J. E. JONES.

Ship's Water-Closet.

No. 199,369. Patented Jan. 22, 1878.

Fig. 1.

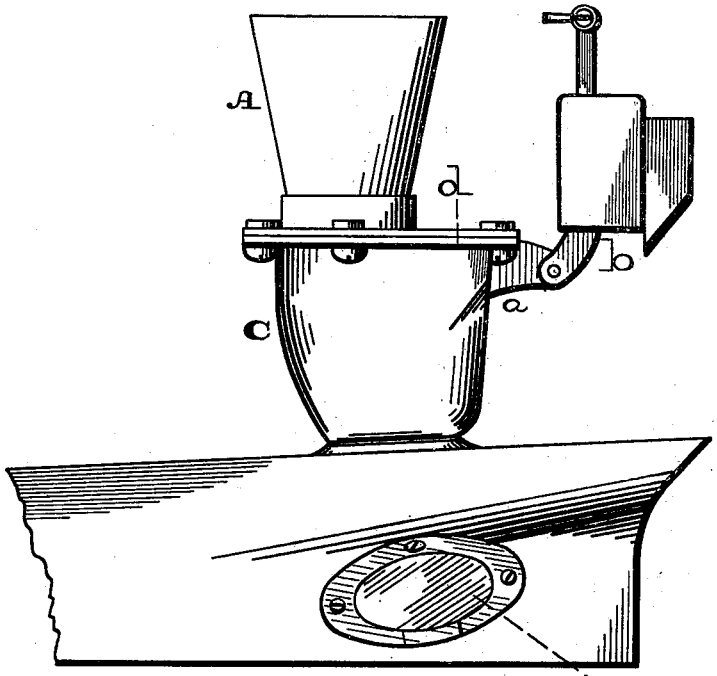
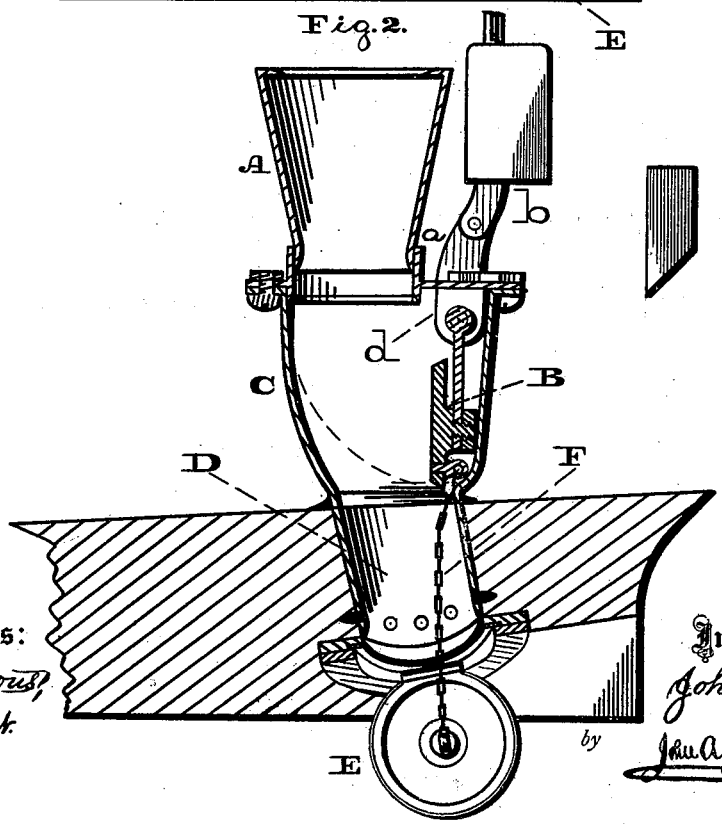


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN E. JONES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO WM. A. PEALL, OF SAME PLACE.

IMPROVEMENT IN SHIPS' WATER-CLOSETS.

Specification forming part of Letters Patent No. **199,369**, dated January 22, 1878; application filed December 3, 1877.

To all whom it may concern:

Be it known that I, JOHN E. JONES, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Ships' Water-Closets, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the ship's water-closet embodying my invention. Fig. 2 is a vertical section thereof.

Similar letters of reference indicate corresponding parts in the two figures.

In ships' water-closets the upward or inward rush of water is a source of inconvenience or discomfort to the occupant of the seat, and a cause of injury to the bowl, pan, and other parts of the closet, which defects my invention is designed to remedy.

The invention consists in connecting the pan or valve with an outer valve, which is adapted to close the outlet in the hull or side of the ship when the bowl is occupied or the closet is not in use, and to open the same when the bowl is to be emptied.

It also consists in the combination, with the above, of a chamber into which, when the outer valve is opened, the inrushing water will expend its force, thus preventing injury to, or destruction of, the bowl or pan.

Referring to the drawings, A represents the bowl or hopper, and B the pan or valve, which is operated to open and close by means of an arm, *a*, connected to the axis of the pan, and having pivoted to it a weighted arm, *b*, which is arranged in proximity to the bowl, so as to be conveniently accessible thereto.

C represents a chamber, which is supported on a deck or other proper portion of the ship, and it has connected to its lower end a tube or conveyer, D, which passes through the hull, side, or other suitable part of the ship, and constitutes the outlet of the water-closet.

The bowl A is mounted on, secured to, and communicates with, the chamber C, and it consequently communicates with the outlet D; and the axis of the pan B is fitted in the sides of the chamber, said pan swinging in its opening and closing motions in the space of said chamber, as seen in Fig. 2.

E represents a valve for closing the mouth of the tube or conveyer D, and it is hinged to a ring or band encircling said mouth or other portion of the hull or side of the ship, so as to open by gravity, the seat of the valve being properly packed to provide a tight joint when the valve is closed.

A chain, F, is connected to the pan B and valve E, and its length is such that when the pan is raised and closed the valve E will also be raised and closed, and controlled by the pan.

The operation is as follows: When the seat of the bowl is occupied the pan B is closed, the valve E also being closed, the arms *a b* occupying positions shown in Fig. 1.

It will be seen that water is prevented rushing upward into the closet, as the outlet D is entirely closed, the advantage of which is evident; and as the valve E is flush with the hull or side of the ship, the progress of the latter is not impeded.

When the bowl is to be emptied the arm *b* is raised. This opens or lowers the pan B, and as the valve E is no longer controlled, it immediately falls open. The contents of the bowl escape from the pan into the chamber C and tube D, and thus into the water, after which the pan and valve will be closed.

When the valve E is temporarily open water from the outside may be injected forcibly toward the bowl, and thus cleanse the parts through which it passes.

Ordinarily the force of water is too great for the strength of the bowl, and the latter is wrenched from its fastenings or broken. To prevent this the chamber C is interposed between the outlet-tube D and the bowl A, and its diameter is greater than said parts, so as to provide an offset, *d*, which is at the upper end of the chamber and set back from the bowl, whereby when the water rushes through the tube D and enters the chamber the enlarged space of the latter causes the water to expend its force, and this is assisted by the top plate of the offset, against which

the water strikes, the water thus entering the bowl with but little injurious effect.

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

1. The water-closet bowl and its pan, in combination with an outer valve, controlled by said pan, substantially as and for the purpose set forth.

2. The bowl A and outlet-tube D, in combination with the intermediate chamber C *d*, and with the pan B, outer valve E, and controlling-connection F, substantially as and for the purpose set forth.

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