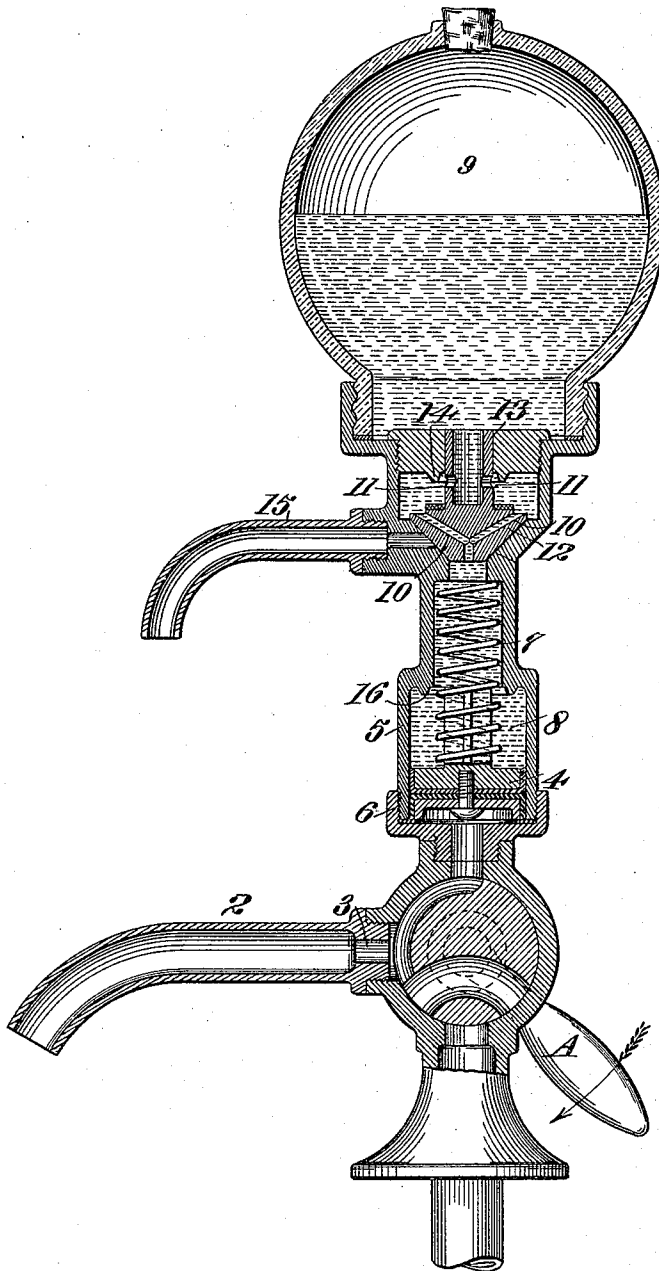


W. L. PHILLIPS.
 AUTOMATIC LIQUID SOAP DISPENSER.
 APPLICATION FILED MAY 12, 1914.

1,147,185.

Patented July 20, 1915.



WITNESSES:

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WALTER LEONARD PHILLIPS, OF OAKLAND, CALIFORNIA.

AUTOMATIC LIQUID-SOAP DISPENSER.

1,147,185.

Specification of Letters Patent.

Patented July 20, 1915.

Application filed May 12, 1914. Serial No. 838,054.

To all whom it may concern:

Be it known that I, WALTER LEONARD PHILLIPS, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Automatic Liquid-Soap Dispensers, of which the following is a specification.

This invention relates to an automatic liquid soap dispensing device.

The object of the invention is to provide an attachment to an ordinary water faucet whereby a predetermined charge of soap will be fed automatically by turning on the water. Turning off the water will allow the device to be re-charged automatically.

The invention consists of the parts and the combination and construction of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which the drawing is a vertical section of the invention, with a faucet in elevation.

A is the handle of a water faucet of any appropriate description; 2 the usual water spout discharging into the bowl having a choked throat 3, by which a volume of partially confined water under pressure in the faucet will be projected against the bottom of a piston 4. This piston 4 has a snug sliding fit in its cylinder 5, which latter constitutes a soap receiver that is attached to the faucet case in any suitable manner, as by the coupling nipple 6. A spring 7 normally projects the piston 4 downwardly to seat on the shoulder formed on the nipple 6. The space in which piston 4 works is adapted to contain sufficient soap for one charge. The soap is stored in a suitable holder or reservoir 9, which discharges on occasion through the bleed ports 10—11 in valve 12, into chamber 8; the ports 11 being in the hollow valve stem 13. Communication between reservoir 9 and chamber 8 is cut off when valve 12 is lifted to engage the seat 14 on the underside of the bottom of reservoir 9.

