

J. LUTOLF.

FAUCET.

APPLICATION FILED JULY 7, 1919.

1,330,379.

Patented Feb. 10, 1920.

2 SHEETS—SHEET 1.

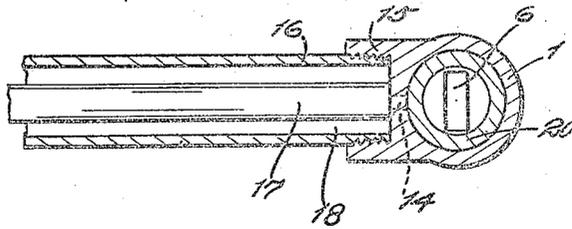


Fig. 2.

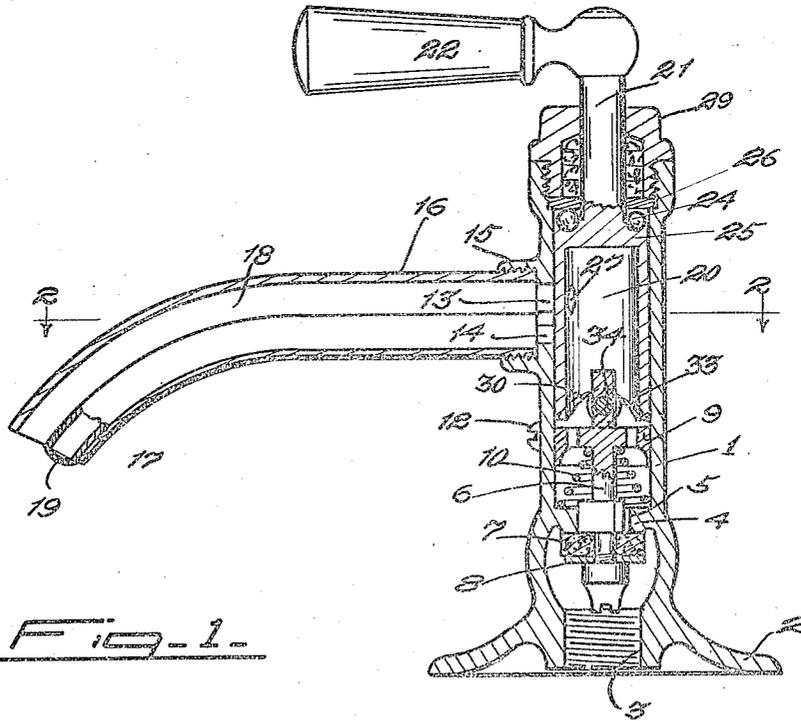


Fig. 1.

WITNESS:

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2 SHEETS—SHEET 2.

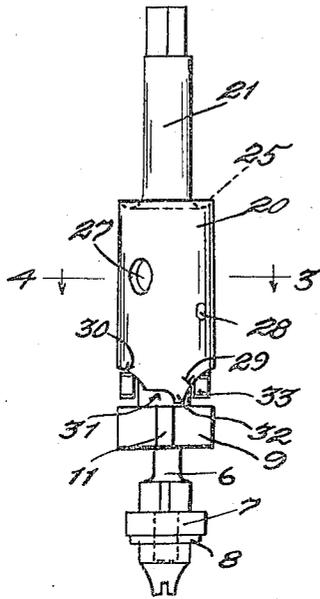


Fig. 3.

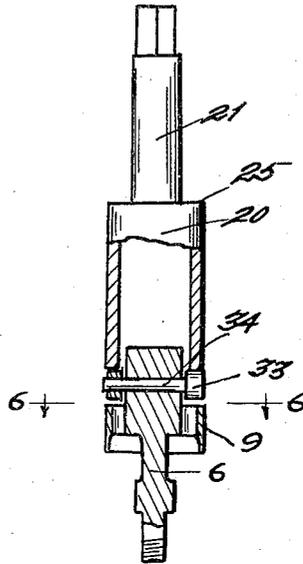


Fig. 5.

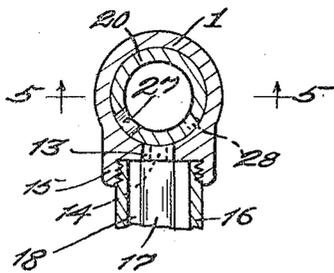


Fig. 4.

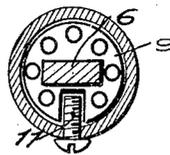


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOSEF LUTOLF, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO SWISS MANUFACTURING COMPANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

FAUCET.

1,330,379.

Specification of Letters Patent. Patented Feb. 10, 1920.

Application filed July 7, 1919. Serial No. 309,114.

To all whom it may concern:

Be it known that I, JOSEF LUTOLF, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Faucets, of which the following is a specification.

The present invention relates to an improvement in faucets, the principal object of the invention being to provide a faucet of the usual appearance which is capable of discharging either a spray stream or an unbroken or solid stream, whereby the operator when it is desired to rinse the hands or soiled dishes may position the stream controlling valve, if desired to discharge a spray, whereby the spray action will more uniformly cover the object to be rinsed, thereby affording a material saving in water, and when volume is desired the valve may be positioned to discharge a solid or unbroken stream.

With the above mentioned and other objects in view, the invention consists in the novel construction and combination of parts hereinafter described, illustrated in the accompanying drawings, and set forth in the claims hereto appended, it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

To more fully comprehend the invention reference is directed to the accompanying drawings wherein,

Figure 1 is a view in vertical section of the preferred embodiment of my invention.

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

Fig. 3 is a view in elevation of the selecting and controlling valves removed from the valve body.

Fig. 4 is a transverse sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is a broken sectional view taken on line 5—5 of Fig. 4.

