(No Model.)

D. & T. MORRIS.

FAUCET.

No. 338,353. Patented Mar. 23, 1886.

FIG. 1.

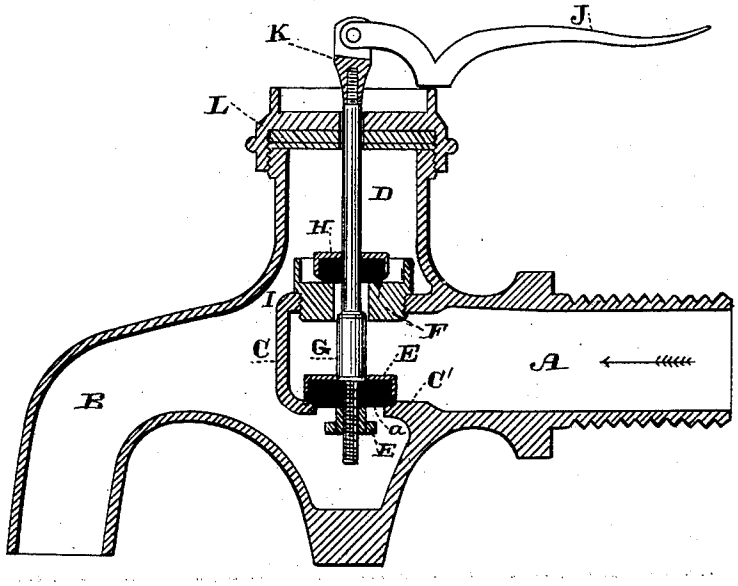
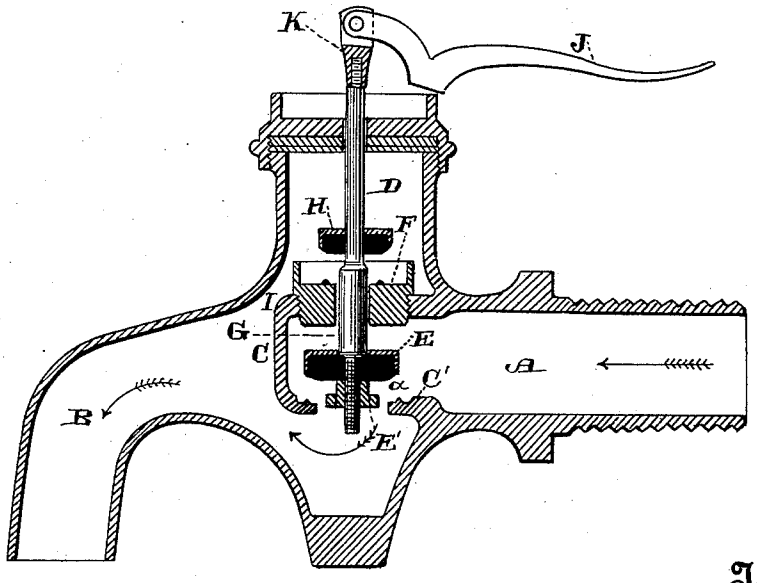


FIG. 2.



Witnesses,
Geo. H. Strong.
J. L. Fowler.

Inventor,
David Morris
Theodore Morris
By Dewey & Co.
Attorneys

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

DAVID MORRIS AND THEODORE MORRIS, OF SAN FRANCISCO, CAL., ASSIGNORS TO THE MORRIS MANUFACTURING COMPANY, OF SAME PLACE.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 338,353, dated March 23, 1886.

Application filed February 4, 1885. Serial No. 154,936. (No model.)

To all whom it may concern:

Be it known that we, DAVID MORRIS and THEODORE MORRIS, of the city and county of San Francisco, in the State of California, have invented an Improvement in Faucets; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to certain improvements in faucets through which water or other liquid is to be drawn under pressure.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a longitudinal vertical section of a faucet, showing the valve closed. Fig. 2 is a similar view showing the valve open.

In the ordinary construction of faucets they are either made so that the valve must be opened and closed by hand, with the danger of flooding in case the valve is left open, or, if made self-closing, they are operated by a spring, which is apt to get out of order.

In our invention we use a balance-valve so arranged that it shall have sufficient pressure to close itself when the operating-lever is released, and it is at the same time so nearly balanced that the valve may be easily opened under a heavy pressure.

A is the inlet-passage of the faucet, and B is the outlet-passage. A diaphragm, C, extends across the space between the passages A and B, as shown. This diaphragm is so constructed that its upper and lower portions are directly beneath the vertical opening D of the faucet, so that they may be drilled through for the reception of the valves.

The lower portion, C', of the diaphragm has a hole bored through it and a valve-seat formed upon its upper surface to receive the valve E. The passage through the diaphragm opens into a chamber beneath, which communicates directly with the discharge-passage B of the faucet, as shown.

The upper portion of the diaphragm C has a hole bored in it large enough to allow the valve E to slip through it freely, and this hole has screw-threads formed in it, into which the upper valve-seat, F, is screwed, as shown. Through the center of this upper valve-seat a hole is made, and the stem G passes loosely through the hole, having the valve E fixed to its lower end, as shown, and the valve H secured to it above the valve-seat F, and so arranged with relation to the valve E that both will close simultaneously upon their seats at the same time.

The opening through the valve-seat F around the stem G is sufficiently large to allow a small portion of water to pass upward into the chamber D above the valve H, into which it may escape through a narrow passage, I, into the discharge-passage B of the faucet.

The valve E being larger than the valve H, it will be seen that the pressure upon it will be sufficient to keep both valves to their seat; but the difference between the valves E and H is so adjusted that the stem G may be easily raised and open the valve by means of a lever, J, the inner end of which is hinged to a nut, K, which is screwed upon the upper end of the stem G.

The cap L, which closes the upper part of the passage D, has a packing, so that it will be water-tight, and a flange or rim projecting upward, so that the lever J may rest upon it as a fulcrum, the lever being bent downward at that point, so that wherever it may be turned it will always press upon the rim.

When it is desired to open the valve, it is only necessary to press upon the outer end of the lever, when the inner end, with the stem, will be raised and the valve opened. As soon as the lever is released, the valve will close, on account of the greater area of the lower portion, E. The closing of the valve is assisted by a collar, E', which is secured to the lower end of the valve stem G a short distance below the valve E. This collar lies partially within the opening through the valve-seat when the valve is raised, and the rush of the pouring water will act upon it and assist in closing the valve when the lever is released. The valves E and H are preferably made of hollow metal, and a disk of leather or rubber, *a*, is fitted inside. The edges are then spun or turned down over the edges of the disk, so as to hold them in place.

We are aware of English Patent No. 2,204 of 1860, wherein is shown a faucet having ingress and egress passages with an intervening partition having upper and lower openings and seats, and valves of different diameters adapted to said seats, the said valves being united by a stem, and adapted to be kept to their seats by

the pressure of a spiral spring surrounding the uniting-stem and bearing upon the upper valve, and we do not, therefore, broadly claim such construction.

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

In a faucet adapted to be kept closed by the pressure of water from the main ingress and egress passages, an interposed diaphragm having an exit-opening and interior valve-seat in its lower portion, a second opening and exterior valve-seat in its upper portion, valves of different diameters united by a stem adapted to said discharge-openings, combined with a supplemental collar, E', secured to the valve-stem below the valve-seat, substantially as described.

In witness whereof we have hereunto set our hands.

DAVID MORRIS.
THEODORE MORRIS.

Witnesses:
S. H. NOURSE,
H. C. LEE.