

(No Model.)

J. MOFFETT.

SHIP.

No. 381,943.

Patented May 1, 1888.

Fig. 1.

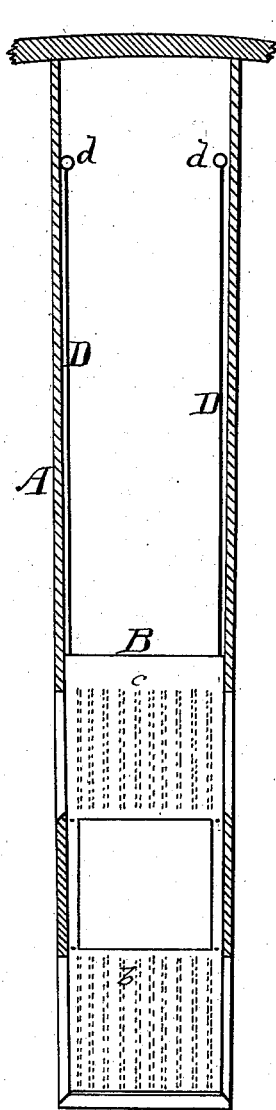
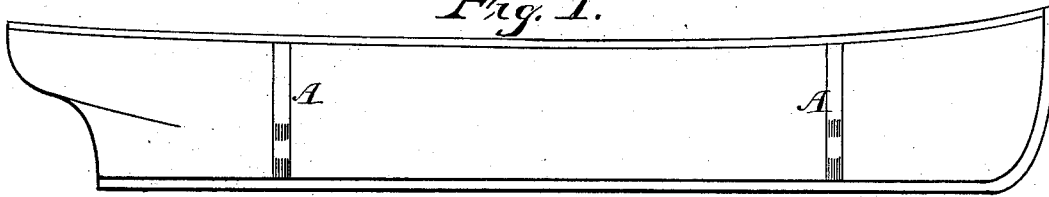


Fig. 2.

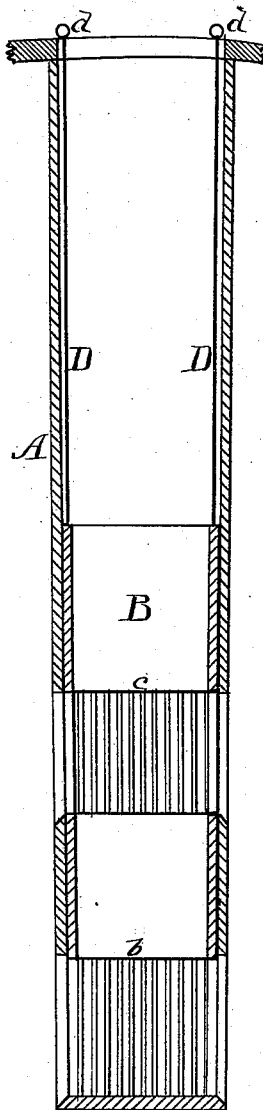


Fig. 3.

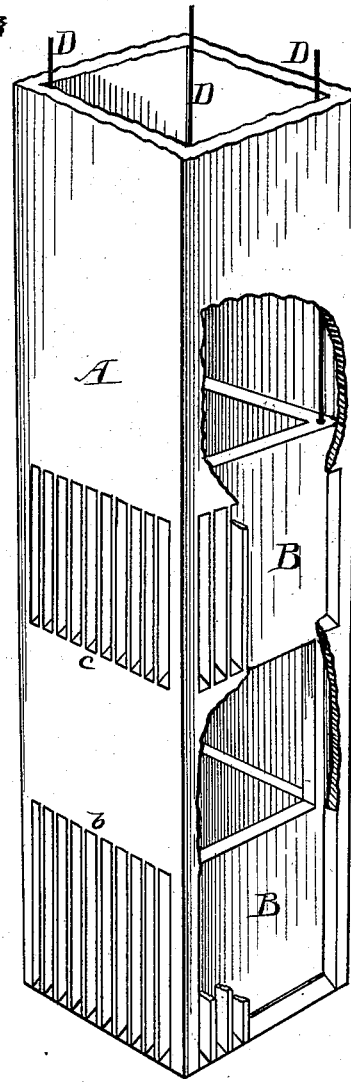


Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 381,943, dated May 1, 1888.

