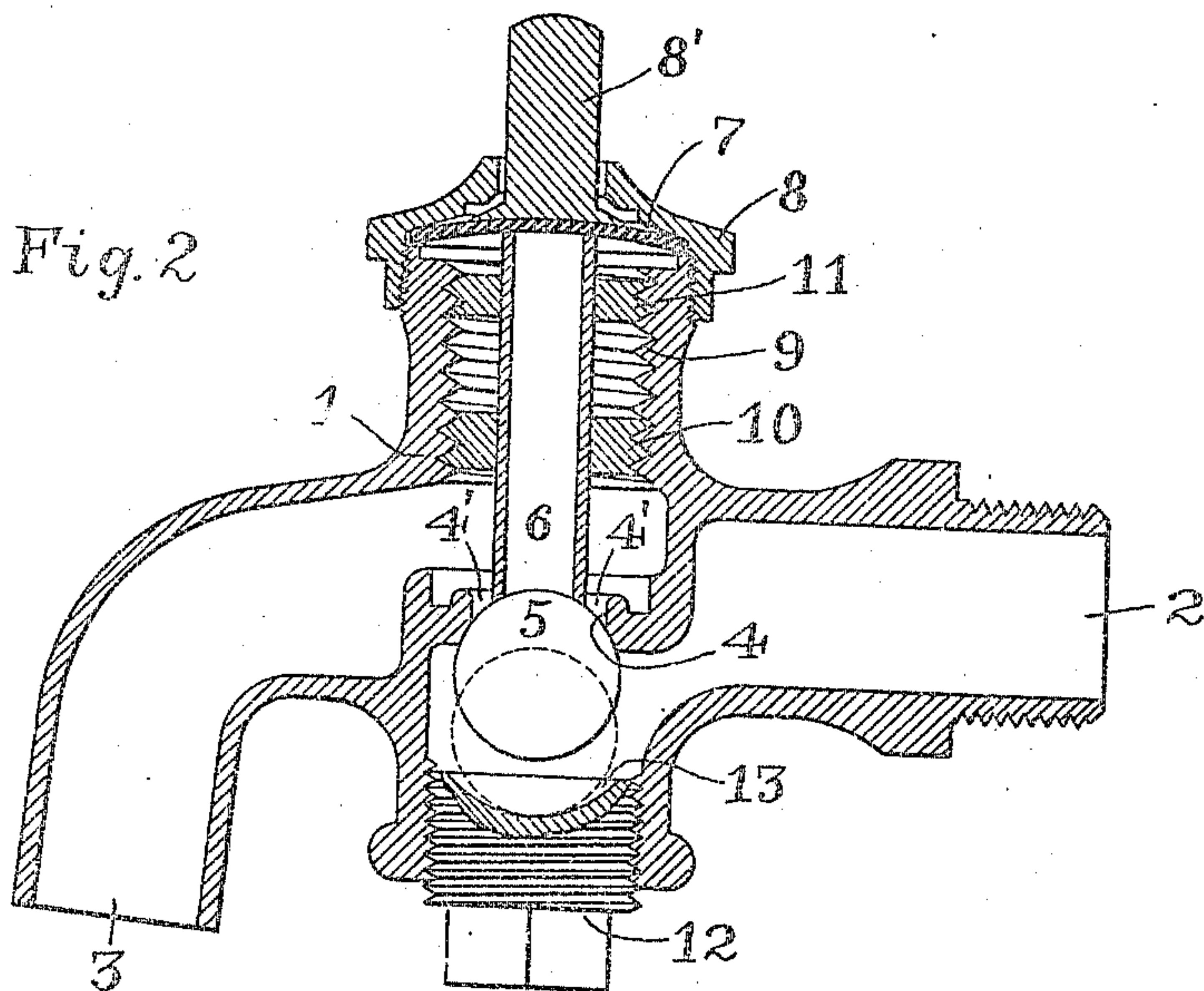
