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PATENTED DEC. 24, 1907.

E. C. FLEISCHMAN & J. F. JENNINGS.

FAUCET.

APPLICATION FILED SEPT. 23, 1905.

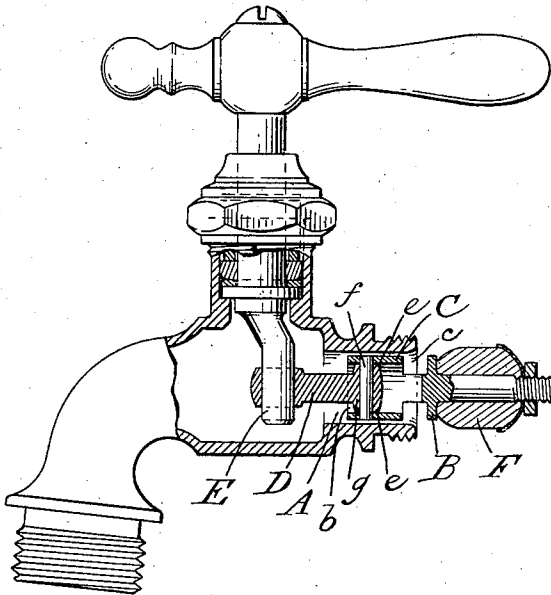


Fig. 1.

Fig. 2.

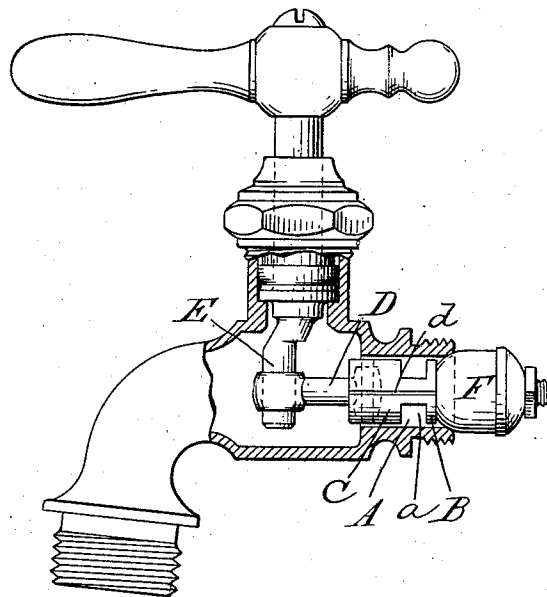


Fig. 3.

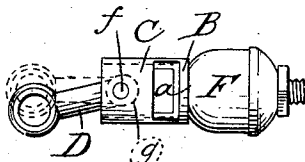
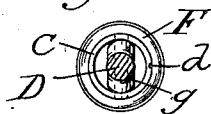


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

EDWIN C. FLEISCHMAN AND JOHN F. JENNINGS, OF CLEVELAND, OHIO, ASSIGNORS TO THE MONARCH BRASS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

FAUCET.

No. 874,755.

Specification of Letters Patent.

Patented Dec. 24, 1907.

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To all whom it may concern:

Be it known that we, EDWIN C. FLEISCHMAN and JOHN F. JENNINGS, citizens of the United States, residents of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Faucets, of which the following is a specification, the principle of the invention being herein explained and the best mode in which we have contemplated applying that principle, so as to distinguish it from other inventions.

The object of the invention is to provide an improved faucet,—particularly for obviating hammering of water and rattling of mechanical members.

The invention consists of the means herein-after described, and particularly pointed out in the claims.

The annexed drawings and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting but one of various mechanical forms in which the principle of the invention may be used.

Figure 1 is a view, partly in side elevation and partly in sectional elevation. Fig. 2 is a view partly in side elevation and partly in sectional elevation; certain members being shown in different position from that of the preceding figure; certain members which were shown in sectional elevation in such preceding figure, being shown in side elevation in the present view. Fig. 3 is a detail top plan view of the members that are actuated by the crank shaft. Fig. 4 is a detail end view, on a transverse line of the link, of the last figure, and looking towards the valve.

Within a fluid way, A, of a faucet is loosely fitted an initial valve, B. Such valve has a tubular stem, C, provided with two inlet ports, *a*, respectively in opposite sides of its end adjacent to said valve. The opposite end of said stem is provided with a water outlet, *b*. A link, D, has its one end fitted within and pivoted to said outlet end of said stem. A crank shaft, E, is connected to the remaining end of said link.

