

A. E. KENNEY.

VALVE.

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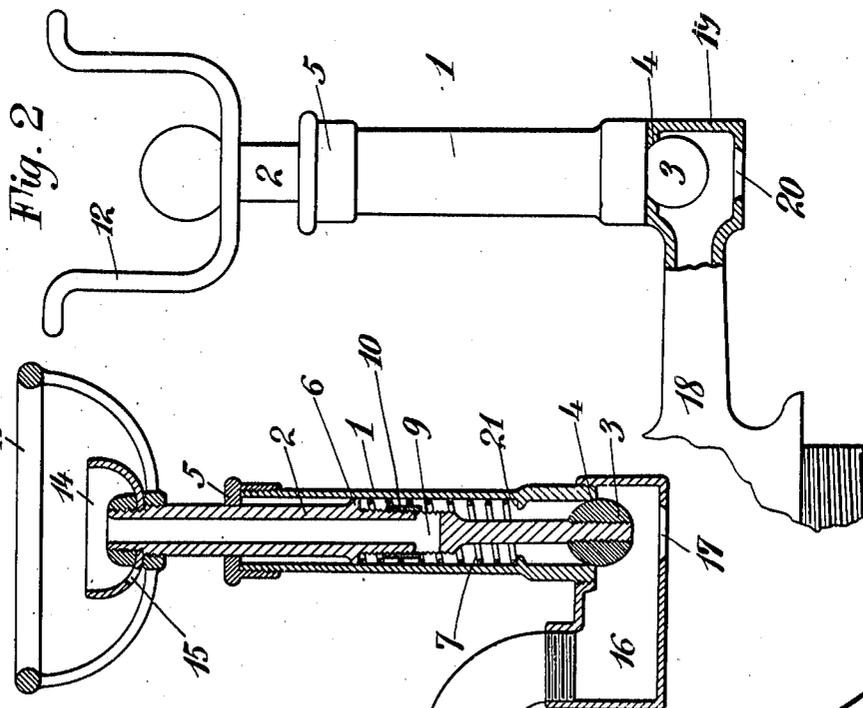
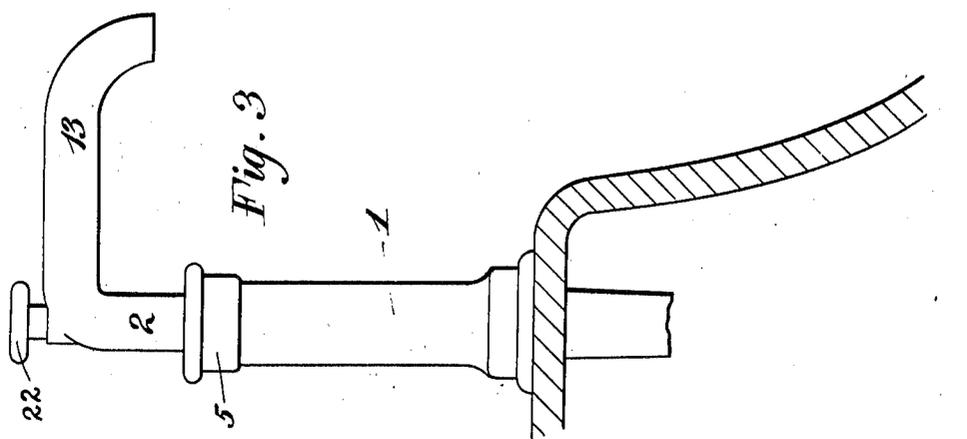


Fig. 1

Witnesses:
Philip D. McLean
Teresa V. Lynch

Inventor
Andrew E. Kenney
By his Attorneys
Prock, Becken & Smith

UNITED STATES PATENT OFFICE.

ANDREW E. KENNEY, OF NORTH PLAINFIELD, NEW JERSEY.

VALVE.

1,088,822.

Specification of Letters Patent.

Patented Mar. 3, 1914.

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To all whom it may concern:

Be it known that I, ANDREW E. KENNEY, a citizen of the United States, and a resident of North Plainfield, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates particularly to the type of valve known as a push valve. Valves of this sort are desirable for many reasons, one of these being the greater economy in the use of the water, since the water is running only while the valve is pushed or held down, and the valve can therefore never be left open. But the objection to push valves heretofore has been their expense.

It is one of the objects of my invention to overcome this objection and to provide a valve generally useful for a great many purposes, and which, consisting of but few and simple parts, may be procured at a low cost.

In its simplest form the invention consists of an inclosing barrel within which is slidingly engaged a tube, the tube carrying a valve for engagement with a valve seat in the lower end of the barrel and the tube having a suitable opening or openings therein to permit flow of the water from the barrel up into the tube when the valve is opened. A spring or equivalent device is used to normally hold the valve closed and the tube may carry at its upper end a handle means of some sort with which to operate the valve. For instance, when the valve is in use as a drinking fountain, this handle may be in the form of an annular ring carried by the upper end of the tube and located so as to be conveniently grasped by the user of the fountain.

My invention aims also to do away with the necessity for the use of drinking glasses to a considerable extent. And to this end I have devised a means whereby the invention as a drinking fountain may be attached to an ordinary household faucet without in any way interfering with the usual functions of such a faucet. This means of attachment may be an integral part of the faucet or a separate part and in either case consists of a conduit having an outlet opening therein permitting the usual flow from the faucet. The drinking fountain is supported and carried by the conduit, and the parts are so arranged that when the tube or valve stem of the fountain is depressed, the valve part

carried thereby will leave its valve seat and close the outlet opening in the conduit so as to deflect the water up through the drinking fountain.

