

(No Model.)

W. R. BAKER.  
CENTER BOARD FOR BOATS.

No. 528,916.

Patented Nov. 13, 1894.

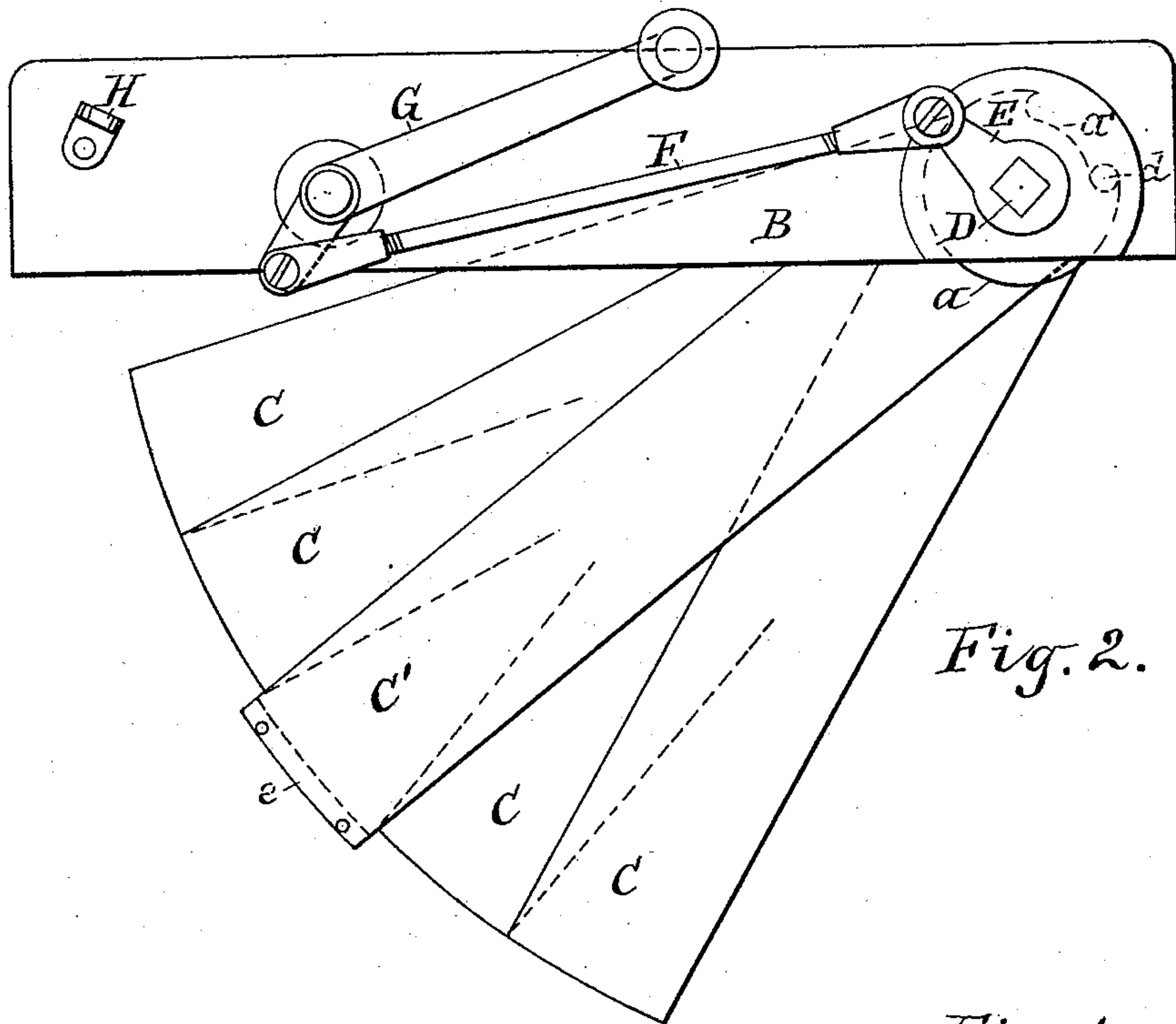
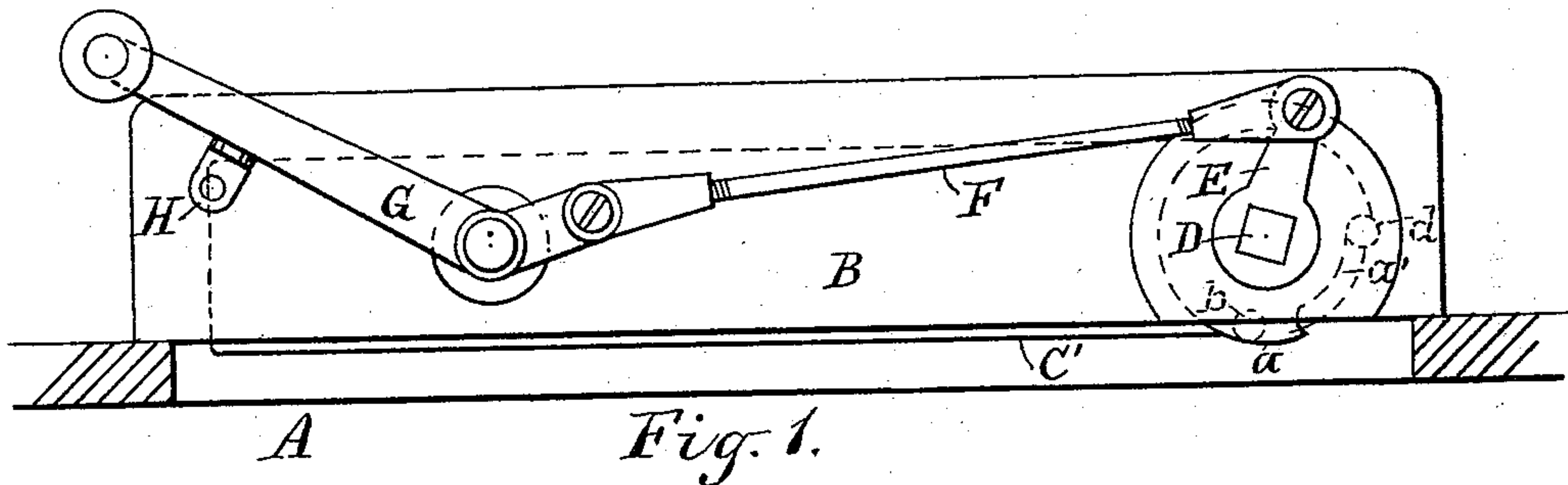


