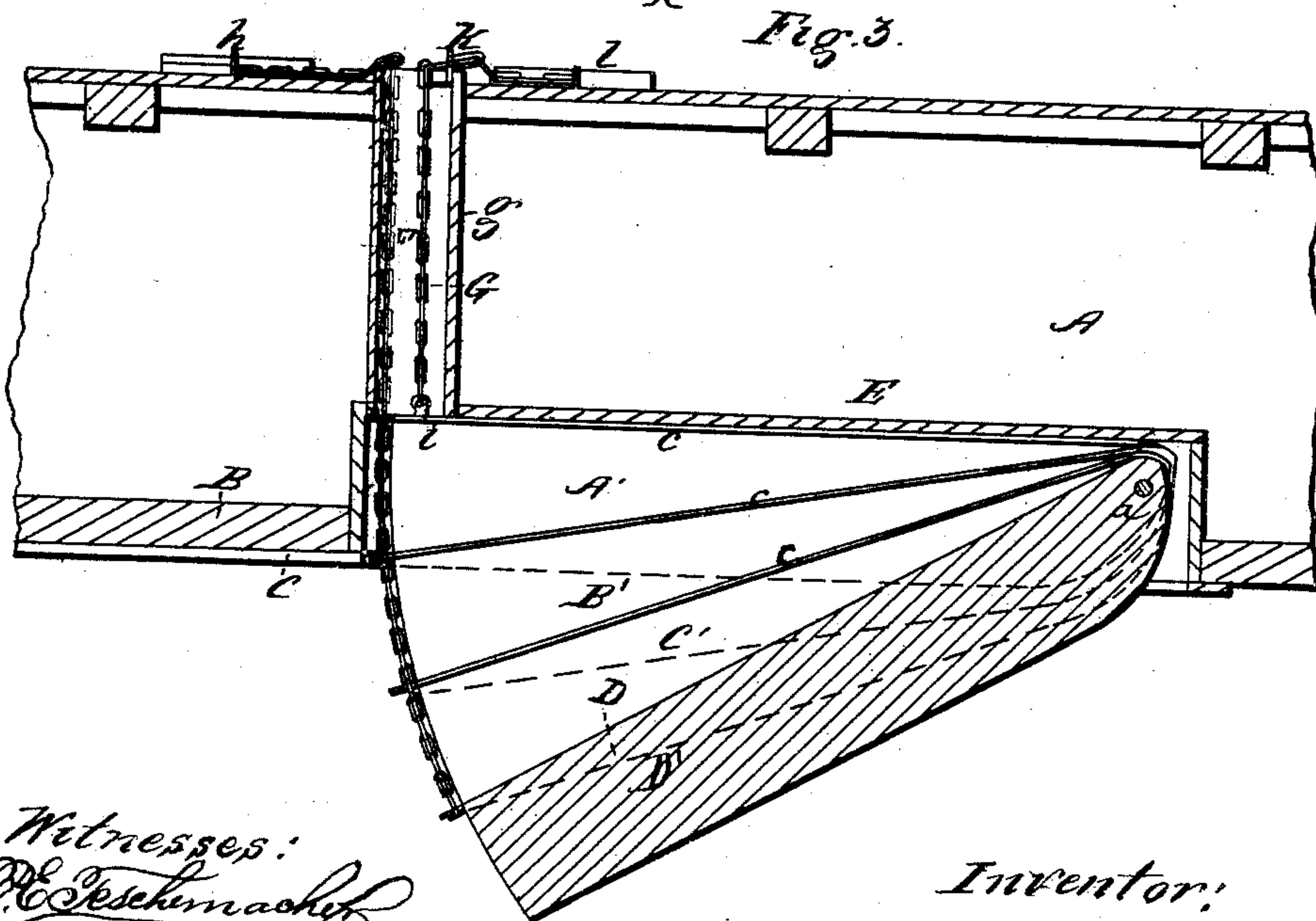
