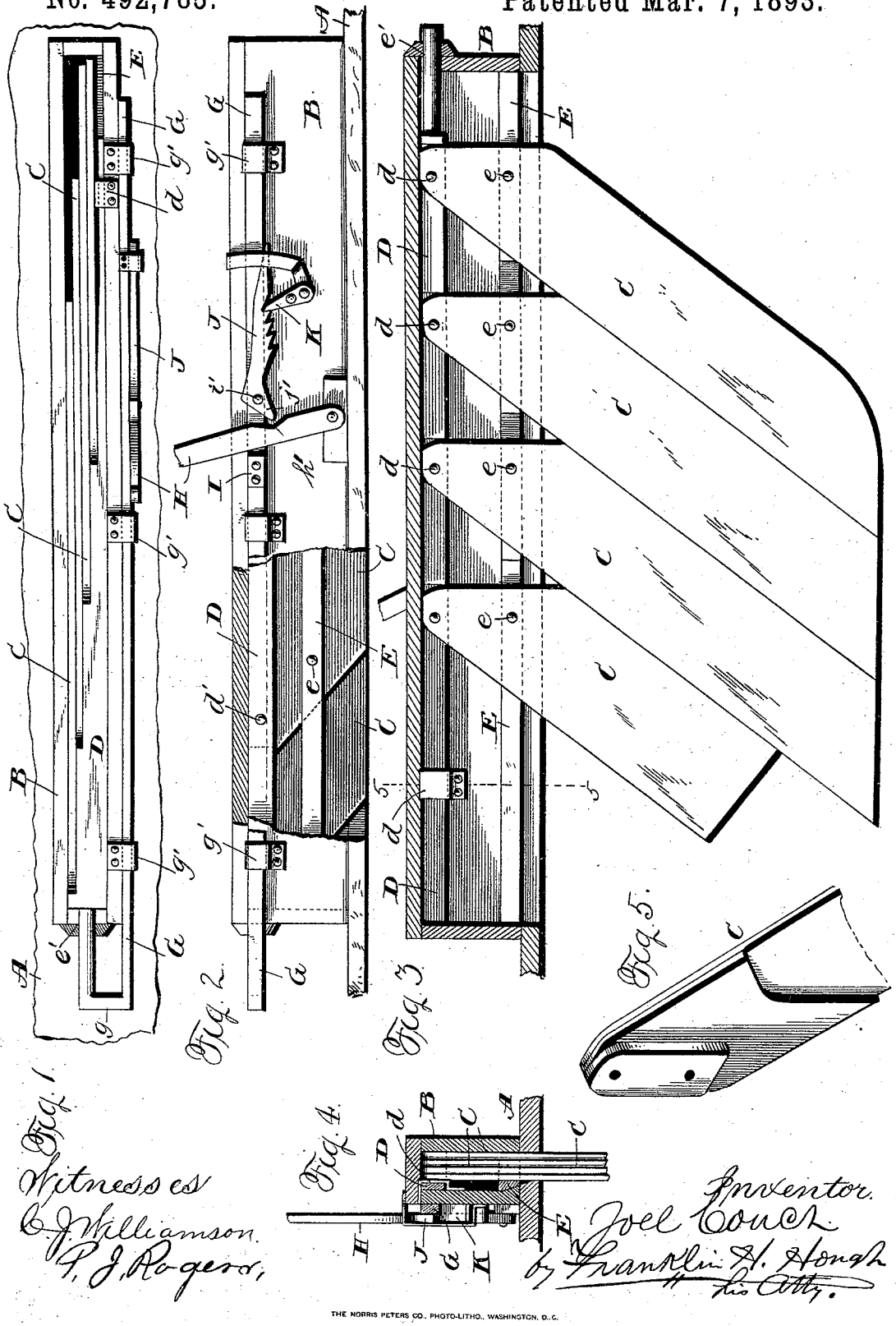
(No Model.)

J. COUCH.

CENTER BOARD.

No. 492,785. Patented Mar. 7, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JOEL COUCH, OF CLAYTON, NEW YORK.

CENTER-BOARD.

SPECIFICATION forming part of Letters Patent No. 492,785, dated March 7, 1893.

Application filed August 9, 1892. Serial No. 442,627. (No model.)

