(No Model.)

J. CONITY.

COCK OR FAUCET.

No. 496,998. Patented May 9, 1893.

Fig. 1.

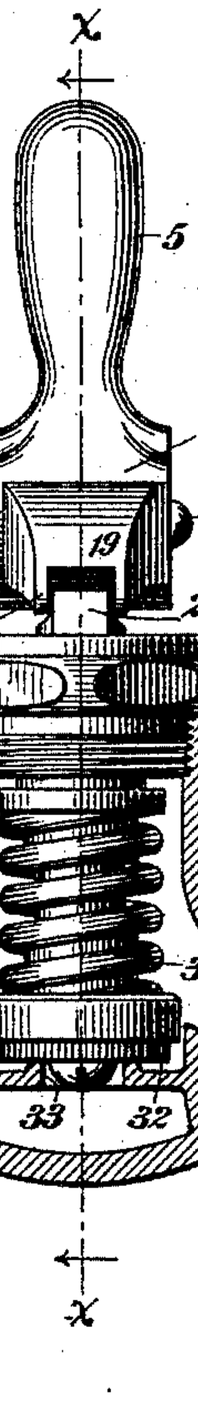


Fig. 3,

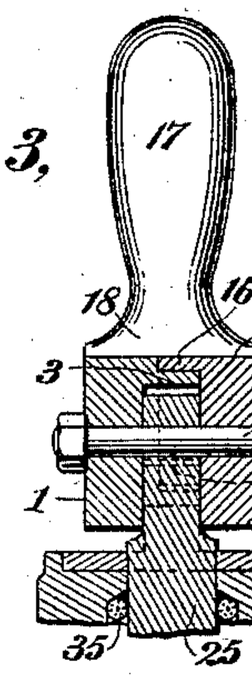


Fig. 4,

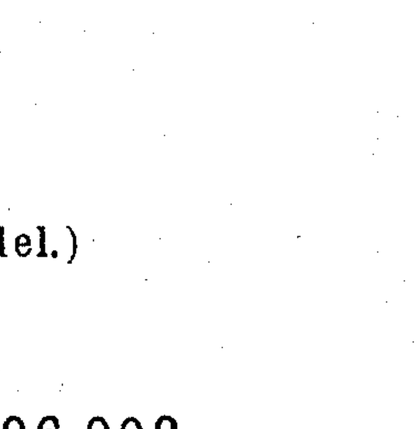


Fig. 6.

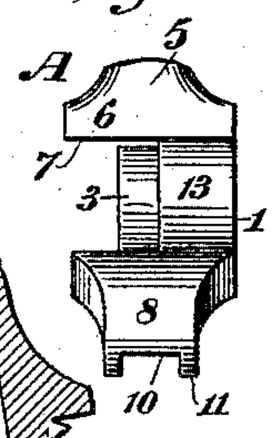


Fig. 7.

