No. 831,671. PATENTED SEPT. 25, 1906.

L. LIPP.

FLUSHING OUTFIT FOR WATER CLOSETS.

APPLICATION FILED DEC. 5, 1904.

Fig. 1.

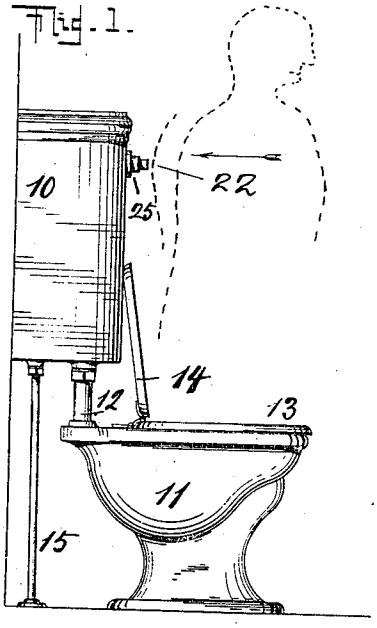


Fig. 2.

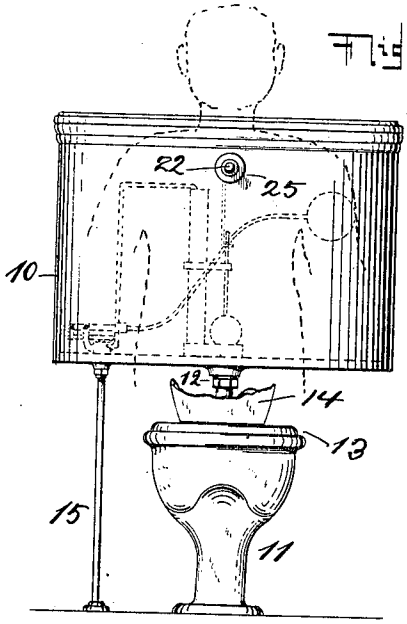


Fig. 3.

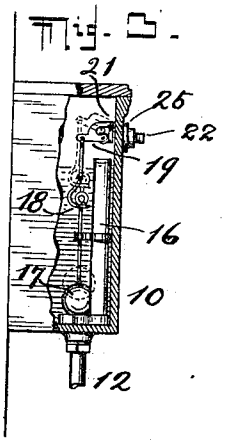


Fig. 4.

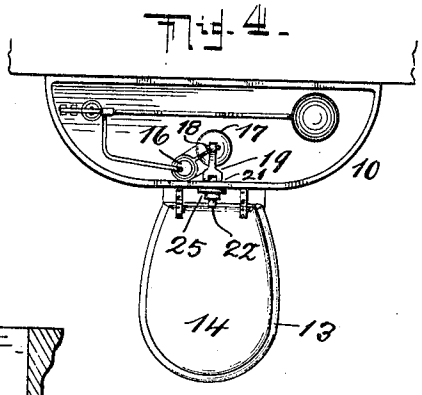
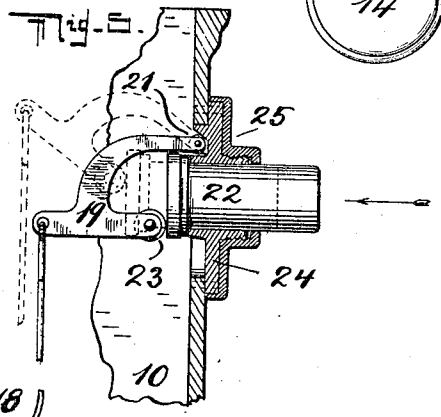


Fig. 5.





Witnesses

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FLUSHING OUTFIT FOR WATER-CLOSETS.

No. 831,671. Specification of Letters Patent. Patented Sept. 25, 1906.

Application filed December 5, 1904. Serial No. 235,466.

To all whom it may concern:

Be it known that I, LOUIS LIPP, a citizen of the United States, residing in the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Flushing Outfits for Water-Closets; and I do declare the following to be a full, clear, and exact description thereof, attention being called to the accompanying drawings, with the reference characters marked thereon, which form also a part of this specification.

This invention relates to improvements in the means used in connection with water-closets for the purpose of flushing the bowl thereof.

The features of the invention reside in certain improvements of the operating mechanism which greatly simplify its construction and lessen also the number of the parts required.

Another feature relates to the location of the means for manipulating the operating parts and which location renders their use much more convenient and aids also in rendering possible the first-mentioned simplification in construction of the operating parts.

In the following specification, and particularly pointed out in the claims following, is found a full description of the invention, together with its operation, manner of use, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in side view a water-closet, its flushing-tank, and the required connection for each. Fig. 2 is a front view of Fig. 1. Fig. 3 is a side elevation of the flushing-tank with parts broken away and shown in section. Fig. 4 is a top view of the closet and its flush-tank as shown in Fig. 2. Fig. 5 is an enlarged sectional detail view showing the manipulating parts.

