No. 811,882. PATENTED FEB. 6, 1906.

C. A. SULLIVAN.

WATER CLOSET.

APPLICATION FILED JAN. 3, 1905.

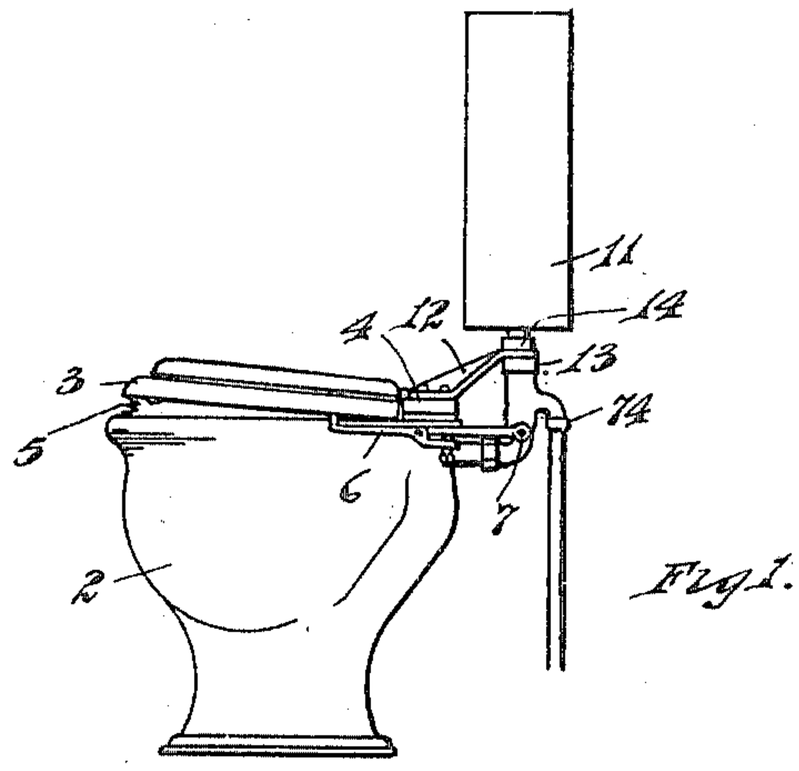

Fig. 1.

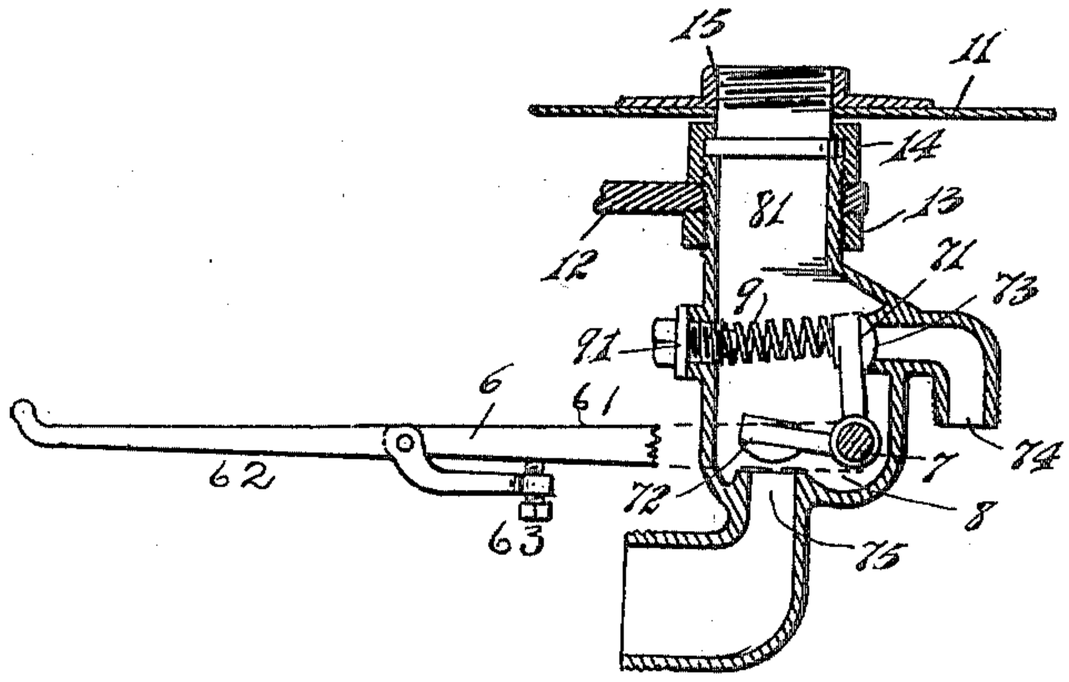

Fig 2.

