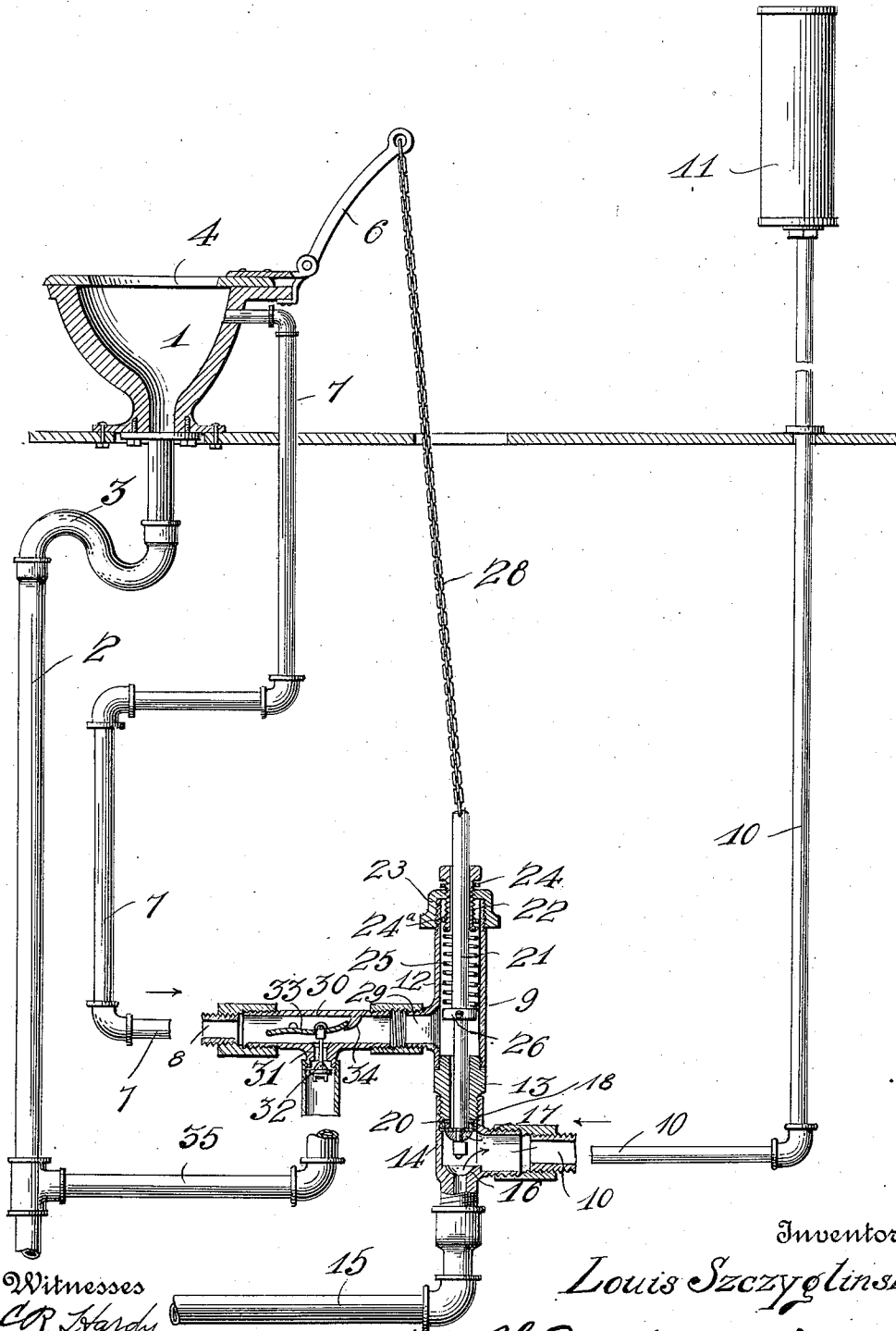


L. SZCZYGLINSKI.
 FLUSHING SYSTEM FOR CLOSETS.
 APPLICATION FILED OCT. 10, 1910.

1,015,653.

Patented Jan. 23, 1912.



Witnesses
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LOUIS SZCZYGLINSKI, OF SCRANTON, PENNSYLVANIA.

FLUSHING SYSTEM FOR CLOSETS.

1,015,653.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS SZCZYGLINSKI, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Flushing Systems for Closets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in flushing systems for closets.

The object of the invention is to provide a flushing system of this character having improved means whereby the valves and pipes are thoroughly drained after each flushing operation.

With this object in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

The accompanying drawing is a diagrammatic view illustrating the arrangement of my improved system and showing the casing of the combined supply and discharge valve and the parts thereof in position for supplying the tank.

