

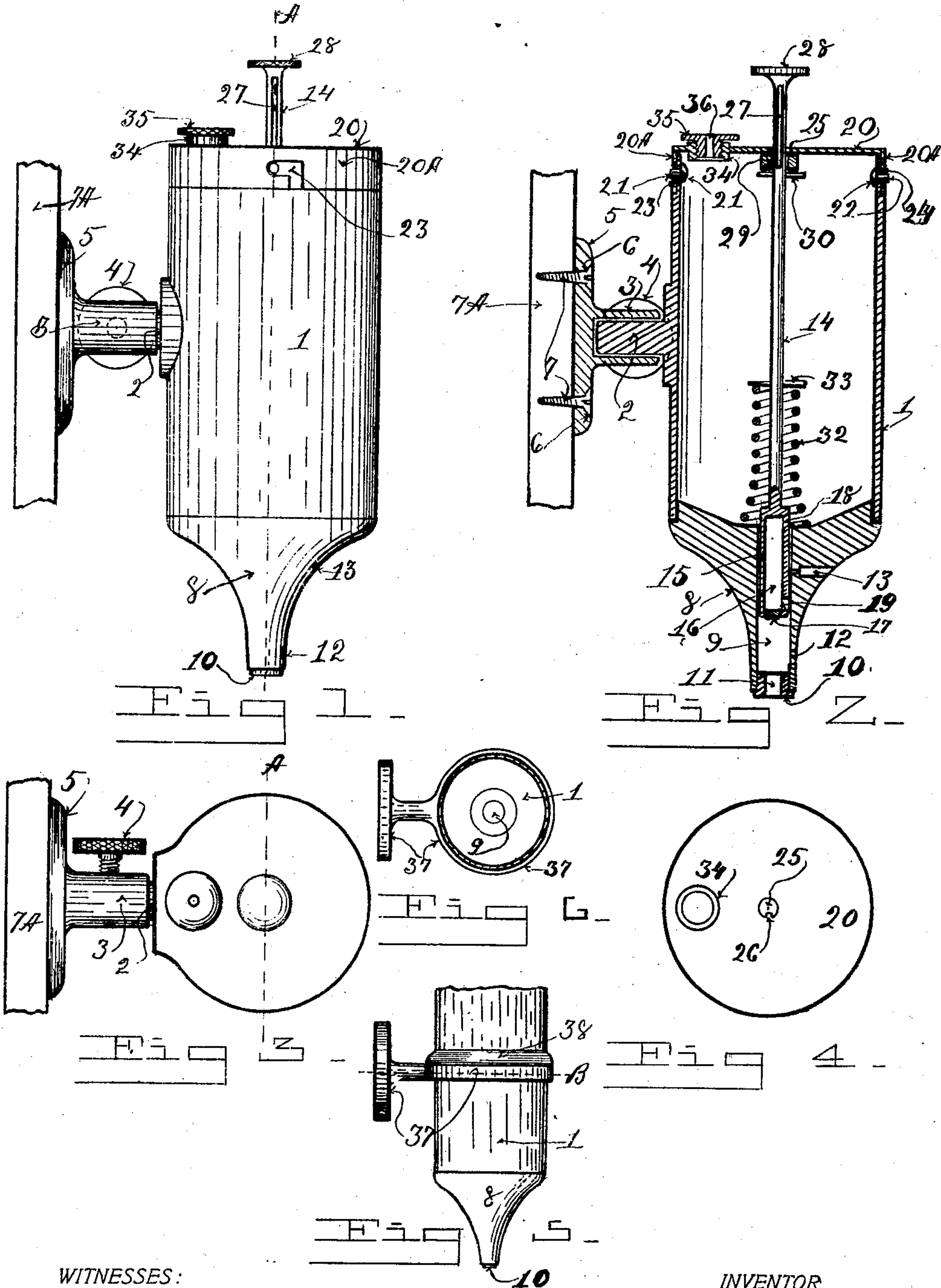
No. 682,680.

Patented Sept. 17, 1901.

A. L. FRIBOURG.  
LIQUID SOAP HOLDER.

(Application filed Jan. 4, 1901.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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TO HENRIETTA C. FRIBOURG, OF SAME PLACE.

## LIQUID-SOAP HOLDER.

SPECIFICATION forming part of Letters Patent No. 682,680, dated September 17, 1901.

Application filed January 4, 1901. Serial No. 42,100. (No model.)

*To all whom it may concern:*

Be it known that I, AMÉDÉE L. FRIBOURG, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Liquid-Soap Holders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a device for holding liquid soap; and the objects of my invention are, first, to provide a suitable receptacle for holding liquid soap, and, second, to provide a reservoir for holding a predetermined amount of the liquid soap and to provide means connected with the reservoir by which the liquid soap may be discharged and filled in alternate order and by which only the amount of liquid soap the reservoir will hold will be discharged at one time.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my liquid-soap holder. Fig. 2 is a section of Figs. 1 and 2 on line A. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a top plan view of the cover of the soap-holder. Fig. 5 is a fragmentary view of the soap-holder of smaller size, showing the cylinder supported by a bracket-ring; and Fig. 6 is a cross-section of Fig. 5 on line B.