A final valve, F, seats against the inlet end, *c*, of said fluid way A,—immediately adjacent to said initial valve B. Said final valve and initial valve and stem, are each, circular in respective planes transverse to said fluid way A. Said initial circular valve B and said circular hollow stem C have a horizontal groove, *d*, formed in their exterior circular

formations,—on one side thereof, between said two lateral inlet ports *a*. Said groove extends entirely across the said outer side edge of said initial valve, and extends throughout the entire length of said tubular stem,—and constitutes a water outlet vent. The end of said link D which is inclosed within the outlet end of said tubular stem, is provided with vertical angular formations, *e*, in vertical line with each other, and respectively having end bearing against the inner side walls of such tubular stem. A vertical pivot *f* passes loosely through the sleeve formation, *g*, in said end of the link, and its said angular formations; the upper and lower ends of such pivot being suitably journaled in corresponding holes formed respectively in the upper and lower walls of such tubular stem.

The initial valve with the tubular stem and the vent groove, accomplish a gradual closing of the water,—thus preventing water hammering. Said groove also permits of water packing. The pivotal joint of the link between the tubular stem and the crank shaft prevents binding of such tubular stem; permitting closer fit of such stem and initial valve within the fluid way A. The tubular valve stem serves as a water passage; its circular formation provides water packing; it takes up loose play, prevents wear, and provides strong bearing for the pivoted link D; it gives elongated bearing and prevents rattling.

The invention is not restricted to the form of mechanical members shown in the drawings, nor to the proportions thereof. The fitting of the initial valve, or its tubular stem, within the water way, may be greater or less than that indicated in the drawings. The invention is, likewise, subject to successful adaptation to self closing faucets.

Other modes of applying the principle of our invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed provided the means stated by any one of the following claims or the equivalent of such stated means be employed.

We therefore particularly point out and distinctly claim as our invention—

1. In a faucet, the combination of a fluid way, a final valve which seats against the inlet end of such way, an initial valve having a hollow stem, said initial valve and stem hav-

ing a fluid vent in their exterior formation, substantially as set forth.

2. In a faucet, the combination of a fluid way, a final valve which seats against the inlet end of such way, an initial circular valve having a tubular stem of substantially same circular size as said initial valve, said initial circular valve and tubular stem having a fluid outlet vent in their exterior circular formations, substantially as set forth.

3. In a faucet, the combination of a fluid way, a final valve which seats against the inlet end of such way, an initial circular valve having a tubular stem of substantially same circular size as said initial valve, a link having one end inclosed within and pivoted to said tubular stem, a crank shaft journaled to the opposite end of said link, said initial circular valve and tubular stem having a fluid outlet vent in their exterior circular formations, substantially as set forth.

4. In a faucet, the combination of a fluid way, a final valve which seats against the inlet end of such way, an initial circular valve having a hollow stem provided with a lateral inlet port and having an outlet end, a link loosely jointed to said stem, a crank shaft connected to said link, said initial circular valve and tubular stem having a fluid outlet vent in their exterior circular formations, substantially as set forth.

5. In a faucet, the combination of a fluid way, a final valve which seats against the in-

let end of such way, an initial circular valve having a hollow stem provided with two inlet ports respectively in opposite sides of its end adjacent to the initial valve, and having its opposite end provided with an outlet, a link having its one end loosely jointed to said outlet end of said stem, a crank shaft connected to such link, said initial circular valve and tubular stem having a fluid outlet vent in their exterior circular formations between said two ports, substantially as set forth.

6. In a faucet, the combination of a fluid way, a final valve which seats against the inlet end of such way, an initial circular valve having a hollow stem provided with two inlet ports respectively in opposite sides of its end adjacent to the initial valve, and having its opposite end provided with an outlet, a link having its one end fitted within and pivoted to said outlet end of said stem, a crank shaft connected to the remaining end of said link, said initial circular valve and tubular stem having a fluid outlet vent in their exterior circular formations between said two ports, substantially as set forth.

Signed by us, this 19th day of September, 1905.

EDWIN C. FLEISCHMAN.
JOHN F. JENNINGS.

Attested by:

THOS. B. HALL,
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