Application filed February 20, 1888. Serial No. 264,595. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MOFFETT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Ships, of which the following is a specification.

This invention relates to ships, and has for its object to provide a quick and ready means of getting down into the hold of loaded ships with a suction-hose of a pump for pumping out the water which may, by reason of accident, as collisions, springing a leak, or otherwise, get into the hold.

It consists in providing reserve wells in the ship, reaching from the deck down into the bottom of the hull, into which the suction-hose of a pump may be inserted and draw the water from the bottom, the water in the hold having access to the wells, thereby greatly facilitating the labor and reducing the expense of removing water from loaded ships without removing or disturbing the cargo. To accomplish such results I construct and attach to ships wells or communicating tubes from the deck down into the hold, substantially as shown in the accompanying drawings, in which—

Figure 1 is a longitudinal section of the hull of a ship, showing the location and arrangement of the said wells therewith. Fig. 2 is a vertical section of the well, showing interior construction. Fig. 3 is a similar view. Fig. 4 is an enlarged perspective view of lower portion of a well having a portion of outer wall or casing broken away to show interior construction.

A in the several figures represents a casing or tubing reaching from the deck *a* to the bottom of the hold of a ship, forming a well or vertical chamber. In the lower part of said casing are made vertical slots *b*, extending from the bottom upward about two feet. A second row of similar slots, *c*, are also made about two feet above the said slots *b*. These slots are two inches wide and one inch apart, the bars forming a grating through which water may pass into the well. Within the casing is provided a valve, *B*, consisting of a box open at each end and fitted to slide snugly in the lower end of the casing. It is designed to close the slots on the inside of the casing *A*,

and is made long enough to cover both rows of slots *b* and *c*. At the middle part of said valve are made openings in the sides, the purpose of which will hereinafter appear. To the top of said box *B* are attached rods *D D*, having eyes or loops *d* on their upper ends. These rods are designed to be used for raising the valve whenever the well is to be used, and hold it up for uncovering the slots, as seen in Fig. 3, to freely admit water into the well. The lower ends of the slots are beveled downward to prevent the lodgment of grain or other matter which comprises the cargo of the ship.

There may be made a hole in the deck over the well, which may be closed with a suitable cover, or there may be scribed a ring in the top surface of the deck to indicate the location of the well underneath. Then, when necessary for use, a hole may be cut through the deck for the insertion of the pump-suction hose.

From the foregoing it will be seen that the ship having these wells may be loaded with the cargo completely surrounding the well, and then in case of emergency will be provided with a ready means of withdrawing the water from the midst of the cargo without having to remove or disturb it, the operation of which is as follows:

When required to withdraw the water from the hold, an entrance through the deck is made by cutting a hole or removal of a cover, as before stated. Then the valve is raised by the rods and secured in that position by running a rod or bar through the loops or eyes above the deck. This opens all the slots and gives ready ingress of water to the well. Now the suction-hose of a pump may be inserted through the deck and passed down to the very bottom of the hull and the water pumped out.

The casing and valve shown in the drawings are designed to be made of heavy wood plank, in which case the well is made with square sides. By making them of metal they may be made cylindrical; but they should be strong enough to withstand hard blows or usage without injury.

Having described my invention, what I claim is—

The improvement in ships, consisting in the combination of the casing *A*, secured be-

tween the deck and the bottom of the hold, said casing having the slotted or grated opening *b c* in its sides at and near the bottom, and provided with the valve B, playing inside of the casing, for closing the said slots when
5 down, and having the middle openings, whereby when raised by the rods D free openings are made through the slots or gratings,

communicating with the interior of the wells, substantially as described, and for the purpose specified.

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Witnesses:

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