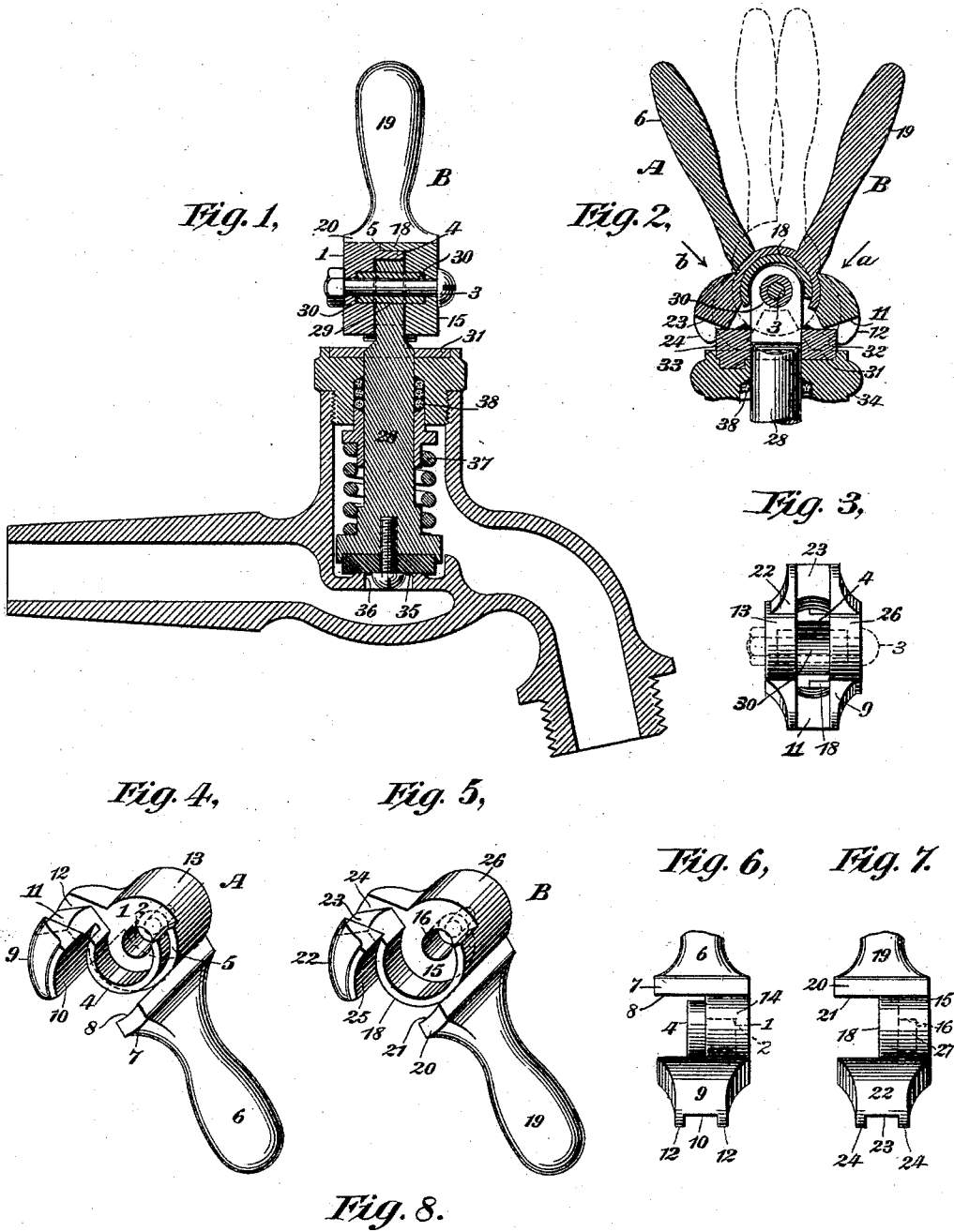


(No Model.)

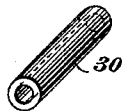
J. CONITY.
COCK OR FAUCET.

No. 497,000.

Patented May 9, 1893.



Witnesses
C. E. Ashley
H. W. Lloyd.



Inventor
James Conity
By his Attorney
Jacob Felbel

UNITED STATES PATENT OFFICE.

JAMES CONITY, OF BROOKLYN, NEW YORK, ASSIGNOR TO HANNAH CONITY,
OF SAME PLACE.

COCK OR FAUCET.

