W. E. SLOAN.

FAUCET.

APPLICATION FILED OCT. 8, 1909.

1,083,467. Patented Jan. 6, 1914.

Fig. 2.

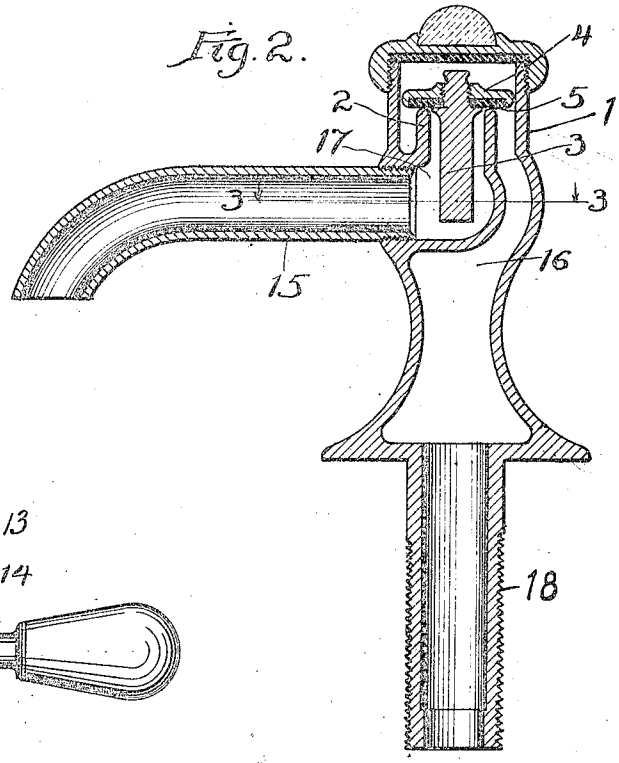


Fig. 1.

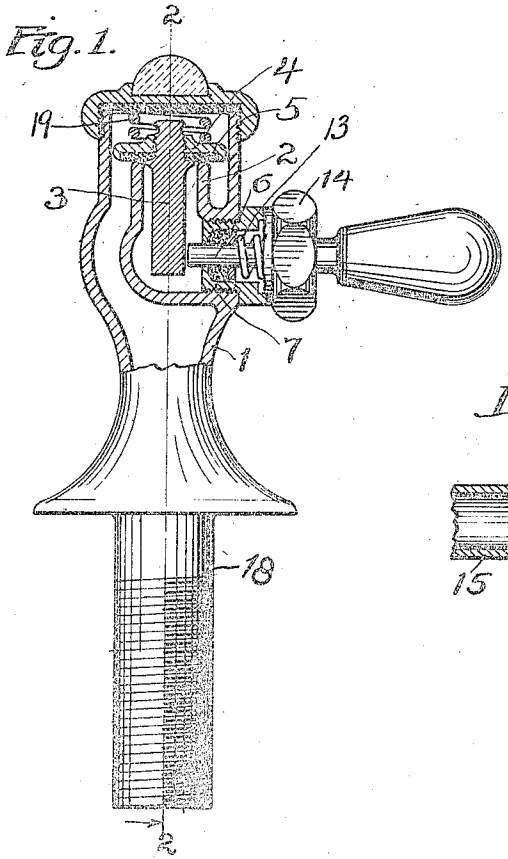
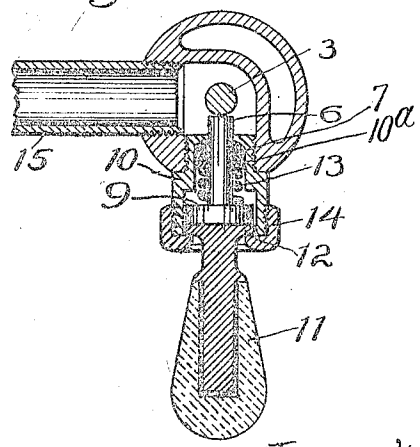


Fig. 3.



