

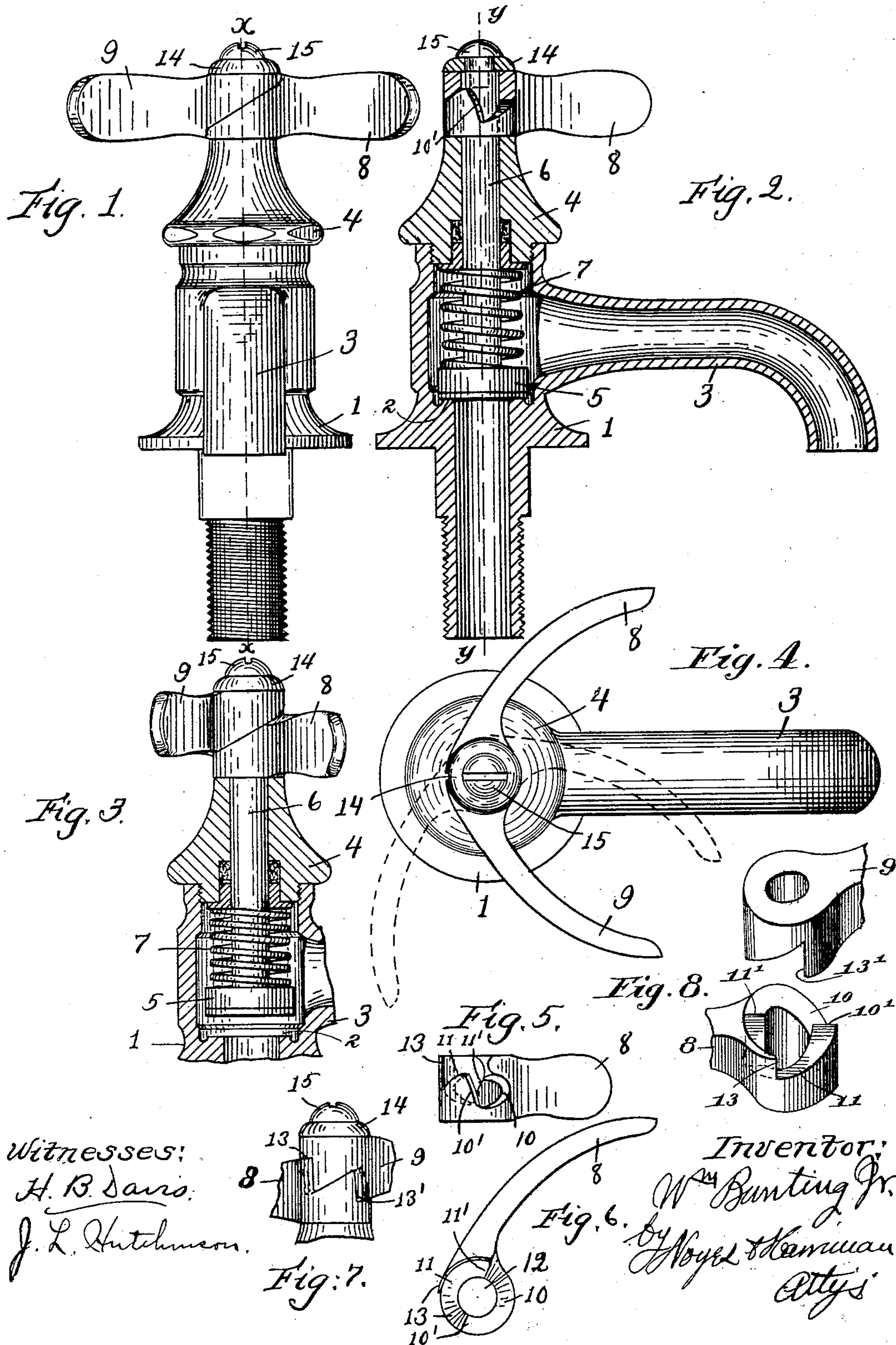
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Patented Oct. 14, 1902.

W. BUNTING, JR.  
SELF CLOSING FAUCET.

(Application filed Apr. 15, 1902.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILLIAM BUNTING, JR., OF BROOKLINE, MASSACHUSETTS.

## SELF-CLOSING FAUCET.

SPECIFICATION forming part of Letters Patent No. 710,945, dated October 14, 1902.

Application filed April 15, 1902. Serial No. 102,990. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BUNTING, Jr., of Brookline, county of Norfolk, and State of Massachusetts, have invented an Improvement in Self-Closing Faucets, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

10 In many cities the water regulations require all houses and public buildings where the water is not taken by meter to be fitted with faucets which will close automatically when they are not held open by hand, so that  
15 waste of water will be prevented to as great an extent as possible. While many valves of this character are in use, yet most of them are so constructed that it is a comparatively easy matter to hold them open by means of  
20 some simple device which can be conveniently applied. Valves of this character are also more expensive to manufacture than ordinary valves, and many of those in general use become loose from wear and out of order  
25 in a comparatively short time.

My invention has for its special object the production of an automatically-closing valve which is simple and comparatively inexpensive to manufacture, which will not easily become loose or get out of order, and which is  
30 difficult to hold open by any mechanical device, and which possesses various other advantages which will hereinafter appear.

More particularly my invention relates to  
35 that form of automatically-closing valve which is opened by pressing together two small levers with the hand.

For a definite understanding of my invention reference is made to the accompanying  
40 drawings, in which—

Figure 1 is a front elevation of a faucet provided with my invention. Fig. 2 is a central cross-section thereof on the line *xx* of Fig. 1, showing the valve in closed position. Fig. 3  
45 is a partial cross-section on the line *yy* of Fig. 2, showing the valve in open position. Fig. 4 is a plan view. Figs. 5 and 6 are detail features of one of the handles. Fig. 7 is a rear elevation of the handles when they are in the  
50 open position shown in Fig. 3. Fig. 8 is a perspective view of the ends of the two handles.

