G. JENNINGS.

Apparatus for Disinfecting Water-Closets.

No. 164,842. Patented June 22, 1875.

Fig.1.

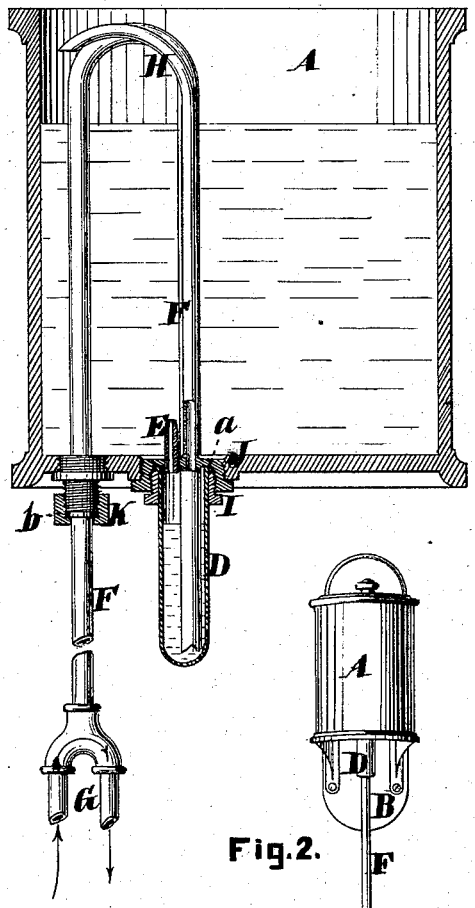
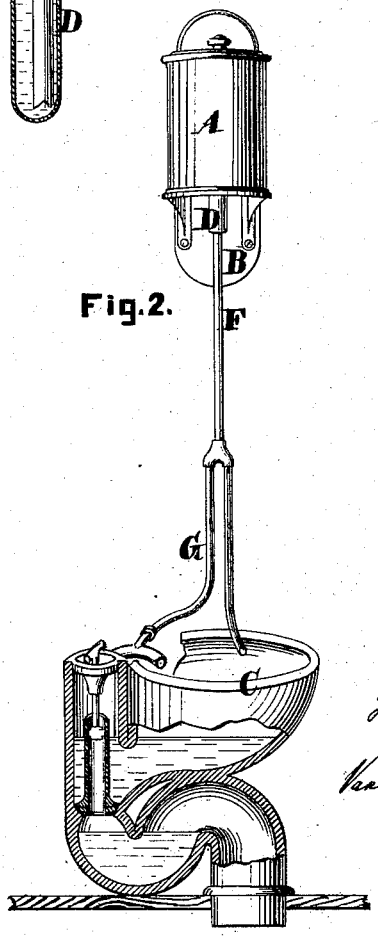


Fig.2.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE JENNINGS, OF STANGATE, LONDON, GREAT BRITAIN.

IMPROVEMENT IN APPARATUS FOR DISINFECTING WATER-CLOSETS.

Specification forming part of Letters Patent No. **164,842**, dated June 22, 1875; application filed December 17, 1874.

To all whom it may concern:

Be it known that I, GEORGE JENNINGS, of Stangate, London, Great Britain, have invented a new and Improved Apparatus for Disinfecting Water-Closets, &c., of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a vertical central section. Fig. 2 is a sectional side view as connected to a water-closet.

Similar letters indicate corresponding parts.

The invention relates to an apparatus connected with a water-closet, urinal, or other conduit in such a manner that disinfecting liquid is caused to discharge, with or immediately after the water used for cleaning, from a suitable reservoir, whereby the arising of offensive odors is prevented.

My invention consists in combining, with the reservoir containing the disinfecting liquid, a gaging-vessel, from which the liquid discharges by a siphon connected with the water-service pipe, in such a manner that, as the water passes through the service-pipe, a suction is created, whereby the disinfecting liquid is caused to discharge through the siphon. Air is admitted to the gaging-vessel as the liquid discharges by a suitable pipe, and the vessel is connected with the reservoir by a supply-tube, of such diameter, relatively to the siphon or discharge-tube, that the quantity of liquid discharging is greater than is supplied, at one time, to the vessel, and by this means a waste is averted, as is hereinafter explained.

In the drawings, the letter A designates the reservoir, which is made of porcelain or other suitable material, and placed upon a shelf, B, or supported in any other convenient manner, at a point above the basin C of a water-closet, urinal, or other conduit. This reservoir A I fill with any known disinfecting liquid or material, such as chloralum, carbolic acid, &c. To the bottom of the reservoir is connected the gaging-vessel D, to which the disinfecting liquid is supplied by a tube, E. The liquid is drawn off from the gaging-vessel by a discharge-tube, F, which extends to near its bottom, passes through the reservoir A, and near the top of the latter is bent over and downward, so as to constitute a siphon. This siphon F passes down through the bottom of the reservoir A, and at the lower end is connected to the water-service pipe G. The service-pipe G is bent upward, and at its point of union with the siphon is rebent downward, and led into the basin C.

When the water passes through the service-pipe G to the basin a suction is created within the siphon F, and thereby the disinfecting liquid is drawn from the gaging-vessel D, so as to discharge with or immediately after the water.

The diameter of the supply-tube E of the gaging-vessel is smaller than that of the siphon F, and, in addition thereto, the orifice of the supply-tube may be contracted, as shown, so that the disinfecting liquid discharges faster than it is supplied or allowed to enter the vessel D. By this means no more liquid than is held by the gaging-vessel is allowed to discharge at one time, while the vessel can easily become filled by the time the next discharge takes place. Air is admitted to the gaging-vessel D by a pipe, H, which extends to above the level of the liquid in the reservoir, and by which the creating of a vacuum by the discharge of the liquid from the vessel is averted.

The gaging-vessel D is secured to the bottom of the reservoir A by means of a nut, I, which screws into a closed bushing, J, secured at that point, and which nut catches under a flange, *a*, formed on the top edge of the vessel D. (See Fig. 1.)

The siphon is made in two parts, which are connected at the point of its passage through the bottom of the reservoir A, one part being provided with a flange, *b*, and the adjoining part with a screw-thread, so that the two may be firmly united by a shouldered nut, K. To the several joints last described is added a suitable cement and packing-rings, so as to produce a tight joint.

By this arrangement I obtain an apparatus which is automatic in its operation, requires no care except to fill the reservoir, is not liable to get out of order, and by which a waste of disinfecting material is effectually averted.

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

1. In an apparatus for disinfecting water-closets and other conduits, the reservoir A, with which is combined a gaging-vessel, D,

provided with a siphon, F, by which the liquid discharges, and which is connected to the water-service pipe, substantially as herein described.

2. The combination, with the gaging-vessel D, of an air-pipe, H, and of a supply-pipe, E, the diameter of which is smaller than that of the siphon, substantially as and for the purpose specified.

In testimony that I claim the foregoing I hereunto set my hand.

GEORGE JENNINGS.

Witnesses:
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