SPECIFICATION forming part of Letters Patent No. 497,000, dated May 9, 1893.

Application filed October 20, 1892. Serial No. 449,429. (No model.)

To all whom it may concern:

Be it known that I, JAMES CONITY, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Cocks or Faucets, of which the following is a specification.

My invention relates more particularly to that class of self-closing faucets patented to P. W. Doherty April 8, 1875, No. 161,768, and has for its main object to provide a construction whereby the pin or bolt which connects the operating-levers and the valve-stem is entirely relieved of all strain and wear.

My invention has for a further object to provide a more firm and durable and otherwise better structure than heretofore made.

To these main ends my invention consists in the various features of construction and combinations of devices hereinafter more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a central vertical section of a cock or faucet embodying my improvements. Fig. 2 is a similar partial section taken at right angles to the section shown at Fig. 1. Fig. 3 is a plan view of the bottom ends of the crossed operating-levers spread apart, or in the normal position shown in full lines at Fig. 2, the handle portions being omitted. Fig. 4 is an interior perspective view of the lever A. Fig. 5 is a similar view of the lever B. Fig. 6 is an elevation of the lever A looking in the direction of the arrow *a* at Fig. 2. Fig. 7 is a similar view of the lever B looking in the direction of the arrow *b* at Fig. 2, and Fig. 8 is a perspective view of the roller or revoluble tube.

In the several views the same parts will be found designated by the same letters and numerals of reference.

A designates one operating lever, and B the other of the pair of crossed levers.

The lever A has a side or cheek-plate 1 and a central perforation 2 of two diameters. On the inner side of the cheek-plate 1 is a circular ledge 4 concentric with said perforation, but formed with a radius slightly less than that of the cheek-plate 1, thus forming a shoulder 5 between the upper side of the ledge and

the periphery of the cheek-plate. Cast integral with the cheek-plate on one side of its hole is a handle 6, which has a lateral projection or member 7, that extends over and past the ledge 4, and which on its under side is provided with a curved or arc-shaped face 8 concentric with said ledge. On the opposite side of the center of the cheek-plate is a member or projection 9, which extends laterally in the direction of the projection 7. The member 9 is formed on its inner side 10 on an arc of a circle concentric with said ledge, and at one end is formed with a track-bearer 11, on either side of which is a projecting lip, 12. The ledge 4 is slightly in excess of a semi-circle and the space between its ends is left for the insertion of the valve-stem. The face or exterior surface of the cheek-plate 1 between the handle and the member 9 on either side is circular and is formed with substantially the same radius that the arcs 8 and 10 are formed with, thus providing, on opposite sides of the handle, bearing portions 13 and 14 on the cheek-plate 1.

The lever B has a side or cheek-plate 15 provided centrally with a perforation 16 of diameters equal to those of the perforation 2, and said cheek-plate is provided on its inner face with a circular flange 18 slightly greater than a semi-circle, and of a thickness or width equal to the depth of the shoulder 5, or the space between the outer surface of the ledge 4 and the inner surface 8 or the under side of the member 7. The flange 18 is formed concentric with the perforation 16, and with a greater radius than the ledge 4, so that the said flange may rest upon the said ledge when the two levers are crossed and put together. Formed integral with the cheek-plate 15 is a handle 19 having a lateral projection or member 20, similar to 7, and whose under or inner surface 21 is formed concentric with the flange 18. On the under side of the center of the cheek-plate 15 and formed integral therewith and with the flange is a laterally-projecting member 22, similar to 9 and provided with a track-bearer 23 and side lips 24. The inner surface 25 of the member 22 is formed on an arc of a circle concentric and coincident with the outer surface of the flange 18 and the periphery of the cheek-

plate 15. Between the handle portion 19 and the member 22 the surface of the cheek-plate 15 is made circular and coincident with the outer surface of the flange 18 and forms on one side of the handle a bearing portion or surface 26, and on the other side a bearing portion 27. The two levers are alike, excepting that the lever A has the ledge, and the lever B the flange. The flange and the ledge being incomplete rings an opening is left between the cheek-plates for the upper portion of a valve-stem 28, which is flattened and provided with a perforation 29 equal in diameter to the larger diameter of the perforations 2 and 16, and of a size to receive a hollow roller or revoluble tube 30, which at its ends is seated in the larger, inner portions of the perforations 2 and 16.

