

UNITED STATES PATENT OFFICE.

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DISINFECTING AND DEODORIZING COVER FOR COMMODOES, WATER-CLOSETS, &c.

SPECIFICATION forming part of Letters Patent No. 482,966, dated September 20, 1892.

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To all whom it may concern:

Be it known that I, JESSE KINNEY, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Disinfecting and Deodorizing Commodes, Water-Closets, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in attachments for water-closets, commodes, &c., more particularly to that class wherein a disinfectant or deodorizer is employed.

The object is to produce an attachment for water-closets, commodes, &c., in the form of an improved cover, in combination with means for conveniently and effectually operating suitably-arranged valves, whereby the material forming the disinfectant or deodorizer is exposed or precipitated to act in overcoming all disagreeable odors; furthermore, in the employment of such means as shall be simple in construction, easily operated, and readily accessible when parts become worn or disarranged, &c.; furthermore, to provide additional means, when the device is applied to the hinged or pivoted covers of water-closets, whereby the motion given the cover in raising or lowering the same shall be transmitted to the valves of the receptacle carrying the disinfectant or deodorizer, thus automatically operating the same in a satisfactory and efficient manner.

With these objects in view the invention consists in an improved form of cover for water-closets, commodes, &c., comprising a receptacle formed in the cover and provided with inlet and outlet openings for the ingress and egress of the disinfectant or deodorizer; furthermore, a centrally-disposed spindle carrying suitably-arranged valves and adapted to operate in opening or closing said outlets a thumb-piece rigidly secured to said spindle, by which the valves are controlled and limited in their movement by stop-pins; furthermore, in the application of the attachment to the hinged covers of water-closets, additional means for automatically operating the valves, which consist of a rod supported in bearings and pivoted at one end to the casing of the

closet and suitably secured at the other end to a circular valve-plate, which is provided with guide pieces or lugs projecting through curved slots formed in the base-plate of the receptacle and by which said valve-plate is guided when operating to open or close the apertures in the base-plate as the cover is raised or lowered; furthermore, a series of apertures formed in the valve-plate and designed to register with a corresponding series in the base-plate of the receptacle when the cover is lowered, thus exposing or releasing the disinfectant or deodorizer contained in said receptacle.

In the accompanying drawings, forming part of this specification, similar letters of reference indicate corresponding parts in the several views, in which—

Figure 1 is a view in side elevation of my improved attachment shown applied to a commode. Figs. 2, 3, and 4 are detail views of the cover detached and the spindle carrying the valves and thumb-piece. Fig. 5 is a view in perspective of a modified form of the attachment shown applied to the hinged cover of a water-closet; and Fig. 6 is a bottom plan view of the same, illustrating mechanism whereby the valves may be operated automatically.

In the drawings, A represents an ordinary form of commode provided with a cover B and a handle B². The cover B is composed of the disk b², provided centrally with a raised portion or convexity of any desired size, and the flat disk b, which forms the base-plate of the receptacle for containing the disinfecting or deodorizing material. A spindle c is centrally mounted between the disks b b² and provided near its lower end with a spider C, consisting of a socket C², having a series of radial arms c², (corresponding in number with apertures formed in the base-plate or disk b,) terminating in circular valve-plates c³, provided with indentations on their faces, whereby all clogging or interference of the valves with the disinfectant or deodorizer is readily overcome, as small particles will be taken up and carried until the indentations register with the apertures b² of the base-plate b, when they will be free to drop or pass into the body of the commode.

To the projecting end of the spindle *c* is rigidly secured a lever or thumb-piece *D*, limited in its movement by the stops *d d* and adapted to control the valves *c*³ in operating or closing the apertures *b*² of the base-plate *b*.
 5 The receptacle is further provided with a supply-nozzle *b*³, (closed by a screw-cap *b*⁴), through which the material or substance forming the disinfectant or deodorizer is introduced.
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In Figs. 6 and 7 I have illustrated a modified form of device applied to the hinged or pivoted cover *E* of a water-closet *F*, which consists of the rod *a*, pivoted to a lug or projection *a*², secured to the framework and suitably connected at the other end with the valve-plate *a*³ of the receptacle *a*⁴. The valve-plate *a*³ is provided with a number of curved slots or openings *a*⁵, which are designed to register with corresponding slots *a*⁶, formed in the base-plate of the receptacle when the valves are operated. The valve-plate *a*³ is further provided with a number of depending lugs or guide-pins *a*⁷, adapted to work in the
 15 curved slots or openings *a*⁶ of the base-plate, as shown in Fig. 6.
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The operation of the device will be readily understood from the foregoing description.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a movable cover, of a receptacle for disinfectant secured thereto, said receptacle having inlet and outlet openings, suitable valves for controlling the outlet-openings, and a connection between said valves and a fixed point, whereby the valves are operated as the cover is opened and closed, substantially as described.

2. The combination, with a cover, of the receptacle containing the disinfectant, said receptacle having inlet and outlet openings, the latter being controlled by suitable valves arranged on a spindle, said valves adapted to be automatically operated, as said cover is raised and lowered, by a device comprising a rod mounted in bearings secured to said cover, said rod having one extremity connecting with the valves and the other extremity pivotally secured to the casing of the closet, substantially as and for the purpose described.

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

JESSE KINNEY.

Witnesses:

W. E. MACKLEM,
 O. I. VIER.