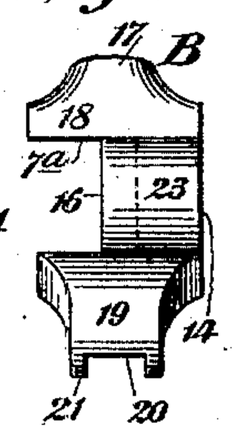


Fig. 2,

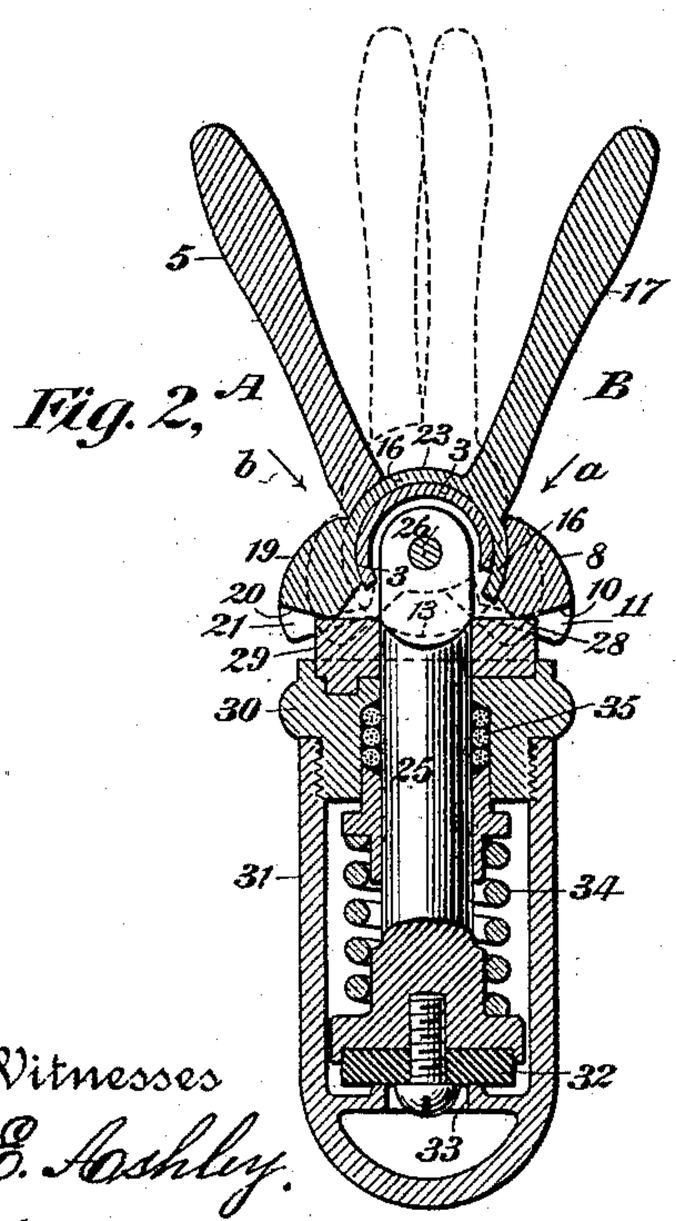


Fig. 5,

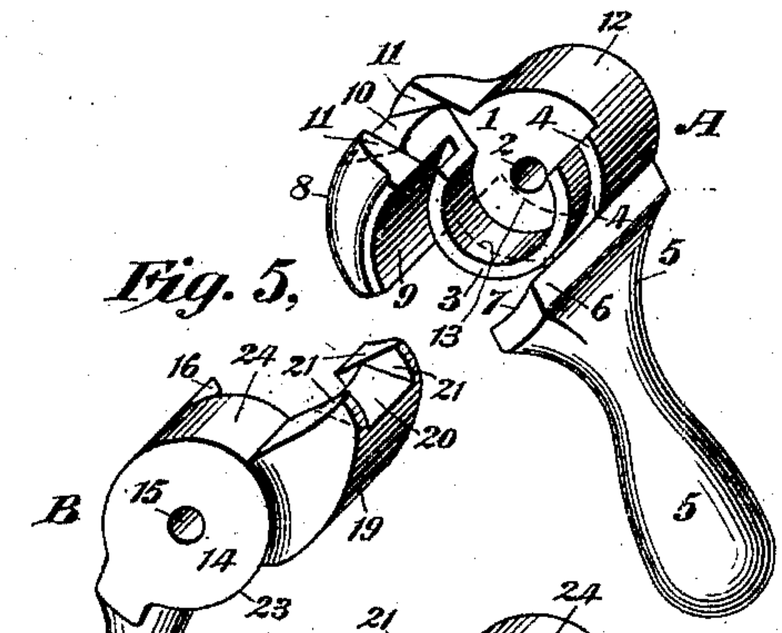
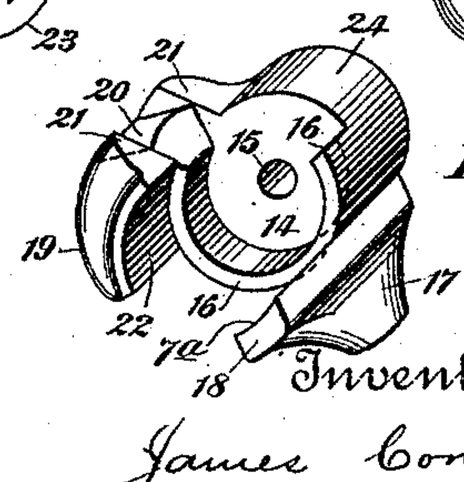


Fig. 8,



Witnesses
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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. 496,998, dated May 9, 1893.

