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S. H. SPEYER

FAUCET

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Fig. 1.

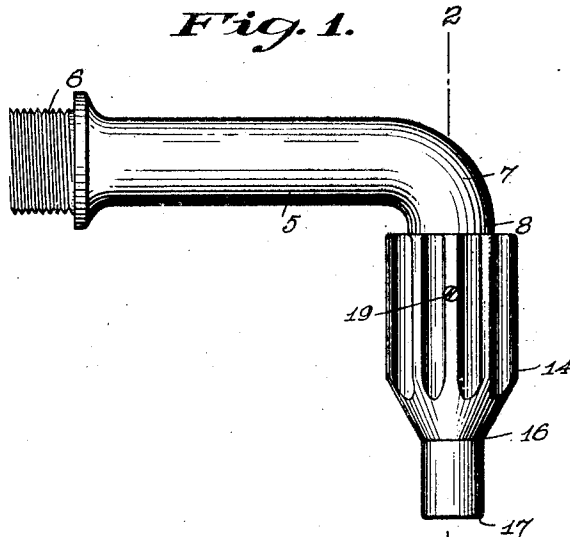
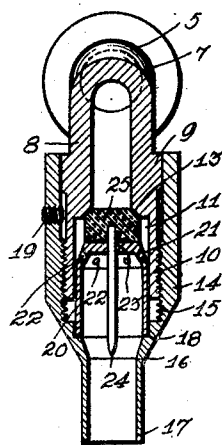


Fig. 2.



WITNESSES

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FAUCET.

Application filed September 9, 1921. Serial No. 499,498.

To all whom it may concern:

Be it known that I, SAMUEL H. SPEYER, a citizen of Holland, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Faucet, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in reciprocating valves and it pertains more particularly to reciprocating valves of the faucet type.

It is the primary object of the invention to construct a reciprocating valve in such a manner that washers and the like for maintaining leak-tight joints are dispensed with.

It is another object of the invention to construct a valve in such a manner that by a slight turning thereof, the valve member may be unseated to permit a free flow of the fluid through the valve.

It is a further object of the invention to construct a valve so that all of the parts thereof are formed of metal, thus greatly increasing the life of the valve.

With the above and other objects in view, reference is had to the accompanying drawings in which—

Figure 1 is a side view of a faucet constructed in accordance with the present invention, and

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Referring more particularly to the drawings, the reference character 5 designates a length of pipe which forms the body of the faucet and said length of pipe is provided upon one of its ends with a screw-threaded section 6, by means of which it is secured in operative position. The length of pipe 5 is bent at substantially right angles as indicated by the reference character 7, to provide a downwardly projecting portion 8. The portion 8 is provided intermediate of its ends, with an annular shoulder 9, and upon its lower end said portion 8 is screw-threaded as indicated at 10.

The screw-threaded end of the bent portion 8 is hollowed out as shown at 11, and the shoulder 12 formed by said hollowed out portion is ground to provide a valve seat 13.

The reference character 14 designates a shell member or housing and said shell member is internally screw-threaded as indicated at 15, the said screw threads 15 being adapted for interengagement with the

screw threads 10 to provide for the attachment of the shell 14 to the bent portion 8 of the pipe 5. This shell 14 is provided with a constricted portion 16, which constricted portion provides a reduced discharge opening 17.

Near the constricted portion 16 the shell is ground internally to provide a shoulder 18, and said shoulder extends annularly around the said shell on its interior. In order to prevent accidental displacement of the shell 14, relative to the bent portion 8 of the pipe 5, a set screw or other similar means 19 is passed through one of the walls of the shell and it is the function of this set screw to engage the thread 10 in order to prevent removal of the shell 14 under ordinary operating conditions.

Mounted within the cut-out portion of the bent portion 8 of the pipe 5, and supported upon the annular shoulder 18 of the shell 14, is a chamber or housing 20, and said chamber is provided with a closed angularly disposed or tapered upper portion 21 having angularly disposed openings as indicated at 22. The upper wall of this chamber 20 is flat and is provided with an opening 23 through which passes a pin or stem 24. Carried by the upper end of the pin 24 and resting on the flat upper wall of the chamber 20, is a valve 25 adapted to engage the seat 13 of the bent portion 8 in order to close the opening thereof.

The device operates as follows:

With the parts in the position shown in Fig. 2, it is only necessary to grasp the shell 14 and rotate the same to the left in said figure, which operation moves the shell 14 longitudinally of the bent portions 8. Upon movement of the shell 14 longitudinally of the bent portion 8, the distance between the seat 13 and the shoulder 12 is increased and this condition permits of a sliding movement of the chamber 20 within the end of the bent portion 8. As the chamber slides longitudinally of the bent portion 8, the valve member 25 will become unseated due to two causes, i. e., pressure of the fluid in the system, and gravity, and thus permits a free flow of fluid through the valve seat 13, and perforations 22 to the interior of the chamber 20 through the constricted portion 16 of the shell 14 and out through the discharge opening 17.

When it is desired to disassemble the faucet, the screw 19 is removed and upon

said screw being removed, it is apparent that the entire shell 14 may be rotated until its threads disengage the threads 10 of the bent portion 8, at which time the shell together with its component parts, i. e., the chamber 20, the pin 24 and the valve member 25, will be removable through the open end of the bent portion 8.

From the foregoing it is apparent that the present invention provides a faucet in which an absolutely watertight joint is had between the valve and its seat, and that should the valve member wear it is only necessary to remove the shell 14 and replace the valve with a new one by inserting the pin 24 of a new valve through the opening 23 of the chamber 20.

I claim:

A faucet comprising a pipe having a right-angular extension having a hollowed-out exteriorly screw-threaded extremity, a channel formed in the angular extension of said

pipe, a housing adapted to receive the angular extension of said pipe, said housing being screw threaded for interengagement with the threads on the pipe, a screw passing through said housing and into said channel to limit the movement of the housing relative to the pipe, a second housing adapted to be received within the first housing and within the hollowed-out extremity of said pipe, said second-mentioned housing having a closed tapered end provided with a plurality of angularly disposed openings and an open end adapted to engage an internal annular shoulder formed on the interior of the first-mentioned housing, and a valve member removably carried by said second-mentioned housing, said valve member comprising a valve body and a stem rigidly carried thereby and projecting through an opening in the closed end of said second-mentioned housing.

SAMUEL H. SPEYER.