

C. D. BROWN.
 FAUCET.
 APPLICATION FILED OCT. 4, 1919.

1,408,979.

Patented Mar. 7, 1922.

Fig. 1.

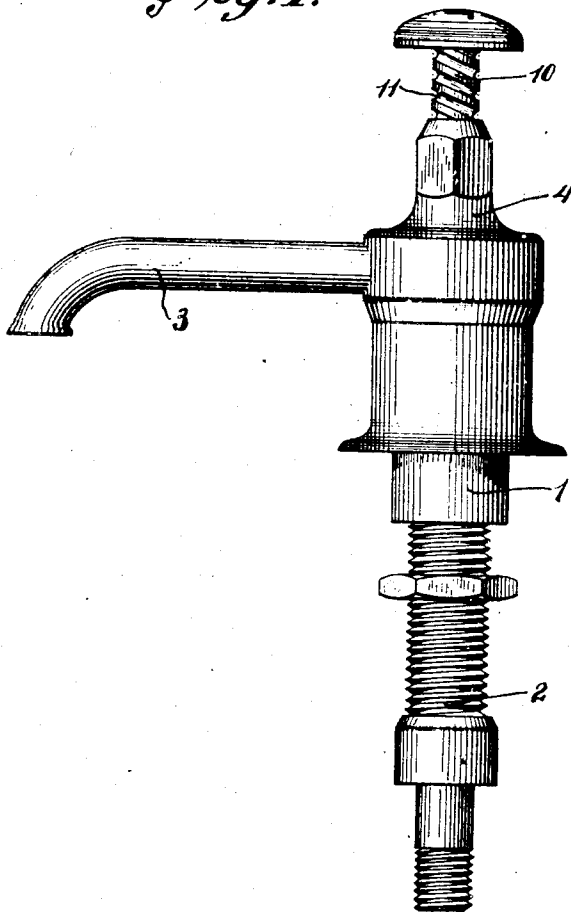


Fig. 2.

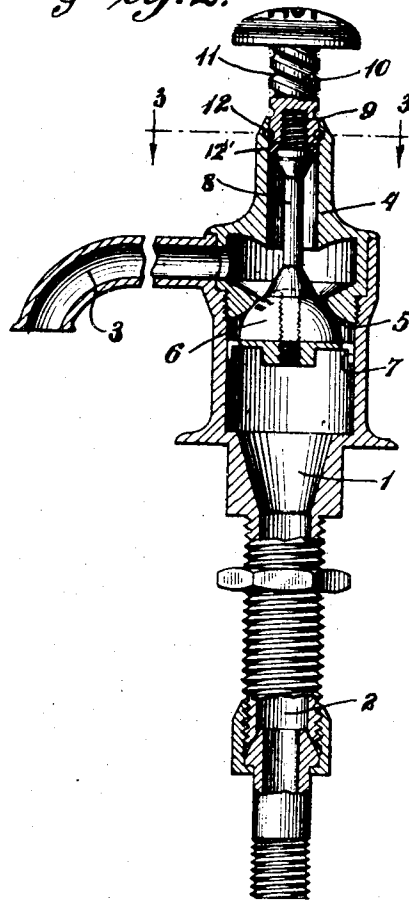
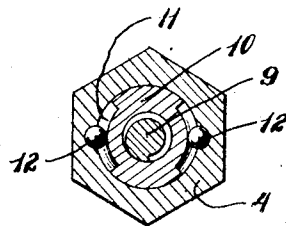


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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FAUCET.

1,408,979.

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To all whom it may concern:

Be it known that I, CLARENCE D. BROWN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to a faucet and has for its primary object the construction of a faucet in which the parts are so associated that an absolute leak proof faucet is obtained facilitated by the novel manner of opening and closing the valve, and the arrangement of the valve with relation to the water pressure.

An object of the invention is to simplify the operating means for the valve so that the valve may be opened in two manners, depending upon which is the most practical in the particular use to which it is put.

Besides the above my invention is distinguished in the manner of constructing and associating the parts so that ready access may be had to any part.

With these and other objects in view the invention may be better understood from the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is a side elevation of the valve.

Figure 2 is a vertical section view.

Figure 3 is an enlarged section view through the operating member.

Again referring to the drawing illustrating one manner in which my invention may be constructed the numeral 1 designates the lower part of the casing having an inlet extension 2 and an outlet spout 3. The upper part 4 of the casing is screw threaded into the lower part, as shown, and this upper part is provided with an opening which coincides with the opening in the spout. The lower end of this upper part 4 carries a valve seat 5. Arranged to co-operate with the valve seat 5 is a semi-spherical valve head 6 supported by a spider 7 that is in turn slidably mounted in the lower part of the casing, thereby accurately guiding the valve in its seating operation, which insures an absolute liquid tight connection between the valve seat and the valve head when the latter is closed. Projecting from valve head 6 is a stem 8 having a detachable threaded connection 9 with the operating member 10 which is in slidable engagement with the upper casing part. In this particular instance I

have shown operating member 10 of such construction that the valve may be moved to an open or closed position by a reciprocatory movement or by a combined rotary and reciprocating movement. To accomplish this I have provided operating member 10 with a spiral groove 11 co-operating with balls 12 removably mounted in the upper part of the casing. By this construction it will be seen that when the balls are in place and pressure brought to bear upon the operating member in the proper direction the co-action between the groove and balls will cause the member to rotate and reciprocate, thereby moving the valve to an open and closed position, depending entirely upon the direction in which the operating member is forced. By detaching the member from the stem 8 and removing the balls and then again connecting the member to the stem I am able to give a rectilinear movement to the valve for opening the same by applying a pressure to the member in the downward direction. In this particular instance the pressure of the water is relied on to force the valve to a closed position when pressure is removed from the operating member.

In the present instance, an inverted cup-shaped washer 12' surrounds the threaded connection 9 at the juncture of the stem 8 with the operating member 10 and the flange or side section of this washer engages the inner surface of the upper part of the casing to form a fluid tight joint.

While I have herein shown and described one particular form of my invention, by way of illustration. I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claims and without departing from the spirit of the invention.

What I claim is:—

1. A faucet of the class described comprising a lower casing section having an inlet and an outlet, an upper casing section screw threaded into the lower casing section between said inlet and outlet, a valve seat being formed in said upper casing section, a semi-spherical valve head arranged to co-operate with said valve seat, a spider supporting the latter that is in turn slidably mounted in said lower casing section, a stem projecting from said semi-spherical valve head, an operating member having a detachable engagement

with said stem and having sliding engagement with said upper casing section, said operating member having a spiral groove formed therein and cooperating with balls
5 removably mounted in the upper part of said casing.

2. A faucet of the class described comprising a casing including an upper and a lower part, the lower part having an inlet and an
10 outlet, the upper part being screwthreaded in the lower part between said inlet and outlet, a valve seat being formed in said upper part, a semi-spherical valve head arranged to

cooperate with said valve seat, a spider supporting the latter that is in turn slidably
15 mounted in said casing, a stem projecting from said semi-spherical valve, an operating member having detachable engagement with said stem and a sliding engagement with said upper part, said operating member hav-
20 ing a spiral groove formed therein and cooperating with balls removably mounted in the upper part of said casing.

In testimony whereof I affix my signature.

CLARENCE D. BROWN.