Application filed September 24, 1892. Serial No. 446,753. (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 to that class of self-closing faucets patented April 8, 1875, to P. W. Doherty, and has for its main object to improve the construction of the operating levers, whereby a firmer and more durable and otherwise better structure is provided. And to these main ends my invention consists in the 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 side elevation of a cock or faucet embodying my improvements, the body of the cock or faucet being in section. Fig. 2 is a vertical section taken at the line *x*, *x* of Fig. 1. Fig. 3 is a central vertical section through the upper portion of the faucet, on a plane at right angles to the sectional line *x*, *x*, of Fig. 1. Fig. 4 is a bottom plan view of the operating levers, omitting the handles, as they appear detached from the valve-stem and with their bearer-ends spread open, as shown in full lines at Fig. 2. Fig. 5 is a perspective view, showing both of the operating levers, separated. Fig. 6 is an elevation of the lever A looking in the direction of the arrow *a* at Fig. 2. Fig. 7 is an elevation of the lever B looking in the direction of the arrow *b* at Fig. 2, and Fig. 8 is an interior perspective view of the lever B.

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.

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 a circular ledge 3, struck from the pivot hole 2 as a center and with a radius slightly less than that of the cheek-plate 1, thus forming a shoulder 4 between the upper side of the ledge and the periphery of the cheek-plate. Formed integral with the cheek-plate, on one side of its hole is a handle 5, which has a lateral projection or member 6, which extends over and past the ledge 3, and which on its under side is provided with a curved or arc-shaped face 7 concentric with said ledge. Formed integral with said cheek-plate on the opposite side of the center thereof is a member or projection 8, which extends laterally in the direction of the projection 6. The projection or member 8 is formed, on its inner side 9, on an arc of a circle concentric with said ledge, and at one end is formed with a track-bearer 10, on either side of which is a projecting lip 11. The concentric ledge 3 is preferably 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 8 on either side is circular, and is formed with substantially the same radius that the arcs 7 and 9 are formed with, thus providing, on opposite sides of the handle, bearing portions 12 and 13 on the cheek-plate.

The lever B has a side or cheek-plate 14 perforated centrally at 15, and is provided with an inwardly-extending circular flange 16 slightly greater than the semi-circle and of a thickness or width equal to the depth of the shoulder 4 or the space between the outer surface of the ledge 3 and the face 7 on the under side of the member 6. The flange 16 is formed with the hole 15 as a center and with a greater radius than the ledge 3, so that the said flange may rest upon the said ledge when the two levers are put together. Formed integral with the cheek-plate 14 is a handle 17 having a lateral projection or member 18, similar to 6, and whose under surface 7^a is formed on an arc of a circle. On the opposite side of the center of said cheek-plate and formed integral therewith and with the flange is a laterally-projecting member 19, similar to 8, and provided with a track-bearer 20 and side lips 21. The inner surface 22 of the projecting member 19 is formed on an arc of a circle concentric and coincident with the outer surface of the flange 16 and the periphery of the cheek-plate. Between the handle portion 17 and the member 19 the surface of the cheek-plate is made circular and coincident with the outer surface of the flange

16, and forms on one side of the handle portion, a bearing-portion or surface 23, and on the other side a bearing surface 24.

The levers A and B are assembled by arranging their handles in parallel planes and by then pushing the two parts laterally toward each other until the flange 16 rests upon the ledge 3, with the free edge of the flange abutting against the shoulder 4. When thus put together the surface 7 bears upon the outer surface of the flange 16 and also upon the surface 23 of the cheek-plate 14; the surface 7^a on the under side of the projection 18 bears upon the outer surface 13 of the cheek-plate 1; the surface 9 of the member 8 bears upon the outer surface of the flange 16, and also upon the surface 24 of the cheek-plate 14; and the inner surface 22 of the projecting member 19 bears upon the outer surface 12 of the cheek-plate 1. The handle-portions 5 and 17 which are arranged transversely of the planes of the cheek-plates, the members 6 and 8, the members 18 and 19, and the cheek-plates 1 and 14 are alike or duplicates in each lever, the only difference in construction between the levers being that, in the lever A there is provided the concentric ledge 3, and in the lever B the concentric flange 16 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 end of a valve stem 25, which is flattened and perforated for the passage therethrough and through the holes 2 and 15 of a pin or pivot-bolt 26. The said stem passes through a circular plate 27, which is provided on its upper side with tracks or fulcra 28 and 29, the former receiving the bearer 10, and the latter the bearer 20. The track-plate 27 is seated in a cap 30 screwed into the body 31 of the faucet in the usual way. The valve-stem passes down through said track-plate 27 and cap 30, and is provided at its lower end with a suitable valve 32 adapted to a seat 33 in the body of the faucet. Surrounding the valve-stem is a strong spiral spring 34 arranged to normally keep said valve firmly upon its seat. The valve-stem may be provided with suitable packing 35, as usual.

