Sept. 25, 1923. 1,468,949

C. W. KOCH

FAUCET VALVE

Filed June 6, 1922

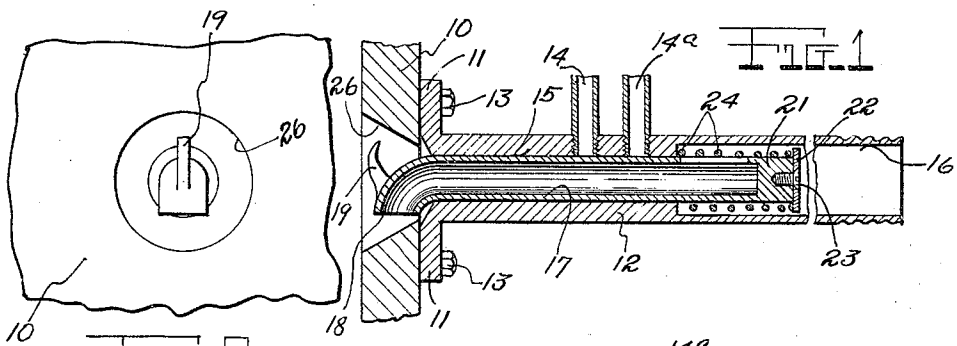


FIG. 1

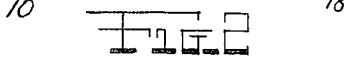


FIG. 2

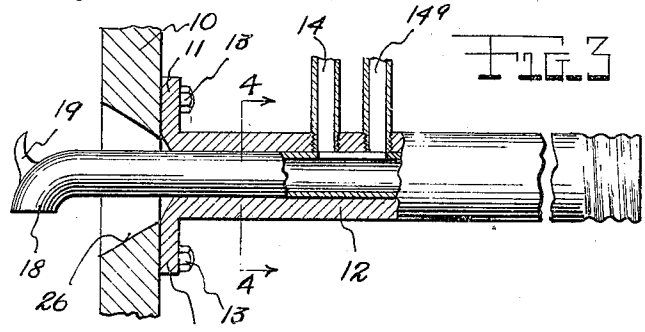


FIG. 3

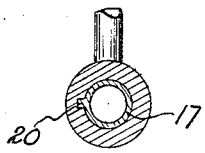


FIG. 4

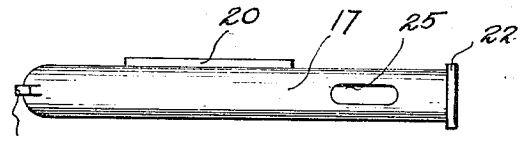


FIG. 5

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UNITED STATES PATENT OFFICE.

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FAUCET VALVE.

Application filed June 6, 1922. Serial No. 566,273.

To all whom it may concern:

Be it known that I, CHARLES W. KOCH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Faucet Valves, of which the following is a specification.

The main object of this invention is the provision of a faucet the outlet end of which normally lies flush with the body to which it is attached, adapted to be opened to permit flow of liquid by drawing the faucet outward from the body, and upon being released is automatically drawn into the body, thus shutting off the flow of liquid.

Another object is to provide a faucet that upon being opened the proper distance, will mix the discharge of hot and cold water feed pipes before leaving the valve.

A still further object is to provide a faucet valve capable of being mounted in a barrel, which will not protrude from the side and therefore not have to be detached when the barrel is rolled.

These and other objects will become apparent in the description below, in which similar characters of reference refer to the like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a longitudinal sectional view thru the valve, the latter being in closed position.

Figure 2 is a front elevational view of Figure 1, showing the finger grip operating means.

Figure 3 is a longitudinal sectional view similar to Figure 1, showing the valve in open position.

Figure 4 is a cross-sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a top plan view of the slidable mixing chamber.

Describing the drawing in detail, the numeral 10 indicates a wall to which is secured an annular flange 11, forming part of the main tubular body 12 of the mixing valve, by the bolts 13. Said tubular body is mounted within the region of the wall so that the entire device remains concealed.

Threaded holes formed in the wall of the tubular body 12, substantially central of its length, receive the ends of externally threaded pipes 14 and 14ª, which are tapped off from the main water lines, the pipe 14 joining the cold water main, and the pipe 14ª communicating with the hot water boiler.

The bore 15 formed in the body 12 extends partly thru its length and connects with a larger annular opening 16 to slidably receive a tubular valve 17, provided with a downwardly extending mouth 18 and a finger grip 19. A guide key 20, formed longitudinally on the valve 17, slides with the valve in a corresponding keyway in the main body 12 and prevents the valve from being rotated. The valve end opposite to the mouth is enclosed by a wall 21 to which an annular plate 22 is secured by the screw 23. A compression spring 24 encircling the valve, between the plate 22 and the bottom of opening 16, normally retains the valve in retracted position. A slot 25 in the wall of the valve near the enclosed end alines with the pipes 14 and 14ª, and is of a length suited to receive the discharge of both of said pipes.

Figure 1 illustrates the closed position of the valve in which the curved mouth end 18 rests in a conically shaped hollow 26 formed in the wall 10 so that the mouth 18 will not project therefrom.

As previously stated, the flange 11 of the main body 12 is preferably secured to a wall and the pipes 14 and 14ª are connected to it in the manner described. When the tubular valve is to be opened the slide valve is extended, by pulling on the finger grip 19 until the slot 25 registers with either of the pipes 14 or 14ª. When the cold water is desired, the slide valve is extended to its greatest length so that the slot 25 registers with the pipe 14 only. Obviously, if hot water, or water of various temperatures are desired, the slide valve is manipulated so that pipe 14ª registers with the slot 25, or both pipes register therewith, in which event a proportionate mixture of cold and hot water is obtained the movement of the valve being limited by the stop plate 22.

When the finger grip is released, the slide valve will immediately be retracted by the spring 24 thus shutting off the flow, and bringing the faucet back to normal, closed position.

I claim:—

A faucet valve comprising a tubular body having a flanged end, longitudinally aligned pipe openings intermediate the length of the tubular body, an enlarged annular opening at the free end of said body, a tubular valve

slidable in the bore of said body and having a longitudinal slot, said slot being aligned with the opening in said body, said slot normally resting rearward of said openings and closing the latter, a spring wound upon the rear end of said valve and housed in the enlarged opening of the body, a plate mounted on the rear end of the valve member and adapted to retain said spring in place, a downwardly extending mouth at the forward end of said valve, the slot in said valve when aligned with the openings in the body being adapted to permit full or fractional communication between the passage of the valve and the body openings when said valve is urged outwardly, said spring being adapted to slide said valve slot rearward to close said openings, and means for urging said valve outward.

In witness whereof I affix my signature.

CHARLES W. KOCH.