My invention is shown in connection with a so-called "low-down" flushing-tank, the same being indicated at 10.

11 is the closet-bowl in communication with the flushing-tank by means of a flush-pipe 12.

13 is the closet-seat, and 14 a customary lid.

15 is the supply-pipe to the tank, the same being controlled by a float-operated cock in the usual manner and whereby after the float has dropped with the receding level of the water when the same discharges through the flush-pipe water is admitted to the tank, which supply in due time is cut off again, when the rising water lifts the float.

An overflow-pipe 16 in open communication with flush-pipe 12 guards against any accidents due to possible irregularities in the operation of the parts. Passage through the flush-pipe is controlled by a valve 17, attached to the lower end of a lifter-rod 18, rising vertically from the center of the valve and above the upper end of the flush-pipe. This latter is also centrally alined with reference to the closet-bowl and its seat. Discharge to flush the bowl takes place when said valve is raised from its seat on the upper end of the flush-pipe by means of the lifter-rod. To raise this lifter-rod, there is a lever structure 19, which I arrange and locate so as to be substantially in line with the centers and center lines before mentioned and so as to permit attachment of one of its ends to the upper end of lifter-rod 18, so that when said end of this lever rises the lifter-rod is also raised and lifts valve 17 from its seat on the upper end of the flush-pipe. The other end of this lever is pivotally attached at the inside of the tank. This point of connection is as shown at 21 and to the inside of the front of the tank. It is furthermore so located as to be also substantially in line with the center and center lines before mentioned. This lever 19 is actuated in a manner that its free end lifts valve-rod 18 by means of a push-button 22, seated in the front of the tank, the lever structure being shaped accordingly and, as shown, to permit the inner end of the push-button to act against it as intended.

By preference and to cause the parts to operate smoothly antifriction means in shape of a roller 23 are provided and against which the inner end of the button acts. Dotted lines in Fig. 5 show clearly the intended operation of the parts, and it will be noted that the manipulation of the valve takes place in the most direct and immediate manner and its movement to and from its seat is in a practically straight line above such seat. This location of the operating parts causes the location of the manipulating means (push-button) to be also in line with the centers and center lines before mentioned and brings it to a position centrally above the seat, as best shown in Figs. 2 and 4. This central location and at the particular height, as shown, permits actuation for using the flushing outfit without rising from the seat and requires

merely a more inclined position of the upper part of the body or a leaning against the front of the tank, whereupon the button readily yields and slides inwardly, as shown by the dotted lines in Fig. 5. Observe also dotted lines in Figs. 1 and 2, which are intended to indicate parts of a human figure. This manner of use does of course not preclude manipulation by means of the hand or thumb, and either method may be resorted to to suit preference or convenience. The particular location of these manipulating and operating means with reference to the position of the flush-valve permits the most direct action on this latter, and such action may be had with the most simple construction, which dispenses with many operating parts otherwise necessary to accomplish the same results.

The thickness of the wall of the tank being usually limited, it is preferable to provide an independent socket in form of a flanged boss 24, which is attached in a suitable manner to the front of the tank—as, for instance, by screws passing through said flange. An ornamental shell 25 is screwed onto this boss to cover the same and the means of its connection. The inner surface of this boss or its flange serves also as a means to which the pivoted end of lever 19 is attached, the front of the tank being sufficiently cut out under the flange of boss 24.

Having described my invention, I claim as new—

1. In a flushing outfit for closets, the combination with a bowl and seat, of a tank, a flush-pipe connecting bowl and tank and terminating with its open, upper end within the tank and above the bottom thereof, a lifter-rod supported above this open end, a valve fitted to this open end and secured to the lower end of this lifter-rod, a curved lever 19 pivotally attached to the inside of the front wall of the tank above the upper end of the lifter-rod and curved downwardly to meet this upper end to which it is permanently attached by a hinged connection and a push-bolt mounted with a sliding fit in the front wall of the tank and below the curved lever to permit it to be moved against this latter in a manner to raise the free end of the same with the attached lifter-rod and valve.

2. In a flushing outfit for closets, the combination of a bowl and a seat, a tank having an opening in its front side, a flanged socket 24 with a central opening attached to this front side so as to lie over the opening therein, a downwardly-curved lever permanently attached at a fixed point to the inner side of the flange of this socket and above the opening therein, a push-button seated in this opening and capable of being moved against this lever, a valve-lifter rod hingedly connected to the free end of this lever, a valve at the lower end of the same and a flush-pipe connecting the tank with the bowl which is controlled by this valve.

In testimony whereof I hereunto set my signature in the presence of two witnesses.

LOUIS LIPP.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.