Referring more particularly to the drawing; 1 denotes the bowl which is connected with the usual sewer pipe 2 having a trap 3. The bowl is provided with a seat 4. The seat 4 has secured thereto a rearwardly projecting crank arm 6 the purpose of which will be hereinafter described. To the bowl is connected the upper end of a flushing pipe 7 the lower end of which is connected to the discharge pipe 8 of the combination valve 9 hereinafter described. Also connected to the valve 9 is a tank supply pipe 10 connected to a flushing tank 11. The valve 9 comprises a cylindrical casing 12, the lower end of which is connected by a union 13 to a coupling member 14 by means of which the casing is connected to a water supply pipe 15 and to which is connected the tank supply pipe 10. In the coupling 14 is arranged a valve seat 16 which is engaged by the lower face 17 of a water controlling valve 18. The upper face of the valve 18 is adapted to engage a seat 20 formed on the lower end of the union 13. The valve 18 has connected thereto a valve

stem 21 which projects upwardly through the union 13 and the valve casing 12 and has its upper end slidably projecting through a bushing 22 threaded through a cap 23 on the upper end of the casing 12 as shown. The bushing is provided with a lock nut 24 adapted to hold it in its adjusted position. On the bushing is threaded a spring adjusting nut 24^a against which bears the upper end of a coiled valve operating spring 25. The lower end of the spring 25 bears against a collar 26 adjustably secured upon the stem 21 above the upper end of the union 13, the pressure of the spring being consequently exerted to close the valve 18 on its seat 16 thereby cutting off the water supply to the tank and disengaging the upper face of the valve 18 from its seat 20 to permit the water to flow from the tank to the bowl. The valve 18 is operated in the reverse direction against the pressure of the spring by means of the crank arm 6 on the seat 4 of the bowl which, when said seat is closed, will pull up on the valve stem to which said arm is connected by a chain 28. When the valve stem is thus moved the upper face of the valve will be brought against its seat 20 thereby cutting off the flow of water from the tank to the bowl and at the same time disengaging the lower face of the valve from its seat 16 thus permitting water from the service or supply pipe to again run into the tank. As soon as the seat of the bowl is again raised the spring on the valve stem will act and cause the valve to cut off the supply of water to the tank and allow the water in the tank to flow to the bowl as hereinbefore described. The water discharging or flushing pipe 7 from the tank is connected to the valve casing 12 by a branch connection 29, as shown. In the pipe 8, or between the end of the same and the branch connection 29, is arranged a rectangular casing or box 30 which has formed thereon the casing 31 of a drain valve 32. The stem of the valve 32 projects up into the casing 30 and is loosely connected to an operating lever 33 which is pivotally mounted in the casing 30 and is adapted to be acted on by the flow of water through the casing to close and hold the valve 32 in closed position. When the water has ceased to flow through the flush pipe and casing 30, the lever 33 will drop by gravity thus opening the valve 32 and permitting all of

the water to drain from the valves and pipes. The lever 33 is limited in its downward movement by a stop lug 34 arranged in the casing 30 as shown. The casing 31 of the drain valve is connected by a suitable drain pipe 35 with the sewer pipe 2. It will be observed that the lever 33 is sufficiently broad to substantially fill the width of the supply pipe and that its longer end is curved upward in the face of the flow of the water through the pipe, and that the lug 34 is approximately semi-circular in outline and substantially half fills the pipe, is convexly curved on the side upon which the water impinges so as to divert the water to the lower half of the pipe, and is recessed in its opposite side forming a space into which the longer end of the lever projects with sufficient play to open and close the valve. The longer end of the lever is upwardly curved and when it is in its lower or normal position, as seen in Fig. 1 of the drawings, with the valve 32 open, the longer end, on account of its curve, is brought more surely into the path of water flowing through the supply pipe, so that said longer end will be raised by the water and the valve 32 in the drain pipe closed.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention what I claim is;—

1. In combination, a bowl supply pipe, a recessed lug therein, a drain pipe connected to the side of the supply pipe opposite said lug and provided with a valve seat, a lever pivoted intermediate its ends in the supply pipe having one end extended into the recess in the lug and having play therein, and a valve in the drain pipe having its stem projected into the supply pipe and connected to the lever.

2. In combination a horizontal bowl supply pipe, a lug in the pipe obstructing substantially the upper half thereof, said lug being convexly curved on that side on which water flowing through the pipe impinges and recessed in the opposite side, a flat lever mounted on a horizontal pivot in the pipe and having its longer end upwardly curved and projected into the recess of the lug with vertical play therein, a drain pipe leading from the bottom side of the supply pipe opposite to the longer end of the lever, a valve in the drain pipe, and a stem for the valve projecting into the supply pipe and connected to the longer end of the lever.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS SZCZYGLINSKI.

Witnesses:

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WILLIAM TRUDNOWSKI.

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