Fig. 3.

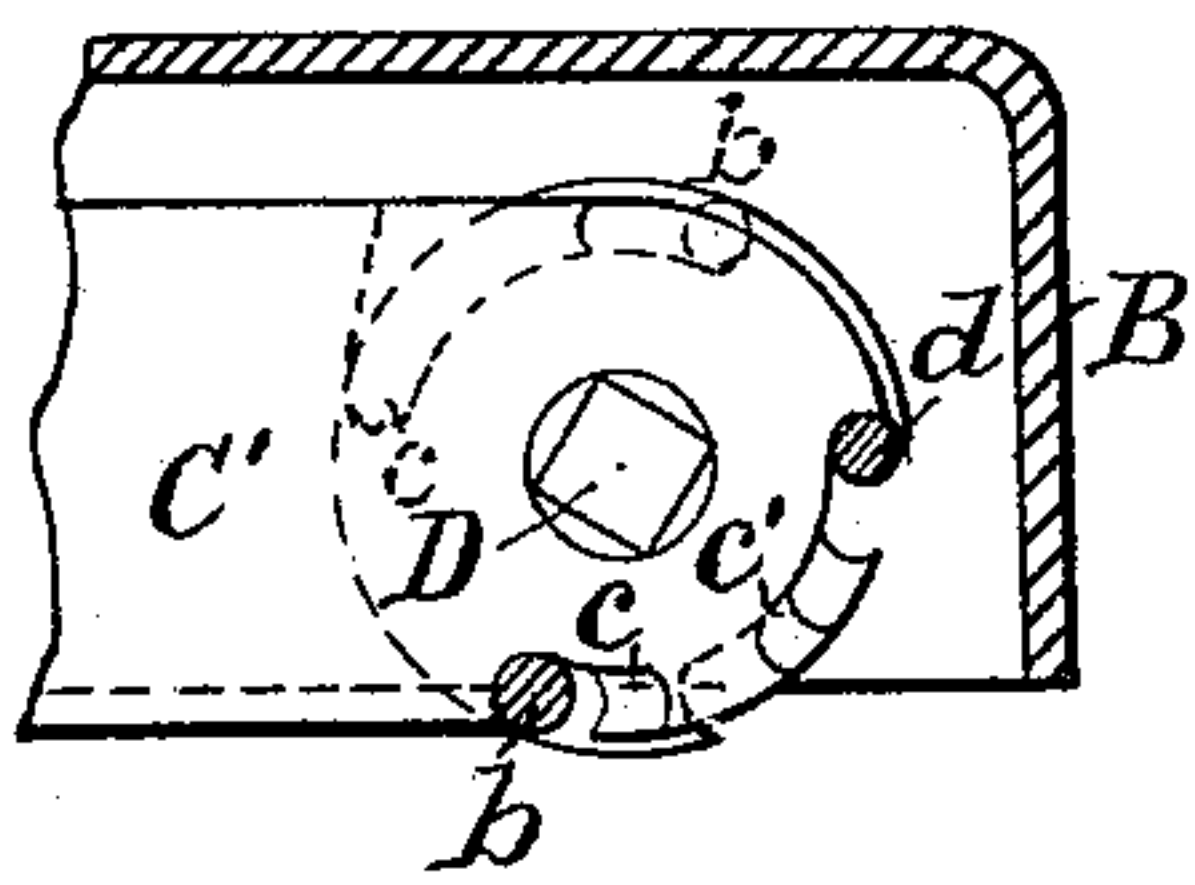