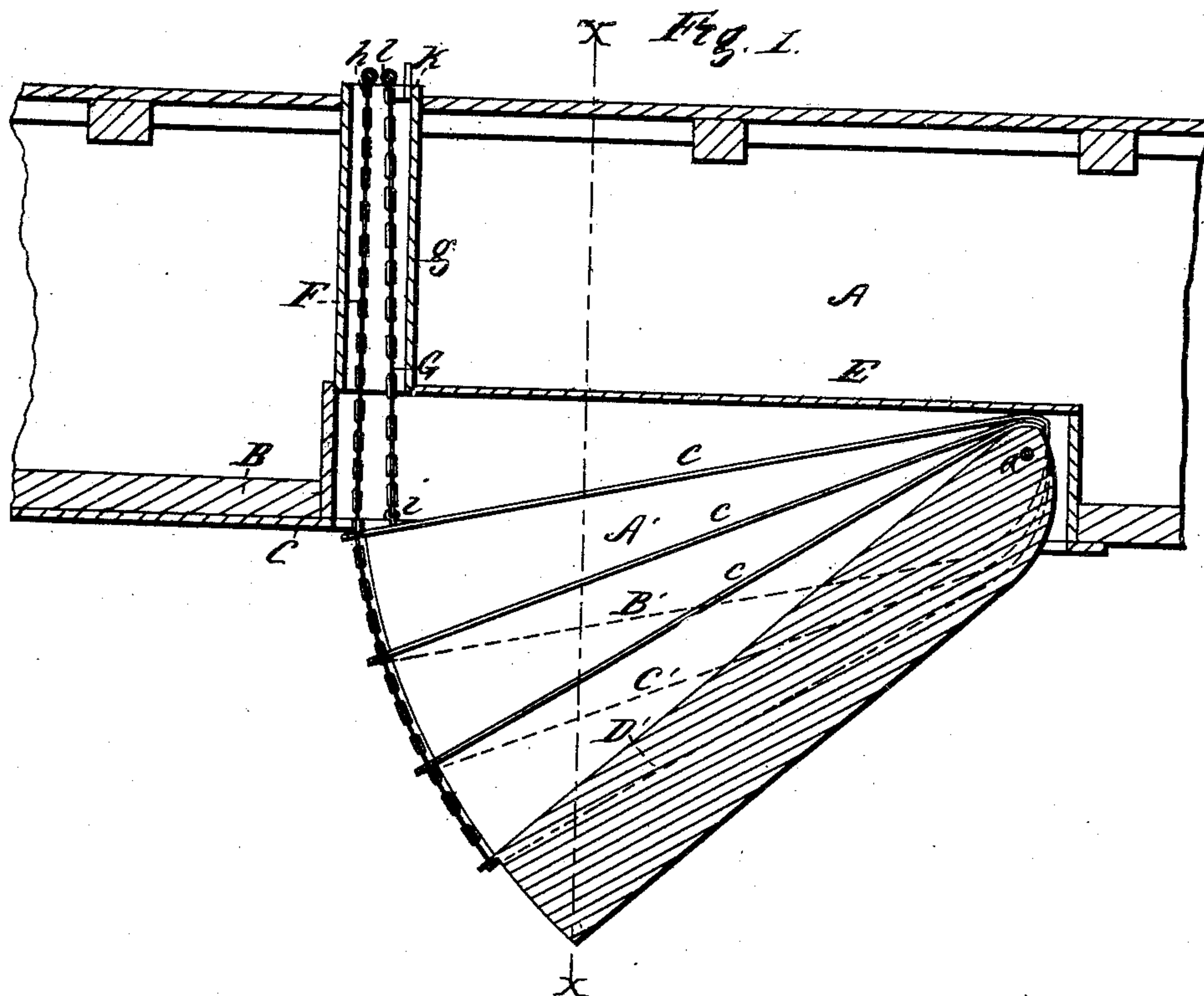


