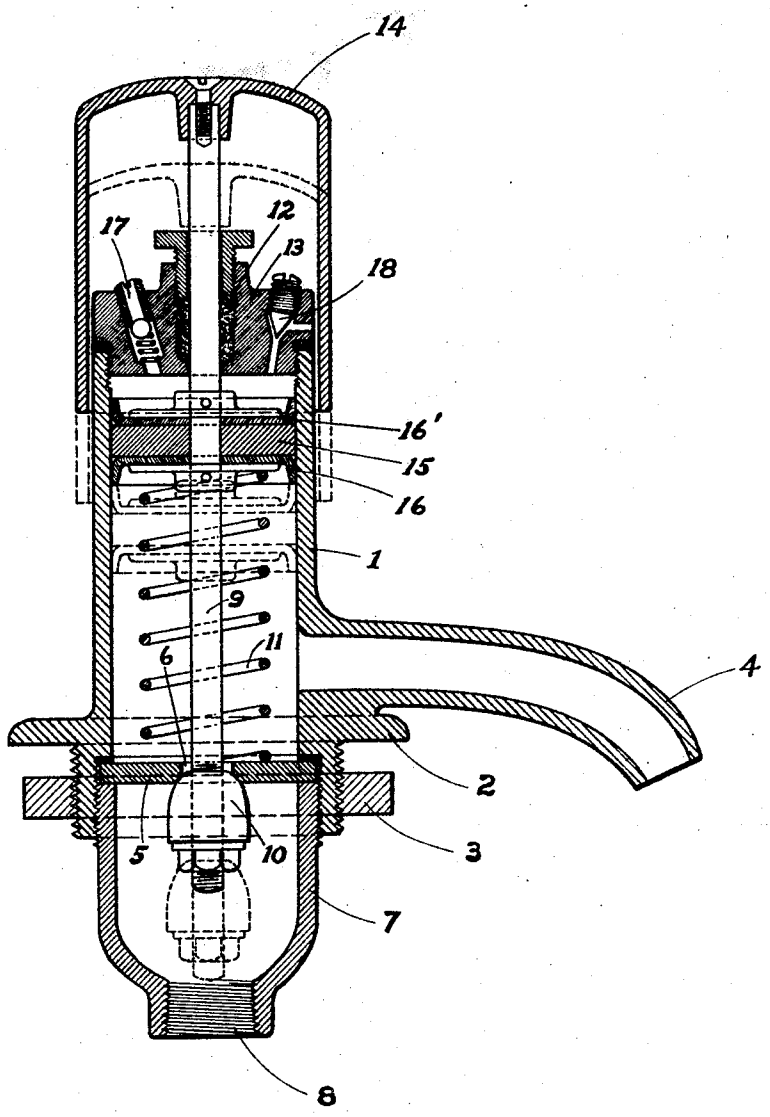
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PERIOD FAUCET

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PERIOD FAUCET.

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To all whom it may concern:

Be it known that I, ELIZABETH M. LA CASSE, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented a new and useful Improvement in a Period Faucet, of which the following is a specification and which is illustrated in the accompanying drawing.

This invention relates to self closing water faucets, particularly for use over hotel and public hand basins, sinks, etc., and has for its object a faucet of simple construction which will, upon pressing a push knob, deliver a stream of water for a limited period of time and then close itself. The length of time the stream will run depending on the setting of the control and the distance the push knob is pressed, accomplishing thereby two things, first,—the delivery of a stream of water for a period of time determined by the starting push, and secondly,—the ultimate automatic shut off, thus providing a stream of water running long enough for ablution purposes without the necessity of holding one hand on the faucet, or of shutting off the faucet when through.

The figure in the drawing accompanying this specification is a cross section of my faucet drawn full size, of a rather large size faucet, (the exact size of the faucet depending on the requirements of the installation) and since this cross section bisects all of the elements it is readily understood without other detail.

In the drawing the body of the faucet is shown at 1, it is a round vertically extending cylinder adapted to be secured to a wash basin by being clamped thereto between the lower flange 2 and the lock nut 3.

At 4 is shown a spout extending from the cylinder and adapted to overhang a wash basin when the faucet is clamped in place.

At the lower part of the cylinder and within it is a valve plate 5 with a central water inlet 6.