Fig. 6 is a sectional view taken on line 6—6 of Fig. 5.

Referring more particularly to the several

views of the drawings wherein like characters of reference designate corresponding parts,

1 indicates a suitable faucet body preferably tubular in form and provided at its lower edge with the annular supporting flange 2 and the threaded portion 3 to which is attached the fluid supply pipe, not shown. The tubular body 1 is formed adjacent its lower end with the annular valve seat 4, provided with a passage 5 in the center thereof. A valve stem 6 extends upwardly through said passage 5, and on its lower end carries a disk 8 on which rests a valve 7, which is adapted for contacting with the under face of the seat 4, to provide a closure for controlling the passage of water or other fluid through the faucet. Adjacent its upper end the stem 6 carries a cupped perforated disk 9 between which and the upper side of the seat 4 is positioned a spring 10 coiled about the stem 6, the tendency of which is to maintain the water supply through the faucet closed by drawing the washer 7 into contact with the seat 4, the perforations permitting the passage of water or fluid through the disk 9 when the washer is unseated from its seat 4. The edge of the disk 9 is provided with a vertical groove 11, in which extends the inner end of a guide screw 12 passing through the wall of the faucet body 1, which prevents the axial rotation of the stem 6.

The faucet body 1 is provided adjacent its upper edge with a pair of discharge outlets or openings 13 and 14, arranged preferably in vertical alinement. A threaded flange 15 is formed on the exterior surface of the body 1 surrounding said openings and to the same is adapted to be attached the inner threaded end of a spout 16, of any suitable form the interior of said spout being divided preferably transversely into two compartments 17 and 18, which are adapted to register respectively with the outlet ports 13 and 14, the outer end of the passage 17 being provided with a perforated closure 19 affording a means for causing a spray stream flow passing therefrom. Positioned within the upper end of the body 1 is a selecting valve 20, the lower end of which is tubular in

cross-section and from the upper end of which extends an operating stem 21 carrying on its upper end a handle 22. The selecting valve is maintained within the upper end of the body 1 by a suitable retaining nut 23, which passes over the stem 21 thereof and which has threaded connection with the upper end of the body 1. To enable the selecting valve 20 to be easily rotated a suitable anti-friction bearing 24 preferably of the ball type is positioned between the flanged surface 25 thereof and a washer 26, inserted beneath the lower end of the nut 23 and the flanged portion of the selecting valve. The selecting valve is formed in its wall surface at different horizontal levels with the discharge ports 27 and 28 arranged slightly out of vertical alinement and one adapted on the rotation of the selecting valve in one direction to register with the port 13 and the other adapted on the rotation of the selecting valve in an opposite direction to register with the port 14, a solid portion of the selecting valve normally lying in a position to close said ports 13 and 14 when the washer 7 rests on its seat 4.

The operation of the selecting valve is such that on the rotation of the same a partial revolution in either direction to cause a registering of one of the ports 27 or 28 with its respective outlet 13 or 14, the controlling valve is unseated to permit the passage of fluid there-through and this operation is accomplished in the following manner: The lower peripheral surface of the selecting valve is provided at diametrically opposite sides with the cam surfaces 29, of considerable pitch which connect at their upper ends with other cam surfaces 30 of relatively short length and which terminate in substantially flat portions 31, leaving lugs 32 separating the surfaces 31 and the ends of the abrupt cam faces 29 at opposite sides of the lower edge of the selecting valve. The cam surfaces are adapted to contact with suitable anti-frictional rollers 33 on the outer ends of arms 34, extending laterally from the upper end of the stem 6, thus it will be apparent that on the rotation of the selecting valve 20 in one direction, one of the outlet ports therein will register with one of the discharge channels of the spout 16, this movement causing one of the cam surfaces to depress the controlling valve, said valve when depressed by the action of the surfaces 29 being seated by the spring 10 on the release of pressure from the handle 22; however, when the valve is depressed by the action of cam surfaces 30 the resting of the rollers 33 on the substantially hori-

zontal portions 31 maintains the valve open until such time as it is manually closed.

Having thus described my invention what I claim is:

1. A faucet provided with a tubular body, 65 a tubular discharge extended angularly therefrom, said discharge divided into a plurality of channels, one adapted for delivering a spray and another adapted for delivering an unbroken stream, a spring 70 seated valve for controlling the passage of fluid into said faucet, and a hollow rotatable selecting valve provided in its wall with ports adapted on the rotation thereof to unseat said valve and provide a communication 75 between the interior of said faucet and one of said channels.

2. A faucet including a tubular body having a valve therein for controlling the passage of fluid therethrough, a discharge spout 80 extended angularly from said body, a wall extending longitudinally of the interior of said spout and dividing the same into separate open ended channels, a perforated member over the discharge end of one of said 85 channels, said valve adapted for closing the inlet end of both of said channels and of positioning to admit of a flow of fluid through either.

3. A faucet having a discharge nozzle divided longitudinally into a plurality of open 90 ended channels, a perforated member over the discharge end of one of said channels, their discharge ends terminating at the end of said nozzle, and a hollow valve for controlling the flow of fluid through either of 95 said channels.

4. A faucet including a tubular body, a discharge nozzle extended angularly therefrom and divided into two channels connecting 100 independent ports, a perforated member over the discharge end of one of said channels, a hollow selecting valve rotatable in said body, the surface thereof adapted to close 105 said ports, said valve formed with spaced apertures adapted on the rotation thereof in opposite directions to register one with each of said ports, and a spring seated fluid controlling valve within said body for controlling the admittance of fluid therinto, said 110 valve adapted for unseating on the rotation of said selecting valve in either direction from a closed position.

In testimony whereof I have signed my 115 name to this specification in the presence of a subscribing witness.

JOSEF LUTOLF.

Witness:

D. B. RICHARDS.