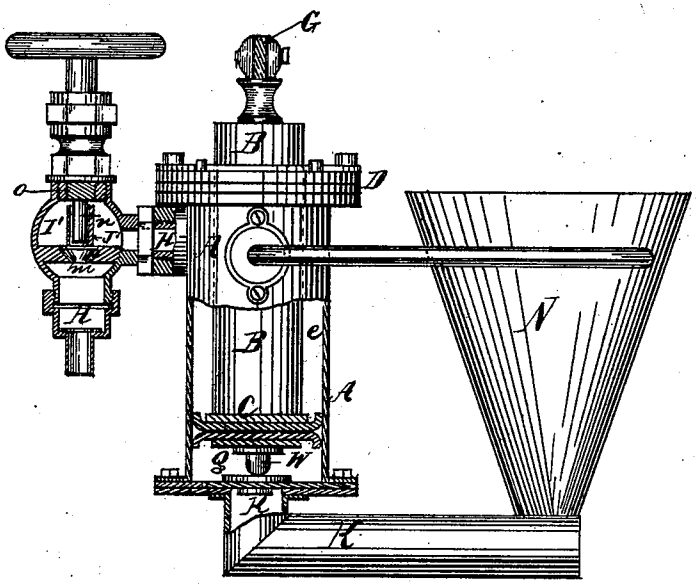
A. B. SANDS.

WATER-CLOSET FOR VESSELS.

No. 177,161. Patented May 9, 1876.



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ALFRED B. SANDS, OF NEW YORK, N. Y.

IMPROVEMENT IN WATER-CLOSETS FOR VESSELS.

Specification forming part of Letters Patent No. **177,161**, dated May 9, 1876; application filed April 10, 1876.

To all whom it may concern:

Be it known that I, ALFRED B. SANDS, of New York city, county and State of New York, have invented certain Improvements in Water-Closets for Vessels, of which the following is a specification:

The object of my invention is to remedy certain defects in water-closets for vessels, and especially in closets constructed under a patent granted to me February 17, 1874, numbered 147,575, for improvements in water-closets for vessels.

Referring to the accompanying drawing forming a part of this specification, and which represents a vertical sectional view of my improved pump and closet, similar letters of reference indicate corresponding parts.

A is the cylinder of a single pump, with the cylindrical hollow plunger or piston B; C, the bottom and packing of the plunger. *e* is a chamber formed between the cylinder and the plunger; D, the stuffing-box for the plunger; G, the lever; H, the water-inlet pipe, with the globe-chamber I′ and the circular hollow valve J′. K is the water-outlet pipe with valve Q, which pipe is fastened to the water-closet bowl N.

By referring to the above-mentioned patent of February 17, 1874, No. 147,575, it will be noticed that the bottom of the plunger B, when forced down by the lever G, leaves a space between the said bottom and the valve Q, which permits the valve to be lifted from its seat when the vessel rocks to and fro in a heavy sea, and thus allowing the water to flow back through the discharge-pipes (not shown) into the bowl N. In order to remedy this defect, I lengthen the plunger B by fastening to or casting to the bottom of the same the projection or button W, which rests on the top of the valve Q when the plunger is forced down, and prevents the valve from being accidentally lifted from its seat.

I have also found it necessary to be able to shut off the water-supply through the inlet-pipe in a direct and positive manner, and also to prevent the valve in this pipe or its chamber from being accidentally moved from its seat. In order to accomplish this in a manner both certain and efficient, I make use of the globe-chamber I′ and the circular hollow loose valve J′, which is held in position against the valve-seat *m* by the end of the stem *n*, provided with the screw-thread *o*, by aid of which the stem may be screwed down and the valve thus forced against the seat.

Having thus described my invention, I desire to claim—

1. The projecting button W, in combination with plunger B and valve Q, substantially as described, and for the purpose set forth.

2. The combination of the globe-chamber I′ with the loose circular valve J′, the threaded stem *n*, the water-inlet pipe H and cylinder A, substantially as described, and for the purpose set forth.

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