

O. C. G. BRETTELL.
WATER CLOSET.
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1,050,099.

Patented Jan. 14, 1913.

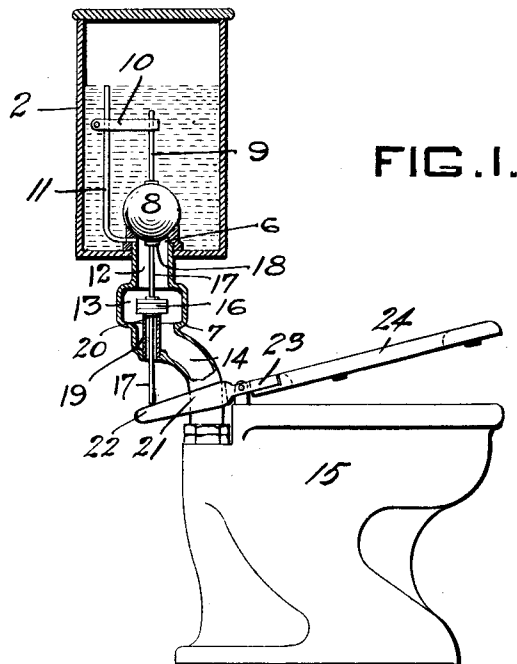


FIG. 1.

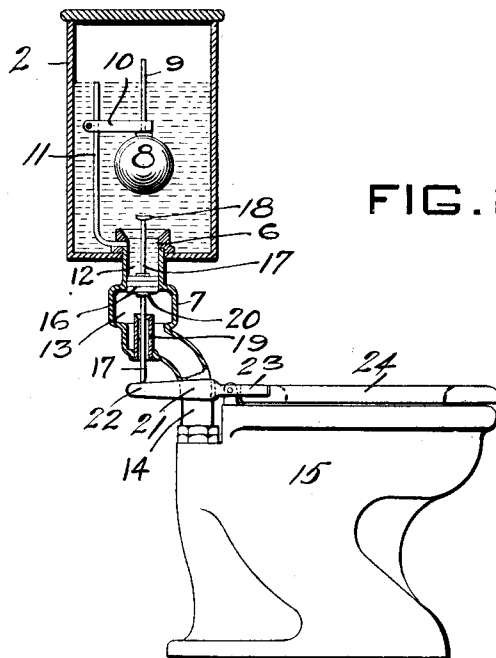


FIG. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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WATER-CLOSET.

1,050,099.

Specification of Letters Patent.

Patented Jan. 14, 1913.

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To all whom it may concern:

Be it known that I, OLIVER C. G. BRETTELL, a citizen of the United States, resident of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Water-Closets; and I do hereby declare the following to be a full, clear, and exact description thereof.

10 My invention relates to water-closets.

The object of my invention is to provide flushing mechanism for water-closets which may be applied to tanks of the ordinary standard type without changing the construction of such tanks, and at the same time one which is simple and durable in construction, effective in operation, and not liable to get out of order.

To these ends my invention consists, generally stated, in a tank provided with an outlet, valves controlling same, a connection between the tank and bowl; a float-valve in the tank closing the outlet from the tank to said connection, and a valve in said connection adapted to be raised when the seat is occupied to close the passage to the bowl, and at the same time means for lifting said float-valve, so that said float-valve rises in said tank, but when said seat is released

30 said valve in said connection is lowered and the water allowed to pass through said connection into the bowl, while said float-valve gradually descends and closes said outlet in the tank.

35 In the drawing, Figure 1 is a sectional elevation; Fig. 2 is a like view with parts in different position.

In the drawing the numeral 2 designates a suitable tank. The tank 2 is further provided with the outlet 6 with which the connection 7 is connected. The upper end of the connection 7 forms a seat for the float-valve 8. A guide-rod 9 is connected to the float-valve 8, and said rod passes up through the guide 10 on the overflow-pipe 11.

45 The connection 7 has the neck-portion 12, the enlarged chamber-portion 13, and the lower neck 14. The lower neck 14 is connected up to the bowl 15 of the closet.

50 Within the connection 7 is the valve 16 which is adapted to enter the upper neck 12 to close the upper end of said connection when the valve 8 is lifted, as will more fully hereinafter appear. This valve 16 may be of any suitable construction, and when

raised fits snugly within the neck-portion 12 of the connection to completely shut off the water from the tank. A rod 17 is secured to the valve 16, and at the upper end of said rod is the concave seat 18 which is adapted to engage the float-valve 8. The lower end of the rod 17 passes down through the thimble 19 to a point outside said connection. The stud 20 on the valve 16 enters the upper end of the thimble 19 when said valve is lowered, and closes said thimble so that water entering the connection cannot pass through said thimble.

The lower end of the rod 17 is engaged by the yoke 21 connecting the bifurcated end 22 of the lever 23 connected to the seat 24. The seat is hinged to the bowl in any suitable manner and is normally held up from the bowl in the manner usually employed in connection with seats of this character.

In the use of my improved closet when the seat is depressed, the lever 23 will raise the rod 17 and with it the valve 16. As the valve 16 rises the upper end of the rod 17 lifts the float-valve 8 from its seat, while at the same time the valve 16 is pushed up with the neck-portion 12 to close same and prevent the water in the tank passing into the connection 7. Just as soon as the float-valve 8 is unseated, it will rise within the tank and float in the water in said tank, being guided in its upward movement by the guide-rod 9 as shown in Fig. 2. The parts remain in this position as long as the seat is in the depressed position, but when the seat rises the valve 16 will be lowered to the position shown in Fig. 1, with its stud 20 engaging the thimble 19. The water from the tank is free to pass through the connection 7 to the bowl to flush same. As the water in the tank is lowered, the float-valve 8 descends with it, and guided by the rod 9 it is finally seated when all the water has left the tank.

By my invention I provide mechanism which can be readily adapted for use in connection with the standard type of tank, as it does not necessitate any change in the tank.

The mechanism is simple and not liable to get out of order when used in public places where these closets are subjected to rough treatment.

What I claim is:

The combination of a tank, a connection

connected up to the outlet of said tank, a float valve in said tank adapted to close said outlet, said connection having a cylindrical portion, a piston valve adapted to
5 enter said cylindrical portion, a rod extending through said piston valve, the upper end of said rod adapted to engage said float valve directly, the lower end of said rod extending through an opening in said connection
10 to a point without, a thimble in said

connection surrounding said lower portion of said rod, said thimble being in the path of said piston valve and closed thereby when said piston valve is lowered.

In testimony whereof, I the said OLIVER 15
C. G. BRETTELL have hereunto set my hand.

OLIVER C. G. BRETTELL.

Witnesses:

ALVAR C. PURDY,
ROBT. D. TOTTEN.

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