G. JENNINGS.

WATER-CLOSET.

No. 182,447. Patented Sept. 19, 1876.

Fig. 1.

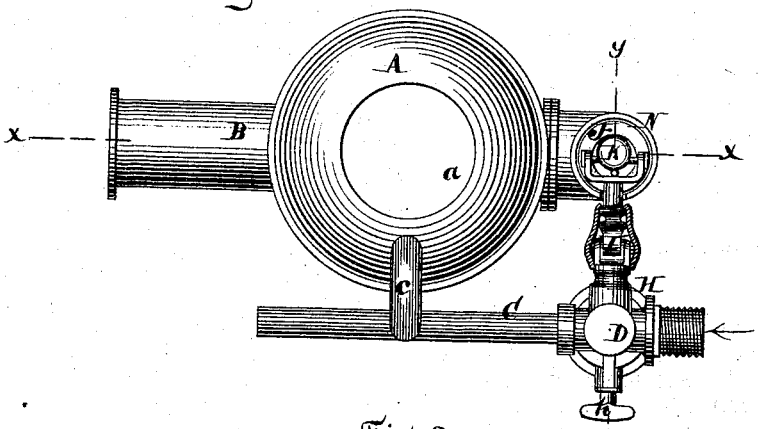


Fig. 2.

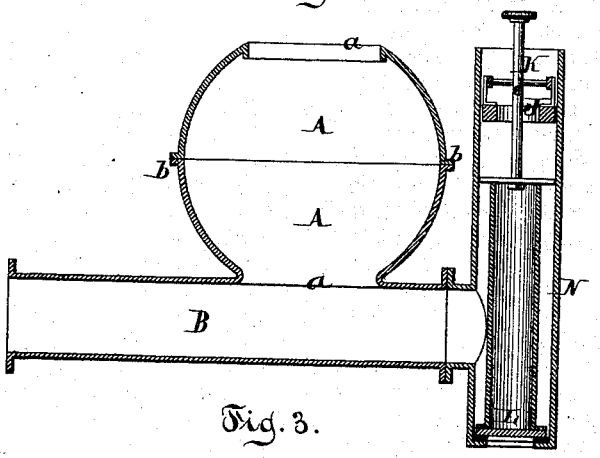
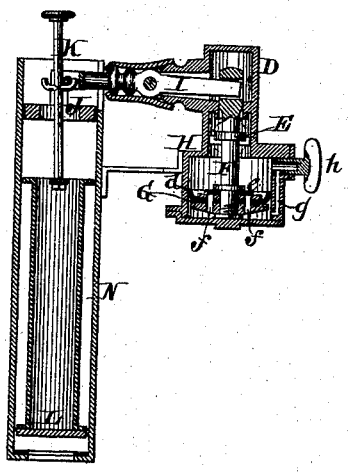


Fig. 3.



Witnesses.
Otto Hufeland
Robt E. Miller

Inventor.
George Jennings
per
Van Santvoord & Hauff
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE JENNINGS, OF LONDON, GREAT BRITAIN.

IMPROVEMENT IN WATER-CLOSETS.

Specification forming part of Letters Patent No. **182,447**, dated September 19, 1876; application filed May 2, 1876.

To all whom it may concern:

Be it known that I, GEORGE JENNINGS, of London, Great Britain, have invented a new and useful Improvement in Water-Closets, and in the valves connected therewith, which improvement is fully set forth, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan view of my improvement. Fig. 2 is a longitudinal vertical section in the plane *x x*, Fig. 1. Fig. 3 is a vertical cross-section in the plane *y y*, Fig. 1.

Similar letters indicate corresponding parts.

One feature of my improvement consists in a latrine or pan for water-closets, having the form of a truncated globe, and which is made in two or more parts, so that I am enabled to cast the said latrine without difficulty, while, by its globular shape, any cleansing-water that may be allowed to flow unto the same is preventing from spattering over its rim. Another feature consists in a peculiar form of valve for supplying cleansing-water to the latrine or pan of a water-closet. This valve has a piston secured to its stem, which piston works in a cylinder communicating with the valve-chamber, and which has a passage formed in its wall, this passage being so arranged as to communicate with the interior of the cylinder at both ends in such a manner that, when the valve is opened and water or other liquid is allowed to flow through it, part of the water collects in the cylinder, and hence, when the valve is shut, either by the action of a weight or by any other means, the water must be displaced by the piston, and thereby a slow movement is given to the valve, and a certain fixed quantity of water is allowed to escape before the valve becomes tightly closed.

