J. CRAWFORD.
Water-Closets.

No. 211,226. Patented Jan. 7, 1879.

Fig. 1.

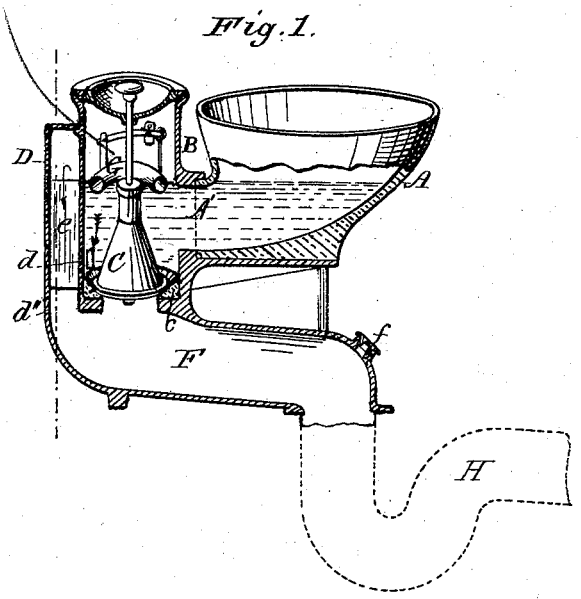
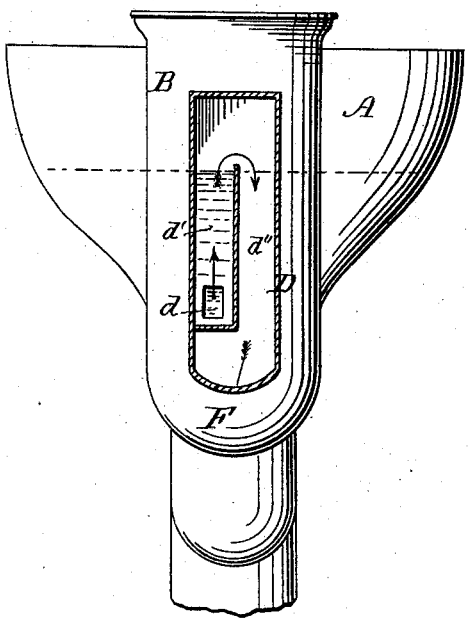


Fig. 2.



Witnesses:
W. B. Masson
A. P. Lowe

Inventor.
John Crawford.
by L. Deane.
Atty.

UNITED STATES PATENT OFFICE.

JOHN CRAWFORD, OF NEW YORK, N. Y., ASSIGNOR TO ANDREW G. MYERS, OF SAME PLACE.

IMPROVEMENT IN WATER-CLOSETS.

Specification forming part of Letters Patent No. **211,226**, dated January 7, 1879; application filed November 26, 1878.

To all whom it may concern:

Be it known that I, JOHN CRAWFORD, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Trapped Overflows for Water-Closets, of which the following is a specification:

Figure 1 is a vertical central section through the basin or closet and trapped overflow or offset. Fig. 2 is an end elevation of the closet, showing the trapped overflow or the offset in section.

This invention relates to that class of improvements in water-closets which are mainly designed to afford a thorough and effective means for preventing the escape of sewer-gas or noxious smell; and it consists more particularly in the trapped overflow, and in the combination of the upright chamber or limb of the water-closet with an offset having a trapped overflow, and in the combination of the plunger or valve in the upright limb and over the outlet-pipe with the passage into the overflow as shall cause the said plunger or valve, by its ordinary movement, to remove all obstruction therefrom, all as will now be more in detail set out and explained.

In the accompanying drawing, A denotes a water-closet or other basin having side outlet A′, and B its upright limb or chamber, which can be emptied by means of the plunger or valve C; but when said valve rests on its seat *c* it will cause the water to rise until it stands on a line a little above the upper edge of the exit or outlet from the basin. In the rear wall, near the lower end of this chamber B, is an opening, *d*, by means of which the water from the chamber B will be allowed to find its way into apartment *d′* of the adjoining chamber or offset D. In this chamber the wall or partition *e*, which forms one boundary between the apartment *d′* and space *d″*, does not extend to the top, and thus an opportunity is afforded for the escape of any overflowing water, as by leakage of the inlet or otherwise, from the upright chamber B into the outlet F by the passage indicated by the arrows. The chamber B is provided with any desired float, G, to regulate the inflow of the water.

In construction, the seat for the basin, the upright chamber or limb, and the offset are made in one piece—a method of construction which is very cheap.

In a closet where the parts are arranged and combined substantially as I have above explained a trap will not be needed; but if one be desired for any reason it can, as now indicated in dotted lines at H, be added. The usual ventilating aperture or opening *f* in the outlet-pipe F, below the bend of the basin A, will give an opportunity for the escape at that point of any sewer-gas or effluvia. The trapped overflow will seal the basin against any escape of such gas or noxious emissions of any sort.

In this device the peculiar construction will insure the freest and most thorough means for scouring and cleaning the basins and outlet pipes or passages.

The plunger, which is preferably made solid, seats upon a solid porcelain and entirely noncorrosive ring, *c*. This plunger will act as a scraper or cleaner to keep open the outlet *d*, so that no chance will be afforded for the clogging of the same by sediment, paper, or any obstruction.

The construction of the passage-way, as above described, from the chamber B to the outlet-pipe F affords a clear and free way that cannot under any ordinary use get fouled or clogged.

The overflow is arranged to have the depth of seal equal to the depth of water in the basin, and the overflow-chamber is of such a shape that siphoning cannot occur.

It will be observed that the pressure of the water in the basin and upright limb, when the valve or plunger C is down, will cause it to rest firmly and tight upon its seat. This is a feature of especial consequence in devices of this description.

In this closet the opening or point of connection with the soil-pipe is directly beneath the basin. This enables the closets to be set conveniently into places where the ordinary pan-closet has been taken out, all the openings in the wood-work coming to the right places, and there being no necessity for branching the soil-pipe to one side to meet the opening of the closet.

In constructing this device I may use any

suitable material. I have found, in practice, that earthenware will answer the purposes very well.

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

1. The combination of the basin A and chamber or limb B with offset D, having inlet *d*, partition *e*, and internal chamber and passages *d'* *d''*, and valve or plunger C, substantially as shown and described.

2. In a water-closet, the combination of the basin A and upright limb or chamber B, having an outlet, *d*, near its lower end or base, and provided with a suitable valve, with a trapped overflow, D, substantially as and for the purposes set forth.

3. In a water-closet as described, the combination of trapped overflow chamber or offset D, having opening *d*, with chamber or upright limb B and valve or plunger C, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN CRAWFORD.

Witnesses:
JOHN G. MELLEN,
ALFRED E. JENNINGS.