

(No Model.)

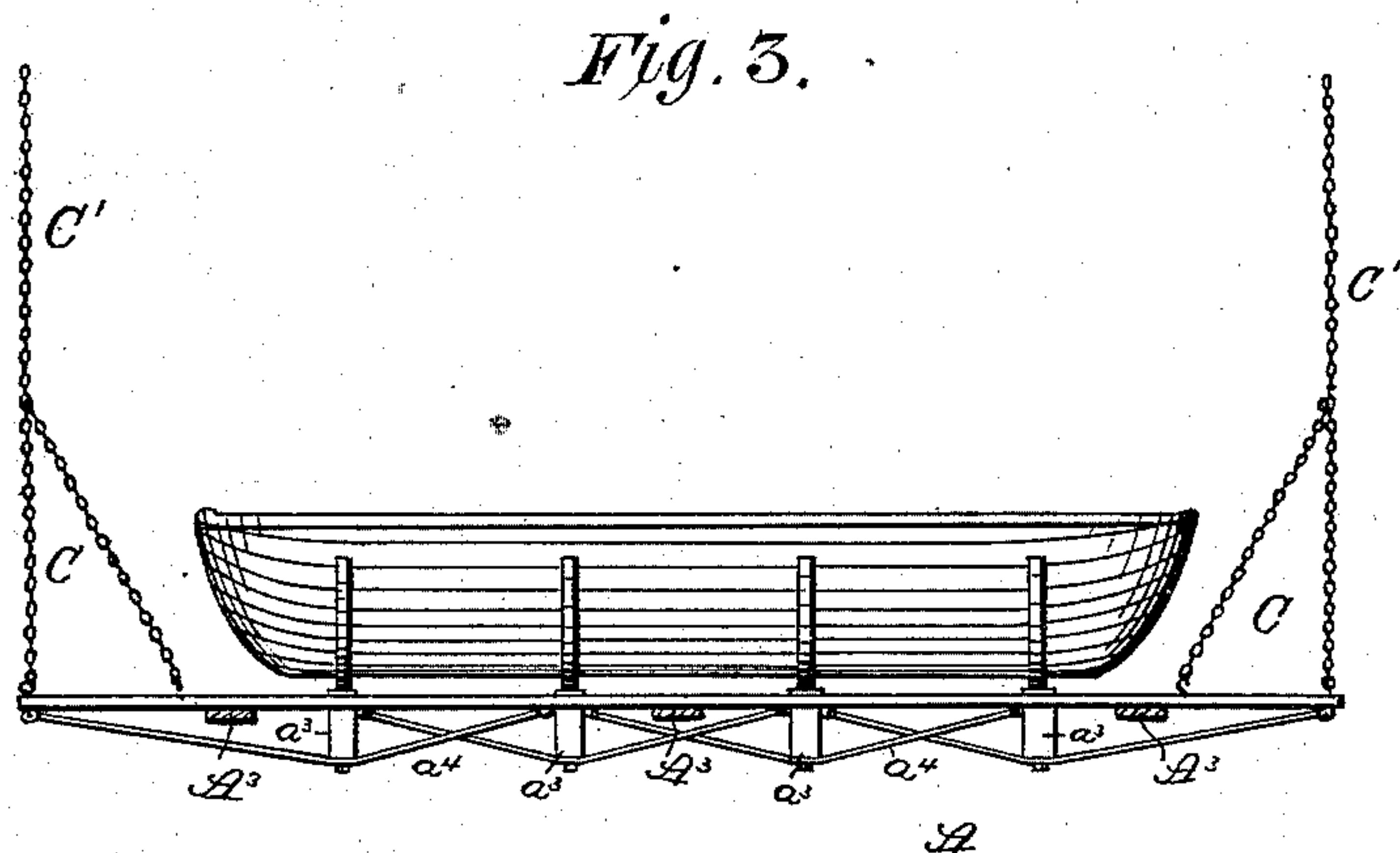
