T. J. CAHILL.

VALVE.

APPLICATION FILED MAR. 23, 1917.

1,246,541. Patented Nov. 13, 1917.

Fig. 1.

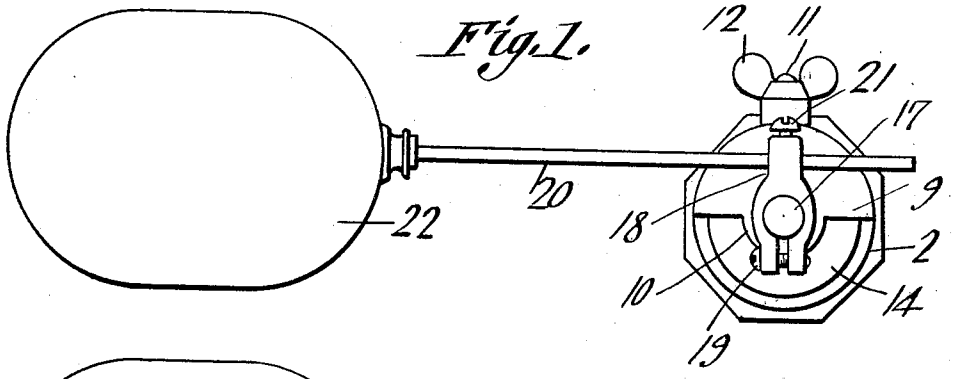


Fig. 2.

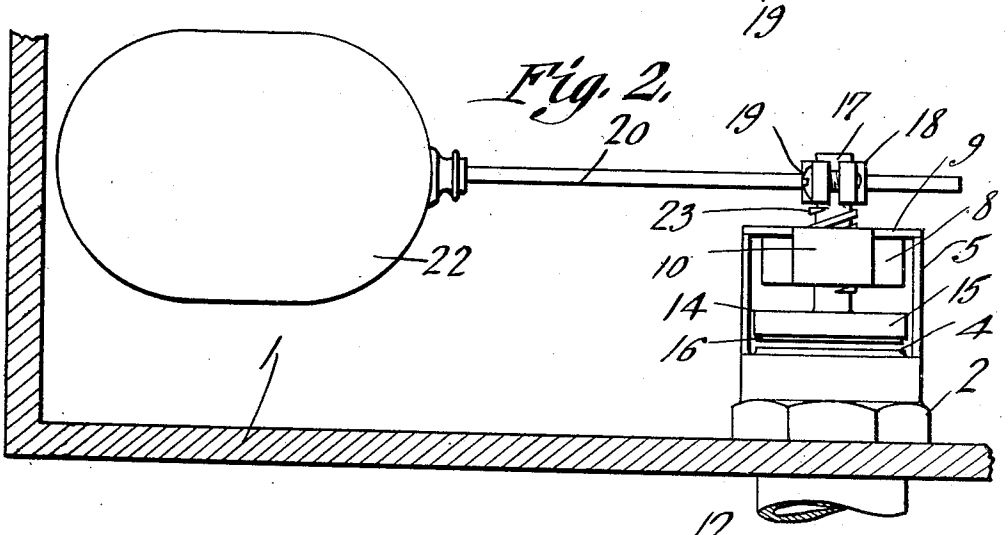
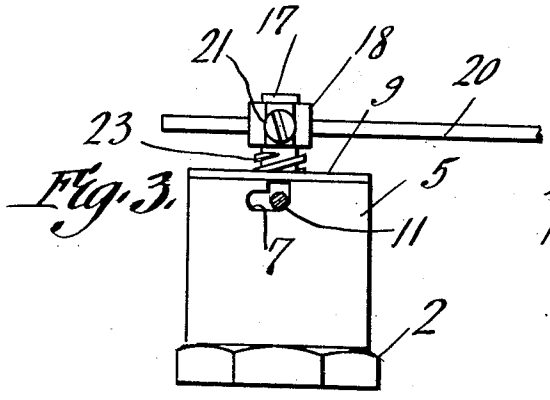


Fig. 3.



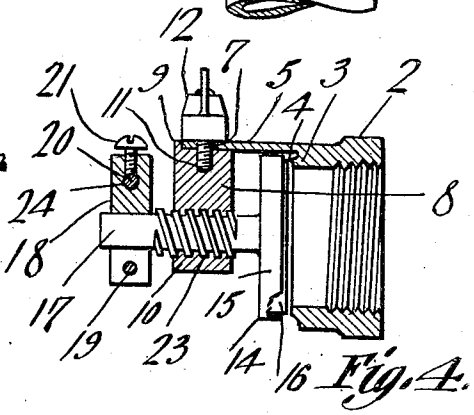


Fig. 4.

