May 12, 1925. 1,537,433

W. M. GIFFEN

FAUCET

Filed April 23, 1923

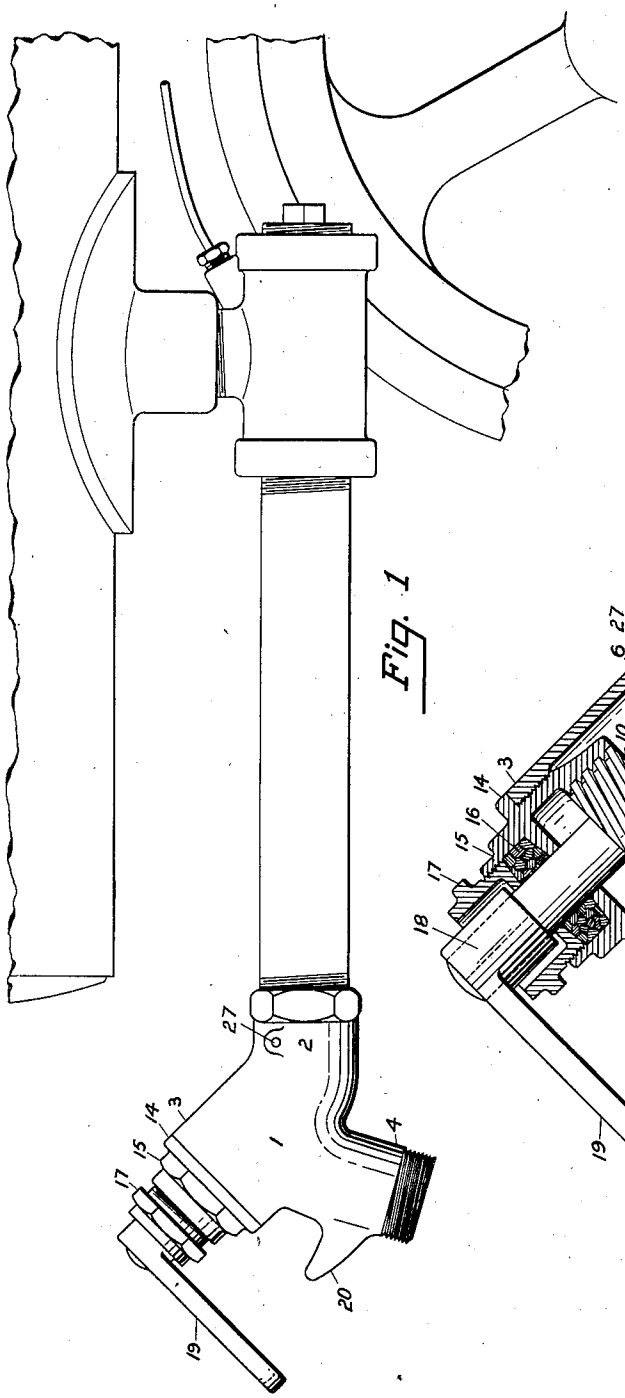


Fig. 1

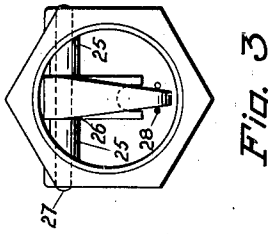


Fig. 3

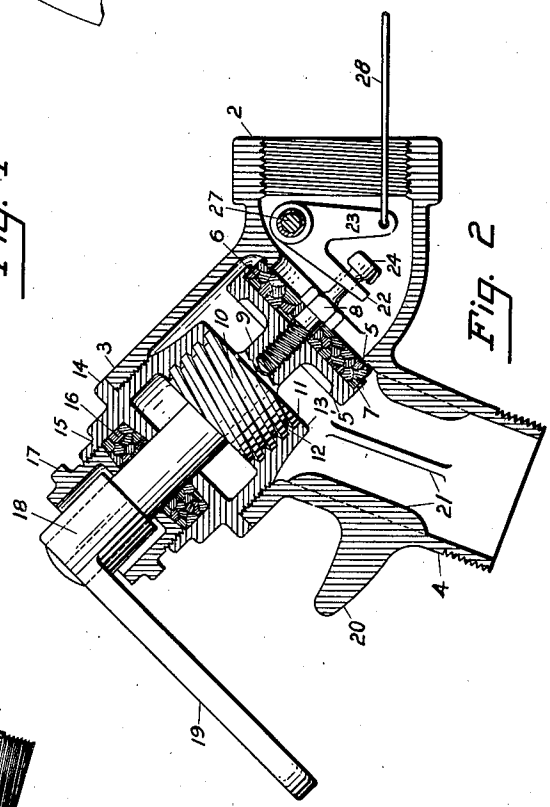


Fig. 2

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UNITED STATES PATENT OFFICE.

WALLACE M. GIFFEN, OF ALAMEDA, CALIFORNIA, ASSIGNOR OF ONE-FOURTH TO NELSON W. THOMPSON AND ONE-FOURTH TO BLANCHARD B. MAYNARD, BOTH OF OAKLAND, CALIFORNIA, AND ONE-FOURTH TO GEORGE C. NOBLE, OF BERKELEY, CALIFORNIA.

FAUCET.

Application filed April 23, 1923. Serial No. 634,105.

To all whom it may concern:

Be it known that I, WALLACE M. GIFFEN, a citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Faucets, of which the following is a specification.

This invention relates to faucets, and more particularly to faucets housing mechanism operated by the valve of the faucet.

The prime object of the invention is to produce a faucet and housing therefor, suitable for use with the invention set forth in my copending application Serial No. 569,481, filed June 19, 1922, and titled, Outlet valve system.

