B. O. TILDEN.

FLUSH TANK OPERATING MECHANISM.

APPLICATION FILED MAY 11, 1909.

945,295. Patented Jan. 4, 1910.

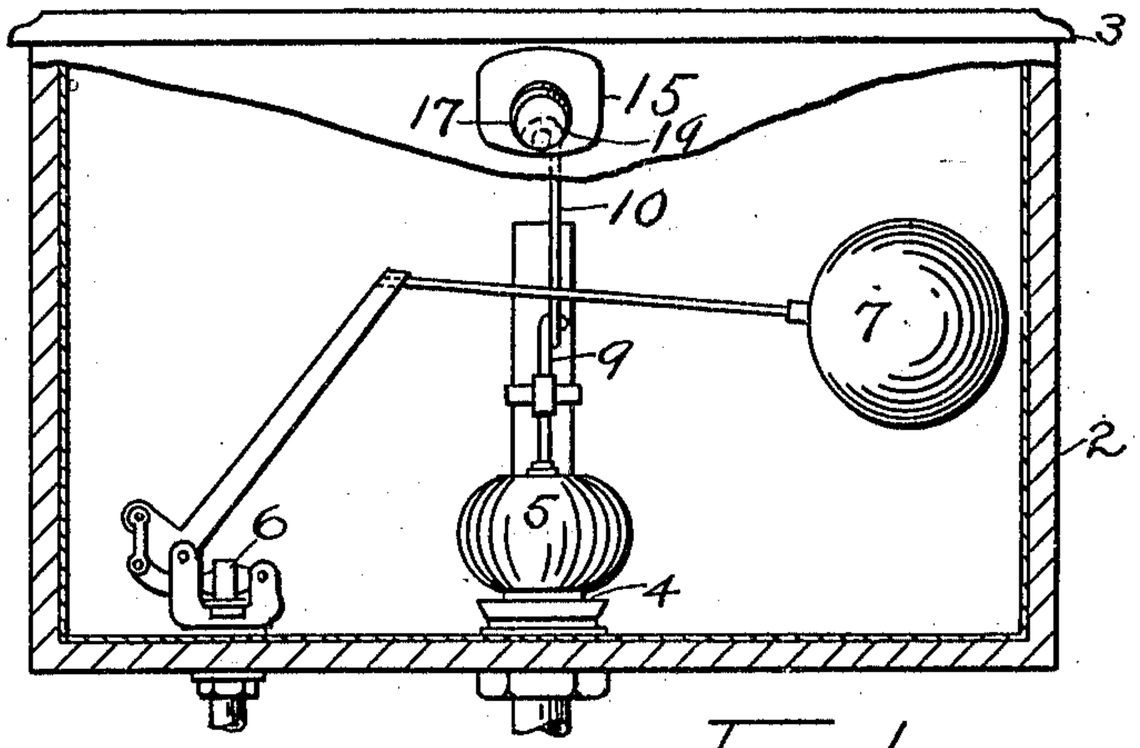

Fig. 1.

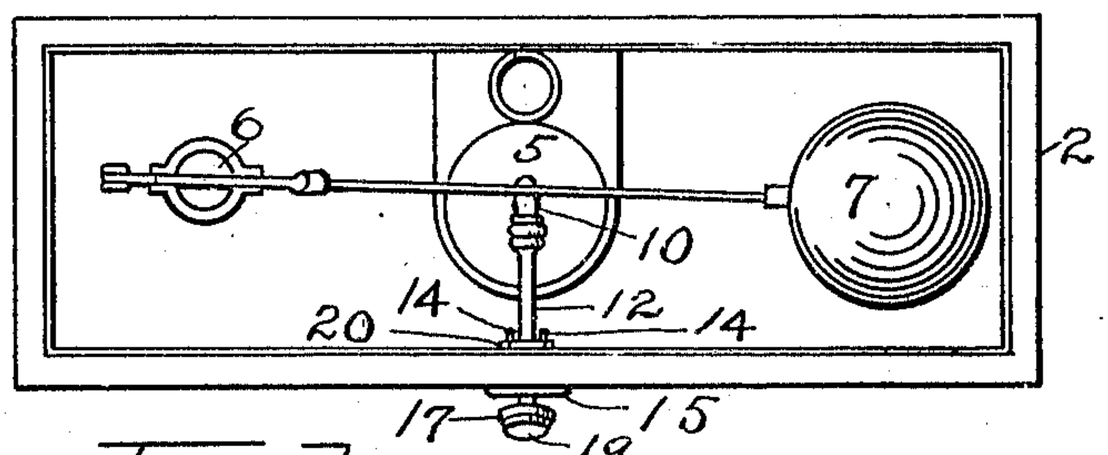

Fig. 2.

