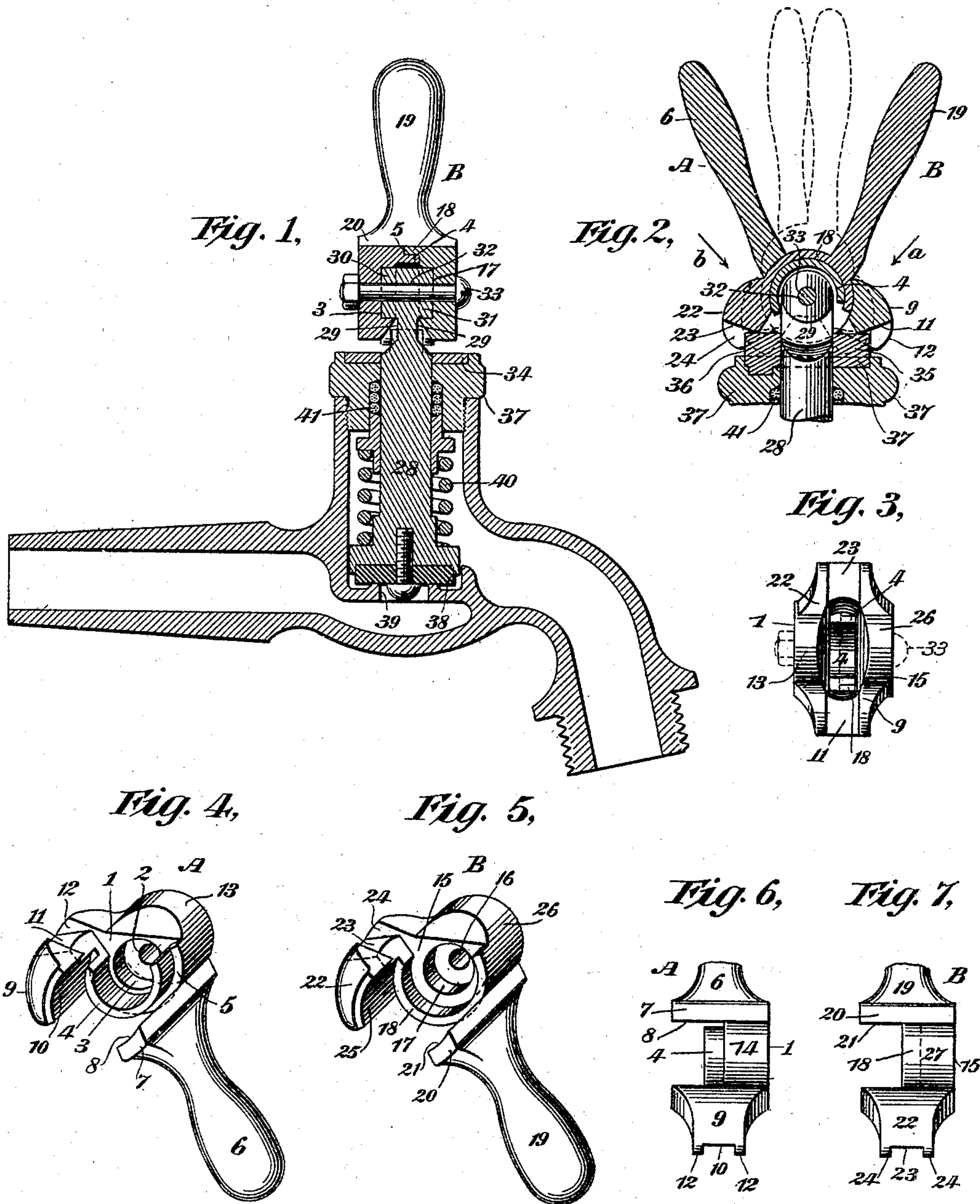


(No Model.)

J. CONITY.
COCK OR FAUCET.

No. 496,999.

Patented May 9, 1893.



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

Inventor
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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. 496,999, dated May 9, 1893.

Application filed October 5, 1892. Serial No. 447,901. (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 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, and Fig. 7 is a similar view of the lever B looking in the direction of the arrow *b* at Fig. 2.

