J. J. KLEIN.

DISINFECTANT DISTRIBUTER FOR CLOSETS.

APPLICATION FILED OCT. 27, 1913.

1,108,911. Patented Sept. 1, 1914.

Fig. 1.

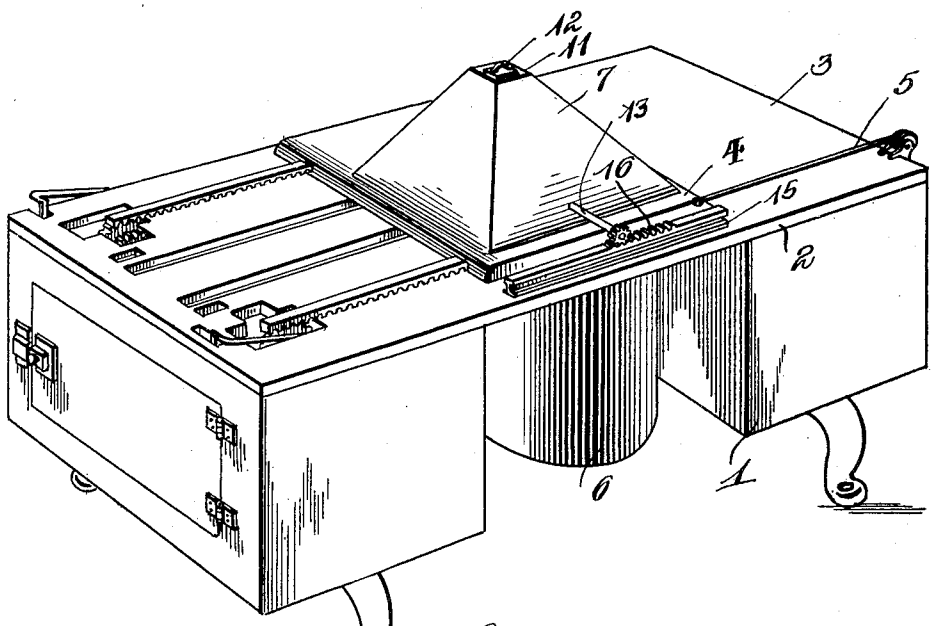
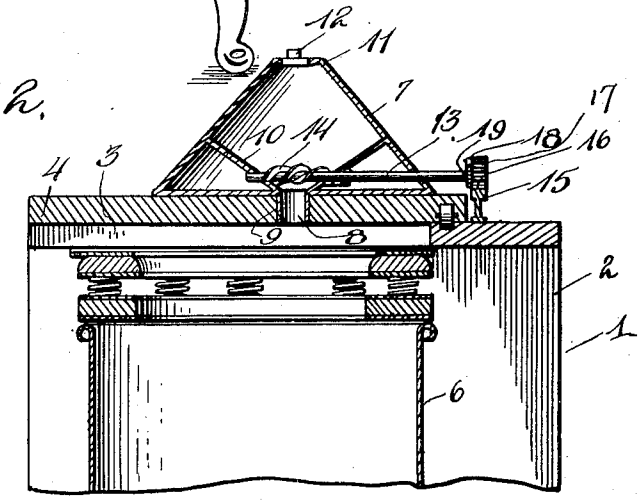


Fig. 2.



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UNITED STATES PATENT OFFICE.

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DISINFECTANT-DISTRIBUTER FOR CLOSETS.

1,108,911. Specification of Letters Patent. Patented Sept. 1, 1914.

Original application filed January 14, 1913, Serial No. 742,075. Divided and this application filed October 27, 1913. Serial No. 797,568.

To all whom it may concern:

Be it known that I, JACOB J. KLEIN, a citizen of the United States, residing at Kearney, in the county of Buffalo and State of Nebraska, have invented certain new and useful Improvements in Disinfectant-Distributers for Closets, of which the following is a specification.

This invention relates to disinfectant distributing apparatus for closets especially of that type shown and described in my co-pending application filed January 14, 1913, Serial Number 742,075, of which this application is a division.