Various other objects and features of my invention will appear as the specification proceeds.

I have illustrated in the accompanying drawings several preferred embodiments of my invention but it will be understood that various changes and modifications may be made therein without departing from the spirit and scope of the invention.

In the drawings: Figure 1 is a longitudinal sectional view of my invention in use as a drinking fountain, and shown attached to an ordinary faucet. Fig. 2 is a broken view partly in section of a special form of faucet with which my invention may be used. Fig. 3 is a view illustrating the use of my invention as a special push valve.

Like reference characters refer to like parts throughout the several views.

My improved valve consists of but practically two parts, an inclosing barrel 1, and an inner tube 2, which also acts as a valve stem, carrying as it does, a valve 3 on its lower end for engagement with a valve seat 4 carried by the lower end of the barrel. The tube is slidingly guided within the barrel as by means of an end cap 5, (which may or may not be provided with a stuffing box, as desired) and an interior annular flange 6. The valve is normally held in engagement with its valve seat as by means of a coiled spring 7, surrounding the tube and having a bearing between the flange 6 on the tube and a fixed abutment such as the shoulder 21. One or more openings 9 in the tube permit the water to flow from the barrel up into the tube when the valve is opened and the extent of this opening or openings, and hence the flow of the water, may be regulated by means of a sleeve 10, adjustably engaged on the tube, (as by having screw threaded connection therewith). Suitable handle means are provided for depressing the tube and thus operating the valve. When the invention is in use as a drinking fountain, this handle may be in the form of a spider carrying an annular handle or ring 11, as illustrated in Fig. 1, or the handle may be a cross piece 12, as shown in Fig. 2. And when in use as a push valve such as for culinary and toilet purposes, the handle may simply consist of a lateral spout extension

13, to the tube provided with a thumb piece. Various other forms of handles may be designed to suit particular requirements.

When used in public places as a drinking fountain, I preferably provide a guard for the upper end of the tube, which guard may be in the form of a cup 14. And this cup is provided with one or more drain holes 15. This cup is to guard against a person placing the thumb over the end of the tube and using it as a spray.

My invention is equally as well adapted for use in the home as a drinking fountain and for this purpose I have designed a special form of water connection by which it may be attached to an ordinary faucet. This connection may be in the form of a conduit or casing 16, which is attached to the faucet, as in Fig. 1, or the connection may be an integral part of the faucet, as in Fig. 2. In the first instance, the casing is attached to the faucet as by means of the screw threaded connection shown, and it is provided with an opening 17 which forms the normal water outlet from the faucet. And the barrel of the drinking fountain is preferably secured or carried by the top of the casing in such position that the valve on the lower end of the outlet tube will be directly opposite the water outlet in the casing. It will be seen that the water from the faucet will normally flow out through the outlet opening in the casing. But when the fountain is to be used, the valve part, when depressed, will engage and close the outlet opening, thus deflecting the water up through the drinking fountain. When, as in Fig. 2, the conduit is made an integral part of the faucet, the spout 18 of the faucet is provided with a terminal in the form of a head 19, provided with a downwardly disposed outlet opening 20, the barrel of the fountain being carried by this head so that the valve part will, when depressed, engage and close the outlet opening.

What is claimed, is:

1. The combination with a faucet, of a conduit in communication therewith having an opening therein forming a normal water outlet for the faucet, a barrel rising from said conduit having a valve seat in its lower end opposite the outlet opening in the conduit, a tube slidingly engaged in the barrel and provided with an opening or openings to permit flow of the water from the inclosing barrel up into the tube, a valve carried by the lower end of the tube, a spring acting on the tube to normally hold the valve carried thereby in engagement with the valve seat, and the valve aforesaid, adapted when

the tube is depressed, to engage the outlet opening in the conduit to deflect the water up into the barrel.

2. An attachment for water faucets and the like comprising a conduit arranged to be secured to a faucet and having an opening therein forming a normal outlet from the faucet, and a push valve carried by the said conduit having a valve part adapted when the push valve is operated to close the outlet opening in the conduit and deflect the water up through the push valve.

3. In a valve of the character set forth, an inclosing barrel provided with a valve seat at its lower end, a tube slidingly engaged in the barrel, passing up through the opposite end of the barrel, a valve carried on the lower end of the tube to engage with the valve seat aforesaid, the tube having an opening therethrough to permit water admitted to the barrel when the valve is opened to flow up through the tube, a sleeve surrounding the tube and adjustable on the tube to cover or uncover the inlet opening therein more or less, an annular shoulder on the interior of the barrel and a corresponding shoulder on the tube, a coiled spring surrounding the tube engaged between the shoulder thereon and the shoulder on the barrel, and a handle on the upper extended end of the tube.

4. The combination with a faucet provided with a downwardly directed discharge mouth, of an upright barrel attached to the faucet, a tubular valve stem slidingly engaged within the barrel and extending up through the same, a valve seat in the lower end of the barrel disposed above and substantially opposite the discharge mouth of the faucet, a valve carried on the lower end of the valve stem, arranged to engage with either the valve seat or the discharge mouth aforesaid, a spring acting on the valve stem to normally force the valve carried thereby into engagement with the valve seat in the end of the barrel, and a handle on the upper extended end of the valve stem for depressing the same to carry the valve away from the valve seat and into engagement with the discharge mouth, to thereby cut off flow through the discharge mouth and direct the water up through the tubular valve stem.

Signed at New York in the county of New York and State of New York this 9th day of March A. D. 1911.

ANDREW E. KENNEY.

Witnesses:

A. R. VAIL,
MARGARET KELLY.