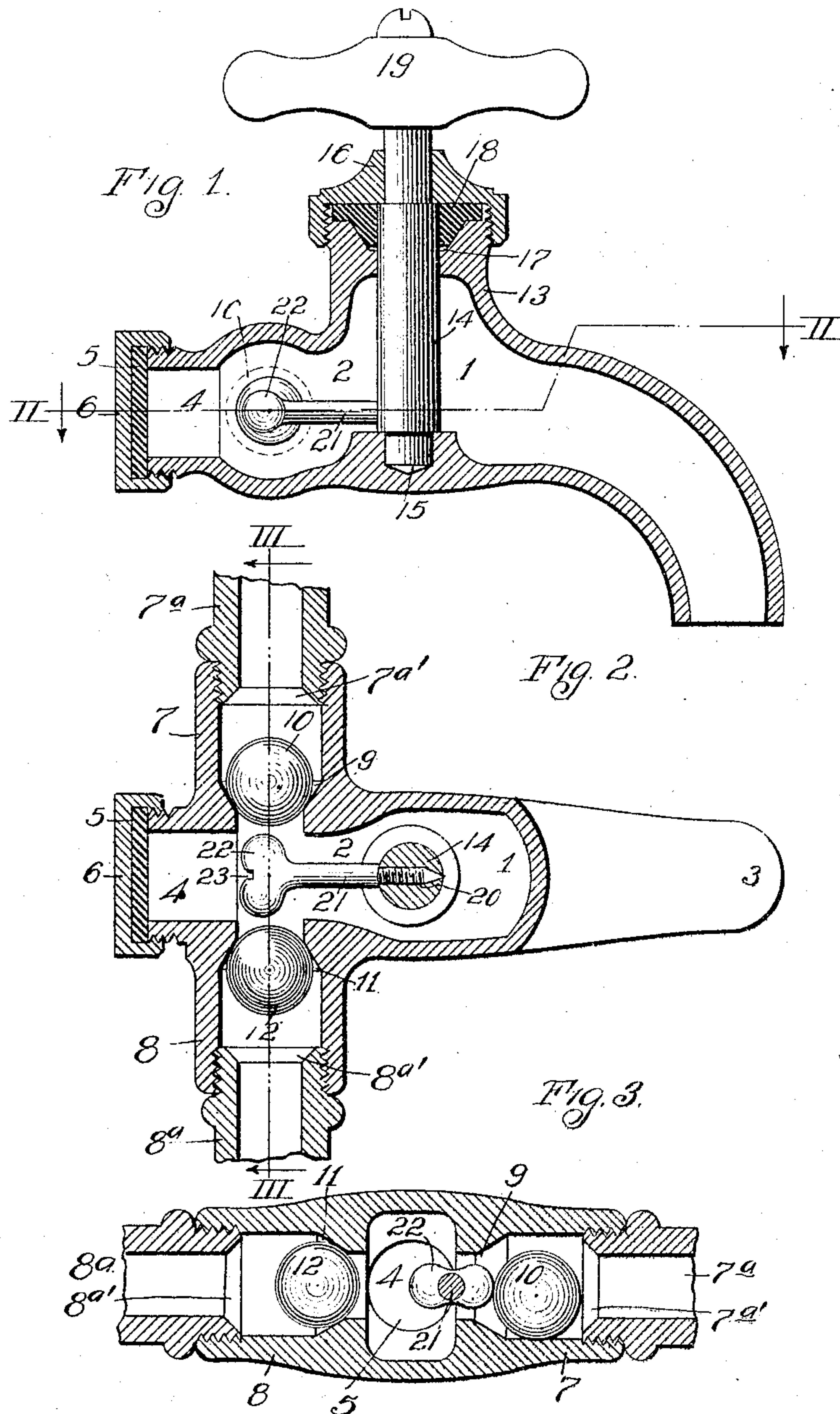


No. 764,620.

PATENTED JULY 12, 1904.

J. C. NORRIS.  
SELF CLOSING FAUCET.  
APPLICATION FILED SEPT. 14, 1903.

NO MODEL.



Witnesses  
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Att'y.



# UNITED STATES PATENT OFFICE.

JOHN C. NORRIS, OF KANSAS CITY, MISSOURI.

## SELF-CLOSING FAUCET.

SPECIFICATION forming part of Letters Patent No. 764,620, dated July 12, 1904.

Application filed September 14, 1903. Serial No. 173,205. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. NORRIS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Self-Closing Faucets, of which the following is a specification.

My invention relates to self-closing faucets of that class from which may be drawn at will either hot or cold water, my object being to provide a faucet of this character which operates efficiently and is of simple, strong, durable, and cheap construction.

