

J. H. Smith.

Raising Sunken Vessels.

N^o 41,726.

Patented Feb. 23, 1864.

Fig. 4.

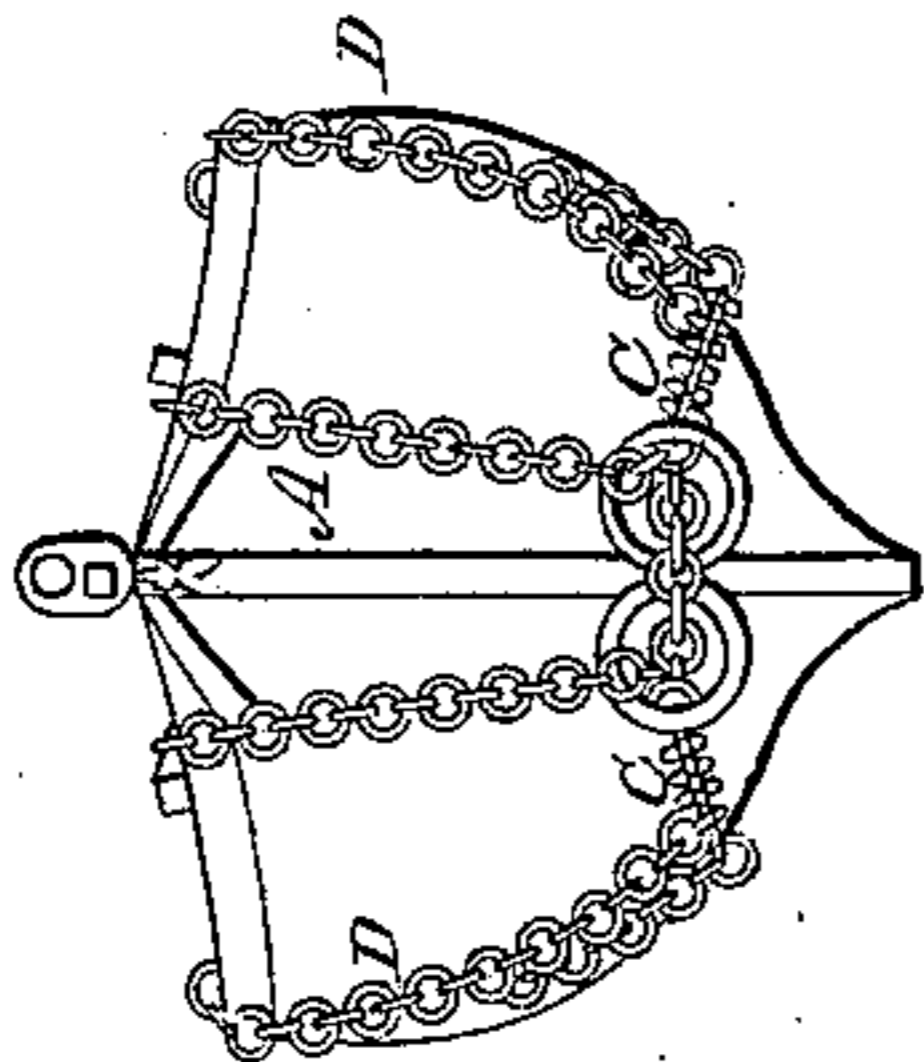


Fig. 3.