Witness

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UNITED STATES PATENT OFFICE.

THOMAS J. CAHILL, OF CORPUS CHRISTI, TEXAS, ASSIGNOR OF ONE-HALF TO ROBERT DRISCOLL, OF DRISCOLL, TEXAS.

VALVE.

1,246,541. Specification of Letters Patent. Patented Nov. 13, 1917.

Application filed March 23, 1917. Serial No. 156,934.

To all whom it may concern:

Be it known that I, THOMAS J. CAHILL, a citizen of the United States, residing at Corpus Christi, in the county of Nueces and State of Texas, have invented a new and useful Valve, of which the following is a specification.

The device forming the subject matter of this application is adapted to be applied to and constitute a part of a flush tank, for the purpose of regulating the flow of liquid to the flush tank.

The invention aims to provide novel means whereby the constituent parts of the structure may be taken down readily to permit the renewal of a packing which constitutes a part of the valve.

Another object of the invention is to provide novel means whereby the liquid delivered into the tank will be prevented from spattering out of the tank.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in end elevation, a device constructed in accordance with the present invention;

Fig. 2 is a bottom plan of the structure forming the subject matter of this application, a portion of the tank appearing in section;

Fig. 3 is a top plan wherein parts are broken away; and

Fig. 4 is a vertical section of the mechanism shown in Fig. 3.

In the accompanying drawings, the numeral 1 indicates a portion of the side wall of a flush tank with which is assembled a horizontal tubular casing 2 including a body 3 having an internal annular seat 4. At its top, the body 3 is supplied with a lip 5 projecting beyond the seat 4 and of approximately semi-circular transverse extent. In the outer edge of the lip 5 at the top thereof is formed a bayonet slot 7.

Disposed beneath the lip 5 and engaging the inner or under face of the lip is a depending block 8 provided at its outer end with a flange 9 engaging the outer edge of the lip 5. The block 8 includes a bearing 10. The block 8 carries a stud 11 which may be a screw, the stud being adapted to be received in the bayonet slot 7. A wing nut 12 is threaded onto the exposed end of the stud 11 and is adapted to engage the outer or upper face of the lip 5.

A valve 14 coöperates with the seat 4. The valve 14 is a composite structure and includes a head 15 carrying a removable packing 16 adapted to engage directly with the seat 4, and a stem 17 projecting from the head 15. The stem 17 is threaded as shown at 23 into the bearing 10 which constitutes a part of the block 8.

Mounted on the outer end of the valve stem 17 is a retainer 18 which may be in the form of a split clamp, the lower ends of which are united by a screw 19, so that the retainer 18 may be bound firmly on the outer end of the valve stem 17. In the upper end of the retainer 18 there is an opening 24 through which passes a lever 20 held in place by a set screw 21 threaded into the upper end of the retainer. At the outer end of the lever 20 is located a float 22.

When it is desired to renew the packing 16, the wing nut 12 is loosened and the stud 11 is disengaged from the bayonet slot 7, whereupon a worn packing 16 may be replaced by a new packing. In this connection it is to be observed that, in order to renew the packing, it is unnecessary to disengage the float lever 20 or the retainer 18 from the valve stem 17. The lever 20 may be shifted endwise in the retainer 18, for purposes of adjustment, and may be held in adjusted positions by means of the set screw 21. Further, the retainer 18 may be rotated for purposes of adjustment on the stem 17 and be held in adjusted positions by means of the clamp screw 19.

When the water in the tank 1 rises, the float 22 rises and the lever 20 is tilted, the same imparting rotation to the stem 17, and the stem being advanced, to engage the valve 14 with the seat 4, because the stem is threaded as shown at 23 into the bearing ing member 8. When the water in the tank

1 falls, the operation above described is reversed, and the water is permitted to flow into the tank.

It will be observed that the structure forming the subject matter of this application may be taken down readily to permit the packing 16 to be changed. The overhanging lip 5 prevents water from spattering out over the upper edge of the tank.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a valve casing provided at one end with a projecting trough-shaped lip disposed approximately parallel to the axis of the casing; a bearing member fitting inside of the lip; means for securing the bearing member to the lip detachably; a valve coöperating with the valve seat of the casing and including a stem threaded into the bearing member; a lever connected with the stem; and a float carried by the lever.

2. In a device of the class described, a valve casing provided at one end with a projecting trough-shaped lip disposed approximately parallel to the axis of the casing; a bearing member fitting inside of the lip; a pin and bayonet slot connection uniting the bearing member with the lip; a valve coöperating with the valve seat of the casing and including a stem threaded into the bearing member; a lever connected with the stem; and a float carried by the lever.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS J. CAHILL.

Witnesses:
H. E. LUTER,
W. L. DINN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."