The levers are assembled, after the valve-stem is hung upon the roller or tube, by arranging their handles in substantially parallel planes and by then pushing the two parts laterally toward each other until the flange 18 rests upon the ledge 4, with the free edge of the ledge abutting against the shoulder 5, and the ends of the tube or roller seated in the perforations 2 and 16. When thus put together the surface 8 bears upon the outer surface of the flange 18, and also upon the surface 27 of the cheek-plate 15; the surface 21, on the under side of the projection 20, bears upon the outer surface 14 of the cheek-plate 1; the surface 10 of the member 9 bears upon the outer surface of the flange 18, and also upon the surface 26 of the cheek-plate 15; and the inner surface 25 of the member 22 bears upon the outer surface 13 of the cheek-plate 1. A pin or bolt 3 may now be passed through the hollow roller or tube to hold the same and the levers in place or against lateral movement. The pin or bolt 3 is preferably provided with a retaining-nut, as shown, but it may be riveted or otherwise secured. The valve-stem passes through a circular plate 31, which is provided on its upper side with tracks or fulcrums 32 and 33, the former receiving the bearer 11, and the latter the bearer 23. The track-plate 31 is seated in a cap 34 screwed in the body of the faucet in the usual way. The valve-stem is provided at its lower end with a suitable valve 25, adapted to a seat 36 in the body of the faucet, and surrounding the valve-stem is a strong spiral spring 37, arranged to normally keep said valve firmly upon its seat. The valve-stem may be provided with suitable packing 38, as usual.

When it may be desired to lift the valve-stem from its seat, the handles 6 and 19 of the crossed levers are squeezed together, as shown by the dotted lines at Fig. 2, and as the bearers 11 and 23 approach each other they ride on their respective tracks and operate to lift the valve-stem and raise the valve from its seat. Upon releasement of said handles, all the parts return to their first positions under the influence of the spring.

By reason of the construction shown and

described it will be observed that the wear, due to the tension of the spring, is entirely removed from the pin or bolt, and is distributed over the ledge, the flange, the cheek-plates, the projections, and the roller or tube and its bearings.

In another application filed by me September 24, 1892, Serial No. 446,753, I have shown, described and claimed the features of the ledge, flange and projections shown and described herein, and hence do not claim any of them *per se* in this case. In my said other construction the parts referred to form the hinge-joint of the levers and receive in consequence nearly all the wear, thus largely relieving the pin from wear and strain. In my present construction, it will be observed that the hollow tube or roller is loose and capable of revolving in its bearings, and hence of changing the bearing and wearing surface of the downwardly-acting valve-stem. This roller is preferably made of bell metal, and being hard, comparatively large and capable of turning within the perforation of the valve-stem, as described, a much more durable and efficient construction is provided, and one in which all strain and wear are removed from the pin or bolt, the latter acting merely as a tie to keep the two levers and the tube in proper working relation. This construction, in connection with the other features shown and described, insures greater durability and an otherwise better structure.

While I prefer to construct the parts as shown and described, as thereby the best results may be obtained, I do not wish to be limited to a contrivance in which all of the features of construction recited are present, as some of them may be used without others and yet produce a better faucet than heretofore made.

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-stem having a perforation, a pair of crossed operating-levers provided with perforations, and a revoluble tube passing through the perforation in the valve-stem and seated at its ends in the perforations in the levers.

2. In a self-closing faucet, the combination of a spring actuated valve-stem having a perforation, a pair of crossed operating-levers provided with perforations, a revoluble tube supporting the said valve-stem and seated at its ends in the perforations in the levers, and a tie-bolt or pin passing through said tube and to the outside of the levers to hold the several parts together.

3. In a self-closing faucet, a pair of crossed levers A and B, adapted to raise the valve-stem, the lever A consisting essentially of a perforated cheek-plate 1, a ledge 4, a handle 6, a lateral projection 7, and a lateral projection 9 having a bearer 11 to engage with a track or fulcrum on the body of the faucet,

and the lever B consisting essentially of a
perforated cheek-plate 15, a flange 18, a han-
dle 19, a lateral projection 20, and a lateral
projection 22 having a bearer 23 to engage
5 with another track or fulcrum on the body of
the faucet, combined with a spring-actuated,
perforated valve-stem, a revoluble tube pass-
ing through the perforation in the valve-
stem, and supported at its ends in the perfo-

rations in the cheek-plates, and means for 10
holding the parts in proper working relation.

Signed at New York city, in the county of
New York and State of New York, this 18th
day of October, A. D. 1892.

JAS. CONITY.

Witnesses:

JACOB FELBEL,
IDA MACDONALD.