P. W. DOHERTY.

Self-Closing Faucet.

No. 161,768. Patented April 6, 1875.

FIG. 1

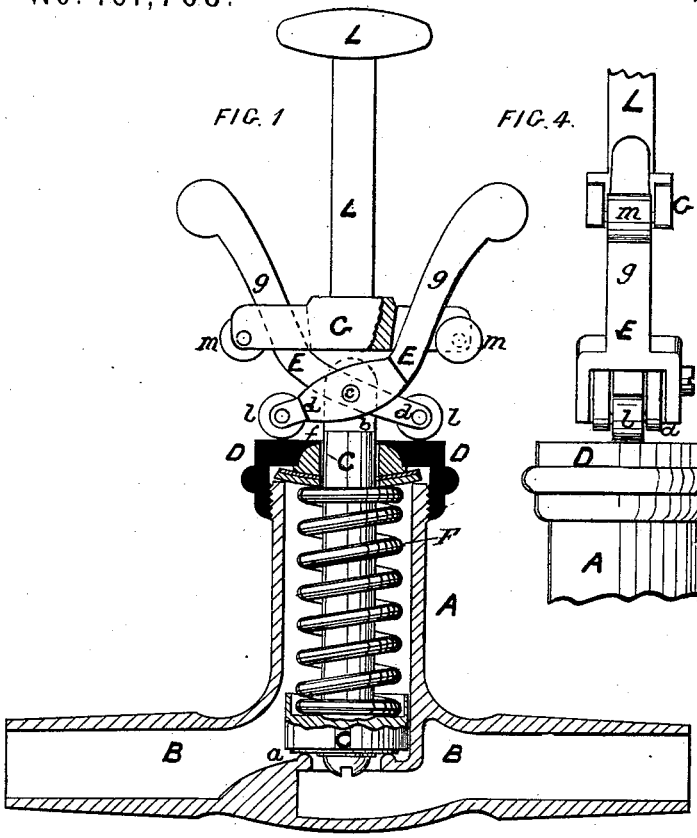


FIG. 4.

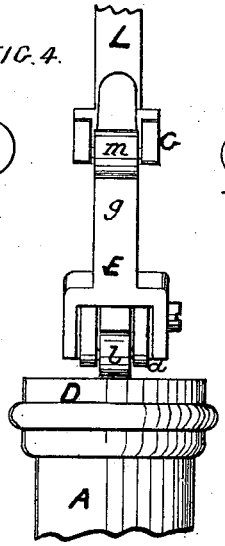


FIG. 2.

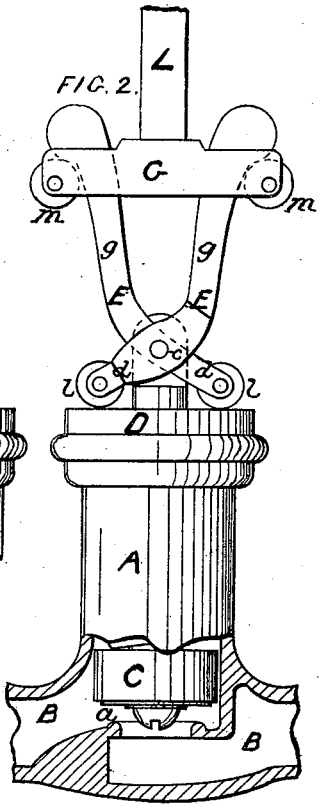


FIG. 3.

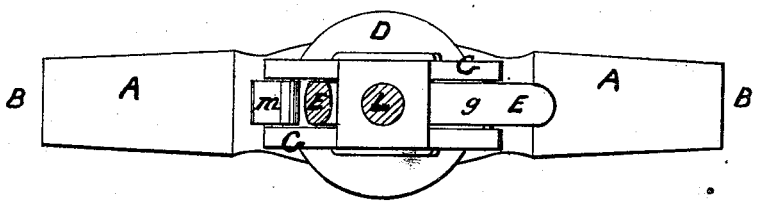
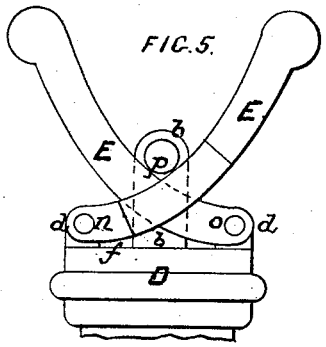


FIG. 5.