15 is the soap outlet spout from chamber 8, which has its inner end normally sealed against the escape of the liquid when the valve 12 is closed.

The operation is as follows: When the water is turned on by manipulating the handle A the pressure reacts on piston 4 forcing it upward until it engages against the annular seat 16; the upward thrust of piston

4 acting against the liquid in chamber 8 and its extension above to lift valve 12 until it engages against the upper annular seat 14 and shuts off all connection between reservoir 9 and chamber 8. Lifting the valve 12 opens the outlet to soap spout 15 and a charge of soap equal to the displacement occasioned by piston 4 in chamber 8 is projected out through the spout 15, after which valve 12 drops, opening the bleed ports 11 and closing soap spout 15, preventing any passage of soap from reservoir 9 to spout 15. Shutting off the water relieves the pressure on piston 4 and allows the spring 7 to close the same. The suction from piston 4 closing, draws the soap from reservoir 9 through the bleed ports 10—11 refilling chamber 8 with soap ready for the next operation, at the same time forcing water remaining under piston 4 out through spout 2; the re-charging taking place automatically each time the water is turned off.

Having thus described my invention what I claim and desire to secure by Letters Patent is—

1. In combination with a faucet having a discharge spout and a manually controlled valve therefor, a soap dispenser having a discharge independent of the faucet discharge spout and located in spaced relation thereto so that the user may by a slight movement of his hands move the latter to receive fluid from either the faucet or dispenser, and means whereby upon opening of the faucet valve a charge of soap will be automatically ejected from the dispenser.

2. In combination with a faucet and a source of dispensable material, a receiver communicating with the faucet and source to receive a charge from the latter, said receiver having an exterior outlet independent of the faucet outlet, means to control said receiver outlet and to also control the communication between the receiver and source, and means in the receiver operable by the water pressure in the faucet for acting upon the charge in the receiver to thereby cause the charge to actuate said controlling means to close the communication between the receiver and source, and to open the outlet to allow the material to be ejected through the outlet.

3. In combination with a faucet and a source of dispensable material thereabove, a receiver interposed between the faucet and source and communicating with each to re-

ceive a charge of material from said source, said receiver having an outlet, a valve controlling said outlet and also controlling the communication between the receiver and source, and a piston in the receiver, which upon opening of the faucet is moved by the water pressure to act upon the charge in the receiver so as to cause the charge to actuate the valve whereby to open the outlet and close the communication between the source and receiver and to allow the piston to eject the charge through the outlet.

4. In combination with a faucet and a source of dispensable material, a receiver communicating with the faucet and normally communicating with the source to receive a charge of material from the latter, means for ejecting the charge from the receiver operable by the water pressure upon opening of the faucet, and other means whereby upon opening of the faucet the communication between the receiver and source will be cut-off and upon closing of the faucet automatically restored to allow a charge from the source to enter the receiver said receiver having its discharge located exteriorly thereof and spaced from the faucet.

5. In combination with a faucet and a source of dispensable material, a receiver communicating with the faucet and source and having an outlet on its exterior and spaced from the faucet so that the material and fluid from the faucet are dispensed at spaced points, means to eject material from the receiver upon opening of the faucet, and other means controlling the receiver outlet and the communication between the source and receiver and operable simultaneously with said ejecting means for opening the outlet and closing the communication between the source and receiver and upon closing of the faucet closing the outlet and again establishing communication between the source and receiver.

6. In combination with a faucet and a source of dispensable material, a receiver communicating with said source and having an outlet spaced from the faucet so that the material and fluid from the faucet are dispensed at spaced points, means to eject the material from the receiver upon opening of the faucet, and other means controlling said communication whereby upon closing of the faucet a fresh charge will be admitted to the receiver from the source.

7. In combination with a faucet and a source of dispensable material, a receiver communicating with said source and having a discharge spaced from the faucet, means to eject the material from the receiver upon opening of the faucet, and means controlling said communication and discharge and operable by impact of the material when the ejecting means moves the material upon opening of the faucet to close said communication.

8. In combination with a faucet and a source of dispensable material, a receiver having an outlet independent of the faucet outlet and communicating with the faucet, means to eject material from the receiver upon opening of the faucet, and means controlling the receiver outlet and communication between the source and receiver whereby when the faucet is opened the receiver outlet will be opened and the communication between the receiver and source will be closed and whereby when the faucet is closed the receiver outlet will be closed and the communication between the source and receiver reestablished.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WALTER LEONARD PHILLIPS.

Witnesses:

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W. W. HEALEY.