

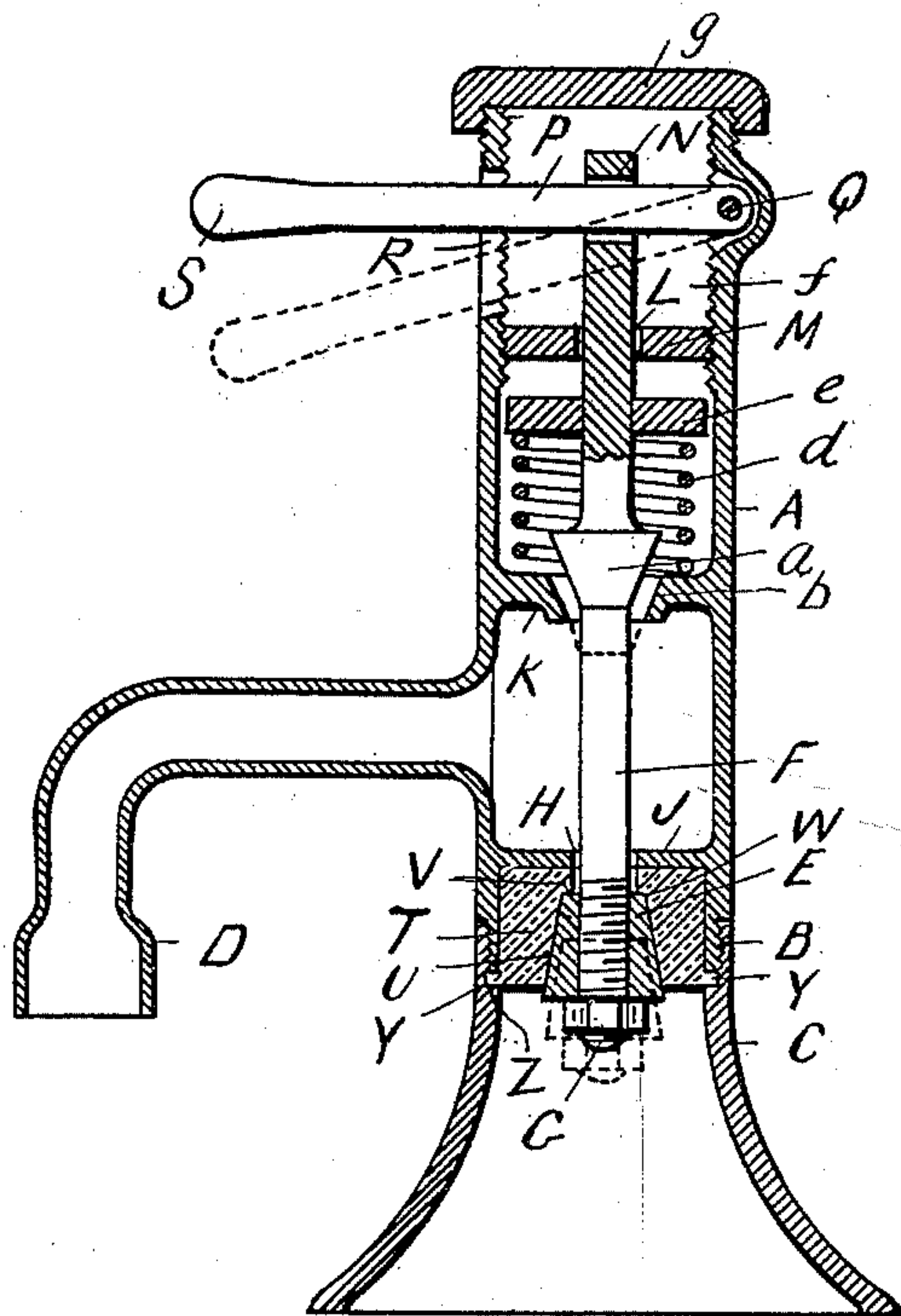
No. 612,947.

Patented Oct. 25, 1898.

T. J. KIERNAN.
WATER FAUCET.

(Application filed Apr. 10, 1895.)

(No Model.)



WITNESSES
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THOMAS J. KIERNAN, OF BOSTON, MASSACHUSETTS.

WATER-FAUCET.

SPECIFICATION forming part of Letters Patent No. 612,947, dated October 25, 1898.

Application filed April 10, 1895. Serial No. 545,207. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. KIERNAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Water-Faucets, of which the following is a full, clear, and exact description.

This invention relates to improvements in water-faucets; and the invention consists, in substance, of a faucet comprising a valve-stem carrying two valves, one above the other, and seats for said valves, one of said seats being made of yielding or elastic material and shaped to fit within the faucet-chamber and retained therein by suitable shoulders, and a spring interposed between the upper valve-seat and a shoulder on the stem, said spring normally acting to force the valve-stem upward, all substantially as hereinafter fully described, reference being had to the accompanying drawing, in which the figure represents in central vertical section a water-faucet constructed in accordance with this invention.

In the drawing, A represents a water-faucet adapted to be screwed at B into a mouth or other opening of a water-pipe C and having a nozzle D.

E is the valve, made of any suitable metal and preferably of conical shape. It is secured to the lower end of a spindle or rod F by a screw-nut G, which rod extends centrally upward through an opening H in a flange J and through an opening in a flange K and through opening L in a washer M, and at its upper end it is connected by a slot N to a lever P, pivoted at Q to the inside of the faucet and extending outside through a vertical slot R in the side, having a handle S for operating the same.

T is the packing, made, preferably, of india-rubber and fitting in the lower end of the faucet, having a conical socket or opening U, corresponding to and forming a seat for the valve E, its upper or inner end extending centrally inwardly, making an inner projection or shoulder V for the end W of the valve to abut against, and its outer end extending over the lower end of the faucet, as at Y, to form a packing between the end and a shoulder Z in the part to which it is secured.

Secured to the valve-stem F is an inverted cone a, which is adapted to fit a correspondingly-shaped seat b of the flange J when the valve is pushed down.

When the water is on, its pressure upon the lower end of the valve serves to keep it up to and close upon its seat, as shown in full lines in the figure, making then the valve tight.

To insure the valve closing in case the pressure of the water should be lessened for any reason and not be sufficient, a spiral spring d is provided, which surrounds the spindle F and is arranged to bear between the flange K and a flange e, secured to the spindle F, its tension pressing the valve up; but as the closing of the valve depends more particularly upon the water-pressure this spring can be light.

To have the water flow from the nozzle D of the faucet, press down the lever P, which forces down the valve E from its seat, as shown in dotted lines, when the water can freely pass up through the opening between the valve and its seat and out at the outlet. In pressing down or opening the valve the upper cone a is pressed down to its seat b, which closes its opening to the passage of water therethrough into the chamber f above and out at the slot R. The upper end of the tube is closed by a cap g, arranged to be screwed thereon, as shown.

It is preferable to have the india-rubber forming the seat made somewhat soft to give a good yielding surface for the cone-valve to insure a tight joint thereat when closed.

Having thus described my invention, what I claim is—

In a faucet, in combination, a conical-shaped valve, a seat for the valve of india-rubber shaped interiorly to correspondingly fit the sides of the valve and exteriorly to fit the chamber of the faucet, a shoulder in the faucet-chamber against which the india-rubber seat rests, another shoulder in the faucet-chamber above the first shoulder, a spindle to the valve extending upward in the faucet-chamber, a valve on its upper end, a seat for the valve in the chamber, a shoulder on the spindle, and a spring between and bearing against the shoulder on the spindle and the latter shoulder in the faucet-chamber.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

THOMAS J. KIERNAN.

Witnesses:

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