4. BATHS, CLOSETS, SINKS AND SPITTOONS.
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A. D. STEVENS.

APPARATUS FOR DEODORIZING CLOSETS.

APPLICATION FILED NOV. 30, 1906.

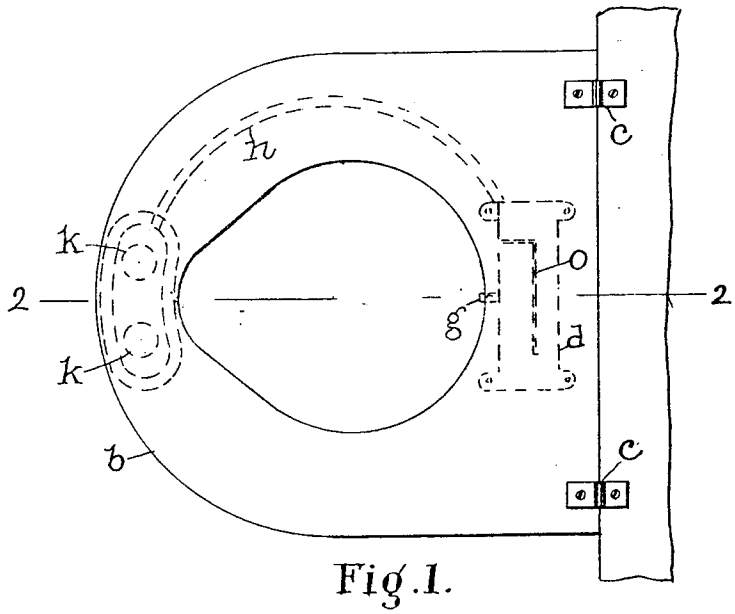


Fig. 1.

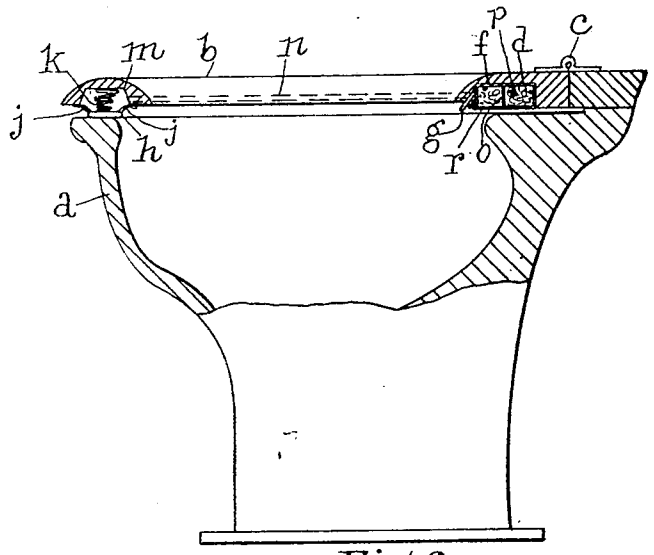


Fig. 2.

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ARTHUR D. STEVENS, OF JACKSONVILLE, FLORIDA, ASSIGNOR OF ONE-HALF TO MICHAEL SABEL, OF JACKSONVILLE, FLORIDA.

APPARATUS FOR DEODORIZING CLOSETS.

No. 866,400. Specification of Letters Patent. Patented Sept. 17, 1907.

Application filed November 30, 1906. Serial No. 345,598.

To all whom it may concern:

Be it known that I, ARTHUR D. STEVENS, a citizen of the United States, residing in Jacksonville, in the county of Duval, in the State of Florida, have invented an Improvement in Apparatus for Deodorizing Water-Closets, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to apparatus for disinfecting or deodorizing water closets, and has for its object to provide a simple, efficient and substantially inexpensive apparatus for this purpose. To this end provision is made for introducing the disinfectant or deodorizer into the bowl prior to using the same, and preferably by the act of sitting on the seat of the bowl. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a plan view of a water-closet embodying this invention, and Fig. 2, a partial section and elevation of the water-closet shown in Fig. 1, taken on the line 2—2.

Referring to the drawings *a* represents the bowl, and *b* the seat of a water-closet, which may be of any desired or usual construction, the said cover being hinged at *c* to permit it to be raised.

The present invention has for its object to provide means for efficiently disinfecting or deodorizing the bowl prior to using the same, whereby all odor is destroyed and a more sanitary water-closet obtained, with a minimum use of disinfectant or deodorizer.