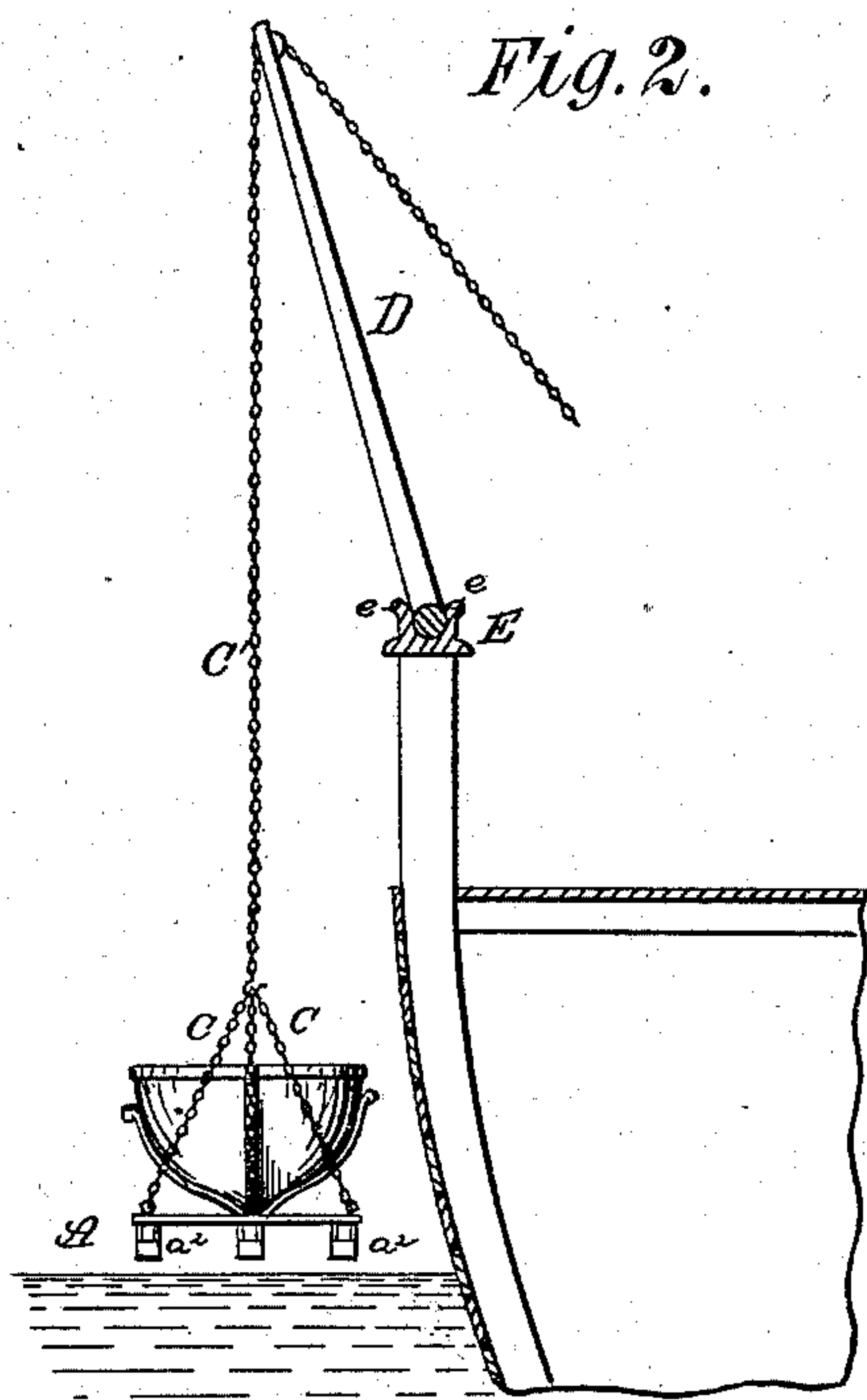
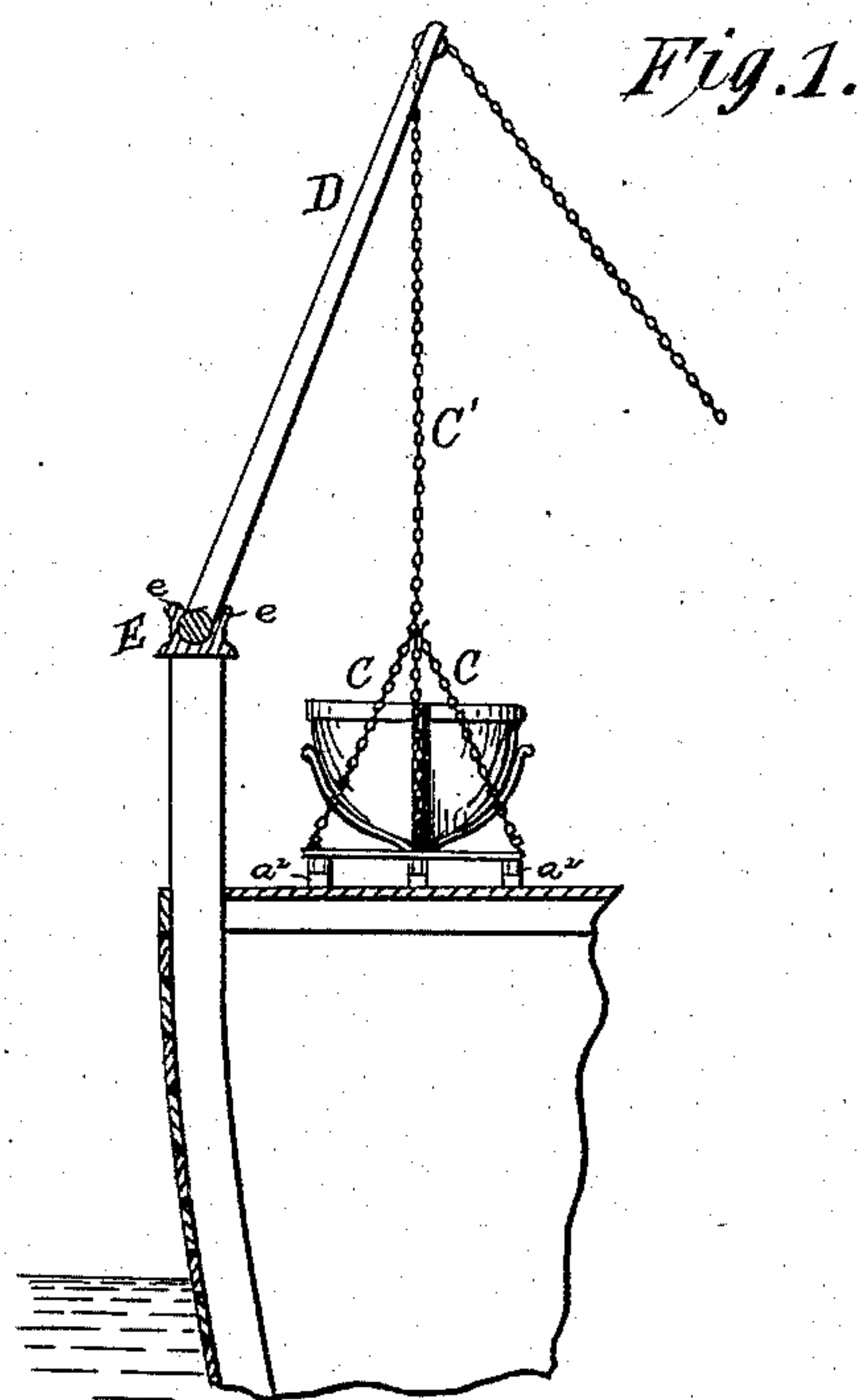
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F. VAUGHAN.

