

(Model.)

F. JOYNER.

CENTER BOARD FOR SAILING VESSELS.

No. 284,130.

Patented Aug. 28, 1883.

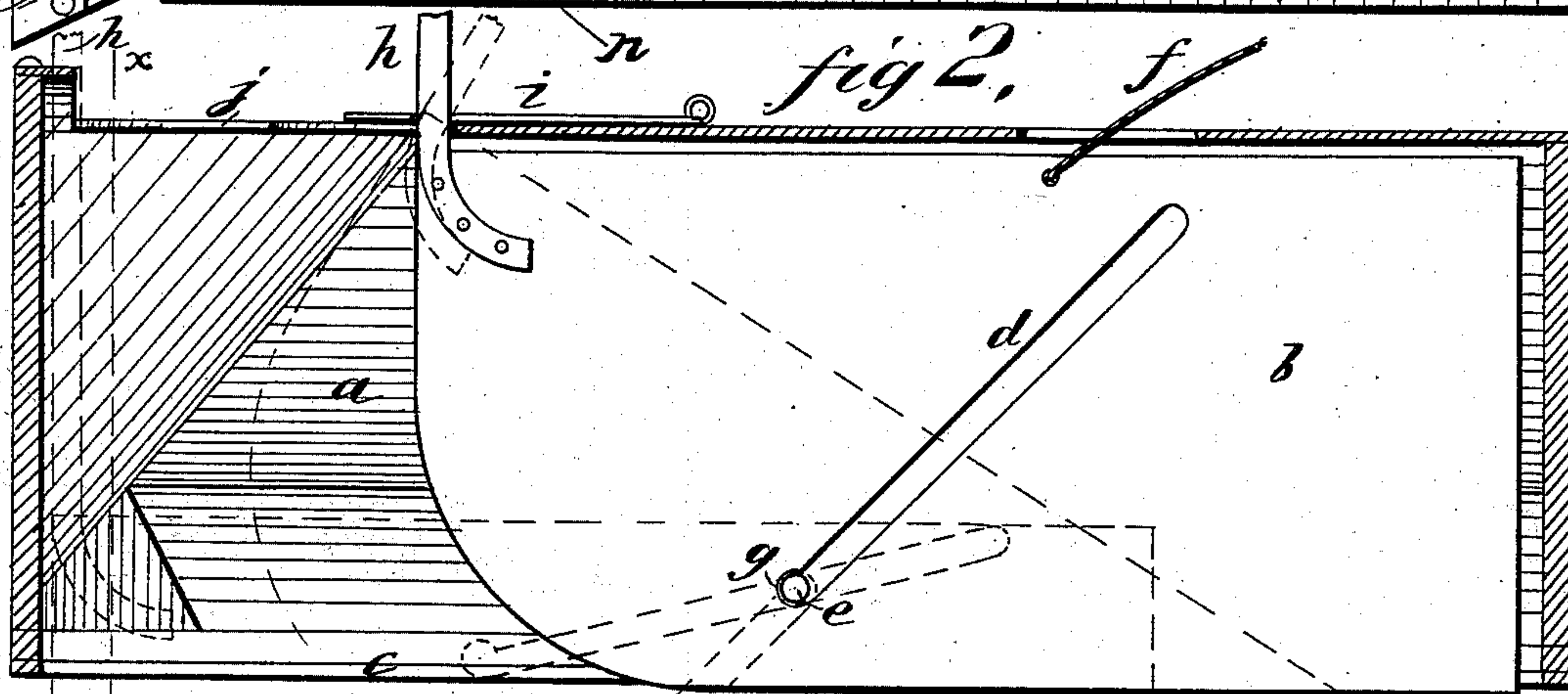
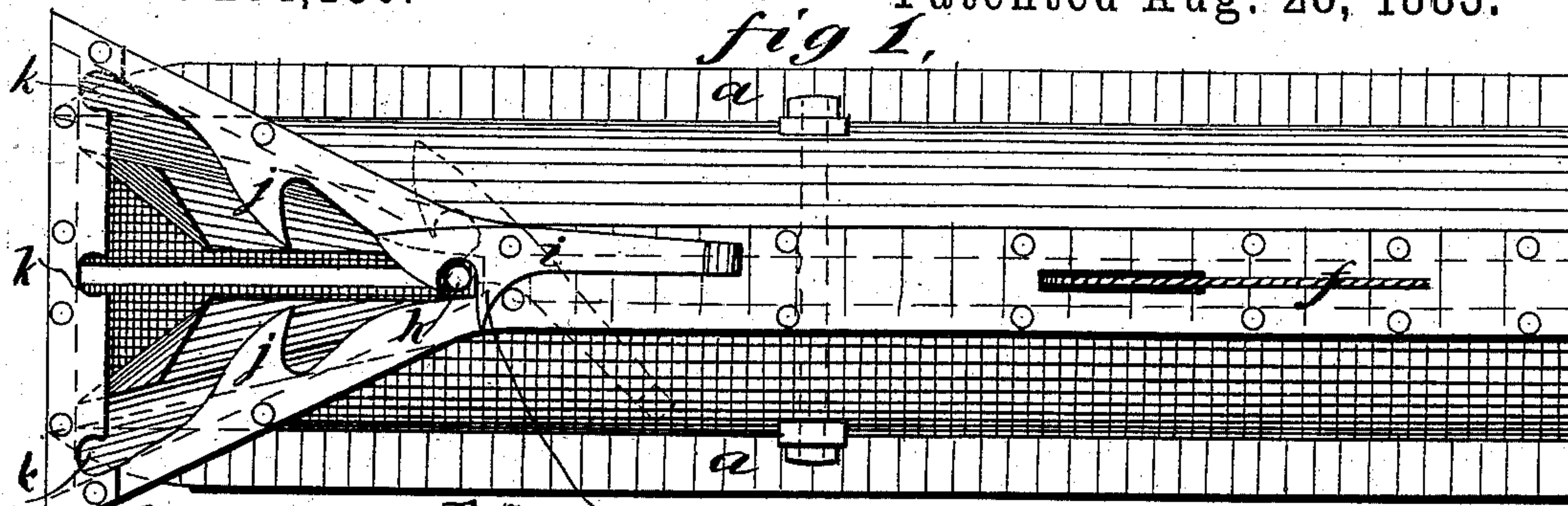
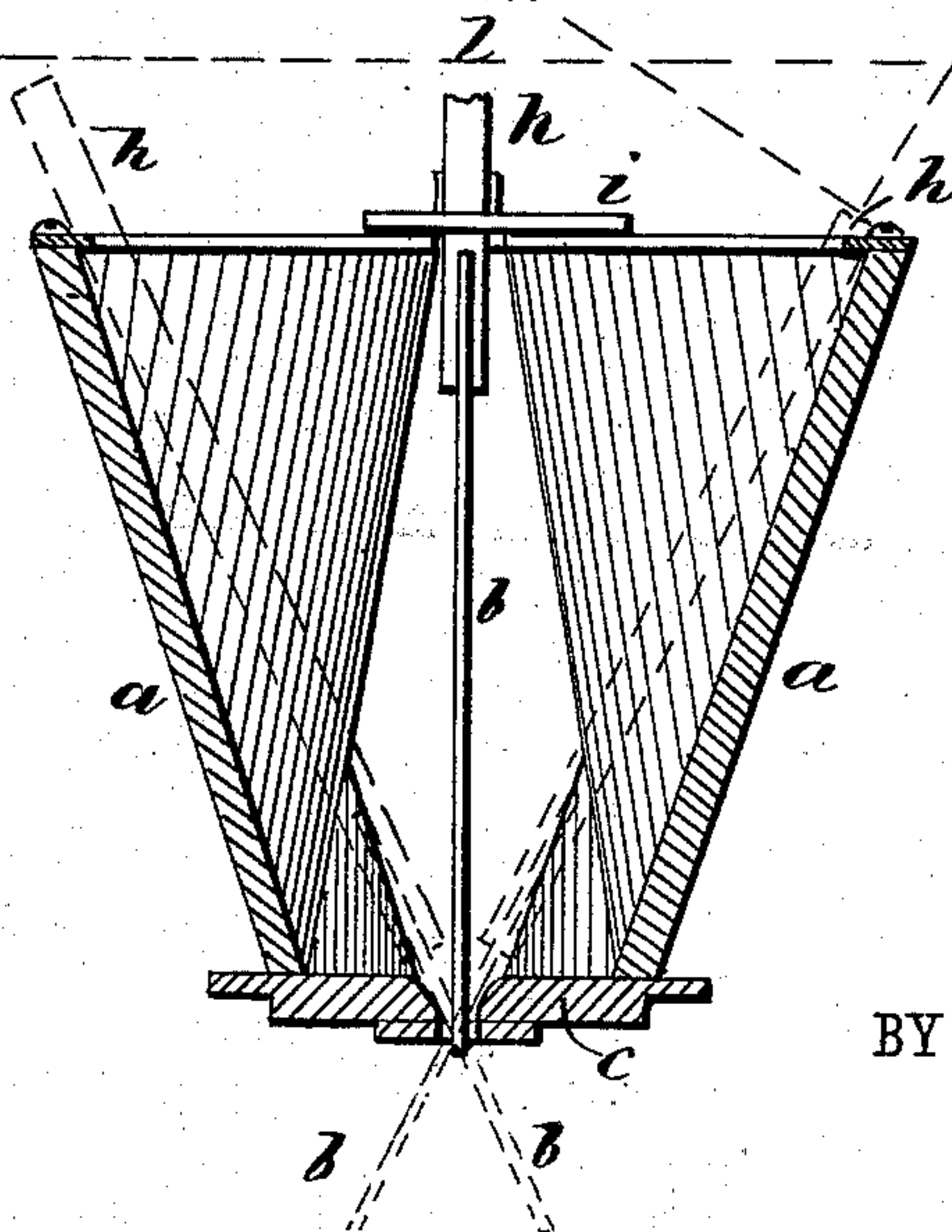


