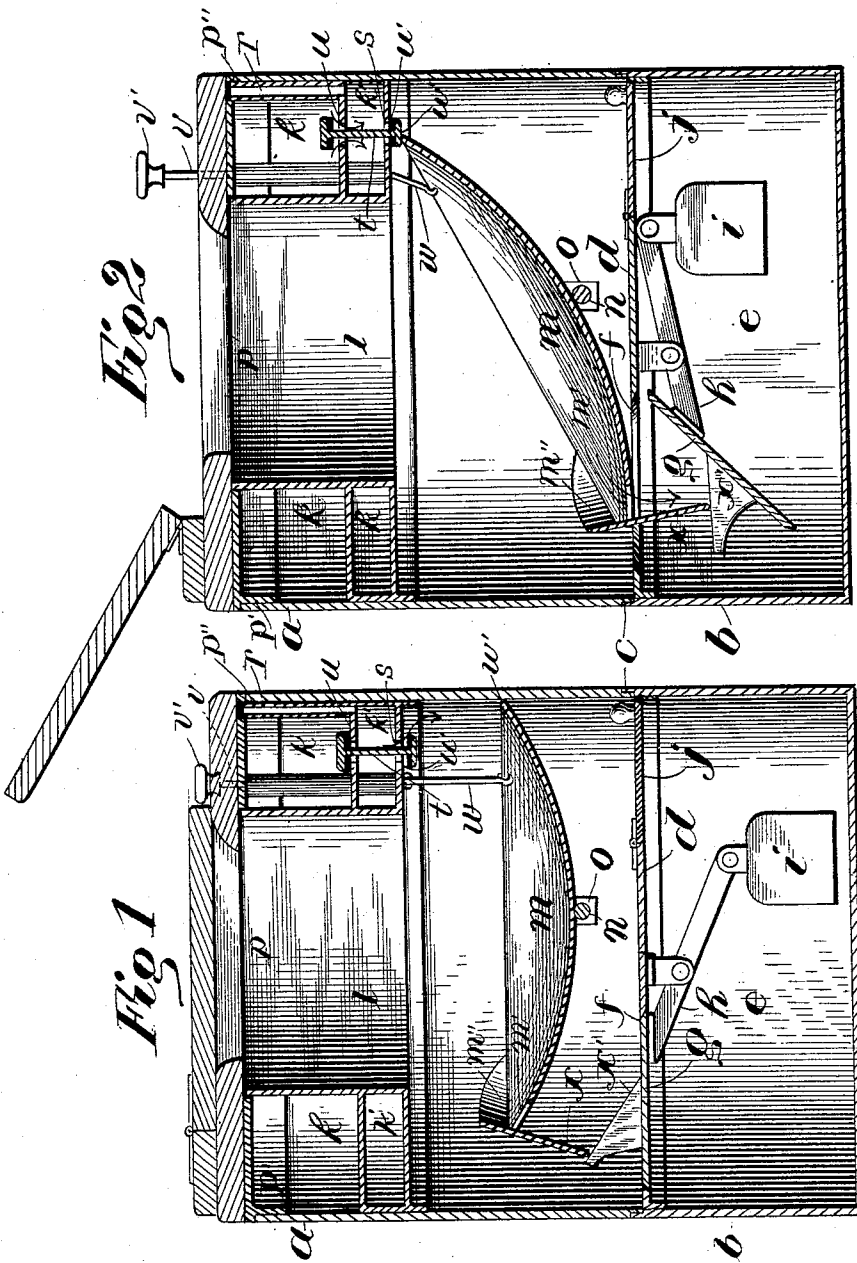


(No Model.)

A. J. NILES.
WATER CLOSET.

No. 484,559.

Patented Oct. 18, 1892.



Witnesses

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ARTHUR J. NILES, OF LANCASTER, NEW HAMPSHIRE.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 484,559, dated October 18, 1892.

Application filed October 15, 1891. Serial No. 408,792. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR J. NILES, a citizen of the United States, residing at Lancaster, in the county of Coos and State of New Hampshire, have invented certain new and useful Improvements in Water-Closets; 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 relates to that class of modes in which the bowl is tilted to expel the contents; and my object is to provide a more perfectly-working and desirable article than those heretofore conceived.

With this purpose in view my invention consists in the peculiar features and combination of parts more fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a vertical section of my complete device; Fig. 2, a similar view showing the parts in action.