In the drawing, the letter A designates a latrine or pan for water-closets constructed according to my invention. This latrine is made in two parts, as indicated, each part having a semicircular form, and each being provided with an opening, *a*, so that when the parts are put together they form a truncated globe. The parts of the latrine, moreover, are each provided with a flange, *b*, through the medium of which they are united together. It is obvious that a globular latrine thus made can readily be cast, while, by its peculiar shape, water is prevented from spattering up over its rim when allowed to run into it. The said latrine is placed over and connected to a discharge-tube, B, which is intended to form a connection with a number of latrines. To the upper part of the said latrine is connected a water-supply pipe, C, (see Fig. 1,) which to this end is provided with a lateral branch, *c*. This supply-pipe C, like the discharge-tube B, is intended to be connected to a number of latrines, for the purpose of supplying water thereto. The said water-supply pipe is connected to the shell D of a valve, E, which serves to regulate the admission of water to the said supply-pipe. F designates the stem of the valve. This valve-stem F extends both upward and downward from the valve, and to its lower part is secured a piston, G, which is fitted and arranged in a cylinder, H, cast with the valve-shell D, and which communicates with the chamber formed by the said shell. The upper portion of the valve-stem F is connected to one end of a lever, I, having a weight, J, secured to its other end, and which is pivoted to a nipple projecting from the valve-shell D. When the lever I is permitted to follow the action of the weight J the valve-stem F is raised and the valve E is closed against its seat. The piston G partakes of the movement of the valve-stem F and the valve, and as the said stem is moved upward the movement thereof is retarded by the action of the water collecting in the cylinder H on the piston, and by these means the valve E is permitted to close but slowly, and a certain fixed quantity of water is allowed to pass to the latrines after the valve is released, so as to became closed by the action of the weight J. The water which is displaced by the piston either in its up or down movement flows through a passage, *g*, formed in the wall of cylinder H, and which passage communicates with the interior of the cylinder at both ends, so that by this passage *g* the water is conducted from above the piston to below it, when the piston moves upward, and vice versa when it moves downward. The passage *g* is provided with a plug, *h*, by which it may be closed at will. In order to permit of moving the piston G downward (which movement it describes when the supply-valve E is opened) with greater speed than in an upper direction,

the piston is provided with a packing-disk, *d*, of leather or other similar material, which is bent upward at the outer edge, as seen in Fig. 3. The said piston, moreover, is provided with a flap, *e*, on its upper surface, which flap covers a series of holes, *f*, formed through the piston. It will be readily understood that by the packing-disk *d*, and the holes *f*, and flap *e*, the water is allowed to pass through and around the piston G in the downward movement of the latter, but not in its upward movement. The valve-operating lever I is connected to a handle, K, which forms part of a discharge-valve, L, situated in a barrel, N, which is connected to one end of the discharge-tube B hereinbefore referred to, the object of this valve L being to discharge the water and other stuff passing into the said discharge-tube from the latrines. By thus connecting the supply-valve E with the discharge-valve L, they, the two valves, are operated simultaneously. The discharge-valve L, however, is so arranged as to close more readily or rapidly than the supply-valve E, and hence a greater quantity of water is allowed to run into the latrines than is discharged. To open the valves it is simply necessary to lift the handle K, when the discharge-valve L is raised, while the supply-valve E is depressed from its seat.

What I claim as new, and desire to secure by Letters Patent, is—

1. A latrine or pan for water-closets, having the form of a truncated globe, and which is made in two or more sections, substantially as described.

2. The piston-cylinder, constructed with the valve-shell and cylinder-passage *g*, in combination with the valve E, piston G, and the latrine or pan of a water-closet, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 20th day of April, 1876.

GEORGE JENNINGS. [L. S.]

Witnesses:

J. W. HAMPTON, Jr.,

JAMES V. KIRBY.