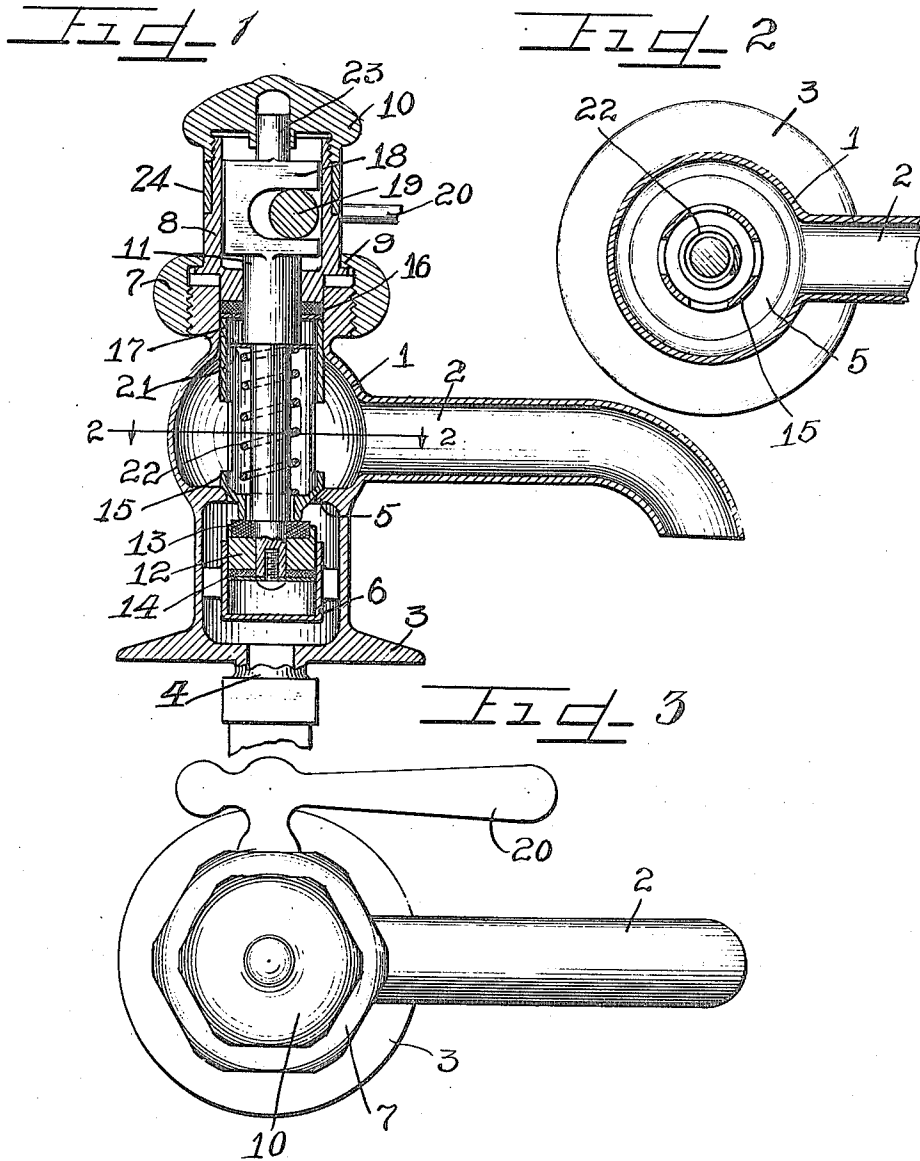


A. C. BROWN.  
SELF CLOSING COCK OR FAUCET.  
APPLICATION FILED AUG. 7, 1911.

1,153,370.

Patented Sept. 14, 1915.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ALBERT C. BROWN, OF CHICAGO, ILLINOIS.

SELF-CLOSING COCK OR FAUCET.

1,153,370.

Specification of Letters Patent. Patented Sept. 14, 1915.

Application filed August 7, 1911. Serial No. 642,585.

*To all whom it may concern:*

Be it known that I, ALBERT C. BROWN, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self-Closing Cocks or Faucets; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

In many of the self-closing cocks heretofore devised, access to the interior of the cock is difficult, necessitating the dis-assembling of the entire structure, should repair become necessary. Furthermore, some of said cocks are so constructed as to permit escape of the fluid through the top of the cock, should the nozzle be closed or should the delivery be against pressure as in the instance where a hose pipe is connected with the nozzle.

The object of this invention is to afford a construction in which the utmost facility is afforded to permit repairs such as the renewal of the packing washer or any of the ordinary repairs likely to be required.

It is also an object of the invention to afford a construction in which escape of the liquid from the top of the cock is rendered impossible by the use of my novel construction, and suitable packing.

The invention is adapted for use in cocks closing with the pressure or closing against the pressure.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a central vertical section taken through a cock embodying my invention. Fig. 2 is a section thereof on line 2—2 of Fig. 1. Fig. 3 is a top plan view of the same.