Similar figures of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1 designates a cylinder. This cylinder is made of any suitable material. A short trunnion 2 projects from it centrally of its length, on which a flanged socket 3 fits loosely. The socket is adjustably attached to the trunnion by a thumb-screw 4, which is threaded through its shell. The flange 5 of the socket contains screw-holes 6 and screws 7, by which it is attached to a partition 7<sup>A</sup> or other support over or adjacent to a wash-basin or lavatory. The cylinder is supported in a vertical position by the flanged socket, and in its bottom I secure

by any suitable means, such as soldering, a conical-shaped piece of material 8, which contains through its center and the center of the cylinder an axial bore 9, the discharge or outer end of which is partially closed up by a plug 10, which contains a smaller discharge 11 through its center. The plug 10 is used to reduce the size of the axial bore 9, which is deemed too large for a discharge-aperture, and also to strengthen the thin edges of the end of the conical end of the cylinder, which would be easily bent were it not reinforced by the plug 10. The aperture 11 through the plug is a discharge-passage for any liquid soap that collects below the side apertures 12. Through the side of the conical end of the cylinder adjacent to its end a discharge-aperture 12 for the liquid soap is also formed, which connects with the axial bore, and above it a short distance a small air-hole 13 is also formed, which also connects with the axial bore. The air-hole 13 and the side discharge-aperture 12 are preferably arranged in vertical alinement.

In the axial bore of the conical end of the cylinder I fit slidably a cylindrical stem 14, the lower end of which is larger than the body portion and contains a reservoir 15. This reservoir comprises an axial bore 16, extending into the stem from the bottom, the entrance end of which is closed by a plug 17. This bore forms the reservoir. It is provided with an inlet-aperture 18, which extends through the side of the stem a short distance below its upper end, and a discharge-aperture 19 adjacent to its lower end. The inlet and discharge apertures are preferably placed in vertical alinement. The stem above its reservoir portion is reduced in diameter and extends up through a cap 20, which is provided with a depending flange 20<sup>A</sup>, that fits down over a reduced portion at the top of the cylinder. This cap is preferably secured to the top by pins 21 and 22, which are secured to the central portion of the width of the reduced portion of the cylinder and project from it at diametrically opposite points. The cap is provided with right-angled slots 23 and 24, that extend into the flange of the cap from its edge and that fit loosely over the pins. The stem extends through a central



aperture 25 in the cap and is feathered to the aperture by a key 26, (see Fig. 4,) which is preferably formed in the aperture when said aperture is formed. A keyway 27 is formed in the stem, in which the feather projects loosely. The stem is slidably keyed in a position that will bring the soap inlet and discharge outlet in vertical alinement with the air and said discharge-aperture of the conical end of the cylinder, in order that as the stem is moved up and down the inlet and discharge-outlet of its reservoir will register opposite the air and discharge apertures of the depending end of the cylinder. The top of the stem is provided with a push-button disk 28. A washer 29 is also secured by a pin 30 to the stem directly under the cover in a position to define the limit of the stem's upward movement. An expanding coiled spring 32 is also placed around the stem and arranged with one of its ends bearing against the bottom of the cylinder, and its opposite end is confined by a pin 33, that extends through the stem. The lower end of the spring is flared out larger in diameter in order to make room around the reservoir adjacent to its inlet-aperture. This stem is arranged to normally hold the reservoir to the limit of its upward movement, which brings its upper end and also its inlet-aperture above the bottom of the cylinder, in which position the liquid soap in the cylinder will fill the reservoir. A boss 34 is secured in the cap, which contains a central threaded aperture, in which a thumb-cap is threaded. An air-hole 36 is formed through the thumb-cap.

In Figs. 5 and 6 I illustrate a combined ring and bracket 37 for supporting the cylinder, which is provided with a projecting ring or annulus 38, that forms a shoulder that rests on the top of the ring. This arrangement makes a stronger and cheaper support for the cylinder than the trunnion and socket.

The operation is as follows: The thumb-cap is removed, and the cylinder is supplied with liquid soap, which fills the reservoir of the stem through its inlet-aperture. A person wishing to wash his hands with liquid soap presses down on the push-button of the stem with one hand until the lower end of its reservoir strikes the plug at the lower end of the conical end of the cylinder and holds the other hand under the cylinder. The discharge-aperture of the reservoir then registers opposite the discharge-aperture 12 in the end of the conical end of the cylinder, and the inlet-aperture registers with the air-hole, and the pressure of the atmosphere entering the reservoir forces the soap in the reservoir to run out through the side aperture 12 and also through the aperture 11 in the plug 10 should any liquid soap flow below the side aperture 12, and the contents of the reservoir is caught in the hollow of the hand that is held under the cylinder. When the stem is released, the expansion-spring that surrounds the stem, which is compressed by its down-

ward movement, expands and, pressing against its confining-pin, moves the stem up again to its normal position, with the inlet of the reservoir above the bottom of the floor of the cylinder, which is instantly refilled. The reservoir is adapted to hold enough soap for a general wash for the hands. Only the amount of soap the reservoir will hold can be obtained at each downward stroke of the stem, as it should fit tight enough to prevent any leakage of the soap by it; but as many reservoirs full of soap as desired can be obtained by intermittently repeating the operative downward movement of the press-rod stem.