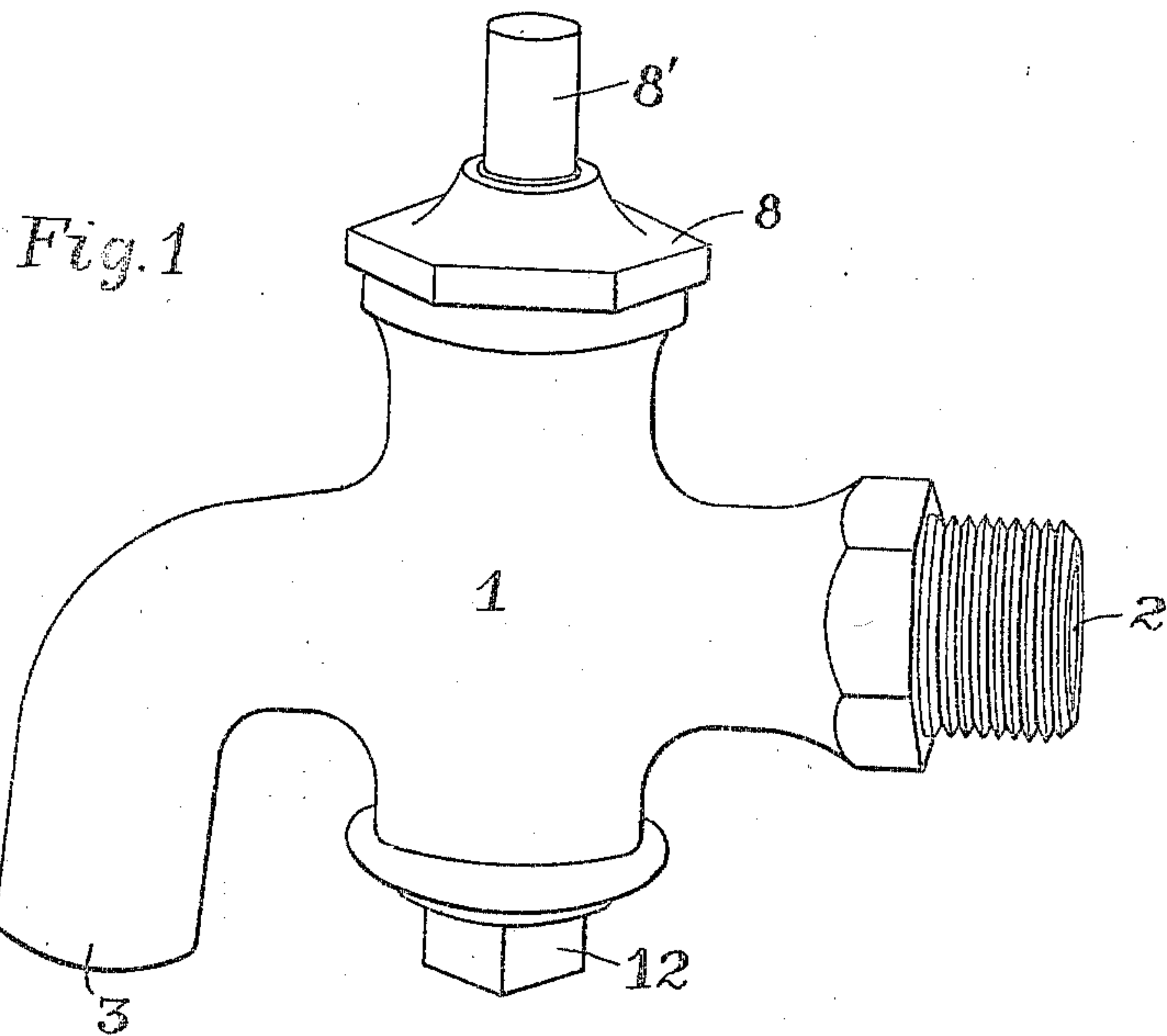


