

W. J. FROST.
 PUSH BUTTON MECHANISM FOR FLUSH VALVES.
 APPLICATION FILED MAY 26, 1909.

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Fig. 1.

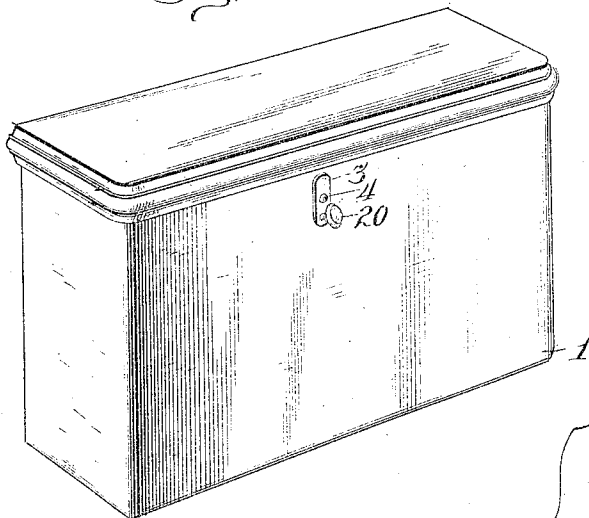


Fig. 3.

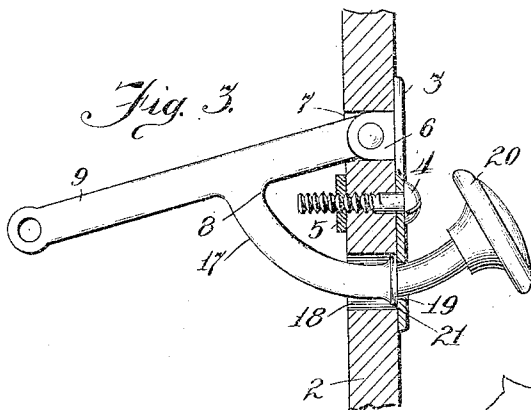
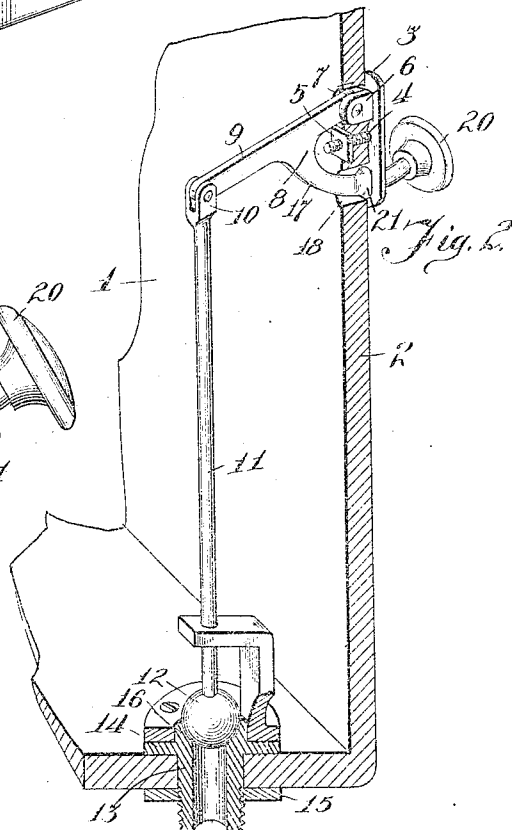


Fig. 2.



Witnesses
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WALTER J. FROST, OF KENOSHA, WISCONSIN, ASSIGNOR TO THE FROST MANUFACTURING COMPANY, OF KENOSHA, WISCONSIN, A CORPORATION OF WISCONSIN.

PUSH-BUTTON MECHANISM FOR FLUSH-VALVES.

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To all whom it may concern:

Be it known that I, WALTER J. FROST, a citizen of the United States, residing at the city of Kenosha, county of Kenosha, and State of Wisconsin, have invented certain new and useful Improvements in Push-Button Mechanism for Flushing-Valves, of which the following is a specification.