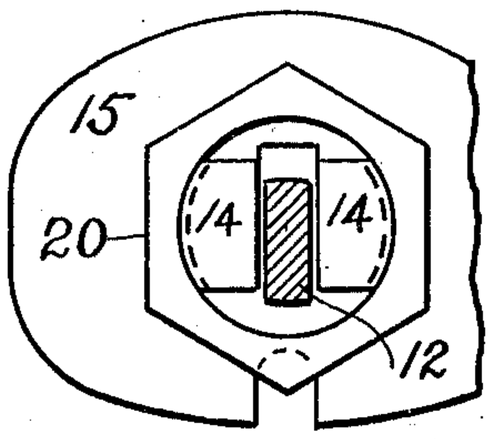

Fig. 4.

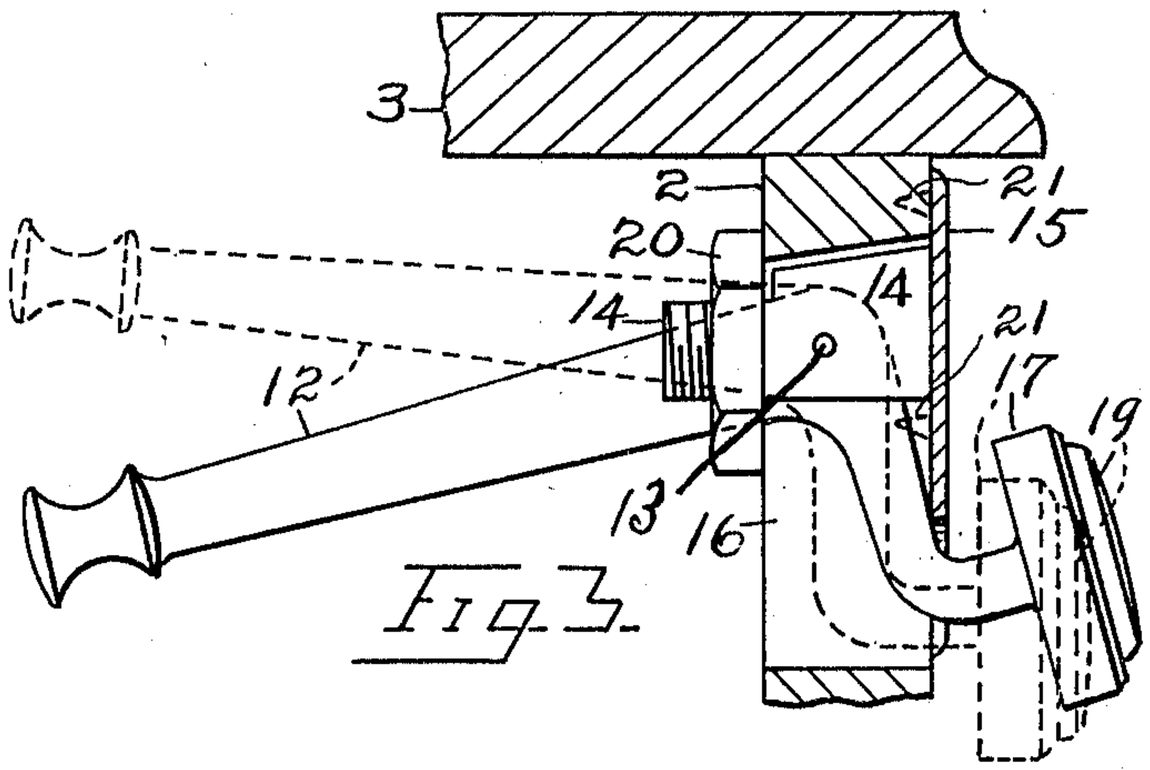

Fig. 3.

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UNITED STATES PATENT OFFICE.

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FLUSH-TANK-OPERATING MECHANISM.

945,295. Specification of Letters Patent. Patented Jan. 4, 1910.

Application filed May 11, 1909. Serial No. 495,218.

To all whom it may concern:

Be it known that I, BERT O. TILDEN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Flush-Tank-Operating Mechanism, of which the following is a specification.

This invention relates to improvements in flush tank operating devices, and the invention relates particularly to an operating device for use in connection with the well-known "low down" flush tanks, which are located adjacent the latrine bowls.

The object of the invention is to provide an operating mechanism for unseating the flush valve, which is simple, strong, effective and inexpensive.

A further object is to provide a valve operating device of the class known as "center levers", which is applied to the center of the tank, and which has a less number of parts and connects more directly with the flush valve than any other devices of the class.

A further object is to provide simple means for attaching the operating mechanism to the wall of the tank.