WITNESSES.

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UNITED STATES PATENT OFFICE.

PATRICK W. DOHERTY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SELF-CLOSING FAUCETS.

Specification forming part of Letters Patent No. **161,768**, dated April 6, 1875; application filed December 28, 1874.

To all whom it may concern:

Be it known that I, PATRICK W. DOHERTY, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Faucets, of which the following is a specification:

This invention pertains more particularly to what are known as self-closing faucets, and it specially relates to the means for opening the faucet to the passage of water.

The invention consists in the combination, with a valve having a vertical stem projecting through the cap of the faucet, of two pivoted levers, operating upon said stem for raising the valve from its seat, and a spring for closing the valve after the levers are released, as hereinafter described.

This invention also consists in the combination, with the above, of a slide or clasp, which is applied to the operating ends of the levers in such manner that if drawn along the levers it will press them toward each other, for opening the faucet, all as and for the purpose hereinafter specified.

In the accompanying plate of drawings, Figure 1 is a central section of the faucet, showing the spigot or plug seated, and my improved means for operating it, in elevation; Fig. 2, a similar section to Fig. 1, showing the spigot lifted from its seat, and the position then of its operating mechanism. Fig. 3 is a partial plan and horizontal section of Fig. 1, and Fig. 4 is an edge elevation of Fig. 2.

In the drawings, A represents a self-closing faucet. This faucet A is of the ordinary kind employed for water-closet bowls, and, as to its water-passage B, spigot or plug C, and seat *a* for said spigot, it is constructed as usual, and therefore needs no particular description herein. The spigot or plug C projects from the faucet at and through the center of the screw-cap D, and to its projecting end *b* are hung two similar levers, E E, *c* being their common fulcrum or center-pin. Each end *d* of the levers E rests against the outer face *f* of the screw-cap D, and the levers cross each other on the projecting end of spigot C, and diverge or separate by their arms *g*, all as shown.

Press the diverging arms *g* of the levers E toward each other, and their ends *d*, swinging or moving on the screw-cap D, cause the spigot to be drawn out of the faucet, which opens the faucet to the passage of water. Release the pressure on said diverging arms *g*, and, under the action of the spring F, they open apart, and the spigot C becomes seated, and thus the faucet is closed.

Each end *d* of the levers E, in its bearing on the screw-cap, is provided with a frictional roller, *l*, to prevent friction and wear. The arrangement of levers above described secures a direct outward and inward movement of the spigot through the screw-cap, and thus prevents an uneven wear of the spigot, and of the packing with which it is packed to prevent leakage of water about it.

G is a slide or clasp applied to the diverging arms *g* of the two levers E. This slide G connects the two arms *g* together, and at each end, through a frictional roller, *m*, it bears against the outer edge of the levers, as shown, so that, drawing it along and toward the outer end of the diverging arms *g*, the arms are forced toward each other, and thus the faucet is opened, as before described. L, a handle for operating the slide G.

The slide and handle are for use with the faucet in water-closets, and are not necessary with faucets used for other purposes, as, for instance, urinal-bowls.

My improvements in faucets above described, as the spigot is operated, hold the faucet and its connections and pipes firm against movement, and thus prevent injury thereto, this being secured by the bearing and working of the ends *d* against the faucet-cap D; and, furthermore, as the pull to operate the spigot is in a direct line, the faucet is susceptible of use in localities where heretofore it was difficult to locate and apply it.

Fig. 5 shows a modification of my improved arrangement for operating the spigot, and this modification consists, in substance, of pivoting the levers E E directly to the faucet-cap D, as at *n* and *o*, and interlocking the spigot C with them just above where they cross each other, as at *p*.

The operation of this modified arrangement

of parts is the same, substantially, as described for the arrangement of parts shown in Figs. 1, 2, 3, and 4.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a faucet having a valve provided with a vertical stem projecting through the cap of the faucet, of the two pivoted levers, both operating upon the stem, for raising the valve from its seat, and a spring encircling said stem, for closing the valve after the levers have been released, substantially as described.

2. The combination, with the pivoted levers E E, both operating upon the vertical stem of the valve, of the sliding clamping-ring, and a spring for closing the valve after it has been raised by the levers and clamp, substantially as described.

Witnesses: P. W. DOHERTY.

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EDWIN W. BROWN.