When it may be desired to lift the valve from its seat, the handles 5 and 17 of the crossed-levers are squeezed together as shown by the dotted lines at Fig. 2, and as the bearers 10 and 20 approach each other they ride on their respective tracks 28 and 29 and operate to lift the valve-stem and raise the valve from its seat. Upon releasement of said handle 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 largely removed from the pivot-pin or bolt and is distributed over the ledge, the flange, the cheek-plates and the projections, thus obviating the serious objection heretofore existing in this class of contrivances, in which the wear (aside from that of the bearers), due to the power of the spring against which the levers are obliged to operate, came solely and wholly upon the pivot-pin or bolt, which had to be made of the hardest bronze wire and at some expense, 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.

It will be understood that the pin or bolt 26, while receiving a comparatively small portion of the wear, acts more especially as a tie for the levers, and that the ledge and flange, and members 6 and 8, and members 18 and 19 and cheek-plates form the hinge-joint of the levers, receiving in consequence nearly all the wear, which not only insures greater durability but a better balanced and a more smoothly-operating contrivance. Inasmuch as the inner edge of the flange abuts against the shoulder 4, and the members 6 and 8 bear upon the cheek-plates, there is a close fit between the parts, leaving no opening between the handles for dust or dirt to enter and grind and wear away the working parts, as heretofore.

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, having a valve and valve-stem, a pair of crossed levers, adapted to raise the valve-stem and provided one with a circular ledge, and the other with a concentric flange to bear thereon the said ledge and the said flange being incomplete rings, substantially as set forth.

2. 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 cheek-plate 1, a handle 5, a lateral projection 6, a lateral projection 8, having a bearer 10 to engage with a track or fulcrum on the body of the faucet, and the lever B consisting essentially of a cheek-plate 14, a handle 17, a lateral projection 18, and a lateral projection 19, having a bearer 20 to engage with another track or fulcrum on the body of the faucet, the arrangement of the parts described being such that the two levers may be fitted together in a crossed condition by a lateral movement of each toward the other, substantially as set forth.

3. In a self-closing faucet, the combination of two crossed-levers A and B, the lever A having a circular cheek plate 1, a circular ledge 3, a handle 5, a projection 6 curved or arc-shaped on its under side, 7, a lateral projection 8, curved or arcshaped on its inner side 9, and having a bearer 10, and the lever B having a circular cheek-plate 14, a circular

flange 16, a handle 17, a lateral projection 18, curved or arc-shaped on its under side 7^a, a lateral projection 19 having a bearer 20 and curved or arc-shaped on its inner side 22, the flange being adapted to bear upon the ledge, the face 7, on one portion of the periphery of the cheek-plate 14, the face 7^a on one portion of the periphery of the cheek-plate 1, the face 9 on one portion of the cheek-plate 14, and the face 22 on another portion of the cheek-plate 1.

4. In a cock or faucet, the combination of a valve-seat, a valve-stem, a spring for closing the valve, and a pair of crossed-levers pivotally connected to said valve-stem and bearing at their lower ends upon tracks or fulcra, each lever having a single circular cheek-plate, a handle arranged transversely of the plane of the cheek-plate, and also two lateral projections or members; the cheek-plates of the two levers being arranged a suitable distance apart for the reception of the upper end of the valve-stem, and the said two lateral projections or members on each lever extending over to embrace the cheek-plate of the other lever, substantially as set forth.

5. In a self-closing cock or faucet, and in combination, a valve-stem connected to a pair of crossed levers, each lever having a single cheek-plate, the said cheek-plates being separated to provide a space for the reception and operation of the upper end of the valve-stem, and one of said levers being provided with an inwardly-projecting circular ledge, and the other with an inwardly-projecting concentric flange to bear thereon, the said ledge and the said flange being incomplete rings substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 21st day of September, A. D. 1892.

JAMES CONITY.

Witnesses:
JACOB FELBEL,
IDA MACDONALD.