W. F. DAVIS.
CENTERBOARD FOR SAILING VESSELS.

No. 62,614.

Patented Mar. 5, 1867.



Witnesses:
P. Teschmacher
W. W. Stearns.

Inventor:
W. F. Davis.

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Fig. 2.

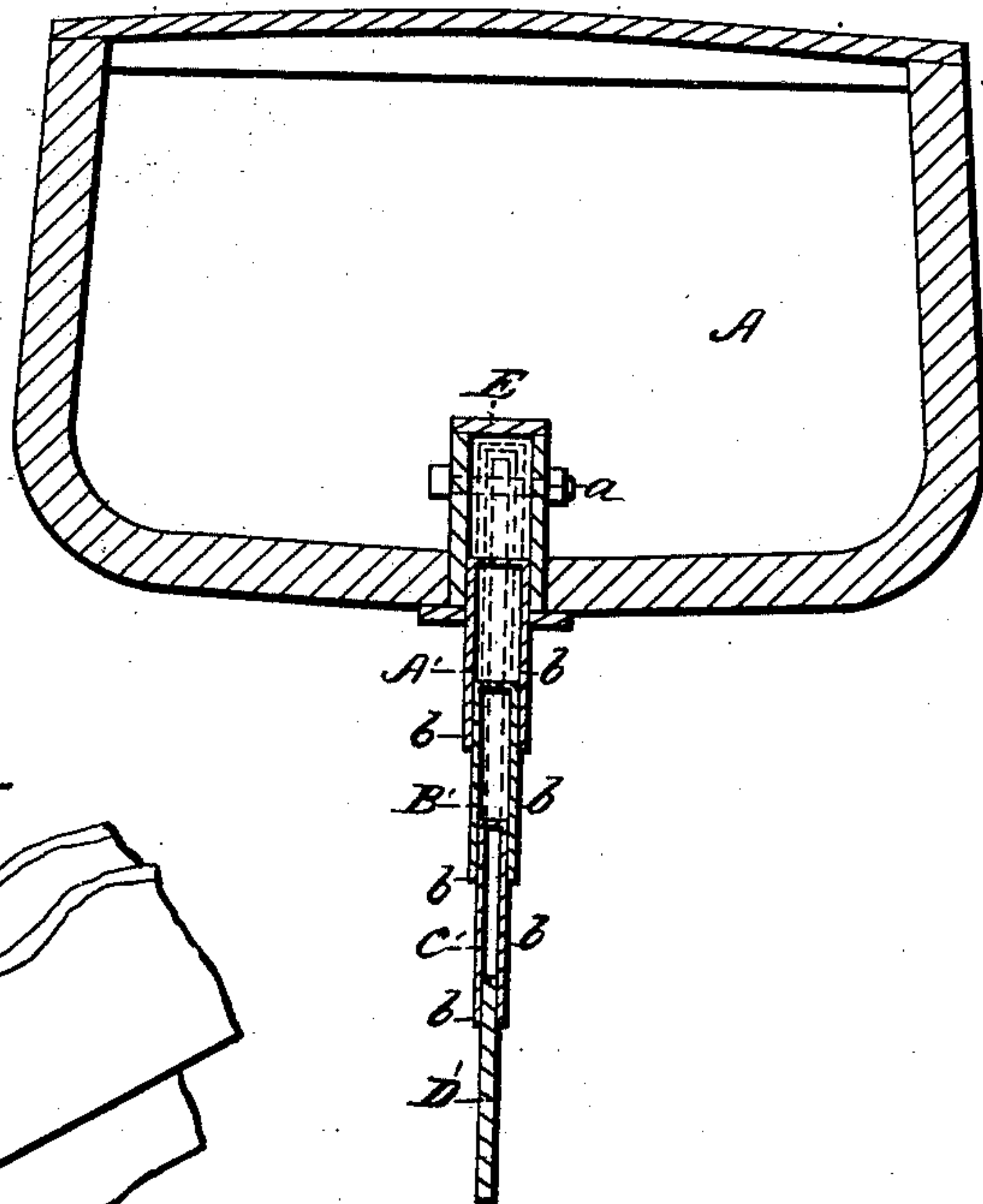


Fig. 5.

