

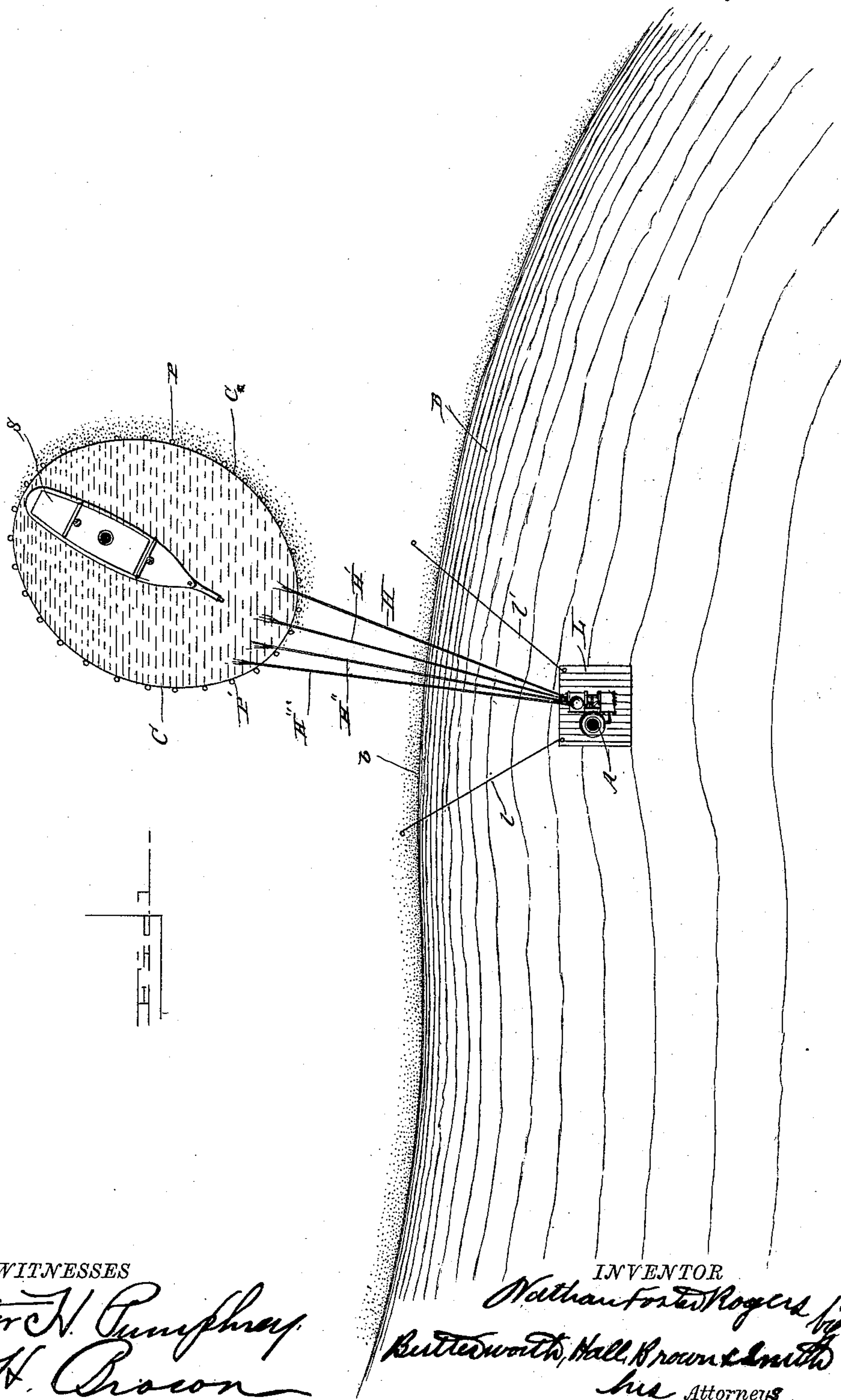
(No Model.)

2 Sheets—Sheet 1.

N. F. ROGERS.
PORTABLE DOCK.

No. 431,675.

Patented July 8, 1890.