W. J. SULLIVAN.  
FAUCET.  
APPLICATION FILED JAN. 28, 1909.

951,855.

Patented Mar. 15, 1910.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM J. SULLIVAN, OF NEW YORK, N. Y.

## FAUCET.

951,855.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed January 28, 1909. Serial No. 474,864.

*To all whom it may concern:*

Be it known that I, WILLIAM J. SULLIVAN, a citizen of the United States, and resident of Brooklyn, New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Faucets, of which the following is as specification.

My invention relates to faucets.

10 It relates particularly to a new and improved liquid faucet in which no springs are employed, and the usual wear thereon and on screw-threads is eliminated.

15 The object of my invention is to provide a faucet which shall be easily and economically constructed, contain a minimum number of parts subject to wear, breakage or deterioration, which shall be easily taken to pieces should repairs be necessary, and shall 20 contain no parts likely to easily get out of order.

To carry out my invention, I provide a faucet in which the pressure of the water automatically keeps the cock closed, and 25 which is operated by a gentle downward pressure transmitted to a ball valve.

In the drawing: Figure 1 shows a perspective view of my improved faucet, and Fig. 2, a longitudinal section of the same.

30 Referring to the drawings: 1 designates the body of the faucet, 2 the inlet and 3, the outlet openings. Between the inlet 2 and the outlet 3 is fashioned the circular valve seat 4, normally kept closed by the ball 35 valve 5.

6 is a spindle having a curved lower surface resting upon the ball 5, and controlled at its upper end by the blank washer 7. Against the washer rests the vertically movable rod 8', flanged at its base, and held in 40 position, together with the washer 7, by the screw-threaded adjustable cap 8. The upper portion of the faucet is shown with an integral thread 9, into which in the figure are shown, screwed, the guide washers 10 and 11 45 permitting easy vertical movement of the spindle 6. At the base of the faucet is the screw plug 12, hollowed at 13 to form a lower seat for the ball 5, and controlling, in 50 combination with the rod 8', the amount of vertical play of the ball 5, and consequently

the amount of water passing through the passage 4' to the outlet 3.

The operation of my device is easily understood from the drawing (Fig. 2). As- 55 sume the faucet to be attached to the water-main, the pressure of the water forces the ball 5 up and into its seat 4, in the position shown by the full lines, in Fig. 2. The ball entirely fills the circular valve-seat 5, and no 60 water can pass. If now rod 8' be pressed, it will act, through washer 7, upon spindle 6 and force the ball 5 down off its seat 4, the hollow space in the screw-plug 12 allowing the ball to descend into the position indicated by the dotted lines. Water will 65 then pass as long as pressure is kept on the spindle 6. As soon as the pressure on 8' is relieved, the water will force the ball 5 again back into its seat 4, and the outflow 70 of water will cease. To take the faucet apart for cleaning or repair, it is only necessary to unscrew the screw-plug 12, when the ball 5 and the spindle 6 will drop down through the opening left by the screw-plug. 75 Removing the screw-cap 8 gives access to the washer 7 and the guide-screws 10 and 11.

I have shown the spindle 6 as hollow, and that is my preferred form, since it offers a lighter construction, but it is evident that 80 my invention is independent of whether it be hollow or solid, or within practical limits, of its size. Although the pressure of the water upon the ball 5 will cause the spindle 6 to hold the washer 7 in an upwardly 85 curved position, yet I prefer to make the washer of elastic, springy material, so that it may naturally take the position shown in Fig. 2.

Fig. 2 shows a faucet of ordinary construction adapted to receive the parts that 90 characterize my invention. But it is evident that the screw-guides 10 and 11 could be dispensed with, and the upper part of the faucet be made solid, with the exception 95 of a hole for the passage of the spindle 6.

Having thus fully described and illustrated my invention, what I claim is:

In a faucet, an inlet and an outlet opening, a ball valve located between said open- 100 ings, held normally closed by the pressure of the water, an adjustable hollow seat be-



low the valve fashioned to receive the ball when the valve is opened, a spring washer sealing the faucet cap, a hollow spindle shaped at the bottom to conform to the contour of the ball-valve and transmitting motion from the washer to the ball-valve, in combination with guide screws for the spindle, substantially as set forth.

Signed at New York, in the county of New York, and State of New York this 10 21st day of January A. D. 1909.

WILLIAM J. SULLIVAN.

Witnesses:

ALBERT STETSON,  
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