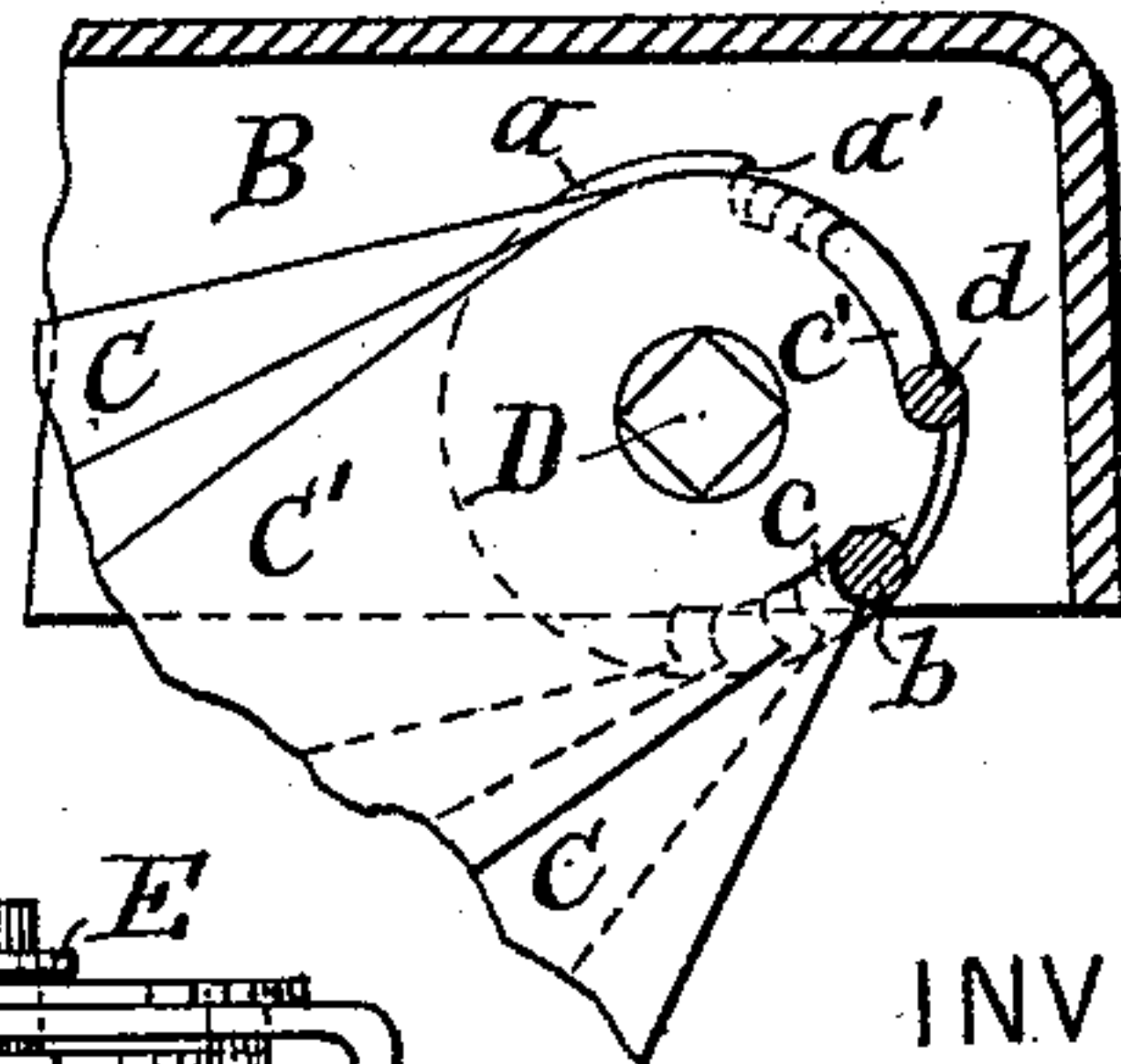


