

(No Model.)

J. MILLIKEN.

WATER CLOSET BOWL.

No. 306,940.

Patented Oct. 21, 1884.

Fig. 1.

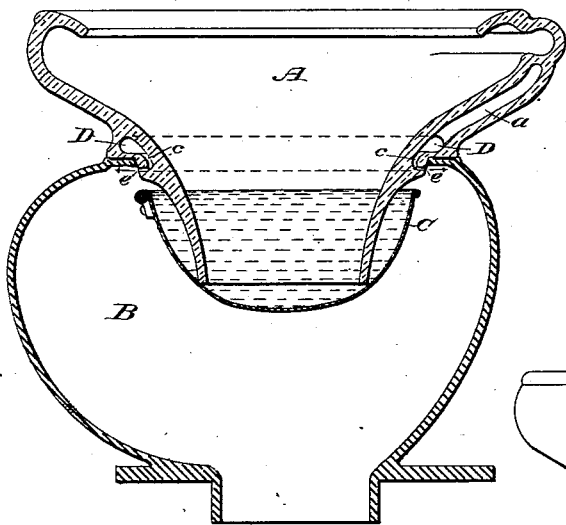
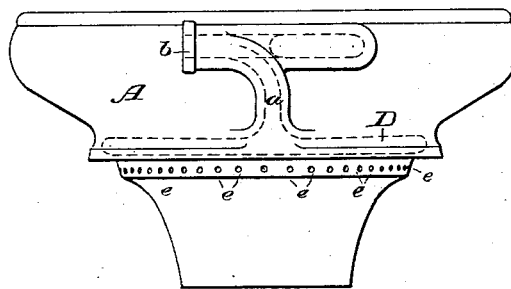
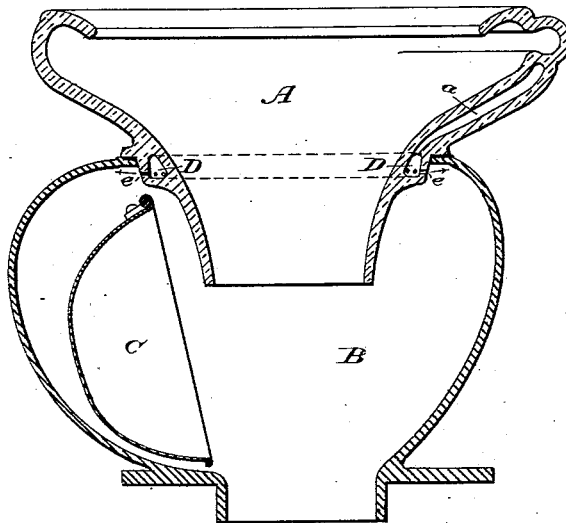


Fig. 2.



**Fig. 3.**



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES MILLIKEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
DANIEL LENIHAN, OF SAME PLACE.

## WATER-CLOSET BOWL.

SPECIFICATION forming part of Letters Patent No. 306,940, dated October 21, 1884.

Application filed January 10, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES MILLIKEN, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Water-Closet Bowls, of which the following is a specification.

This invention relates to what are known as "pan-closets," wherein the earthenware bowl projects into a closed "trunk" or "receiver," in which is a pivoted pan or basin.

The object of my invention is to so improve the pan-closet as to render it as cleanly and inoffensive as any of the so-called "sanitary closets," without materially increasing its cost, and without detracting in any way from any of its advantageous features. This object I effect by providing means for washing, spraying, flushing, or otherwise cleansing the interior of the trunk at each dumping or flushing of the closet. By this means the accumulation of foetid matters in the trunk is wholly prevented, and the interior of the trunk is rendered as clean as is the interior of the bowl.

Figure 1 of the accompanying drawings is a vertical mid-section, looking from the front, of a water-closet constructed according to my invention; and Fig. 2 is a side elevation of the earthenware bowl thereof removed. These views illustrate my invention in its preferred form. Fig. 3 is a section corresponding to Fig. 1, and illustrating a modification.

In each of the figures, A designates the bowl, B the trunk or receiver, and C the pan. Except as otherwise hereinafter described, these are or may be of any usual construction.

Referring to Figs. 1 and 2, the trunk B and pan C are constructed in precisely the usual manner, and the flushing-connection with the bowl is the same as heretofore. The only change which my invention effects is in the bowl, which, in addition to the usual flushing-rim, is formed with a hollow flange where it rests upon the trunk, the hollow therein forming an annular duct or water-passage, D, as clearly shown in section in Fig. 1, and by dotted lines in Fig. 2. A passage, *a*, is molded on the outer side of the bowl, communicates with the "horn" or flushing-pipe connection *b*, and extends thence to and communicates with the water-passage D. This passage D extends not

only around the bowl within the flange, but also extends below the flange and to a plane just below the under surface of the top of the trunk, as clearly seen at *c* in Fig. 1. This downward extension *c* is narrower than the main passage in the flange above, and a series of jet-perforations, *e e*, penetrate it from the exterior of the bowl, as shown in the figures. Whenever the bowl is flushed, part of the water entering at *b* passes down the passage *a* into the annular passage D, which it fills, and from which it issues through the perforations *e e* in a series of jets or small streams, which impinge upon the inner surface of the trunk and flow down the latter, thus not only forming a water film, which prevents the adherence of any foul matters to the inner surface of the trunk, but also washing and thoroughly cleansing that surface. The perforations *e e* should be sufficient in number and of sufficient size, and the volume of water diverted from the flushing-rim of the bowl should be of sufficient volume and at sufficient pressure to produce this result. No more definite or exact proportion can be given. In some cases it may be necessary to augment or prolong the flow of flushing-water in order to produce the best effect.

Instead of forming the water-passage D almost wholly in the supporting-flange of the bowl and above the level of the trunk, it may be formed below this flange, and to project within the trunk when the bowl is set, as clearly shown in Fig. 3. In this case the passage *a* must pass through the opening in the trunk, and to enable it to do this without altering the size or shape of this opening it should be flattened, as shown at the right in Fig. 3, and proportionally widened to preserve the same capacity.

It is preferable that the trunk used with my invention shall be enameled on the inside to protect it from oxidation and render the cleansing of its surface more easy.

My invention, as demonstrated by practical use, removes the one ground of sanitary objection to the pan-closet, and adds so little to its cost that it is still much cheaper than the sanitary closets.

My invention is not necessarily restricted in its application to a pan-closet alone, but may

be applicable to any type of closet where there is a chamber beneath the bowl and communicating with the bowl which it is desirable to cleanse and preserve from adherence of foul matters.

I claim as my invention—

1. A water-closet bowl formed with an annular water-passage extending around it above its discharge-aperture, and having a series of perforations extending from said passage to the exterior of the bowl, substantially as set forth.

2. An earthenware water-closet bowl formed with an annular water-passage molded upon its exterior, with a series of perforations opening from said passage to the outer side of the bowl, and with a water-passage extending from the flushing connection or horn down to said

annular water-passage, substantially as set forth.

3. An earthenware water-closet bowl, A, formed with a hollow sustaining-flange adapted to rest upon the trunk, whereby an annular water-passage, D, is formed, with a narrow downward extension, c, of said passage below said flange, and a series of perforations, e e, communicating with said extension, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES MILLIKEN.

Witnesses:

DANIEL LENIHAN,  
ARTHUR C. FRASER.