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FAUCET.

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To all whom it may concern:

Be it known that I, WILLIAM E. SLOAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Faucets, of which the following is a specification.

This invention relates to faucets, and has for its object to provide a new and improved device of this description.

The invention is illustrated in the accompanying drawings wherein—

Figure 1 is a view in part section showing a faucet embodying the invention; Fig. 2 is a sectional view taken on line 2—2 of Fig. 1; Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 2.

Like numerals refer to like parts throughout the several figures.

The body portion 1 of the faucet is provided with an interior cylindrical part 2 which acts as a valve seat. Upon the part 2 rests the valve 4 having the free stem 3 projecting down into the cylinder. The valve 4 is preferably provided with a gasket 5 which engages the seat 2. The valve 4 is a tilting valve and is opened by having one side tilted so as to be lifted upon the seat 2. The interior cylinder 2 has a connection leading to the exterior of the valve casing, as shown in Figs. 1 and 3, and the actuating part for the valve projects into this interior cylinder through this connection.

As shown in Figs. 1 and 3 a reciprocating actuating part 6 engages the stem 3 to tilt it, said actuating part passing through a stuffing box or gland 7. The actuating part 6 is provided with an enlarged end 9 which works in a cylindrical holding piece 10 which carries the actuating part 6. This cylindrical holding piece is provided with a threaded end by means of which it is attached to the body portion or casing 1 of the faucet. A spring 13 is associated with the part 6, and has one end bearing against the washer 10^a and the other against the enlarged end 9. The end of the part 10 is preferably closed as shown, except for an opening large enough to permit the part 6 to pass therethrough, and the washer 10^a engages the packing 7. A handle 11 is connected with a tilting piece 12 which works in the cylindrical holding piece 10. The tilting piece 12 is rounded at its periphery, as shown. A cap 14 holds the tilting piece 12 in position. A spout 15 is connected with the body portion 1 of the faucet. There are two passageways in the body portion of the faucet, namely, passageways 16 and 17, such passageways being disconnected or connected by means of the valve 4. The body portion 1 of the faucet is provided with an attaching part 18 by which it is attached to the source of liquid supply. The parts of the faucet are normally in the position shown in Figs. 1, 2 and 3.

When it is desired to operate the faucet so as to permit the liquid to flow therethrough, the handle 11 is moved from its central position in either direction. This tilts the tilting part 12 and causes the actuating part 6 to be pushed forward into the passageway 17. It then strikes the valve stem 3 and moves it to one side, tilting the valve 4 so as to lift one side from the seat 2 and permit the liquid to flow from passageway 16 past the valve into passageway 17, and thence out through the spout 15. As long as the handle 11 is held in this position the valve will be held open and the liquid may flow. When it is desired to stop the flow of the liquid, it is only necessary to release the handle 11, whereupon the spring 13 moves the actuating part 6 to its initial position, and causes the tilting part 12 and handle 11 to also be moved to their initial position. The valve stem and valve then drop back to their closed position, and the flow of the liquid is stopped. The body portion of the faucet is also preferably provided with a cap and gasket which, when removed, permit the valve 4 to be removed and inspected or repaired. In the event the actuating part 6, or the handle, or any part associated therewith, becomes worn or it is desired to replace them, the valve can be at once put in operative condition by simply unscrewing the cylindrical holding part and putting another one in its place.