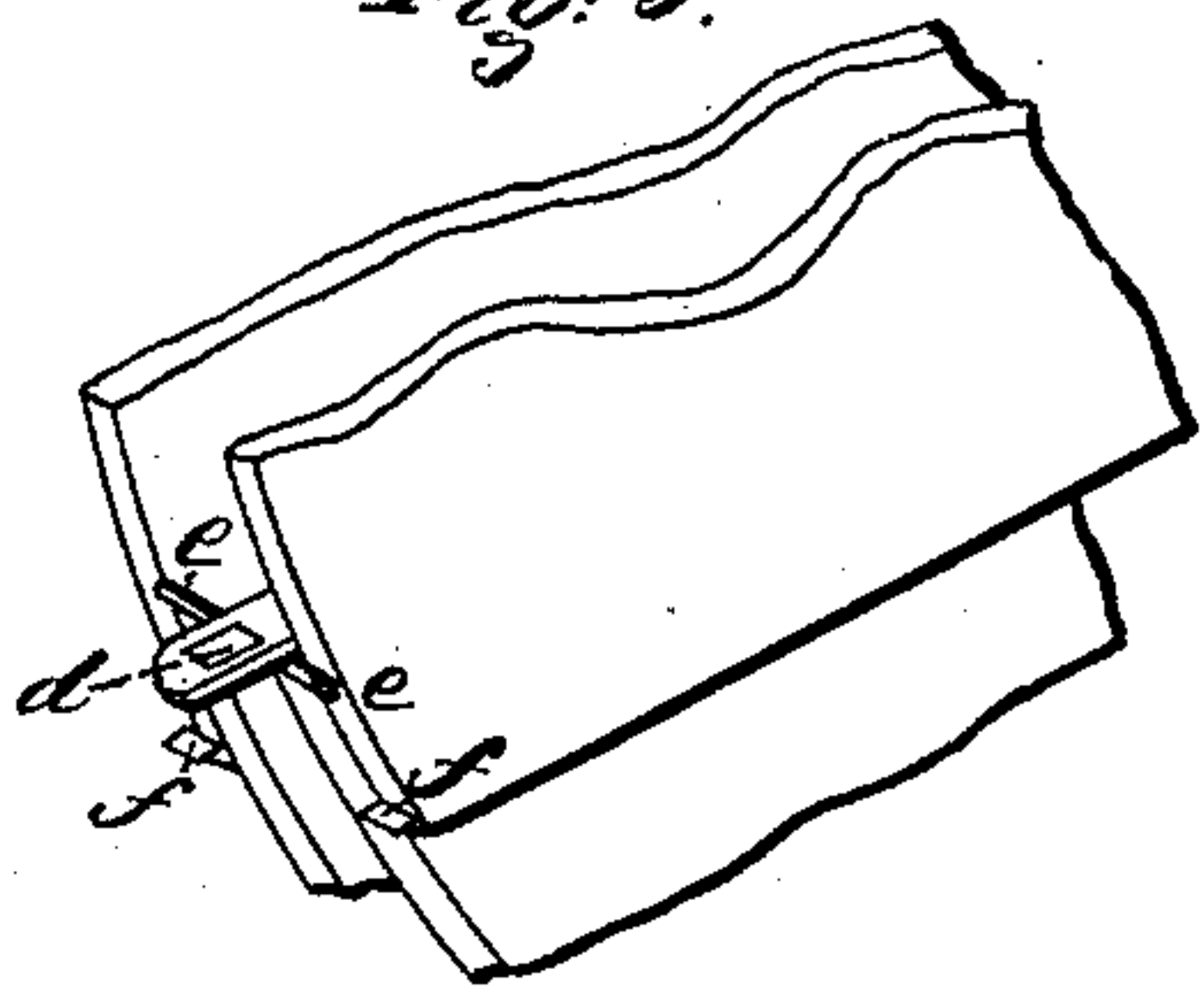