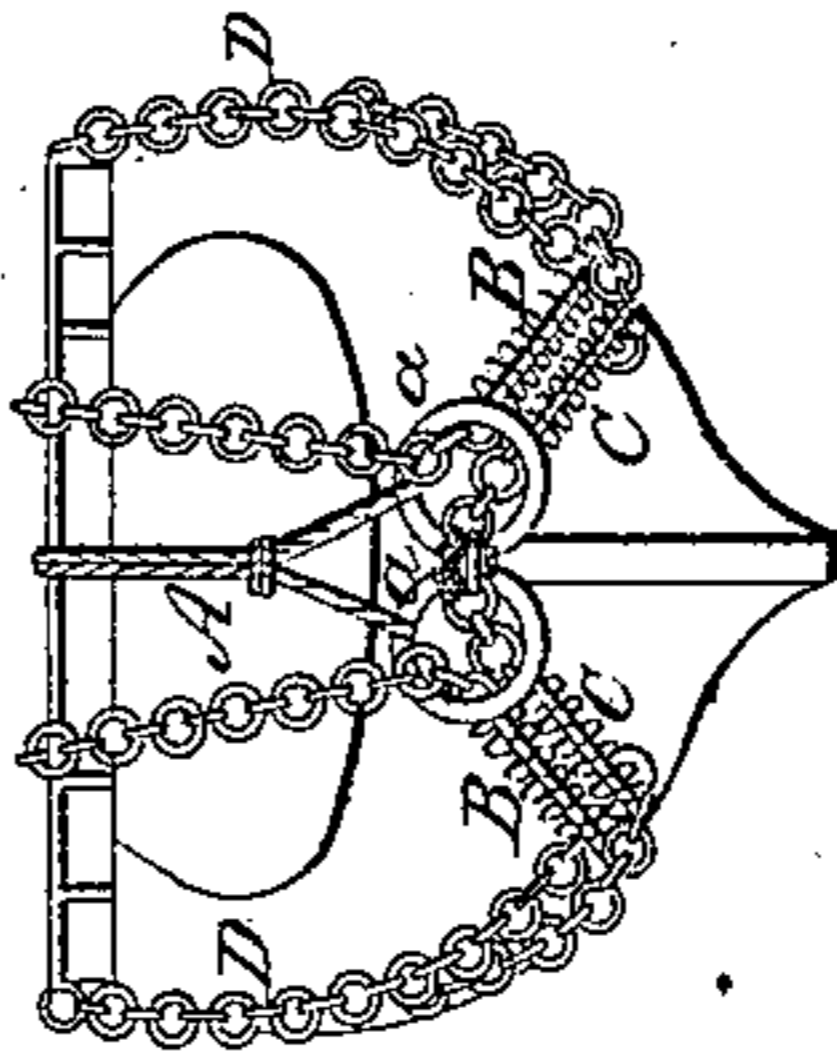


Fig. 2.

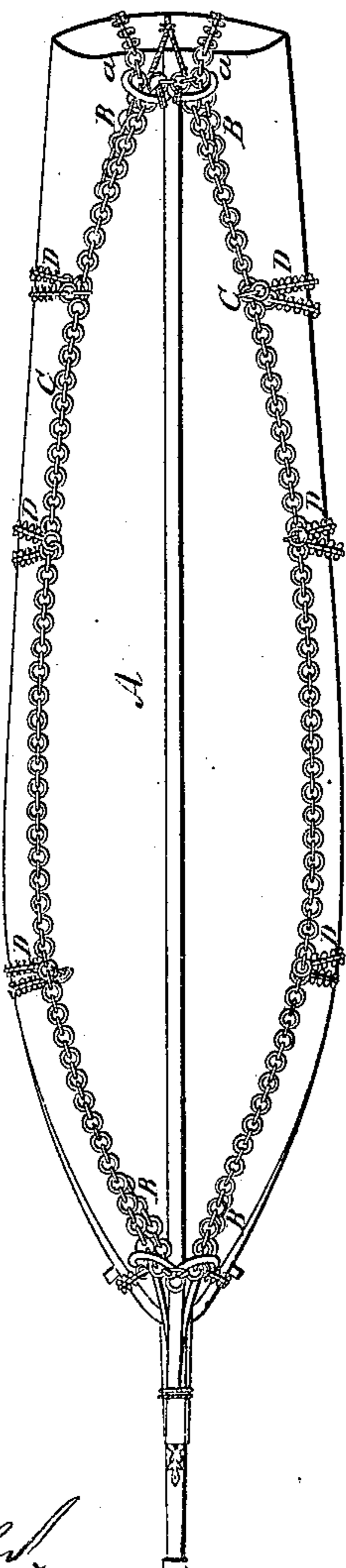
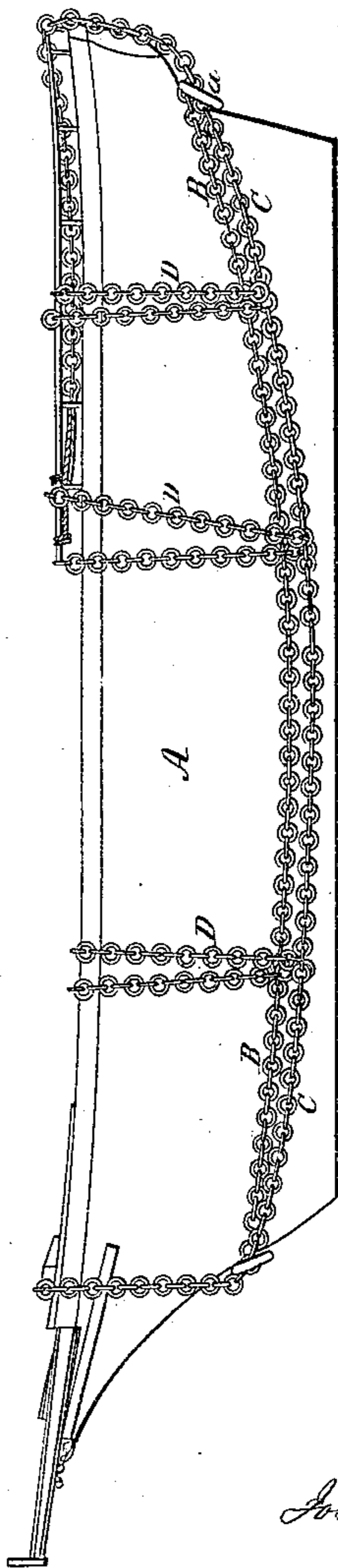


Fig. 1.