Fig. 4.



WITNESSES:

H. M. Seamans

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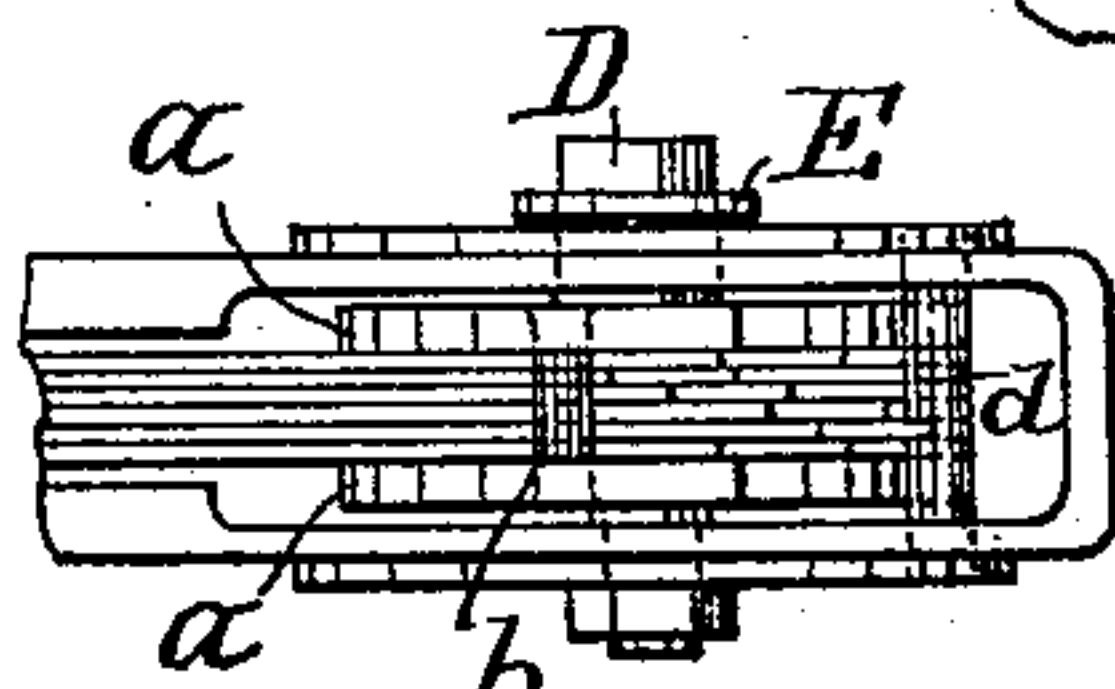
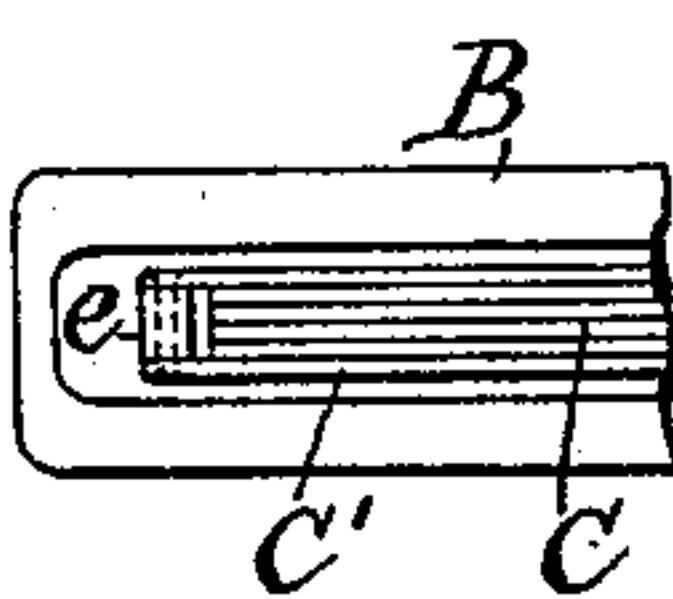