To all whom it may concern:

Be it known that I, JOEL COUCH, a citizen of Great Britain, residing at Clayton, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Center-Boards for Boats; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to center boards for boats, and particularly to that class of center-boards which are known as folding-blade boards, and it has for its object to improve upon the construction of this class of boards, to render the same more simple and less expensive in construction, and at the same time more durable and efficient in operation; rendering the same capable of offering great resistance to lateral pressure and easy manipulation.

To these ends and to such others as the invention may pertain, the same consists in the peculiar construction and in the novel construction, arrangement and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is fully illustrated in the accompanying drawings, which, with the letters of reference marked thereon form a part of this specification, and in which drawings;

Figure 1 is a plan view of my invention, the top being removed. Fig. 2 is a side elevation with the center board shown as closed within the box, the box being shown as broken away. Fig. 3 is a longitudinal section of the device, showing the board as lowered for use. Fig. 4 is a transverse section upon the line 5, 5 of Fig. 3, from the opposite side. Fig. 5, is a modified form of one of the blades, such as is used when greater strength is required than is the case with light boats, such as canoes, skiffs, &c.

Reference now being had to the details of the drawings by letter, A designates the hull of a vessel provided with a slotted keel and center-board box B, and C, C are blades which vary in number, as circumstances may require, and when a center board of great strength is required, the blades are so constructed as to have their upper rear ends thicker than the lower cutting edges; but, for use upon canoes and small sailing boats, I prefer the use of thin blades having a uniform thickness.

Within the center-board box is slidingly attached on one side, a rod D, which is beveled at the small end, and passed through the loop *d*. This rod is formed with a series of steps, to which are attached pivotally, the blades, at points *d'*, one blade to each step.

E is a second rod, having steps similar to the rod D, and to this rod E are pivotally attached the blades, at points *e*. The rod E is prolonged, so as to extend through the end of the center-board box through the aperture *e'*, suitable packing being interposed. To the projecting portion of the rod D, is suitably attached, through the connections *g*, the rod G, which rod is slidingly attached to the out side of the center board box, at points *g'*. To the out side of the box, within convenient reach of the operator, is pivotally attached a lever H.

To the rod G, is fastened at a point midway of the length of the box, a fulcrum block I, against which the lever H bears, to lower or raise the board.

In order to regulate the throw of the center board, I provide a ratchet-bar J, which is pivotally attached to the rod G, at *i'*, and is adapted to engage the pawl K to gage the throw of the center board, as required.

The operation of the device will be readily understood. When the rod D is moved backward or forward through the medium of the lever H and the rod G and its connections the bar E bears against the inner end wall of the center board box, and the blades turn upon their two pivotal points. The blades are folded up or lowered by the outward and inward throw of the rod D, it having a tail piece J' adapted to engage a notch *h'* in said lever when the latter is actuated, all as clearly shown in Fig. 2.

It will be observed that the lower outer edge of the rod E is beveled, so that when the board is lowered into the water the beveled rod E

will bear against the inclined or beveled face of the keel within the box, and thus hold the blades rigidly in position.

The center boards may be constructed of wood, metal or other suitable material, and it will be readily seen that a board constructed in accordance with my invention will offer great resistance to lateral pressure, which bears against the face of the board when in use. It will be also noted that the ratchet bar J is so constructed as to permit of its being operated automatically when the lever H bears against the same.

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

1. In a folding center-board, having a series of blades pivotally attached near one end to two rods or bars parallel with each other, one of which is extended through the center-board box to operate said blades with the other ends of the blades free, substantially as shown and described.

2. A folding center board of the character described having a series of blades, free at one end and the other end pivoted independently of each other and means for operating the same substantially as shown and described.

3. A folding center board having a series of independently pivoted blades, free at one end, and at their pivoted end attached to two parallel bars having a series of steps, to which are pivoted said blades, and means for operating same, substantially as shown and described.

4. In a folding center board with a series of blades pivotally attached to two parallel bars having a series of steps, one bar being beveled to wedge against the side of box, and the loop *d*, on the box and guiding one of said bars and bar extended for operating said device, substantially as shown and described.

5. In a folding center board, as described having one of the actuating bars extended, a secondary bar or rod parallel with the first mentioned bar, and to which is attached a lever, which is pivoted to bear against a fulcrum bar on said bar G, substantially midway the length of the box substantially as shown and described.

6. In combination with a rod and a pivoted lever for operating a folding center board an automatically operating ratchet, having one end arranged to be engaged by said lever to regulate the throw of center-board, substantially as shown and described.

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

JOEL COUCH.

Witnesses:
FRANKLIN H. HOUGH,
H. W. MORSE.