It is the aim of the invention to provide a disinfectant distributing apparatus which will act automatically to discharge a suitable quantity of disinfectant into the hopper or receptacle of the closet as the cover for the seat opening is moved to closed position, and while the apparatus is designed primarily for employment in connection with a dry closet, it will be understood that it may be employed in connection with water closets without departing from the spirit of the invention.

In the accompanying drawings: Figure 1 is a perspective view of the apparatus arranged upon a closet constructed in accordance with my aforesaid copending application. Fig. 2 is a vertical front to rear sectional view through the apparatus and the cover for the seat opening upon which it is mounted.

In the drawings the body of the closet is indicated in general by the reference numeral 1 and the top by the numeral 2, the top having the usual seat opening 3 which is normally closed by a sliding cover 4. As described in my co-pending application, this cover 4 is normally held in position to close the opening 3 by means of a cord 5 to which is attached a weight (not shown) and when the cover has been slid to open position and released it will be automatically returned by the cord and weight.

The present invention contemplates the provision of means for automatically depositing disinfectant into the hopper or receptacle of the closet, which is indicated by the numeral 6, and which is located below the opening 3, upon movement of the cover to closed position and this means will now be described.

The apparatus embodying the present invention includes a reservoir 7 which is mounted upon the cover 4 and which has a discharge spout 8 fitting an opening 9 formed in the said cover. The bottom of the reservoir is inclined from all sides toward the upper end of the spout as indicated at 10, this portion 10 being preferably in the nature of a false bottom and serves as a bearing for the feed shaft of the apparatus as will be presently pointed out. The reservoir is provided at its top with a filling opening 11 through which disinfectant may be introduced into the reservoir and this opening is normally closed by a cover 12.

The feed shaft above mentioned is indicated by the numeral 13 and is journaled for rotation in the front and rear inclined walls of the false bottom 10, as shown in Fig. 2 of the drawings, and is provided upon its portion which extends above the discharge spout 8 with a worm 14 designed to feed the disinfectant down through the spout when the shaft is rotated in one direction.

A rack bar 15 is mounted upon the top 2 rearwardly of the cover 4 and the rack teeth of this bar, indicated by the numeral 16, extend in a series longitudinally of the bar but the series is of a length less than that of the bar and the teeth are so located that the disinfectant will not be discharged from the reservoir until the cover 4 has moved practically to closed position. Loosely mounted upon the shaft 13 is a pinion 17 adapted to mesh with the rack teeth 16 and this pinion carries a pawl 18 coöperating with a ratchet 19 fixed upon the said shaft 13. The pawl 18 is so arranged that when the cover is moved to open position the pinion 17 may ride loose upon the shaft 13 so as not to rotate the shaft but as the cover moves to closed position the pinion will mesh with the rack teeth 16 and will be clutched with the shaft whereby to rotate the shaft and cause disinfectant to be fed to the hopper or receptacle.

Having thus described the invention, what I claim as new is:

1. The combination with a closet having a seat opening and a cover mounted for sliding movement above the seat opening, of a disinfectant reservoir carried by the cover, a feeding device arranged to discharge material from the reservoir through said opening, and means actuated by the movement of

the cover for operating the feeding device of the reservoir.

2. The combination with a closet including a seat and a cover mounted for sliding movement above the seat, of a reservoir carried by the cover, and means arranged to automatically discharge material from the reservoir upon movement of the cover to closed position.

3. The combination with a closet having a seat and a cover mounted for sliding movement above the seat, of a reservoir mounted upon the cover and having a downwardly presented discharge opening, a shaft mounted for rotation in the reservoir and having feeding means working within the reservoir, a rack bar upon the seat, and a pinion carried by the shaft and arranged to mesh with the rack bar when the cover is moved to closed position whereby to rotate the shaft.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB J. KLEIN. [L. S.]

Witnesses:
R. M. BARNEY,
W. W. BARNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."