BOAT HOISTING, DETACHING, AND LOWERING.

No. 282,937.

Patented Aug. 7, 1883.



Witnesses.  
W. J. Osgood  
P. Printz.

Inventor.  
Frank Vaughan  
by Howard A. Snow.  
Atty.

(No Model.)

2 Sheets—Sheet 2

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Fig. 4.

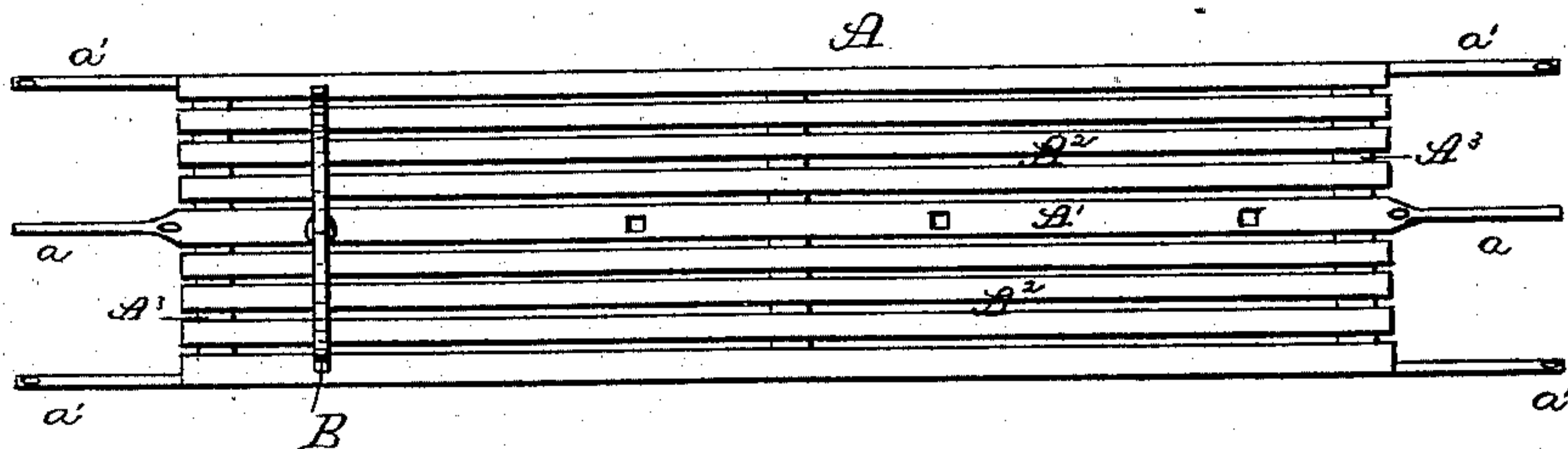


Fig. 5.

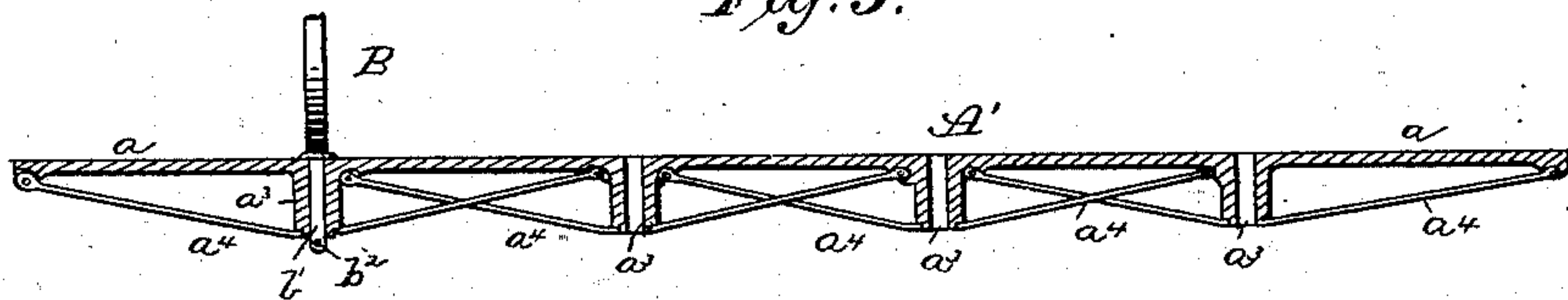


Fig. 6.