The various features and parts of the invention are fully set forth in the detail description which follows, and illustrated in the accompanying drawing which forms a part of this specification, and in which—

Figure 1 is a front elevational view, partly in section, of a flush tank, showing the location and arrangement of the operating parts. Fig. 2 is a plan view of the mechanism as it appears when the cover of the tank is removed. Fig. 3 is an enlarged detail view showing in full and dotted lines the construction and method of applying the lever and its mounting to the wall of the tank; also showing the movement or play of the operating lever. Fig. 4 is an enlarged rear face view of the mounting or support for the lever.

Similar characters of reference designate corresponding parts throughout the several figures.

In the drawing, 2 represents the body of a flush tank, particularly of the "low down" type, which is provided with a cover 3. 4 represents the flush valve seat, and 5 the valve. The water is supplied to the tank by an inlet valve 6, and the said valve is controlled by spherical float 7, all of which parts may follow any of the well-known constructions, and are not specifically included in the present invention, except for the purpose of illustrating and explaining the application and operation of the improved parts.

The flush valve 5 is normally held in closed position and is opened by lift rods 9 and 10. The latter rod connecting at its upper end to the inner end of an angular rocking lever 12, which is pivoted by means of a pin 13, between a pair of lugs or jaws 14, 14, which in turn are preferably integrally formed on the inner face of an escutcheon or plate 15.

In applying the lever mounting 14—15 to the tank, a slotted opening 16 is cut or formed in the front wall of the tank, preferably in the center and near the top, through which the lugs 14 and the arm 12 of the lever pass. The opening 16 is sufficiently large to permit of the free movement or rocking of the lever when operated. The outer end of the lever is bent downwardly from the pivot 13, and then outwardly, so as to provide suitable leverage for lifting the valve for flushing a closet. The extreme outer end of the lever is formed into an enlarged push knob 17, which is preferably provided with a porcelain thumb-button or tip 19. The escutcheon plate 15 is preferably made large enough to cover and close the opening 16 in the tank, and may be plain or ornamented in any suitable manner. Since many of the flush tanks are now made of metal, china, and other substances which are harder than wood, the lever mounting or hanger must be secured to the tank by some means other than by the use of screws, bolts and the like, which are commonly employed for wooden tanks.

In the present invention, I employ a simple method for securing the lever hanger to the tank, which consists of threading the inner ends of the lugs 14, and applying thereto a nut 20, which may be screwed on to the lugs, after the latter have been inserted through the opening 16, and when wrenched up tightly the nut will lock and hold the parts in a secure manner, without requiring any other perforations in the tank.

When the device is applied to the common wooden tanks, the rear face of the plate 15 may be provided with two or three spurs, as 21, which may be driven into the wood,

for preventing the shifting of the parts, under the strain incident to the wrenching up of nut 20 or the operating of the flush valve.

In Figs. 1, 2 and 3 the full lines show the position of the rocking lever when the flush valve is closed. The dotted lines in Fig. 3 show substantially the position of the lever when the flush valve is opened by the operator exerting pressure against the push knob 17. The perforation in the nut 20 is preferably made large enough to permit of the free and full movement of the lever. The nut also serves to limit the distance which the lever may be rocked. In this manner, by the limiting of the play of the lever, the push-knob may be prevented from striking against or marring the face of the tank.

In the present invention the operating lever and push-knob are connected as one part, and the hanger or mounting for the lever including the locking and securing means, comprise but two parts, and all of the said parts when combined constitute an extremely simple, effective and strong flush tank operating mechanism, which can be produced and applied at a comparatively small price and with a minimum of labor.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is—

1. The combination with a flush tank and a flush valve in said tank, of a lever pivoted in a perforation in the front wall of the tank, one end of said lever connecting with the valve, the other end positioned outside of the tank and fitted with an integral push knob, a mounting for said lever, the said mounting having a pair of lugs disposed in the perforation of the tank, a pin to pivotally connect the lever to the said mounting, and a nut engaging the lugs of said mounting adapted to rigidly clamp and hold said mounting and said lever in place.

2. The combination with a flush tank and a flush valve therein, of a rocking lever for opening said flush valve, one end of said lever connecting with the valve, the other end projecting through the wall of the tank and formed into a push knob, a hanger for said lever, the said hanger having a face plate for attaching to the wall of the tank, and having a pair of inwardly facing lugs to receive and pivotally support said lever, the inner ends of said lugs being threaded, and a lock-nut mounted on the threaded portion of said hanger adapted to clamp and hold said hanger rigidly in place.

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

BERT O. TILDEN.

Witnesses:

M. E. CATLIN,

R. E. NESBITT.