In the present instance, I have shown one form of apparatus, which I may prefer, for accomplishing this result. The apparatus herein shown consists of a box or receptacle *d* for the deodorizing or disinfecting material, which may be of any suitable, desired or well-known material, and means for automatically forcing a current or stream of air through said box or receptacle into the bowl *a*.

The box or receptacle *d* is located at the back of the seat *b* and preferably in a recess *f* formed in the underside thereof. The box or receptacle *d* is provided with an outlet for the disinfectant or deodorizer, which outlet is shown as a pipe or tube *g* projecting forward and downward into the bowl. The means for forcing a current of air through the box or receptacle *d*, may be made as herein shown and consists of a form of bellows, of which the front portion of the seat forms a stationary member, and a substantially flat plate or piece *h* of wood or other suitable material comprises the movable member, which is secured to the seat to move therewith by an intermediate flexible member *j* of leather or other suitable material.

The movable member *h* is normally held away from the seat *b* by one or more springs *k*, which may have their upper ends located in a recess *m* in the underside of the seat *a*, and have their lower ends engaged with the plate or movable member *h*.

The box or receptacle *d* is connected with the bellows, which may be accomplished by a pipe or tube *n*, which may be located in a suitable groove or channel in the underside of the seat. The box or receptacle *d* may be provided with a partition *o*, which divides the box and forms a substantially long passage or channel in the same, whereby the air is caused to travel a substantially long distance in contact with the deodorizer or disinfectant before it is discharged from the box or receptacle, thereby affording opportunity for the air to become enriched by or heavily charged with the disinfectant or deodorizer. The box or receptacle may contain loose material *p*, such as excelsior, for absorbing the disinfectant or deodorizer when the latter is a liquid.

The box or receptacle *d* may be provided with a removable cover *r* by means of which access may be had to the box when the seat is raised.

In the present instance, a current of air is twice brought into contact with the disinfectant; that is, when the seat is lifted by the springs *k* after a person has risen therefrom, air is drawn into the box *d*, through the pipe *n* and into the bellows, and when the seat is depressed by a person sitting upon the same, the same air is forced from the bellows, through the pipe *n* and box *d* into the bowl.

It will be seen that the act of depressing the seat *b*, either by a person sitting upon the same, or it may be by hand, causes a certain amount or quantity of the deodorizer or disinfectant to be discharged into the bowl immediately before the latter is used, thereby destroying any obnoxious odor, which might otherwise arise from the bowl. So also, it will be noticed that the disinfectant or deodorizer is not wasted as it is only used when the bowl is used, consequently the apparatus is economical in this respect.

I have herein shown one form of apparatus embodying this invention, but I do not desire to limit the invention in this respect.

Claims.

1. The combination with a water-closet bowl and its seat movable with relation thereto, of a deodorizing or disinfecting apparatus for said bowl, comprising a box or receptacle for the disinfectant or deodorizer having an out-

let communicating with the bowl, a bellows carried by the seat, means to connect said bellows with said box or receptacle, and means to expand said bellows when the weight or pressure is removed from said seat and thereby cause a current of air to be drawn through said receptacle, which air is forced through the said receptacle when the bellows is compressed, for the purpose specified.

2. The combination with a water-closet bowl and its seat movable with relation thereto, of a deodorizing or disinfecting apparatus for said bowl, comprising a box or receptacle for the disinfectant or deodorizer having an air inlet and outlet communicating with the bowl, and means connected with the said receptacle and actuated by said seat for drawing air into said receptacle when pressure is removed from said seat, and for projecting the said air admixed with disinfectant or deodorizer into the bowl, when pressure is applied to said seat for the purpose specified.

3. The combination with a water-closet bowl and its seat movable with relation thereto, of a deodorizing or disinfecting apparatus for said bowl, comprising a box or receptacle secured to the underside of said seat and having an air inlet and outlet in open communication with said bowl, a bellows attached to the underside of the said seat, means to connect said bellows with said box or receptacle, and means to expand said bellows and draw air into said receptacle, said air being expelled from the receptacle into the bowl when said bellows are compressed substantially as described.

4. In combination, a water-closet bowl provided with a pivoted seat having a recess on its under side, means to normally elevate the front portion of said seat, a deodorizing or disinfecting apparatus comprising a receptacle for the disinfectant or deodorizer secured in said recess and provided with an air inlet and outlet in open communication with said bowl, means attached to the under side of said seat and connected with said receptacle for drawing a current of air through said receptacle in one direction and enriching said air with the disinfectant on the upward movement of said seat and for forcing said enriched air through the receptacle and into the bowl on the downward movement of said seat, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR D. STEVENS.

Witnesses:
A. R. MERRILL,
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