The valve plate 5 is held in place by a reducer 7 screwed against it and the reducer is itself adapted for screwing at its lower end 8 to a standard water pipe.

Passing through the inlet hole 6 in the valve plate is a valve stem 9 carrying at its lower end a rubber washer 10 arranged to close the hole through the force of the water pressure against it, and the assistance, when the pressure is weak, of a spring 11 resting on the valve plate and reacting against the bottom of a piston 15 secured to the stem.

The stem 9 extends upwardly and passes out of the body through a stuffing box 12 arranged in a cylinder head 13, and has secured to its free end an inverted shell form push knob 14.

Spaced between the ends of the stem 9 and secured to it, is a piston 15 carrying a leather cup washer 16, 16′ at both sides, and beneath the piston is a compression spring 11 tending to force the piston upwards.

In the cylinder head 13 is an air inlet valve 17, and also an adjustable air escape controlling needle valve 18.

It will be observed that the cylinder head, stuffing box, and valves, particularly valve 18, are all completely covered by the inverted cup shaped push knob 14 so that they are inaccessible for tampering with by the layman, and only reached by a mechanic after removing the cup 14.

The spring 11 is for the purpose of assisting the water pressure, when weak, to force the piston upwards and close the water inlet valve 10, tho with a constant strong water pressure it might be dispensed with.

The operation of faucet is as follows:— By pushing down on the knob 14 the water valve 10 is opened, water flows from the spout 4, and air is sucked into the upper part of the cylinder through the air inlet 17 on account of the piston having been depressed. The moment the knob is released the the valve 10 starts to close through water pressure acting against it, and also against the lower part of the piston, also through the effort of the spring 11. The speed with which the valve closes depends on the adjustment of the controlling air escape needle valve 18. The ordinary adjustment being such that the stream of water will flow for a few seconds only, or enough to wash the hands or face.

If desired, the operation may of course be repeated by again pressing the knob.

The length of time of the flow, within limited control by the operator, will also depend on the distance which the knob 14 is pushed downward and consequent amount of air drawn into the upper part of the cylinder, to be forced out of the control valve 18, as well as the setting of this valve, for should the control be almost closed the stream would run for quite a while even tho the knob had not been pushed all of the way

down, consequently, between these two controls, i. e. distance of pushing the knob in relation to the setting of the air control 18, the faucet will deliver a stream of either a second or two duration, to one of much longer duration if desired.

The violence of the flow (apart from time of flow) will depend on the water pressure, or on the adjustment of any service cock on the line preceding the facuet, or on the restriction of the passage in the spout, or on the size of the water inlet hole 6 in the valve plate 5.

It will thus be seen that my faucet, while controlled in a somewhat similar manner, is not to be confused with a toilet flush valve, either in construction or mode of operation, for the construction of my faucet adapts it particularly to hotel hand basin use, with a push knob conveniently arranged directly on top, and has a complete concealing of the control and other adjustable elements so that it can not be tampered with, or to change the rate of flow as set by the hotel.

Also, it functions entirely different from a flush valve in having a variable time flow depending on the push given it, or a constant flow if held down, while a toilet flush valve is neither adapted for wash basin use, nor has it any of these features.

I therefore claim:—

1. In a self closing facuet, a cylinder, a head at one end thereof having a water inlet port, a water outlet port from the cylinder near said head, a second head at the other end of the cylinder, air controlling passages passing through said second head, a piston movable within said cylinder, a rod extending from both ends of said piston and each passing, respectively, through one of the heads, means on one extension for closing said inlet port, and a cup shaped pushing piece secured to the end of the other extension inverted over the end of said cylinder and air controlling passages.

2. In a faucet, a cylindrically shaped body having a water inlet and a spout at one end, a movable piston within said body, a valve at the water inlet, a rod passing through said piston and one end of said body and connected at the other end to said valve, an air controlling passage through said body at the end remote from the water inlet, and an inverted cup shaped push piece secured to the end outside of the body extending over the end of said body and concealing said air controlling passage.

3. In a period water faucet, a hollow body having an inlet and an outlet water passage, a valve on said inlet, an extension from said valve passing through one end of the body and adapted upon longitudinal movement to open said valve, automatic means for normally holding the valve closed, means for adjustably controlling the time of closing of the valve, and a push piece secured to the end of the extension having a portion covering the last mentioned means.

ELIZABETH M. LA CASSE.