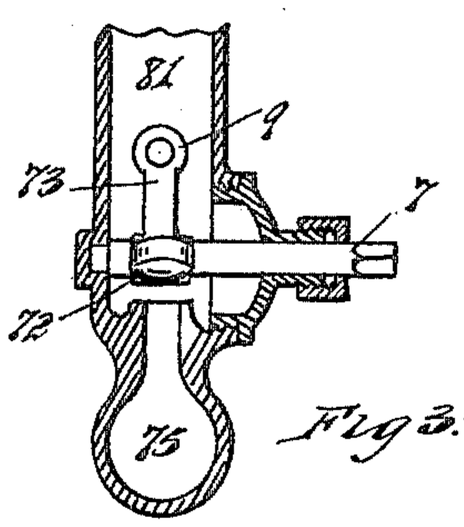

Fig 3.

WITNESSES

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CHARLES A. SULLIVAN, OF WINDSOR, CANADA.

WATER-CLOSET.

No. 811,882. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed January 3, 1905. Serial No. 239,292.

To all whom it may concern:

Be it known that I, CHARLES A. SULLIVAN, a citizen of the United States, residing at Windsor, county of Essex, Province of Ontario, Canada, have invented a certain new and useful Improvement in Water-Closets; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to water-closets.

It has for its object an improved automatic flushing device.

In the drawings, Figure 1 is a side elevation of a closet-bowl, the tank supported thereby, and the flushing-valve. Fig. 2 is a vertical section of the valve. Fig. 3 is another vertical section at right angles to that shown in Fig. 2.

The bowl is indicated at 2, and the seat 3 is hinged to a table 4, that is itself secured to the bowl. The seat 3 is normally held with its front edge lifted from the bowl by a spring 5 and rests at a point intermediate its front edge and its hinged edge upon the end of a lever 6, that is secured to and actuates a shaft 7, upon which is mounted two valves 71 and 72, located in a coupling between the bowl and a tank 11. Of these valves, the valve 71 shuts against a valve-seat 73 at the end of an inlet-pipe 74 for water. The valve 72 shuts against a seat that is at the end of the flush-pipe 75, which leads into the bowl. The two valves swing in a chamber 8, that is generally free from water and which contains the valves. A spring 9 bears against the valve 71 and holds it to its seat and abuts against an adjusting-screw 91, that projects through an opening in the casing. The valve-faces of both the valves 71 and 72 are hemispherical disks of rubber of ordinary construction. For structural purposes the valve-seat 75 is in axial alinement with an opening 81 through the casing, and the seat 73 is in axial alinement with the opening which is closed by the adjusting-screw 91. The valves 71 and 72 are at the ends of arms which radiate from the axis 7 and are so spaced that when the valve 71 closes against its seat the passage through the valve-seat 75 and under the valve 72 is open, and when the valve 72 closes against its seat 75 the passage through the inlet-pipe 74 into the chamber 8 is open. There is free passage through the opening 81 at all times. Above the casing is located a closed tank 11, into which water can rise when the valve 71 is away from its seat. The case and the tank are stayed or held securely to the bowl by brace 12. The upper end of the stay-brace 12 engages around the casing between a set-nut 13 and the ring of the union-coupling 14. The casing is joined to the outlet-spud 15 of the water-tank by a union-coupling. The closing down of the seat by the weight of the sitter opens the valve 71 and allows the water to flow into the casing and fill or partly fill the tank 11, into which it rises against the force of the air imprisoned above the water and contained in the inclosed tank. As soon as the seat is allowed to rise the valve 72 rises from its seat and the valve 71 closes, the closing action being brought about by the force of the spring 9, and immediately the water contained in the tank and in the casing escapes into the bowl and flushes the same.

The lever 6 is made in two parts. One part 61 engages as a wrench on the shaft 7. The second part 62 engages the seat. The two parts are pivotally connected and the action of the entire lever is adjusted by screw 63.

What I claim is—

A connection between a flush-tank and a closet-bowl provided with valve-seats adapted to be alternately opened and closed by valves oscillating on a common center, a valve-shaft on said center and valve-carrying arms secured to said shaft, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

CHARLES A. SULLIVAN.

Witnesses:

CHARLES F. BURTON,

MAY E. KOTT.