WITNESSES

Walter N. Humphrey
J. H. Crocon

INVENTOR

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Butterworth, Hall, Brown & Smith
his Attorneys

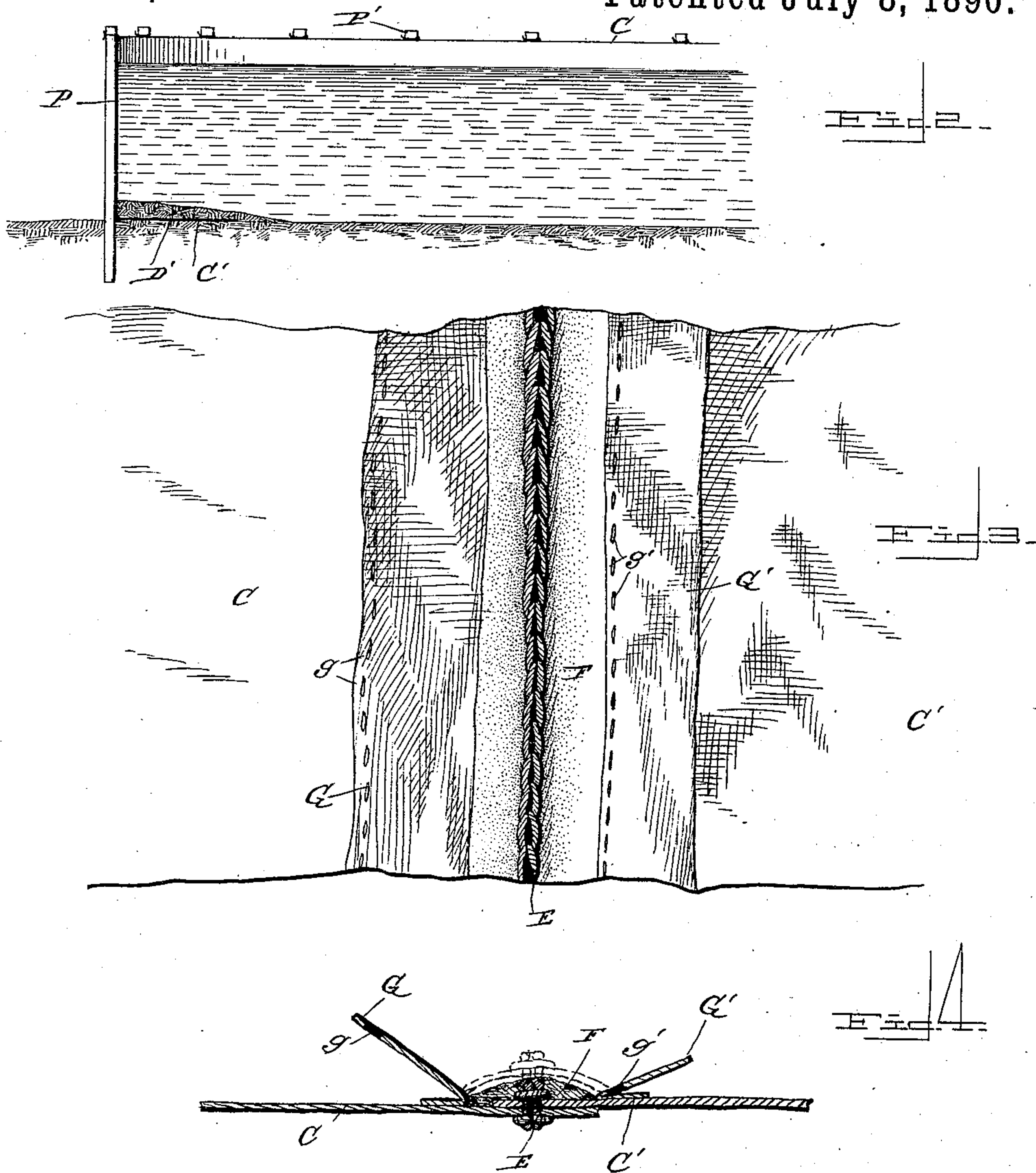
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WITNESSES
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UNITED STATES PATENT OFFICE.

NATHAN FOSTER ROGERS, OF DENNIS, MASSACHUSETTS.

PORTABLE DOCK.

SPECIFICATION forming part of Letters Patent No. 431,675, dated July 8, 1890.

Application filed April 24, 1890. Serial No. 349,300. (No model.)

To all whom it may concern:

Be it known that I, NATHAN FOSTER ROGERS, a citizen of the United States, residing at Dennis, in the county of Barnstable and State of Massachusetts, have invented certain new and useful Improvements in Portable Docks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in the improved form of apparatus for moving stranded or beached vessels, hereinafter to be more particularly described and claimed.

In the drawings, Figure 1 is a plan view of my invention in operation. Fig. 2 is a partial sectional view of the portable dam and a portion of its contents. Fig. 3 is a detail side view of a preferred form of joint between two of the sections, and Fig. 4 is a detail sectional view of the same.