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

1. In a liquid-soap holder, the combination with the cylindrical shell having a removable cap on the top end of the cylinder, a conical-shaped, depending member in the opposite end of said cylinder adapted to form its bottom portion, an axial bore in said bottom portion, a stem extending axially through said cap and having a reservoir portion, at its lower end fitting slidably in the bore of said bottom portion and of a shorter length than the length of the bore in said bottom portion, an expanding spring arranged to hold the top portion of said reservoir above the bottom of said cylinder, an inlet-hole leading into the upper end of said reservoir, and a lateral discharge-aperture at its lower end and having said stem slidably feathered in said cap and arranged to be manually pushed down in the bore of said bottom against the expanding elasticity of said spring, an air-hole arranged in the side of said conical bottom in a position to register with the inlet-aperture in said reservoir when it is pressed down to the bottom of the bore in said bottom portion, and a discharge-outlet in said conical bottom arranged to register with the discharge-aperture of said reservoir when it is pressed down to the bottom of the bore in said conical bottom portion, substantially as described.

2. In a liquid-soap-holding receptacle the combination with the cylindrical shell, of a cap removably secured to the top of said cylindrical shell, an air-hole in said cap, a stem extending through said cap and slidably keyed thereto, a press-button portion on the outer end of said stem, a reservoir at the opposite end of said stem, a conical-shaped, depending bottom in said cylindrical shell, an axial bore in said bottom portion in which the reservoir end of said stem fits reciprocally, a spring arranged to actuate said stem in one direction of its reciprocal movement and arranged and adapted to hold the upper end of said reservoir portion of said stem above the floor of said cylinder, an inlet-aperture in the top of said reservoir, a discharge-outlet in the side of the bottom portion of said reservoir, a discharge-outlet in the depending end of the bottom of said cylinder arranged to register with the discharge-outlet inside of



the bottom portion of said reservoir when at the bottom of its reciprocal stroke, and an air-hole through the side of said depending bottom portion of said cylinder also adapted to register with the inlet-hole of said reservoir when said reservoir and stem is at the end of its downward reciprocal stroke, substantially as described.

3. In a liquid-soap receptacle, the combination of the cylinder having a conical, depending bottom portion and the removable cap containing an air-hole, the axial bore in said bottom portion, the stem extending through and above said cap at one end and having a reservoir portion at its opposite end extending slidably into said axial bore of said cylinder's bottom portion, the soap-inlet aperture and the discharge-aperture in said reservoir, the discharge-apertures in the end, of the bottom of said cylinder and the air-hole in said bottom portion arranged at substantially the same distance apart and to register with the soap-inlet aperture and the discharge-aperture in said reservoir, the keyway in the upper end of said stem, the feather in said cover projecting into said keyway, an abutment on said stem above the floor of said cylinder, the spring surrounding said stem and arranged under expansive pressure between the floor of said cylinder and said abutment, the stop on said stem arranged on said stem under said cover and adapted to limit the upward stroke of said stem, and means including a bracket for supporting said cylinder in a vertical position, substantially as described.

4. In a liquid-soap receptacle the combination of the cylinder having a removable cover containing an air-hole, a bottom portion containing an axial bore, a reciprocating push-button stem extending up through said cover and containing a liquid-soap-holding reservoir at its lower end fitting slidably in the axial bore of said bottom portion, a spring arranged to move said stem through the up-

ward or return stroke of its reciprocating movement and to normally hold the upper end of said reservoir above the floor of the bottom portion of said cylinder, an aperture in the side of the top of said reservoir, above said floor portion and a discharge-aperture in its side at its bottom portion with the discharge-outlet in the side of said cylinder's bottom portion arranged to register with the discharge-aperture in the lower end of said reservoir when at the bottom of its reciprocal stroke, the air-hole arranged to register with the inlet-aperture when said reservoir is at the bottom of its stroke, and the bracket containing a socket portion and a trunnion on said cylinder for supporting said cylinder in a vertical position and at varying distances from a supporting partition or wall, substantially as described.

5. In a liquid-soap receptacle the combination with the cylinder having a bottom portion containing an axial bore, of the removable cap, the push-rod stem feathered slidably against rotative movement to said cap, the reservoir at the lower end of said stem fitting slidably the bore in the bottom of said cylinder, the inlet-aperture in said reservoir and the air-hole in the bottom of said cylinder adapted to register with one another at the end of the operative stroke of said push-rod stem, the discharge-aperture in said reservoir and said cylinder's bottom portion arranged to register opposite one another at the end of the operative stroke of said push-rod stem, with a spring arranged and adapted to move said push-rod stem in the return or inoperative stroke of its movement, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

AMEDÉE L. FRIBOURG.

Witnesses:

CLAUDE A. DUNN,  
BESSIE THOMPSON.