Fig. 5.

INVENTOR,  
William R. Baker  
By C. H. Duell  
his ATTORNEY.



# UNITED STATES PATENT OFFICE.

WILLIAM R. BAKER, OF WATERTOWN, NEW YORK.

## CENTER-BOARD FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 528,916, dated November 13, 1894.

Application filed March 7, 1894. Serial No. 502,627. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. BAKER, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Center-Boards for Boats, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in that class of folding center-boards for boats which consists of a series of vertically swinging leaves or blades arranged to fold side by side within a well or casing, and the objects are to give the leaves or blades increased stiffness, to simplify the construction and to increase the durability and ease of operation of the apparatus.

To this end my invention consists in the combination with the well or casing provided with a shaft extending transversely there-through near one end, and the center-board leaves mounted on said shaft, of a plate fixed to and turning with the shaft, a pin carried by said plate, a stationary pin in the casing, a pair of recesses in the edge of each of the leaves, and suitable means to rotate the said shaft and plate; and my invention consists in certain other combinations of parts hereinafter described and specifically set forth in the claims.

Referring to the drawings hereto annexed and forming a part of this application, Figure 1 is a side elevation of the well or casing of the center-board. Fig. 2 shows the center-board leaves open or in their operative position. Fig. 3 is a longitudinal sectional view of the front end of the casing to show the position of the recesses when the leaves are in their normal position, and Fig. 4 is a similar view when the leaves are in their open or operative position, and Fig. 5 is a bottom plan view of the casing and center-board in its folded position.

Referring specifically to the drawings, A represents the keel of the boat, and B represents the well or casing open at the bottom and communicating with an oblong opening through the keel. This casing is made of metal or wood and secured to the boat in position by any suitable and well-known means.

The center-board consists of a plurality of leaves or blades C, C', of metal of equal width

and length except that the outer blades or leaves, C', are somewhat longer than the others so that their free ends may be joined and secured together beyond the ends of the central blades. By this means I obtain increased stiffness of the board, for when it is open or lowered the outer blades lie in a central position thus binding the central blades together rigidly as shown clearly in Fig. 2 of the drawings. The blades C C', are pivoted or mounted upon a shaft, D, extending through the casing, transversely, near its front end.

Within the sides of the casing or between the leaves and each side of the casing is a metallic disk, *a*, keyed or otherwise fixed to turn with the shaft D. The disks have a diameter somewhat greater than the width of the blades, and the latter have their ends made circular in form. Each blade is provided on its rounded end with a pair of recesses *c*, *c'*, equal distances apart but of different lengths depending upon their respective positions or inclinations when the board is open or unfolded. The bottom of each of said notches is arc-shaped as is also the bottom of each of the notches, *a'*, in the plates or disks, *a*, *a*. The said disks have each but one notch and these notches are opposite each other as are also the notches in the outer blades C', as they move together, uniformly.