fig 3,



WITNESSES:

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UNITED STATES PATENT OFFICE.

FLETCHER JOYNER, OF GLENS FALLS, NEW YORK.

CENTER-BOARD FOR SAILING-VESSELS.

SPECIFICATION forming part of Letters Patent No. 284,130, dated August 28, 1883.

Application filed February 26, 1883. (Model.)

To all whom it may concern:

Be it known that I, FLETCHER JOYNER, of Glens Falls, in the county of Warren and State of New York, have invented a new and Improved Center-Board for Sailing-Vessels, of which the following is a full, clear, and exact description.

My invention consists of an improved arrangement of contrivances for raising and lowering the center-board, also for holding the center-board up in the trunk, and also a contrivance for allowing the center-board to be perpendicular, or thereabout, for better action on the water when the vessel is heeled over by the wind, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming parts of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a top or plan view of the center-board trunk as I propose to contrive it. Fig. 2 is a longitudinal sectional elevation through the trunk, and Fig. 3 is a transverse section of Fig. 2 on the line *x x*.

The trunk *a*, in which the center-board *b* is to be arranged, is to be made somewhat longer than the center-board, and it is to be made a little flaring from the keelson *c* upward, to allow the center-board to tilt or vibrate laterally, as indicated by the dotted lines Fig. 3, so that as the vessel heels over by the force of the wind the center-board is enabled to stand perpendicularly in the water, and thus have better power to keep the vessel's head up to the wind than when the center-board inclines to the water, as the vessel does. To facilitate the raising and lowering of the center-board, and also to enable it to be forced up into the trunk in case it strikes shallow bottom, I fit it by an inclined slot, *d*, on a bolt, *e*, traversing the trunk, and connect a rope and tackle, *f*, in any suitable way for hauling it up; and to hold it up in the trunk I have a little notch, *g*, at the bottom of the slot, and at the front end of the center-board I have a stem, *h*, extending upward through the top of the trunk, to be lodged in the lever-hook *i*, pivoted on the top of the trunk, for keeping the center-board on the bolt while the stem is engaged in the hook, but forcing the board forward by its arm *n*, to be dislodged when the hook is disengaged for

sliding down into the water. From the hook *i* the opening through the center-board trunk for the stem *h* widens each way as the stem swings by the oscillations of the center-board at the opening through the keelson as a pivot, and midway of the lengthwise range of the stem along the trunk a hook, *j*, is fixed on the top, at each side, by which the center-board will be secured at half-extension from the bottom. The notches *k* at the extreme front end of the opening for the stem receive it and hold it against lateral play when the center-board is in the lowest position. (Indicated by the dotted lines *l*, Fig. 2.) The center-board may be tilted up at the front end on the bolt *e* as a pivot, and secured by the hook *i*, in case it may be preferred, when it is not required to be wholly utilized, and to facilitate tacking. It will be seen that in case the curved front end of the center-board should strike on shoal bottom the board will be pushed back and up along the bolt *e* into the trunk *a*, where it may be allowed to lodge on the bolt by its notch *g* and in the hook *i*. It is believed that by the contrivance enabling the center-board to remain upright while the hull is down by the wind the vessel will run several points closer to the wind.

The tackle for working the center-board may be connected to the top of the stem *h*, and extend each way along the sides of the vessel to the helmsman.

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

1. In a sailing-vessel, the trunk *a*, flared inwardly and upwardly from the keelson *c*, in combination with a center-board, *b*, adapted to tilt laterally and stand perpendicularly when the vessel is heeled over by the wind, as and for the purpose specified.

2. In a sailing-vessel, a center-board having inclined slot *d*, a notch, *g*, and stem *h*, in combination with the trunk *a*, keelson *c*, the hook *i*, and the plate provided with the arm *n*, hook *j*, and notches *k*, substantially as shown and described.

FLETCHER JOYNER.

Witnesses:

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