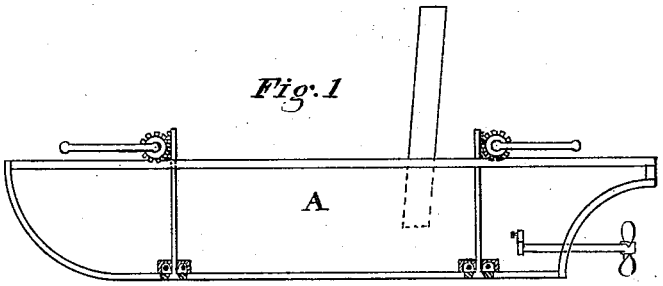
J. S. DOWDLE.

CAMELS FOR RAISING VESSELS.

No. 186,666. Patented Jan. 30, 1877.

Fig. 1



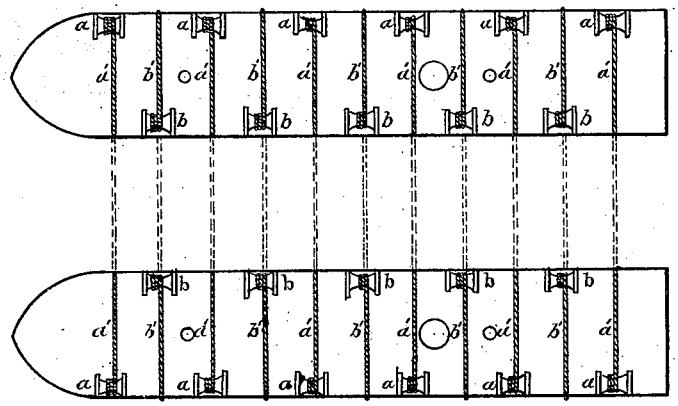


Fig. 2.

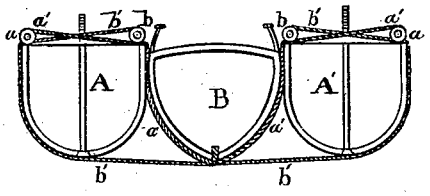


Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

JACOB S. DOWDLE, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN CAMELS FOR RAISING VESSELS.

Specification forming part of Letters Patent No. **186,666**, dated January 30, 1877; application filed October 2, 1876.

To all whom it may concern:

Be it known that I, JACOB S. DOWDLE, of St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Camels for Raising Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a longitudinal sectional elevation of one of the camels or floating vessels. Fig. 2 is a plan view, showing the two camels in proper position for raising a vessel; and Fig. 3 is a transverse sectional elevation, showing the two camels, and a vessel between them.

This invention relates to a method of raising sunken vessels, or of lifting floating vessels for the purpose of transporting them over bars or shoal water, and will be hereinafter more fully explained in the general description, and set forth in the claim.

A A′ represent two vessels, which are usually termed camels, and are supplied with steam-engines, boilers for steam, and propellers, for the purpose of moving them from place to place. These vessels have water-tight compartments for the purpose of admitting the outside water to sink them to any desired depth, and the engines have attached to them regular pumps, by which the said water may be pumped out. The propellers can be thrown out of gear or not, as occasion may require.

All of these matters are old, and do not form a part of my invention, but are used by me to carry out the purposes of my invention.

On the deck of these camels or vessels there are placed on each side of each camel, near the rail or bulwarks, any convenient number of windlasses to be operated in the usual manner. These are represented in the figures as *a* and *b*, and are placed relatively opposite to each other, so that when the lifting strain shall be brought to bear upon them the two vessels will be directly on a transverse line to each other, or coincident on position relative to the vessel to be lifted, as shown in Fig. 2. From windlasses *a a*, &c., there are strong cables, slings, or chains *a′ a′*, which pass transversely across each camel, and down the inner sides thereof, and deep enough in the water to pass under the loaded vessel B to be lifted, or under a vessel which is sunken. From windlasses *b b*, &c., there are other cables *b′ b′*, which also pass across the decks to the outer rail, and thence downward on the outsides of the vessels, and underneath them, and as deep as the cables *a′ a′*, and also under the vessel B.

This description is ample to explain the method of operation, which is as follows: The two camels A A′, having their cables *a′ b′* all duly arranged, can steam together or independently of each other to the place where they are to act as camels for floating any vessel. While proceeding they can be, according to circumstance, duly filled with water to avoid delay, so that when at the location required they will separate sufficiently to pass each side of the vessel, with their slings or cables let down far enough to pass under the vessel until they have taken their proper positions, when, being low enough in the water, they will tighten the windlasses *a* and *b*, and take the strain of the vessel upon them, so far as the power they have in the windlasses will admit, and being fastened at that point the pumps will set to work to empty the tanks, and thus as the camels are lightened of water they will rise and bring the loaded or sunken vessel up to a maximum level of floatation. Then by throwing into the propellers the vessel can be carried over a bar, or, if wrecked, into as shoal water as her then depth will admit. When by a similar process as just described she can be lifted again, and yet again until she will be raised as high out of the water as the camels themselves float when empty of the water pumped out.

This system of floating is not new; but I have varied the method of operating the cables and slings from any process heretofore adopted, and which constitutes the features of my invention.

I am aware that in one instance slings and cables have been arranged interiorly and exteriorly; but they are neither connected to the vessel as mine are, nor are they operated in the same manner, which I will describe.

The cables passing directly opposite to each other across the decks bring the strain or lifting-weight from the sides of the camels inwardly in the direction of the frames, the beams taking the stress, as "struts" or braces in a truss. Now, the slings *a' a'*, &c., which take the main strain of the vessel to be lifted, pull the two camels inward against the vessel, while the cables *b' b'* not only steady the camels transversely by maintaining an even keel, but serve in a great measure to take the inward pressure from the sides of the interior vessel, and both cables and slings being pulled in contrary directions act like the tightening-cords around a barrel being trussed.

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

In camels for raising sunken or other vessels a series of windlasses on each side of the camels in combination with the slings and cables for hoisting, arranged to draw opposite to each other, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

JACOB S. DOWDLE.

Witnesses:
PETER WERLE,
HARRY Y. BURT