Extending between the disks and lying in one set of recesses, *c*, in the blades is a pin *b*. This pin when in the position shown in Fig. 3 locks the blades in their normal or closed position, and, when moved to the position shown in Fig. 4, holds the blades in their open position. This is effected by the pin *b* bearing upon the blades first at one end of the recess and then at the other, the said recesses being of different lengths as before mentioned.

*d* is a stationary pin extending transversely through the casing and lying in the second set of recesses, *c'*, in the blades, C, C', and also in the recesses, *a'*, in the disks, *a*, *a*. This stationary pin serves as a stop to limit the movement of the blades when in their open position so that none of them can drop lower than is desired or so that spaces will not be made between the blades when open.

In order to strengthen the device and render it more durable, I may provide a second



set of notches, *c*, in the blades C and C', corresponding to, or the same as those hereinbefore described, and another pin, *b*, carried by the disks, in which case said pin would be  
 5 located as indicated by dotted lines in Fig. 3 of the drawings.

The outside blades are shown joined at their free ends by a piece of metal, *e*, placed between their ends with rivets extending  
 10 therethrough, but they may be joined together by forming the two blades of one piece bent upon itself.

The shaft, D, is provided with a crank, E, on the outside of the casing and this crank is  
 15 connected by a rod, F, with a bell-crank lever, G, pivoted to the opposite end of the casing. The short arm of the lever is connected to the rod F and the long arm is provided with a handle by which the lever is operated.

20 H is a stop secured to the casing to limit the movement of the lever, G, in one direction. The two extreme positions of the lever are shown clearly in Figs. 1 and 2 of the drawings.

25 It will be noticed that when the lever is in contact with the stop H the board is locked in its closed position as the joint between the lever and rod has passed above a line between the axis of the lever and the axis of the rod,  
 30 F, at the end of the crank E.

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

1. The combination with the well or casing  
 35 provided with a shaft extending transversely therethrough near one end, and the center-board leaves mounted on said shaft, of a plate fixed to and turning with the shaft, a pin carried by said plate, a stationary pin in the cas-  
 40 ing, a pair of recesses in the edge of each of the leaves, and suitable means to rotate the said shaft and plate, as and for the purpose described.

2. The combination with the well or casing  
 45 provided with a shaft extending transversely therethrough near one end, and the center-board leaves mounted on said shaft, of a plate on each side of the leaves and fixed to and turning with the shaft, a pin extending through  
 50 and between the plates, a stationary pin ex-

tending through the casing, a recess in each plate, a pair of recesses in the edge of each of the leaves, and suitable means to rotate the shaft and plates, as and for the purpose de-  
 55 scribed.

3. The combination with the well or casing provided with a shaft extending transversely therethrough near one end, and the center-board leaves mounted on said shaft, of a plate  
 60 fixed to and turning with the shaft, a pin carried by said plate, a stationary pin in the casing, a pair of recesses in the edge of each of the leaves equal distances apart but of different lengths and suitable means to rotate the  
 65 said shaft and plate, as set forth.

4. The combination with the well or casing provided with a shaft extending therethrough near one end, and the center-board leaves mounted on said shaft, of a disk on each side  
 70 of the leaves and fixed to and turning with the shaft, a pin extending through and between the disks, a stationary pin extending through the casing, a recess in each plate, a pair of recesses of different lengths in the  
 75 edge of each of the leaves for the said pins to move in, the outside leaves joined together around the free ends of the central leaves and adapted when the board is open to lie in  
 80 a central position, and means to operate the board, substantially as described and shown.

5. The combination with the well or casing provided with a shaft extending transversely therethrough near one end, and the center-board leaves mounted on said shaft, of a disk  
 85 on each side of the leaves and fixed to and turning with the shaft, a pin on diametrically opposite sides of the disks extending through and between them, a stationary pin extending through the casing, a recess in each disk  
 90 for the stationary pin and a set of recesses of different lengths in the said leaves for each of the said pins as and for the purpose described.

In testimony whereof I have hereunto signed my name.

WILLIAM R. BAKER. [L. S.]

Witnesses:

A. D. CHATTAWAY,  
 F. W. HASKIN.