In valve systems by which the operation of one valve mechanically operates another, it is of great importance that the mechanism of the main valve shall be of few parts and of simple construction, to ensure ease of liquid flow and ease of control and positiveness of operation at all times. Therefore, a further object of the invention is to construct a master valve that will accomplish the above. This I attain by my invention, and the accompanying drawing illustrates the same in the best form as yet devised by me.

Figure 1 is an elevation showing the exterior of the faucet, and also the conductor pipe connected to the auxiliary valve of the tank truck described in said copending application.

Figure 2 is a section taken axially of the housing, showing the interior of the same and the valve therein in its closed position. The bell crank is shown in full and in elevation.

Figure 3 is an elevation of the inlet end of the housing, and shows the bell crank and its mounting. The rod that forms the pintle of the bell crank is shown in dotted lines.

Adverting to the drawing and figures thereof: The numeral 1 represents the housing of the faucet and which is of Y-shape construction. The branch 2 is the inlet and is usually positioned horizontally. Of the other two branches, one extends obliquely upward represented by 3 and provides for the movement of the valve, and 4 is the third branch and extends obliquely downward and is the discharge.

At the junction of the branch 2 with the other branches (Fig. 2), is an annular bead 5 facing toward branch 3 forming the seat for the valve 6. The movable seating member of the valve is of disk form, and is usually of a vulcanized fibre or similar material unaffected by petroleum products. The disk is seated in a cup 7 formed on an extremity of the body of the valve, and is secured therein by a tap bolt 8. On the back of the cup is formed a facing 5′ for a purpose to be presently set forth.

Beyond the member 7 and connected therewith by a neck 9, the body of the valve enlarges to a diameter 10, and is provided with square threads 11 of coarse pitch on its periphery. These threads engage equivalent threads 12 on an annulus 13 projecting inwards from the screw cover 14 of the branch 3. The extremity of the annulus is finished for a seat to engage the cup facing 5′ when the valve is opened, to keep the pressure of the out-flowing liquid off the valve packing and to ease the flow of the liquid.

Outside the cover 14 is a stuffing box 15, containing a suitable packing 16 and provided with the customary gland 17. The end of the valve stem 18 is squared or otherwise adapted for engagement by a handle 19 as shown, and by which the valve and body may be rotated to open and close the faucet.

The end of branch 4 may be threaded for connection with a hose or other conductor. On the top side of the branch a hook-lug 20 may be provided, on which to hang a bucket or container, to receive liquid in this manner when desired. The interior of this branch may be provided with vanes 21, to prevent swirling of the liquid when discharging. Branch 2 is also threaded for connection to a conductor.

Between the valve seat 5 and the end of branch 2 is mounted an angle lever or bell crank, one of whose arms 22, is forked and adapted for direct connection with a stem 24 formed integral with the tap-bolt 8. The other arm 23 of the bell crank is

adapted for connection to a remote member by means of a wire 28, which latter is reciprocated by the motion of the valve.

In the interior and at the upper part of the branch 2, are two bosses 25 diametrically opposed having a space between their proximate ends for the hub 26 of the bell crank. These bosses and the hub are perforated to receive the pin 27 which forms a pintle and on which the bell crank oscillates.

In operation, turning the handle in the proper direction, the valve lifts from its seat carrying the fixed bolt 8 with it, and causes the bell crank to move angularly, which in turn imparts a linear movement in tension to the wire member to operate a remote member.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired, as fall within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is the following:

1. A faucet comprising a valve and a housing of Y-shape, one branch of said Y adapted to support the valve and cover therefor, another branch adapted for an inlet and having mechanism therein controlled by the valve, and the third branch adapted for an outlet, and the said housing provided with a seat between said inlet and said outlet, and an additional seat provided on the inner extremity of said valve-branch cover opposite and parallel to said housing seat, enabling the said valve to close against the inlet and when open to keep pressure off the packing of the valve, the said mechanism comprising a bell crank pivotally mounted in said inlet branch, one lever of said crank adapted to engage a stem carried by the said valve and projecting in said last-named branch and the other leyer having a wire attached thereto leading from said inlet branch to a remote member, the opening of the valve operating the bell crank and the movement of the latter determining the movement of the remote member.

2. A faucet comprising a valve and a housing therefor of Y-shape, one branch of said Y adapted to support the valve and its parts, another branch adapted for an inlet and having mechanism therein controlled by the valve, and the third branch adapted for an outlet, the said housing provided with a seat for said valve between the inlet and outlet, an annulus projecting inwardly from the end of the valve-supporting branch of the housing, the extremity of said annulus being constructed with a seat, and a facing on the back of the valve adapted to engage said seat when the valve is opened, said valve-controlled mechanism comprising a bell crank having one arm thereof engaging means carried by the valve and the other arm carrying a wire and adapted to impart thereto a movement in tension to operate a remote member when the faucet is opened.

3. A faucet comprising a valve and a housing therefor of Y-shape, one branch of said Y adapted to support the valve and its parts, another branch adapted for an inlet and having mechanism therein controlled by the valve, and the third branch adapted for an outlet, the said housing provided with a seat for said valve between the inlet and outlet, an annulus projecting inwardly from the end of the valve-supporting branch of the housing, the extremity of said annulus being constructed with a seat, and a facing on the back of the valve adapted to engage said seat when the valve is opened, said valve-controlled mechanism comprising a bell crank having one arm thereof provided with a bifurcation, a stem having an enlarged outer end projecting forwardly from the face of the valve and straddled by said bifurcated arm of the bell crank, the other arm of said bell crank carrying a wire and adapted to impart thereto a movement in tension to operate a remote member when the faucet is opened.

In testimony whereof I affix my signature.

WALLACE M. GIFFEN.