The main body 1 is provided with a valve-seat 2 and a discharge-nozzle 3. A valve-bonnet 4 is screwed into the upper end of said  
55 body, and a valve 5, having a stem 6, which extends up through the bonnet 4, is adapted to be forced against the seat 2 by a spring 7, the latter being interposed between the inner end of the bonnet 4 and the back of the  
60 valve 5. The upper end of stem 6, which protrudes beyond the upper end of the bonnet 4, is provided with two oppositely-arranged levers or handles 8 and 9. These handles are identical in every particular, each being pro-  
65 vided with two gradually-inclined or double cam-faces 10 11, which encircle the apertures 12 therethrough, in which the stem 6 is located. Said inclined faces are connected with two correspondingly abrupt shoulders 10' 11', (see Figs. 2 and 5,) the shoulders  
70 11' being next the handle portion and the shoulders 10' diametrically opposite. Each handle is also provided with a curved lip or flange 13 or 13', which form continuations of  
75 the rounded ends of the handles and partly surround the inclines thereof. The opposite side of each handle from the side which is provided with said cam-surfaces is provided with a flat bearing-surface, and the flat side  
80 of the lower handle 8 rests against the upper end of the bonnet 4, and the flat side of the upper handle 9 engages a washer 14, which is secured to the upper end of the stem 6 by  
85 the screw 15, said washer acting as a removable thrust-bearing for said handle 9.

When the parts are in their normal or closed position, (shown in Fig. 2,) the higher parts of the cam-faces 10 and 11 of the handle 8 are located in the deeper parts of the  
90 corresponding cam-faces of the handle 9.

The valve is opened by simply pressing both handles together, as shown in Fig. 3, so that the cam-surfaces on the upper handle 9 ride up the surfaces on the lower handle 8,  
95 and as the latter rests against the fixed bearing on the upper end of bonnet 4 the handle 9 is lifted and is forced against the thrust-bearing or washer 14, causing the stem 6 to be drawn up, so that it lifts the valve 5 from  
100 its seat, as shown in Fig. 3.

When the handles are released, the spring 7 will force the valve back to its seat, returning the handles to their normal position.



It will be observed that both handles 8 and 9 are swiveled on the stem between the bonnet 4 and washer 14, so that they may be turned together to any convenient position, as shown by dotted lines in Fig. 4—that is, if a person desires to open the valve with the right hand it would be more convenient to swing the handles to the right-hand side of the faucet or if with the left hand to the left-hand side of the faucet, as shown in the dotted lines.

It will be obvious that the handles may be turned to any position without opening the valve and that it is necessary to press both handles together in order to open it, or at least to hold one stationary while the other is pressed toward it. The lip 13 or 13' on one handle covers the shoulder 10' on the other handle, even when said handles are pressed as closely together as possible to open the valve, so that it is impossible to insert any instrument between the edge of the flange 13 or 13' of one handle and the shoulder 10' of the other handle, and thus wedge the handles so that the valve cannot close.

From the foregoing description it will be apparent that I have produced a valve which is simply constructed and is more durable than other valves of like character. For example, by providing the handles directly on the stem instead of on small pivots, which are carried thereby, the handles will not wear loose as quickly as if the latter construction were employed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a self-closing faucet, the combination of a spring-actuated valve, a stem therefor, and a pair of lifting-handles which are swiveled on said stem and have engaging cam-faces, a fixed thrust-bearing on the valve-body for the handle next the valve, and a thrust-bearing on said stem for the other handle, substantially as described.

2. In a self-closing faucet, the combination of a spring-actuated valve having a stem, a pair of handles through which said stem passes, said handle having engaging cam-faces, a fixed support on the valve-body for the handle next the valve, and a thrust-bearing on said stem for the opposite handle, substantially as described.

3. A self-closing faucet comprising a spring-

actuated valve having a stem which protrudes through the valve-casing, a pair of oppositely-arranged handles which are rotatably mounted on the protruding end of said stem and are provided with engaging cam-faces, and a circumferentially-projecting bearing which is detachably connected to said stem above said handles, substantially as described.

4. In a self-closing faucet, the combination of a spring-actuated valve having a valve-stem, which protrudes through the valve-casing, a pair of lifting-handles which are mounted on the projecting end of said stem so as to swing about its longitudinal center line, the adjacent faces of said handles being provided with oppositely-inclined interlocking cam-faces which extend about said stem, and thrust-bearings on the casing and on said stem for the opposite faces of said handles, substantially as described.

5. In a self-closing faucet, the combination of a spring-actuated valve having a stem which protrudes through the valve-casing, a thrust-bearing on the outer end of said stem, a pair of handles through which said stem passes which are arranged between said bearing and the casing, cam-faces which are interposed between said casing and said bearing and upon which said handles act when they are swung about the stem and force the handles next said bearing against the same to lift the valve, substantially as described.

6. In a self-closing faucet, the combination of a spring-actuated valve having a stem which protrudes through the valve-casing, a thrust-bearing on the outer end of said stem, a pair of handles through which said stem passes and which are arranged between said bearing and the casing, the adjacent faces of said handles each being provided with a pair of oppositely-arranged gradually-inclined cam-faces which are connected by correspondingly abrupt shoulders, and a curved lip on each handle which at all times overlaps one of the shoulders of the opposite handle, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM BUNTING, JR.

Witnesses:

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J. L. HUTCHINSON.