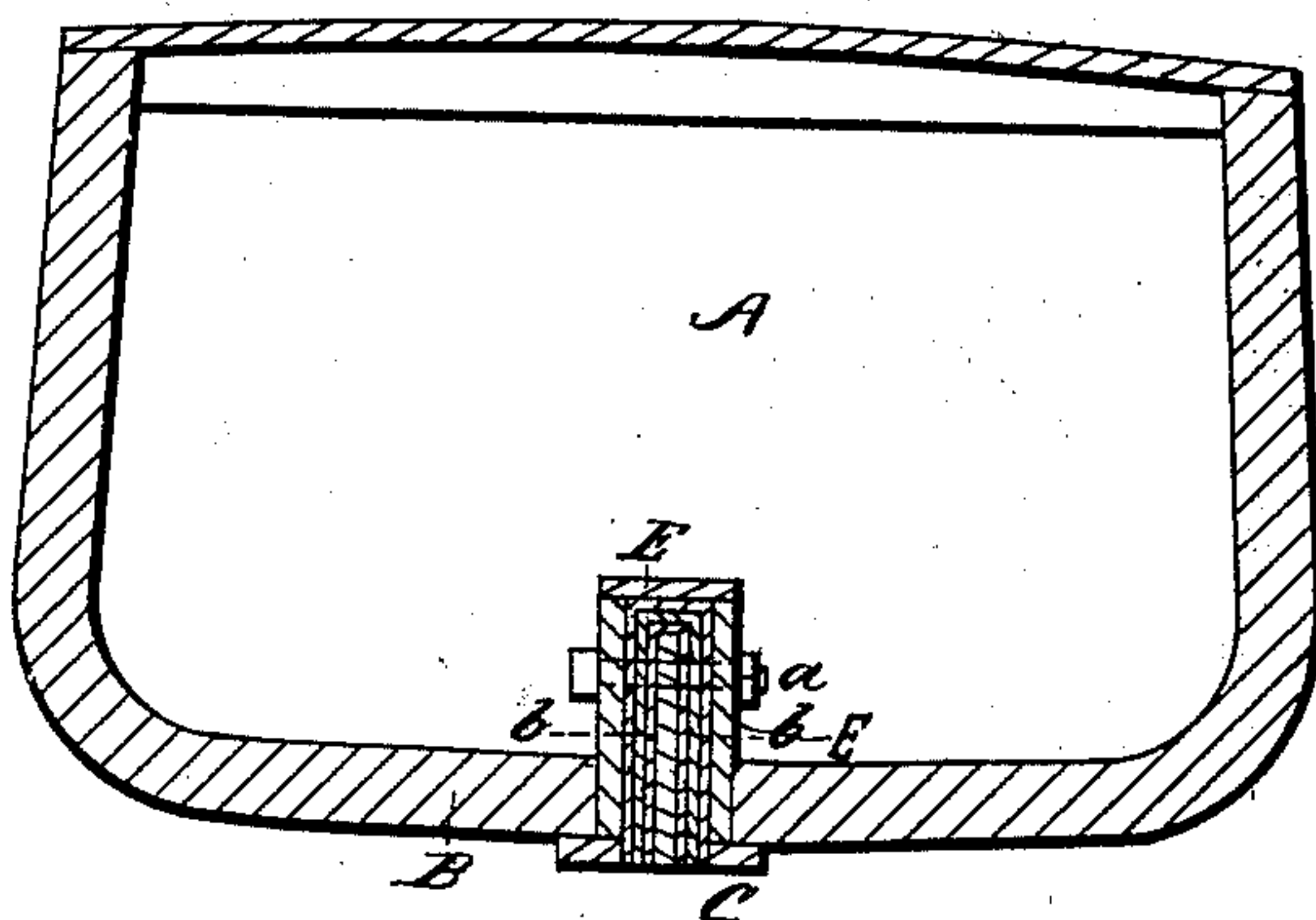


