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S. SWEENEY.

FLUSHING DEVICE FOR WATER CLOSETS.

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Fig. 1

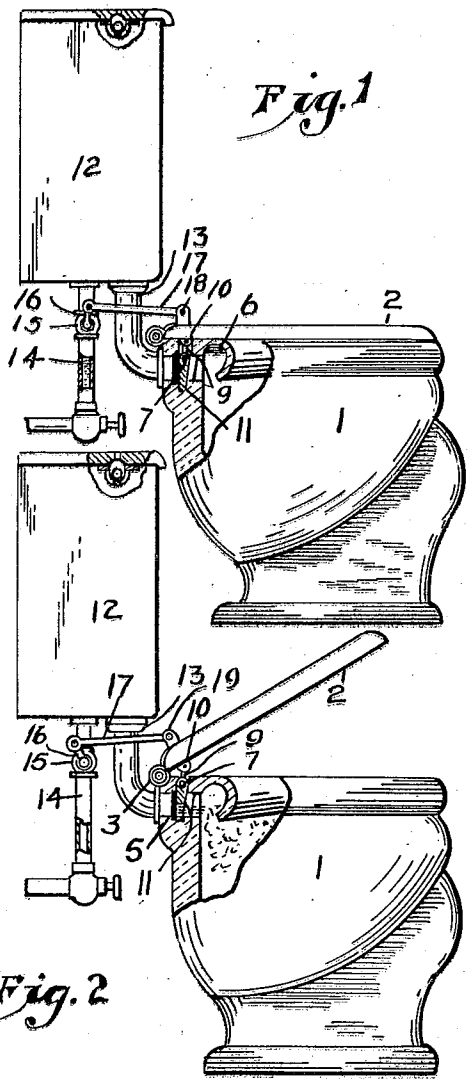
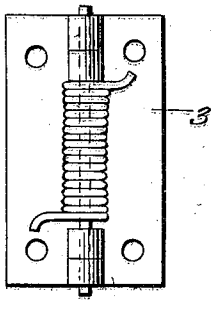


Fig. 2

Fig. 3.



WITNESS

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UNITED STATES PATENT OFFICE.

SAMUEL SWEENEY, OF WILKINSBURG, PENNSYLVANIA.

FLUSHING DEVICE FOR WATER CLOSETS.

Application filed February 28, 1919, Serial No. 279,821. Renewed December 12, 1922.

To all whom it may concern:

Be it known that I, SAMUEL SWEENEY, a subject of the King of England, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Flushing Devices for Water Closets, of which the following is a specification.

This invention relates to flushing devices for water closets, and has for its object to provide a device of such class, in a manner as hereinafter set forth, with means whereby the water inlet to the flushing tank is opened when the seat of the closet is down to furnish a supply of water to the tank, and automatically shut-off or closed when the seat is elevated thereby discontinuing the water supply to the tank, and further includes means in a manner as hereinafter set forth, whereby the flushing tank is cut-off from the bowl of the closet when the seat is down and automatically opened to the bowl for flushing purposes when the seat is elevated.

Further objects of the invention are to provide a flushing device for the purpose set forth which is simple in its construction and arrangement, strong, durable, automatic in its action, efficient in its use, readily set up relatively to the bowl, and comparatively inexpensive.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more fully described and illustrated in the accompaying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is an elevation, partly in section, of a water closet bowl showing the adaptation therewith of a flushing device in accordance with this invention, the water supply to the tank being opened and the seat down.

Figure 2 is a like view with the water supply to the tank closed, the seat being elevated.

Figure 3 is a detail illustrating the spring controlled hinge for the seat.

Referring to Figures 1 to 3 of the drawings 1 denotes the bowl of a water closet and 2 the seat, the latter has its rear end hinged, as at 3, with the bowl, and spring controlled so that when pressure is off the seat the controlling spring therefor will maintain the seat in an elevated position, the hinge connection between the bowl and seat under such conditions is termed a spring controlled hinge. The flushing water inlet for the owl 1 is indicated at 5, and opening into said inlet is a passage 6, which is disposed vertically in the top of the bowl 1 at the rear thereof, and said passage further is intersected by the inlet 5.

The seat 2, at its rear has a depending lug 10, which is pivotally connected to a link 9. The latter is pivotally attached, as at 7, to a slide valve 11, operating in guide ways. The valve 11 intersects the inlet 5, when the seat is down, for the purpose of cutting off the flushing tank from the bowl. When the seat 2 is elevated by the action of the spring controlled hinge the valve 11 is drawn upwardly to open the inlet 5, thereby establishing communication between the tank 12 and the bowl 1 for flushing purposes. Leading from the inlet 5 to the bottom of the tank 12 is a flushing pipe 13.

Leading to the tank 12, is a water supply pipe 14, provided with a valvular member 15 which normally closes the tank 12 to water supply. The member 15, has its stem provided with a crank arm 16, which is pivotally connected to an elongated link 17, which is pivotally connected, as at 18, to a lug 19, extending upwardly from the seat 2, at the rear thereof.

The link connection between the seat 2 and the crank arm 16 is such that when the seat is elevated, the link 17 will shift the arm 16 so that the latter will actuate the steam of the member 15 to close the latter, cutting off the supply of water to the tank 12. When the seat is down, the link 17 will shift the arm 16 in a direction to actuate the stem of the member 15 to open the latter, whereby supply of water to the tank 12 is had. When pressure is relieved from the seat the latter automatically elevates and shifts the link 17 to close the member 15, shutting off water supply to the tank, but as the seal elevates, the valve 11 will open the inlet 5, and the tank can empty through the flushing pipe 13 to the bowl 1.

The arrangement is such that when the tank is being supplied with water, due to the down position of the seat 2, the valve 11 will close the inlet 5, so that water from the tank is not supplied to the bowl 1, when the member 15 is open.

What I claim is:—

1. In a flushing device, the combination with a flushing tank having a valve controlled supply pipe, and a bowl having an inlet adapted to communicate with said tank, said bowl further having a vertical passage intersecting said inlet, of a spring controlled seat hinged with the bowl, means arranged exteriorly of and connected with the seat and with the valve of the supply pipe for opening said valve when the seat is down and for closing it when the seat is elevated, a lug depending from the seat, and a slide valve pivoted to the lug and operating in said passage for closing the inlet when the seat is down and for opening it when the seat is elevated.

2. In a flushing device the combination with a flushing tank having a valve controlled supply pipe, and a bowl having an inlet adapted to communicate with said tank, said bowl having a vertical passage intersecting said inlet, of a spring controlled seat hinged with the bowl, a vertical lug carried by the seat, a crank arm carried by the stem of the supply pipe valve, a link connecting the crank and lug whereby the valve is opened when the seat is down and closed when the seat is elevated, a lug depending from the seat, and a slide valve pivoted with the last mentioned lug and operating in said passage for closing the inlet when the seat is down and for opening it when the seat is elevated.

In testimony whereof I affix my signature.

SAMUEL SWEENEY.