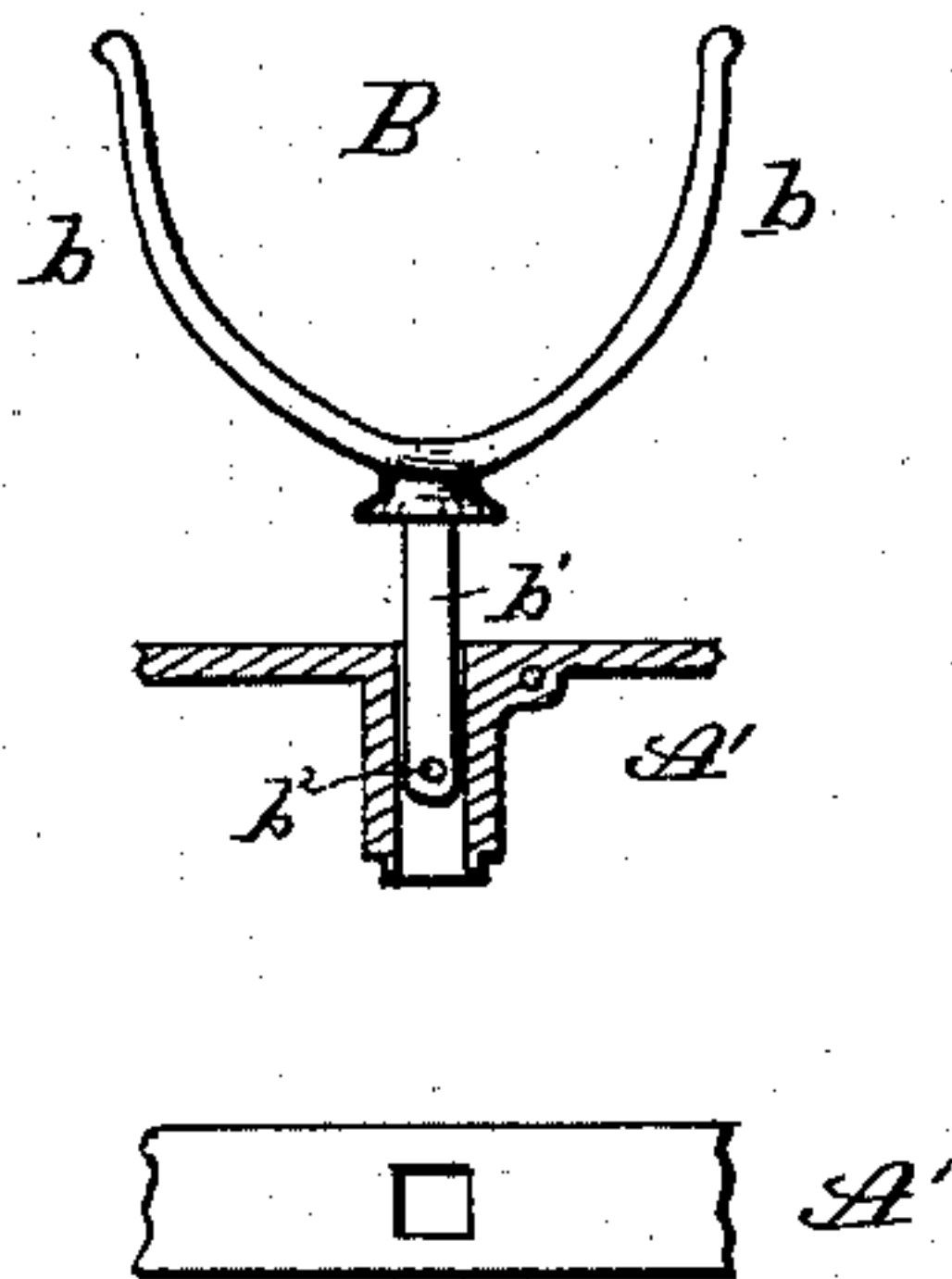
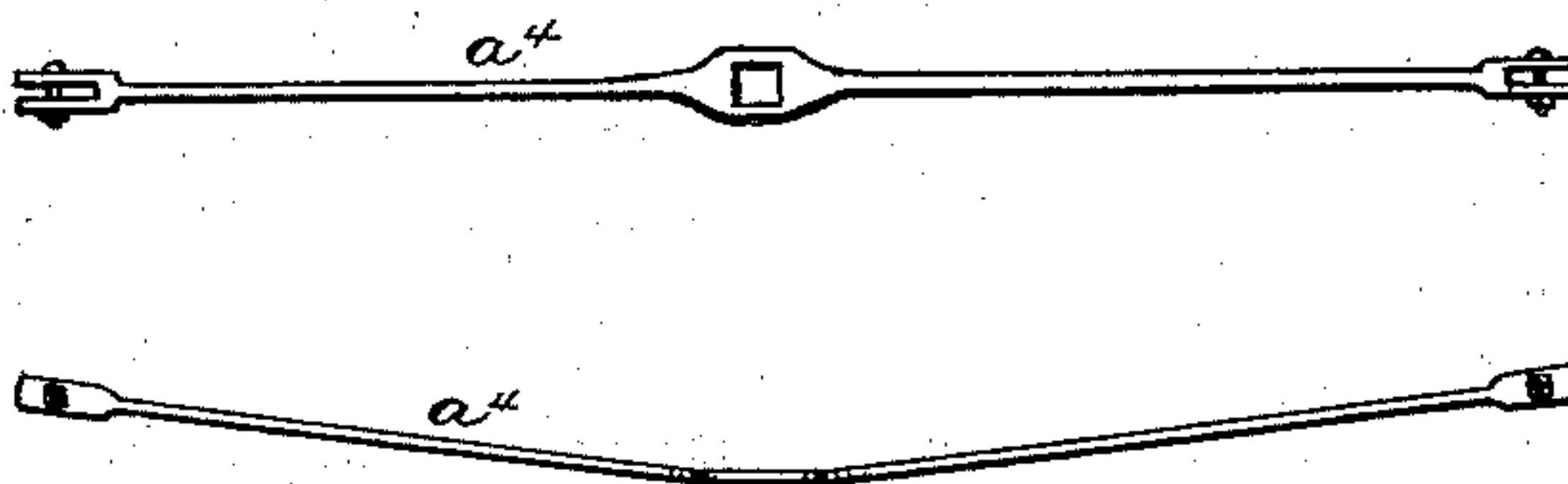


Fig. 7.