It frequently happens that high tides and heavy storms drive vessels so far up on the beach that when the water subsides they are left high and dry, and though otherwise little injured are useless because with the present apparatus it is impossible to get them into the water again, except by some such expedient as digging a channel up to them, which would cost more than the value of the vessel. To provide a simple and comparatively economical means of returning such stranded vessels to the water, I have designed the apparatus herein described, in which—

S represents the partly-dismantled hull of a vessel which has been cast far up on the beach and away from the water B. About the stranded vessel I arrange a portable dam of some flexible material, such as the canvas C, and pumping water into the space formed by closing this dam on itself about the vessel the latter is floated and can be moved a certain distance toward the water's edge b.

The dam C is supported in an upright position by any suitable number of upright posts P P', to which the flexible material forming the dam may be attached in any desirable way. In order to make the connection between the sections of the dam and the sand of the beach practically water-tight, I provide a skirt C', which is sewed to the bottom of the

upright portion of the dam and turned inwardly, as shown in Fig. 2. When this is done, and a portion of the sand D' is shoveled onto the skirt, the sand packs down upon the skirt of the dam, and the joint between the dam and the surface of the beach is practically water-tight.

While it may be possible to make the entire dam C in one piece closed upon itself, it is of course preferable and more convenient to make it in a number of pieces, which must be joined together end to end. Any species of water-tight joint between the adjoining ends of such sections may of course be used. I have designed the joint fully illustrated in Figs. 3 and 4, in which C C' are the adjacent ends of two sections of the dam. These ends are perforated with a suitable number of holes, which register one with another, and through which the lacing-cord E is passed. Cotton-batting or other similar substance F is placed over the seam thus formed, and the flexible flaps G G' are folded one over the other upon this batting, thereby completely covering it and the seam under it. These flaps are laced together by the lacing-cord (not shown) passing through the rows of holes g g', which register one with another. This construction of joint will form a water-tight connection between the adjacent ends of two sections.

The water introduced within the portable dam may of course be supplied from any suitable source or in any convenient way. I have illustrated in Fig. 1 the hose-connections H H' H'' H''', leading to it from a steam-pump A, placed on a lighter L, which is moored near the shore by means of suitable guys l l', as shown.

The method of operation of my invention is evident. The portable dam is so arranged about a stranded vessel that it will pass close to that end which is farthest from the water and will leave a space of a hundred feet or so between its other portion and that end of the vessel lying nearest the water's edge. When it has been arranged in place and made as water-tight as possible, the pumps are set in operation and it is rapidly filled, the rising water lifting the vessel from its bed in the sand. When the latter has been floated, she is warped down to that end of the dam near-

est the edge of the shore. The water is then let out of the dam, and it is moved as far as possible down the beach, set up again, filled, and the operation repeated. It would of course be practically impossible to construct an arrangement of this kind which would be absolutely water-tight; but the comparatively small amount of water loss by leakage would not equal the large amount which could be continually poured into the interior of the dam by powerful pumps, so that in spite of the small leakages the water would rise and lift the vessel, as described.

It is of course evident that any strong, flexible, and water-tight material could be used to form the dam; but I prefer to use the thickest strongest kind of duck or canvas, which is the most convenient and cheap material. It is also evident that a portable dam might be constructed in portable sections of other than the flexible material, which could be set up about the vessel to operate in the manner herein described, and I do not consider that such would be without the scope of my invention, although I have mentioned some flexible material—such as canvas—as the preferred material of which to build the dam.

Having therefore described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In an apparatus for moving stranded vessels, the combination of a portable dam of flexible material closed upon itself, so as to surround the vessel, and supporting-posts which maintain said flexible dam in an upright position, substantially as described.

2. In an apparatus for moving stranded vessels, the combination of a portable dam made of sections of flexible material capable of being joined one to another to surround the vessel, and supporting-posts which maintain said flexible dam in an upright position, substantially as described.

3. In an apparatus for moving stranded vessels, the combination of the portable sectional dam, the line of hose which connects the interior of said dam with a source of water-supply, and a steam-pump connected with said hose, substantially as described.

4. In an apparatus for moving stranded vessels, the combination of the portable dam, which consists of flexible upright sections, horizontal skirt-pieces attached to the lower edge of said vertical sections, and posts which hold the vertical sections in an upright position, substantially as described.

5. The combination of the following parts, forming a water-tight joint: the adjacent ends of two sections of flexible material each perforated, the lacing-cord passing through said perforations, the batting placed over the seam thus formed, and the flaps which fold over said batting and lace one upon the other, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NATHAN FOSTER ROGERS.

Witnesses:

JAMES M. JORDAN,
FRED. N. PERY.