The valve is a self-closing valve, being closed by gravity and by the water pres-

sure. The water in the passage 16 above the valve 4 is under the same pressure as the water below the valve when the valve is closed, and hence the valve opens against pressure and is closed with pressure. A closing spring 19 may be used, however, if desired. The body portion 1 acts as a guide for the valve 4 and keeps it in proper position. There is enough clearance between the valve and the body portion to permit the water to pass above it. It will be seen that the actuating part 6 and the associated parts are connected with the body portion on the discharge side of the valve 4, so that when the valve is not in operation there is no water passing it, and the tendency to leak is obviated. Because of this fact and because of the further fact that when the water is passing it is not at the pressure found on the other side of the valve. It will further be noted that the actuating device and the spout 15 are substantially at right angles to each other and are both on the discharge side of the valve 4. They can therefore be interchanged so as to make the valve either a right-hand or left-hand valve, the screw-threaded end of the part 10 being the same size as the screw-threaded end of the spout 15. It will further be noted that the actuating part for the valve is disconnected from it.

It will be seen that there is here provided a simple valve, cheap in construction and yet of great efficiency and durability.

The construction and arrangement of the parts herein are such that, although the valve is a loose valve and closes with the pressure, the water hammer attending the use of loose valves closing with the pressure is obviated in this construction.

I claim:

1. A faucet comprising a body portion, a spout removably connected with the body portion, a seat therein, a tilting valve mounted on said seat, and means for actuating said tilting valve, said means in the same horizontal plane as said spout and removably connected with the body portion of the faucet, the means for actuating the valve and the spout being interchangeable to form either a right or left faucet.

2. A faucet comprising a body portion, an interior cylindrical portion, a valve loosely resting thereon, a valve stem projecting into the cylindrical portion, a connection from said cylindrical portion to the exterior of the body portion, an actuating part extending through said connection and adapted to engage the valve stem.

3. A faucet comprising a body portion, two passageways therein located side by side, a tilting valve intermediate said passageways, a stem for said valve projecting into one of the passageways, a reciprocating part disconnected from said stem and at an angle thereto, and means for moving the reciprocating part to move the stem and tilt the valve.

4. A faucet comprising a body portion, a valve therein, a reciprocating actuating part for the valve, a hollow holding part for the actuating part, a retracting device in said holding part, said holding part removably connected with the side of the body portion of the faucet and a laterally moving handle associated with said actuating part and adapted to reciprocate it when moved.

5. A faucet comprising a casing having an opening at one side thereof, an interior valve, an actuating part for said valve disconnected therefrom, a hollow holding part for said actuating part removably connected with the faucet, a spring within said hollow holding part so as to be removed therewith, a tilting disk in said hollow holding part, a handle connected therewith whereby when the handle is moved from its central position the actuating part is moved to actuate the valve in the faucet.

6. A faucet comprising a casing provided with two passageways, a valve separating said passageways and provided with a stem projecting into one of them, a connection between said latter passageway and the exterior of the faucet, and an actuating part projecting through said connection into said passageway so as to engage said valve stem.

7. A faucet comprising a body portion, a spout removably connected with said body portion, a seat within said body portion, a tilting valve mounted on said seat, an actuating device for said tilting valve in the same horizontal plane as said spout and comprising a hollow part, a reciprocating part therein having an enlarged end in the hollow part, the smaller portion of the reciprocating part projecting from said hollow part, a tilting disk in said hollow part and engaging the enlarged end of the reciprocating part, a handle for said tilting disk projecting from said hollow part, the reciprocating part, spring, disk and handle being connected with the hollow part so as to form a unit structure, said spout and hollow part adapted to be interchanged so as to form a right or left hand faucet.

8. A faucet comprising a body portion, a tilting valve mounted therein, an actuating device disconnected from the valve but adapted to be moved so as to actuate the valve, said actuating device comprising two disconnected parts one adapted to be reciprocated and the other adapted to be moved laterally, said valve adapted to be tilted so as to open against pressure and to close with pressure.

9. A faucet comprising two hollow parts, one within and surrounded by the other, a

tilting valve closing the mouth of the inner part, a spout connected with said inner part, a connection from the outer hollow part to the source of fluid supply.

10. A faucet comprising two cylindrical parts, one within the other, a tilting valve controlling the end of the inner cylindrical part, the two parts arranged so that the water flows in opposite directions through them when the valve is open.

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