may be deep enough to have the pivot C pass through the main part of the center-board; or the pivot C may be connected with the center-board by a jointed rod or chain. In that case a frame or slide could be used instead of the pivot C. I consider all these arrangements equivalent to what I show and describe.

It is evident that a weighted center-board heavy enough and long enough to be of much use as ballast would, when lowered, trim the boat too much by the head, or when hauled up trim the boat too much by the stern. The way my invention obviates that is by having the weighted center-board B connected with the boat A by the movable pivot or bolt C, that may be shifted or slid fore and aft along the deck as the weighted center-board is lowered, or hauled up if the boat has sufficient sheer; or if the deck that the pivot C slides upon has sufficient incline the pivot C will be shifted fore and aft automatically by simply lowering and hauling up the weighted center-board; or sufficient force can be applied to the pivot C by hand or with any suitable purchase to shift it fore and aft as the center-board B is hauled up or lowered, thus shifting the forward end of the weighted center-board aft as its after end is lowered, and shifting the forward end forward as its after end is hauled up, thus always keeping the boat in proper trim.

If the boat should be damaged or were in danger of sinking, the pivot C could be instantly removed or knocked out of place and the rope or ropes cast off or cut, then the boat would be at once relieved of her ballast and would not sink; or in case the anchors would

not hold the boat the ballast-board could be
let go, as described, and used as a mooring. In
that case it would be well to attach a line to
the upper forward end of the ballast. Then
5 it could be hove up into place when desired;
or when desirable to go into a shoal harbor or
up a river where the boat would draw too much
water with her ballast, then the ballast could
be let go in the way described and the ropes
10 buoyed, and when the boat returned the ballast
could be picked up.

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

15 In a ballasting device for vessels, the com-
bination of the shifting-ballast center-board
having a long and a short arm at right angles to
each other and rigidly connected together, the

long arm having secured to it a rope or chain,
and the other end of the short arm having a lug 20
or pivot-pin secured to it, in combination with
the center-board well passing through the ves-
sel to its deck, and having ways inclining fore
and aft upon which the lug or pivot-pin rests,
and an opening in the after part of the vessel 25
through which the rope or chain that is se-
cured to the board is passed to the deck, all so
connected that as the after end of the board
is lowered its forward end is shifted aft, all
substantially as shown and described, for the 30
purpose specified.

GEORGE W. SCHERMERHORN.

Witnesses:

GEORGE W. SELTZER,
WILLIAM H. KOLB.