Fig. 4.



Witnesses:

O. Eschmacker
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United States Patent Office.

WASHINGTON F. DAVIS, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 62,614, dated March 5, 1867.

IMPROVED CENTRE-BOARD FOR SAILING VESSELS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WASHINGTON F. DAVIS, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain improvements in Centre-Boards for Sailing Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a longitudinal vertical section through my improved centre-board as applied to a sailing vessel, all of the sections of the centre-board being lowered in a position ready for use when sailing close to the wind.

Figure 2 is a transverse vertical section through the same on the line *xx* of fig. 1.

Figure 3 is a longitudinal vertical section through the same representing all of the sections of the centre-board lowered with the exception of the upper one.

Figure 4 is a transverse vertical section representing the centre-board raised into the position it occupies when not in use.

Figure 5, detail to be referred to.

The centre-board of the ordinary construction for sailing vessels is made in one piece, and when not in use is hoisted up within a trunk which necessarily occupies a space between decks equal in height to the depth of the centre-board. Much valuable stowage room is consequently lost, and great inconvenience also arises from the fact that the hold is partially partitioned off and the open area to work in is thereby contracted. The object of my invention is to employ a centre-board of such construction that will enable me to utilize the space thus previously occupied, and my invention consists in making the centre-board in two or more sections, so that they may either slide within or upon each other, in such manner that when not in use they may be compactly enclosed in a trunk whose height is only about that of a single section.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which it is carried out.

In the said drawings, *A* represents the hold or space between the decks of a vessel; *B* the timber and planking; and *C* the shoe, running longitudinally under the same. A centre-board, composed of a number of sections or strips, *A' B' C' D'*, of metal or other suitable material, is pivoted together at *a*, to a covered box or trunk, *E*, which extends any convenient distance along the centre of the hold, and passes up from the shoe *C*, which is open through this portion of its length to allow of the centre-board being lowered, the height of the trunk being only sufficient to allow the sections when folded together to be snugly enclosed therein and lie flush with the bottom of the shoe. The lower section *D'* is of a single thickness, while each of the upper three sections *A' B' C'* is composed of side pieces *b*, connected by a longitudinal strip, *c*, forming within a hollow space equal to the width of the section next below, to allow of its sliding freely therein when required to be raised, as seen in fig. 4. All of the longitudinal strips *c* of the sections *A' B' C'*, have holes, *d*, in their outer ends, and are provided with projections, *e*, which, (as each section *B' C' D'* is lowered,) come in contact with stops *f*, on the lower end of each side of the section which encloses it, (see fig. 5.) The lower sections *B' C' D'* are raised and lowered in the following manner: One end of a chain, *F*, is secured to the upper end of the section *D'*, and is led through the holes *d* of the sections *B' C' D'*, up a hollow portion, *g*, of the trunk to the deck, where it is secured to a pin or post, *h*. The upper section *A'* is operated as follows: To the upper outer end of this section, at *i*, is secured a chain, *G*, which also passes up the portion *g* of the trunk and is secured to a pin, *k*, in the deck when the section is hoisted up; while the amount of its fall or drop is determined by the length of the chain *G*, which is provided with a cross-bar or handle, *l*, at its upper end, which is drawn transversely across the top of the portion *g*, when this section is down.

Operation.

When the vessel is close hauled on the wind the whole depth of the centre-board is required, and after lowering the upper section *A'*, by paying out the chain *G*, the sections *B' C' D'* are then lowered by letting out the chain *F*, the parts being in the position seen in figs. 1 and 2. When the wind is free, the upper section *A'* need not be lowered, the three sections *B' C' D'* only being required, as seen in fig. 3. When the water is shoal

and it is required to raise the centre-board to allow of the passage of the vessel, it is simply necessary to haul up the sections and secure the chains F G in the manner above described, (see fig. 4.) Should the centre-board be down and suddenly come upon a shoal, the outer ends of the several sections will be instantly raised and no delay or difficulty will be occasioned thereby. Each of the sections may, if preferred, consist of a single thickness, and slide in or upon each other in a manner similar to the sections of a fan, but care should be taken that few or no projections or angular ledges exist, so as to avoid producing any unnecessary back water. Should any difficulty arise in lowering the centre-board on account of obstructions from sea-weed, &c., instead of the construction above shown, the chain F may be dispensed with and a series of jointed links or arms secured to the lower outer ends of the sections, by which means they may be forced down if required.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

A centre-board composed of two or more sections A' B' C' D', so arranged as to slide within or upon each other, in a manner and for a purpose substantially as set forth.

W. F. DAVIS.

Witnesses:

P. E. TESCHEMACHER,

N. W. STEARNS.