The exterior casing of my device is cylindrical in form and consists of a top section *a* and base-section *b*, connected tightly by an at-fitting lap-joint *c*. A partition *d* is placed across the top part of the base and forms the waste-receiving compartment *e*, which is thus shut off from the chamber above. A circular receiving-opening *f* is made in the partition *d* and is kept normally closed by an upward-seating valve *g*, having beveled edges to make a tight fit. This valve is fixed on the end of a lever *h*, the opposite arm of which is provided with a counter-weight *i* to hold it normally closed. A semicircular door *j* is also located in the partition to permit the contents of the waste-compartment to be emptied. A water-tank *k* is located in the upper part of the compartment and is formed by an inner cylinder *l*, through which droppings fall to the bowl *m* below, fixed on a rock-bar *n*, operating in bearings *o*, attached to the inner walls of the upper section *a*. The top of the water-tank is closed by the seat *p*. A lower water-tank *k'* is located below the main tank *k* and is provided with an air-vent *r*. The bowl *m* is flushed through outlet *s* in the bottom of lower tank *k'*, which holds a predetermined amount of water. The outlet is commanded by a double-acting vertically-

movable valve *t*, the stem of which passes through the lower tank and alternately seats against its top and bottom walls *u u'*. The bowl is tilted by means of a vertical lifting-rod *v*, provided with a hand-pull *v'* at the top and connected to the bowl by a chain or other suitable connection *w*. The end of the bowl is provided with a projection *w'*, which comes in contact with the bottom of the valve and lifts it to permit the water to flow from the tank *k* to the lower tank *k'*. An arm or lug *x* extends downward from the rear of the bowl and comes in sliding contact with the sloping surface of a cam *x'*, fixed on top of valve *g*. The inner side of the seat *p* is provided with a downwardly-projecting flange *p'*, which fits snugly within the top of the upper section *a*, and a recess *p''* in the flange comes opposite the upper end of the vent to permit the escape of air through the latter. In the rear of the bowl there is a transverse opening *m'* and back of it an upward projecting guide-lip *m''*. This opening registers with the receiving-opening *f* of the waste-compartment below.

Although a rigid seat is shown and described, yet it is evident that it could be otherwise constructed to co-operate with the mechanism below without departing from the spirit and scope of the invention, and the cylindrical form of the closet is simply a preferred one, as it could be made to operate with success in other shapes.

In using the foregoing mechanism the operator pulls on the rod *v*, thereby drawing the front end of the bowl up against the lower end of valve *t*, which causes the valve to close the opening in the bottom of the lower tank and open the passage from the upper tank into the lower tank, thereby allowing the latter to fill. The bowl is then allowed to descend to a horizontal position, as shown in Fig. 1, and in so doing the valve *t* closes the upper passage and opens the lower one, which allows water to flow into the bowl, and when in this position the bowl is ready for use. The rod *v* now being pulled up, tilts the bowl and empties its contents out through the oblong transverse opening in the rear of the bowl. In this action the valve *t* operates as before, the lower tank being again filled while the bowl is raised and the bowl being flushed on releas-

ing the hand-pull and in resuming its horizontal position. When the bowl is tilted, the projection on its rear end engages the sloping surface of the cam on the valve and opens
5 the latter, as shown in Fig. 2, and allows the contents of the bowl to pass down into the waste-chamber below, from whence it can be emptied through the door *j* after having first removed the upper section. Upon releasing
10 the pull *v'* the counter-weight will right the bowl to the position shown in Fig. 1.

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

- 15 1. The combination, in a commode, of a valved reservoir placed below the seat, a valved waste-chamber in the bottom of said commode, and a tiltable bowl between the reservoir and waste-chamber, the opposite

sides of said bowl actuating the valves, substantially as set forth.

2. The combination, in a commode provided with three compartments, the upper one containing a reservoir and measuring-chamber situated under the seat, a tiltable bowl placed
25 in the middle compartment, and a waste-chamber in the lower compartment, the upper and lower compartments being provided with valves which are actuated by the bowl when it is flushed, all arranged and adapted to oper-
30 ate in the manner and for the purpose set forth.

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

ARTHUR J. NILES.

Witnesses:

W. P. BUCKLEY,
J. Q. WILLIAMS.