Witnesses.

G. P. Hall.
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Inventor.

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by his attorney
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UNITED STATES PATENT OFFICE.

JOSEPH H. SMITH, OF COHASSET, MASSACHUSETTS.

IMPROVED MODE OF RAISING SUNKEN VESSELS.

Specification forming part of Letters Patent No. 41,726, dated February 23, 1864.

To all whom it may concern:

Be it known that I, JOSEPH H. SMITH, a resident of Cohasset, in the county of Norfolk and State of Massachusetts, have made a new and useful Invention having reference to Raising Sunking Vessels; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a bottom or keel view, of a hull with my invention applied thereto. Fig. 3 is a stern elevation, and Fig. 4 a bow elevation, of the same.

My invention has for its object the application to the hull of a vessel, when sunk in water, of chains in a manner to enable such hull, by such chains and other appliances, to be readily raised to or above the surface of such water, as circumstances may require. For the purpose I not only employ two fore-and-aft chains with a set of reeving-eyes or their equivalents attached to each at or near its middle, but I arrange the said chains and reeving-eyes with respect to each other and the hull of the vessel in manner as hereinafter described. I also combine with such chains and reeving-eyes certain other lifting-chains or their equivalents.

In the drawings, A denotes a hull, having not only one set or pair of the reeving-eyes *a* applied to its stern, but another set or pair of such eyes applied to its bow. Each pair of these eyes consists of two steel rings, which are to be arranged close together and lashed or otherwise properly connected to the middle part of one of the two fore-and-aft chains B C. While one of these chains, at its middle, is extended around the stern, the other, at its middle, is to be similarly carried about the bow of the hull. The two halves of each chain are next to be rove or run respectively through the reeving-eyes of such chain, and also through the two reeving-eyes of the other chain, the ends of one chain being carried up over the bow, while the ends of the other chain are likewise carried up over the stern. The parts of each chain which may be between the two sets of eyes are next to be cast over the sides of the hull so as to encompass it. Next, the ends of the chains are to be drawn on so as to pull the

chains through the reeving-eyes in a manner such as not only will bring such eyes closely up against the cut-water and the rudder-post or the stern-post of the vessel, but also draw the parts of both chains which may be along-side of the hull close up to its sides, the whole being as shown in the drawings. After this the extremities of the fore-and-aft chains should be securely fastened to the vessels or floating bodies or other means which may be used to raise the hull. In addition to these fore-and-aft chains, a series of lifting-chains, D D, may be employed. These lifting-chains, preparatory to the application of the fore-and-aft chains in manner as described, should be suspended over each of the sides of the vessel in such manner as to enable the lifting-chains to be looped around or be otherwise properly attached to the fore-and-aft chains after they may have been drawn into place around and against the hull. To accomplish the looping of each lifting-chain, such chain may have one or its upper end attached to the vessel. The chain may be supposed to hang down the side of the hull and with its other end buoyed in the water. The fore-and-aft chains being next applied to the hull will encompass the series of lifting-chains. On raising up the buoyed end of each chain the said chain will be looped about the fore-and-aft chains. Under these circumstances, each lifting-chain may have its two ends attached to a vessel or float which may be employed to effect the raising of the hull.

It will be evident that ropes or cables may be used in the place of the lifting-chains, although chains are preferable to ropes.

The fore-and-aft chains, when applied to a hull in the manner described, afford a ready means of applying to the hull pontons or their equivalents. The application can be expeditiously effected, and particularly when the upper deck of a vessel may be exposed above the surface of the water.

I am aware that two chains, with two reeving links or eyes to each, have been used to go around the hull of a sunken vessel, in which case each chain was carried only through the two eyes of the other. Therefore I do not claim such as my invention. In my arrangement

and application of the eyes and chains each chain goes through not only its own eyes, but those of the other, and consequently operates far better in supporting the eyes or preventing them from separating from it than would be the case were the lifting strain brought only on the attachments of the eyes and such chain.

What, therefore, I claim as my invention is—
The application or arrangement of the fore-

and-aft chains B C and their sets of reeving-eyes *a a* together and with the hull A of a vessel substantially in manner and so as to operate as specified.

JOSEPH H. SMITH.

Witnesses:

EPHRAIM SNOW,
CALEB F. NICHOLS.