This invention relates to improvements in push button mechanism for flushing valve and refers more particularly to a construction adapted for use with water closets and the like.

The object of the invention is to provide a construction which secures increased efficiency and simplicity in the operation of the flushing valve, and at the same time consists of a minimum number of parts whereby it may be manufactured at a very low cost; to provide a construction in which the various operating parts are so united as to form a connected and in effect a unitary structure, thus increasing the reliability of operation; and in general to provide an improved construction of the character referred to.

The invention consists in the matters hereinafter described, and more particularly pointed out in the appended claims.

In the drawings—Figure 1 is a perspective view of a flushing tank equipped with my invention; Fig. 2 is an enlarged fragmentary vertical sectional view, with the valve shown in closed position; Fig. 3 is a further enlarged detail view of the push button mechanism.

Referring to the drawings, 1 designates as a whole the flushing tank which is preferably mounted just above the rear end of the stool in the usual manner. To the outer front side 2 of the tank is secured a supporting bracket 3 by means of a screw bolt 4 threaded through the side wall 2 of the tank and confined in position by means of a nut 5. At its upper end this bracket or plate 3 is provided with a pair of inwardly projecting pivot ears 6 which extend through a suitable aperture 7 formed in the side wall 2. Between these ears 6 is pivotally mounted by means of pin 8, one end of an actuating lever 9. The other end of this lever is pivotally secured to the forked extension 10 of the usual lifter or connecting rod 11. The lower end of this rod is provided with a ball valve 12 adapted to close the discharge outlet. In the present instance, the latter con-

sists of a cylindrical casting 13 inserted through a suitable opening in the bottom of the tank, and clamped in position by means of an annular supporting flange 14 and confining nut 15. The valve seat 16 is formed by turning up the upper edge of the casting in the usual manner.

In order to operate the lever 9 so as to withdraw globe valve 12 from its seat, the former is provided intermediate of its ends with a downwardly extending curved push rod 17. The lower end of this rod extends through suitable apertures 18 and 19 formed respectively in the side wall 2 and supporting bracket 3. The outer end of this push rod is provided with the usual push button 20. The outward movement of the rod is limited by means of a fillet 21 which abuts against the inner face of the bracket 3. The push button 20 is secured to the outer end of the rod 17 after the latter has been inserted through the aperture 19.

The operation of the device is obvious. It is to be noted, however, that the push rod is formed integrally with the lever, which not only reduces the cost of manufacture, but also secures a much simpler and more reliable leverage for operating the valve. At the same time the arrangement of the parts is such that the connecting rod moves in a substantially vertical line, thus insuring the proper seating of the valve. It is to be further noted that the exposed parts may be so formed as to present a finished and workmanlike appearance.

While I have herein shown a preferred embodiment of my invention, it is not limited to the details of the construction described except as set forth in the appended claims.

I claim as my invention:

1. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a connecting rod for said valve, a supporting bracket, an actuating lever pivoted at one end to said rod, at its other to said bracket, a downwardly projecting push rod integrally connected with said lever intermediate the ends of the latter, said push rod extending through the side wall of the tank whereby the valve may be operated from the outer side of said tank.

2. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a connecting rod for

said valve, an actuating lever pivoted at one end of said rod and at its other pivotally connected to the tank, a downwardly projecting push rod integrally connected with said lever, said push rod extending through the side wall of the tank, whereby the valve may be operated from the outer side of said tank.

3. The combination with a flushing tank, of a valve member, a lifter rod therefor, an actuating lever pivotally connected at one end to the tank, and at its other to said rod, and a push rod rigidly connected to said lever at one end extending downwardly, and having its other end extending through the tank whereby the valve may be operated from the outer side of said tank.

4. The combination with a flushing tank having a discharge outlet, of a valve controlling said outlet, a lifter rod for said valve; a supporting bracket secured to the outer side of said tank, an actuating lever pivotally connected at one end to said rod and at its other to said tank, a downwardly extending curved push rod rigidly secured to said lever intermediate the ends of the latter, said rod having its free end extending through the side to the tank, and a push button for said rod.

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