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# UNITED STATES PATENT OFFICE.

FRANK VAUGHAN, OF ELIZABETH CITY, NORTH CAROLINA.

## BOAT HOISTING, DETACHING, AND LOWERING.

SPECIFICATION forming part of Letters Patent No. 282,937, dated August 7, 1883.

Application filed January 18, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK VAUGHAN, a citizen of the United States of America, residing at Elizabeth City, in the county of Pasquotank and State of North Carolina, have invented certain new and useful Improvements in Boat Lowering, Hoisting, and Detaching, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to devices for hoisting and lowering boats; and it consists in the construction and arrangement of its several parts, as will be hereinafter fully set forth.

In the drawings, Figure 1 is a cross-section of a portion of a ship, showing my boat lowering and detaching device attached thereto. Fig. 2 is a view as above, showing the boat hoisted overboard. Fig. 3 is a side elevation of the hoisting and lowering device, showing boat in position therein. Fig. 4 is a top plan view of the cradle-bed; Fig. 5 a longitudinal section of the central longitudinal beam. Fig. 6 shows details of the cradle and socket, and Fig. 7 are views of the stay or brace rods.

A represents the cradle-bed. It is formed of a central beam,  $A'$ , having contracted end prolongations,  $a$ , and parallel slots  $A^2$ , secured to bars  $A^3$ , secured at right angles across the ends and middle of the central beam, as shown, the outer slots,  $A^3$ , having contracted end prolongations,  $a'$ , equal in length to  $a$ , and have depending from end the rests or legs  $a^2$ , as shown. The central beam,  $A'$ , is provided with vertically-socketed projections  $a^3$ , in which are received and keyed the cradles B, as shown.

$a^4$  represents the brace or stay rods. They are formed with centrally-located openings, which fit over the projection  $a^3$ , and are attached to the central beam upon each side thereof, as shown. It will be seen that these rods cross each other between the projections, the rods from the end projections being secured to the ends of the beam, as shown.

Be the cradles. They are made Y or prong shaped, the prong portion  $b$  being shaped to fit as nearly as possible to the sides of the boat, so that a support thereto may be afforded along their entire length. The standard  $b'$  of the

cradle enters the socket  $a^3$ , its lower end projecting through and keyed by the pin  $b^2$ , as shown. The cradles are set at right angles to the frame, and each one is of different shape from the others, in order to embrace the boat closely at all points in its length.

Secured to the ends of the slats  $A^3$ , and to the central beam, are the hoisting-chains C. They meet at some distance above the cradle-bed and continue in a single chain,  $C'$ , over the hinged derrick D, inboard, whereby they may be attached to a windlass or other suitable hoisting device. I control the motions of this derrick by journaling it in a cap, E, the sides of which project upwardly in the form of lips  $e$ , and prevent the derrick from swinging too far in either direction, as set forth.

In the operation of the device in Fig. 1 the boat is shown resting in its cradle upon the ship's deck. When it is desired to lower the boat, it is raised by means of the chains C until the cradle clears the deck. The derrick is then pushed outboard until the cradle clears the side of the ship. The cradle is then lowered until it sinks far enough beneath the water to permit the boat to float off freely.

What I claim is—

1. A device for hoisting and lowering boats, consisting of the combination, with the hoisting-chains, of a bed or platform having a central beam,  $A'$ , provided with sockets  $a^3$ , and a series of Y-shaped cradles to receive the boat, substantially as set forth.

2. In a device for hoisting and lowering boats, a bed or platform consisting of a central beam,  $A'$ , a series of parallel slats,  $A^2$ , and cross-bars  $A^3$ , the diagonally-arranged braces  $a^4$ , and feet  $a^2$ , said central beam being provided with socketed projections  $a^3$  to receive the shanks of a series of cradles B, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses, this 20th day of December, 1882.

FRANK VAUGHAN.

Witnesses:

P. PRINTZ,  
W. J. OSGOOD.