To these ends the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a central vertical section of a faucet embodying my invention. Fig. 2 is a section taken on the line II II of Fig. 1. Fig. 3 is a section taken on the line III III of Fig. 2.

In the said drawings the faucet is shown as provided with a chamber 1, having a supply-opening 2 at the rear and a discharge opening or spout 3 at the front. Opposite the supply-opening 2 the faucet is provided with a rearwardly-projecting tubular neck 4, externally screw-threaded and normally closed by a compressible washer 5 and a screw-cap 6. Between opening 2 and said tubular neck 4 are laterally-projecting internally-threaded necks 7 and 8, and screwed therein are the hot and cold water pipes 7<sup>a</sup> and 8<sup>a</sup>, respectively, said pipes being formed with seats 7<sup>a'</sup> and 8<sup>a'</sup> for a purpose which hereinafter appears. The tubular neck 7 is provided with a valve-seat 9, whereon a ball-valve 10 is normally seated by the pressure of the hot water, and the tubular neck 8 is provided with a similar seat 11, whereon a similar ball-valve 12 is adapted to be normally seated by the pressure of the cold water. These ball-valves are preferably of rubber or equivalent material; but it is to be understood, of course, that I do not confine myself to this particular construction.

Extending vertically through chamber 1

and through the upwardly-projecting neck 13 at the top of the faucet is a valve-stem 14, which preferably has a step-bearing, as at 15, in the lower part of the faucet and is also journaled in a cap 16, screwed or otherwise secured upon neck 13, and to prevent leakage of water through said cap the neck 13 is provided with a downwardly-tapering seat 17, wherein is clamped tightly against the stem by cap 16 the resilient packing-ring or washer 18. The stem is provided at its upper end with a suitable handle 19 and near its lower end with a threaded passage 20, wherein is screwed a crank-arm 21, the rear end of said crank-arm being provided with an enlargement or head 22 to adapt it to engage said ball-valves to unseat them, though it is capable of unseating but one at a time. This crank-arm is inserted through the neck 4 and is screwed into the stem 14 by means of a screw-driver in engagement with the notch 23, by preference, after which the neck is closed by screwing thereon the washer and cap.

The pressure of the water in the pipes normally holds the parts in the position shown in Fig. 2, so that when hot water is desired the operator only has to turn the handle and cause the head or enlargement of the crank-arm to strike and force valve 10 from its seat, as shown in Fig. 3, when immediately the water will pass the valve and enter the faucet, escaping through the spout in the usual manner, and in this connection it will be noticed that the water thus entering will not unseat the opposite valve, because having no resistance to its escape from the faucet the pressure on said valve is less than that of the cold water at the opposite side. Furthermore, the area of the valve presented to the hot water is less than that presented to the cold water, and thereby gives the latter greater leverage. Immediately the handle is released the hot water reseats the valve 10 and forces the crank-arm to substantially the position shown in Fig. 2. When cold water is desired, the handle is turned in the opposite direction to unseat valve 12, and when the handle is released the cold water reseats said valve.

As a precautionary measure against dislo-



cation of the valves the supply-pipes 7<sup>a</sup> and 8<sup>a</sup> fit into necks 7 and 8 to afford obstructions which limit the movement of the balls away from their seats 9 and 11, and at the same time  
5 each supply-pipe provides a seat for its respective ball-valve in case the pressure from the supply-pipe of the latter is diminished from any cause while water is being drawn from the other supply-pipe. If these supple-  
10 mental or back seats for the balls were not provided by screwing the supply-pipes into necks 7 and 8 or otherwise, it will be seen that under certain conditions the balls might be forced back into the supply-pipes and lodge  
15 at some point where they would interfere with the proper flow of the water.

From the above description it will be apparent that I have produced a self-closing faucet from which hot or cold water can be drawn at  
20 will, and while I have illustrated and described the preferred embodiment of the invention it is obviously susceptible of modification in various particulars without departing from

its essential spirit and scope or sacrificing any of its advantages. 25

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

A faucet having laterally-projecting necks, provided with valve - seats, supply - pipes 30 screwed into said necks, and providing valve-seats, a valve in each neck and between the valve-seat of said neck and the valve-seat of its respective supply-pipe, and seated ordinarily by the pressure of the water in the sup- 35 ply-pipe against the first-named seat, a stem journaled in the faucet and provided with a handle, and a crank-arm secured to said stem and adapted to force either valve from its seat provided by the neck portion. 40

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN C. NORRIS.

Witnesses:

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HENRIETTA C. SHAW.