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. On the inner side of the cheek-plate 1 is formed a circular depression 3 concentric with the said perforation 2, and also a circular projection or ledge 4, concentric with the depression 3, but formed with a radius slightly greater than that of the depression 3, and slightly less than that of the circular cheek-plate 1, and

leaving a shoulder 5 between its upper side and the periphery of the cheek-plate 1. 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 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, perforated centrally at 16, and on its inner side is formed with a circular depression 17 similar to the one in the lever A, and concentric with the perforation 16. The said cheek-plate 15 is also 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 face 8 on the under side of the member 7. The flange 18 is formed concentric with the depression 17, and with a greater radius than that of 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 18, and whose under side or inner surface 21 is formed concentric with the flange 18. On the under side of the center of said 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 surface 27.

The levers A and B are assembled 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 flange abutting against the shoulder 5. 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 or 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. The two levers are alike, excepting that the lever A has a ledge 4, and the lever B the flange 18 to rest upon said ledge. The flange and the ledge being incomplete rings an opening is left for the passage between the cheek-plates of the upper portion of a valve-stem 28. The upper end of the valve-stem is cut-away or flattened on each side at 29, to leave on one side a projection 30, and on the other side a projection 31, within the cross sectional area of the valve-stem. These projections are circular, and serve as journals, the journal 30 fitting into the depression or bearing 3, and the journal 31 fitting into the depression or bearing 17. The extreme upper end of the valve-stem is rounded or circular, and through the journals 30, 31 and the intermediate valve-stem proper is formed a perforation 32, which, when the valve-stem is fitted between the cheek-plates, lies coincident with the holes 2 and 16, to receive a pin or bolt 33 preferably provided with a retaining nut, as shown, but which may be riveted or otherwise held. The valve-stem passes through a circular plate 34, which is provided on its upper side with tracks or fulcrum 35 and 36, the former receiving the bearer 11, and the latter the bearer 23. The track-plate 34 is seated in a cap 37 screwed in the body of the faucet in the usual way. The valve-stem is provided at its lower end with a suitable valve 38, adapted to a seat 39 in the body of the faucet, and surrounding the valve-stem is a strong spiral spring 40, arranged to normally keep said valve firmly upon its seat. The valve-stem may be provided with suitable packing 41, as usual.

When it may be desired to lift the valve 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 the parts all 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 large journals 30 and 31 and their bearings, thus obviating the serious objection heretofore existing in this class of contrivances before my improvements, in which the wear, due to the power of the spring, against which the levers are obliged to operate, came solely and wholly upon the pin or bolt, which had to be made of the hardest bronze wire, and which in a comparatively short space of time either broke or wore away to such an extent as to leave the parts in a loose or rattling condition.

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 of the wear, thus largely relieving the pin or bolt from wear and strain. In my present construction it will be observed that by reason of the presence of the lateral journals 30 and 31 fitting and working in their respective seats, all of the strain and wear are removed from the pin or bolt, and that the latter acts solely and only as a tie to keep the two levers in proper working relation. This construction in connection with the other features shown and described, insures greater durability and a better balanced and a more smoothly-operating contrivance.

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 lateral journals, and a pair of crossed operating-levers provided with seats for said journals.

2. In a self-closing faucet, the combination of a spring-actuated valve-stem provided with lateral journals and a transverse perforation through said journals, a pair of crossed operating-levers provided with seats for said journals and with perforations, and a tie-bolt or pin for holding the parts together.

3. In a self-closing faucet, the combination of a spring-actuated valve-stem cut away near its upper end to form lateral, circular journals, and perforated transversely through said journals, a pair of crossed operating-levers having circular depressions in which said journals are seated, and having transverse perforations, and a tie-bolt or pin arranged to hold the parts together.

10 4. 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 the perforated cheek-plate 1, a seat 3, 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 seat 16, a flange 18, a handle 19, a lateral projection 20, and a lateral projection 22 having a bearer 23 20 to engage with another track or fulcrum on the body of the faucet, combined with a spring-actuated valve-stem having laterally-projecting journals adapted to said seats in the cheek-plates. 25

Signed at New York city, in the county of New York and State of New York, this 30th day of September, A. D. 1892.

JAMES CONITY.

Witnesses:

JACOB FELBEL,
IDA MACDONALD.