As shown in the drawings: The cock is illustrated as a basin cock, though, of course, not necessarily so, and comprises the body or barrel 1, of the cock, provided with a nozzle 2, opening therefrom as usual. Said body or barrel is provided at its lower end with an integral flange 3, to fit upon the basin slab and connected axially and integrally with said barrel, is the threaded pipe 4, whereby the cock is connected with the circulating system. Within the barrel

or body of the cock is provided a valve seat and the automatically closing valve closure to seat thereon. A centrally apertured partition 5 extends across said barrel or body integrally therewith and below the nozzle and is ground or shaped to afford an upwardly facing conical seat. Supported below the partition is a cylindrical chamber 6, open at its upper end and coaxial with the body. The upper end of said body or barrel is externally screw threaded and is bored to a diameter greater than the diameter of the aperture through the partition 5. Removably secured thereon by means of a union nut 7, to afford the top of the faucet, is a casing 8, flanged outwardly near its lower end to permit engagement with the flange 9, of the union nut, as shown in Fig. 1. Said casing is cylindrical at its lower end below the flange to fit snugly in the bore at the upper end of the body or barrel 1, and is externally screw threaded at its upper end to receive the screw cap 10, thereon whereby the casing is closed.

The valve stem 11, extends through the central bore in the bottom of said casing and is of a length to extend below the partition 5, and into the dash pot casing 6, and is provided at its lower end with a cylindrical head 12, which fits in the dash pot casing and on each side of which is provided a packing washer 13 and 14, respectively, the one to bear upwardly against the valve seat and the other to afford sufficient packing in the dash pot to retard closing. Said stem is reduced in diameter from the packing washer 13, upwardly to near the lower cylindrical end of the casing 8.

A sleeve 15, tapered at its lower end to seat in and close the aperture in the partition 5, and to afford a downwardly extending valve seat for the packing washer 13, is provided in the casing and is apertured to permit the free flow of the fluid therefrom to the nozzle. A packing washer 16, is provided at the lower end of the casing surrounding the valve stem and below the same is provided a metallic or other suitable washer 17, which bears on the upper end of said sleeve 15, when the parts are in assembled position.

Integrally connected with the upper end of the stem and positioned in the casing, is a transversely slotted head 18, and extending through the wall of the casing 8, is a shaft

19, having an eccentric or crank therein for actuating said stem and provided on its outer end with a lever 20, for manual operation. As shown, a washer 21, is provided at the upper end of the reduced portion of the stem, and a spring 22, is secured on the stem and at its lower end bears in the lower end of said sleeve and at its upper end bears against the washer to hold the closure normally elevated and seated. Preferably, a projection or guide 23, is provided on the upper end of the head 18, and seats in a complementary aperture in the cap 10.

The shaft for actuating the stem is inserted into the casing through upwardly opening slots (not shown) on opposite sides thereof in a familiar manner. A bearing ring 24, is engaged around the outer side of the casing to conceal the slot and to afford a bearing for the upper side of the shaft.

The operation is as follows: Referring first to Fig. 1, the spring bearing in the lower end of the sleeve 15, and acting directly on the valve stem, acts together with the pressure of the water or other fluid, to hold the valve normally closed. When the valve is opened manually, the plunger afforded by the closure descends in the dash pot casing 6, leaving the end of the sleeve open to afford an unobstructed passage for the fluid, which, of course, is discharged thence through the nozzle. When the handle is released, the spring acts to force the closure upwardly seating the closure gently upon its seat. The dash pot, of course, regulates the rate of closure. Should it ever be necessary to open the faucet or cock for repair or otherwise, it may be accomplished by simply releasing the union nut, and lifting the casing 8, the valve stem and all the attached parts from the body of the cock, thus affording the utmost facility for access for repairs, and permitting almost instantaneous reassembling by merely again connecting the parts by means of the union nut.

Of course, details of the construction may be varied. I therefore do not purpose limiting the patent to be issued on this applica-

tion otherwise than necessitated by the prior art.

I claim as my invention:

1. The combination in a cock or faucet, of a chambered body, a nozzle communicating therewith, a valve seated between the inlet and nozzle, a dash pot below the seat, a valve stem longitudinally adjustable in the body, an apertured immovable sleeve surrounding said stem and extending through and seating on said seat, a closure on said stem to engage and seat on the end of said sleeve and to extend into the dash pot, a casing into which the other end of said valve stem extends, means for engaging the casing and said body, means for moving the stem longitudinally to open the valve, a spring engaging said stem and said sleeve and holding said closure normally seated, and a packing in the body between the inner end of the casing and the upper end of said sleeve and preventing leakage around the stem.

2. The combination in a cock or faucet, of a chambered body, a nozzle communicating therewith, a valve seat between the inlet and nozzle, a dash pot below the seat, a valve stem longitudinally adjustable in the body, an apertured immovable sleeve surrounding said stem and extending through and seating on said seat, a closure on said stem to engage and seat on the end of said sleeve and to extend into the dash pot, a casing into which the other end of said valve stem extends, means engaging the casing and said body, a cam shaft engaging said stem in said casing, a lever thereon for manual actuation to actuate the stem to open the valve, a spring engaging said stem and said sleeve and holding said closure normally seated, and a packing in the body bearing against the inner end of the casing and preventing leakage around the stem.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

ALBERT C. BROWN.

Witnesses:

CHARLES W. HILLS, Jr.,  
LAWRENCE REIBSTEIN.