

J. F. HENDERSON.
LIQUID SOAP HOLDER.
APPLICATION FILED DEC. 18, 1911.

1,110,135.

Patented Sept. 8, 1914.

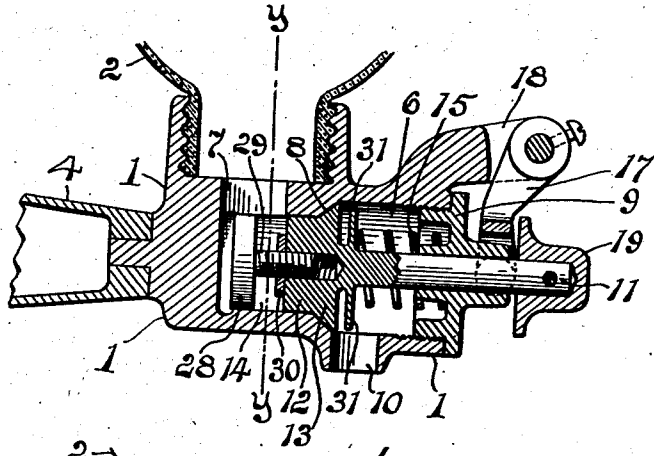


FIG. 1.

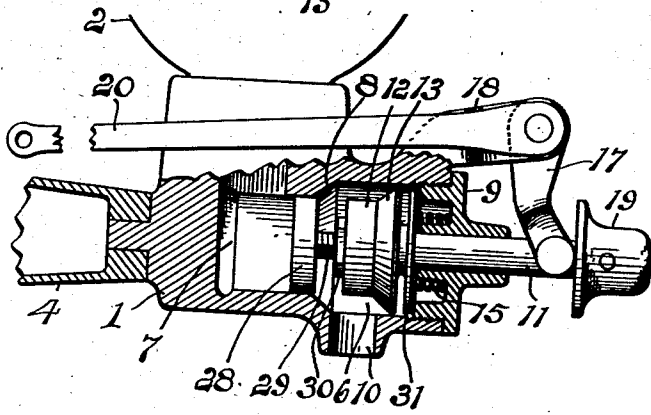


FIG. 2.

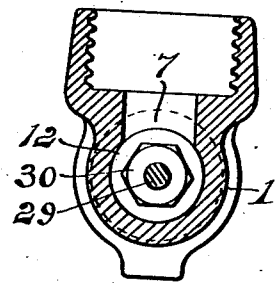


FIG. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

JAMES F. HENDERSON, OF DETROIT, MICHIGAN, ASSIGNOR TO NATIONAL SOAP HOLDER CO., OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

LIQUID-SOAP HOLDER.

1,110,135.

Specification of Letters Patent.

Patented Sept. 8, 1914.

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To all whom it may concern:

Be it known that I, JAMES F. HENDERSON, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Liquid-Soap Holders, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved apparatus for holding and dispensing liquid soap and its object is to provide a simple and sanitary device adapted to operate to discharge measured quantities of liquid soap and to provide certain other new and useful features in the construction and arrangement of parts, all as hereinafter more fully described, the invention consisting in the matters hereinafter set forth and more particularly pointed out in the claim, reference being had to the accompanying drawing in which—

Figure 1 is a longitudinal sectional view of the valve mechanism of the apparatus; Fig. 2 is a similar view showing the valve in open position and parts in side elevation; and Fig. 3 is a section on the line *y-y* of Fig. 4.

As shown in the drawings, 1 indicates a suitable valve casing having a socket in its upper end to receive the lower open end of a receptacle or reservoir 2 for liquid soap or the like. This reservoir is preferably formed of glass so that its contents may be seen. A bracket 4 is secured to one end of the casing by means of which bracket the device may be attached to a wall or other support in any convenient position for use.

The casing 1 is bored inward from its free end to form a spring chamber 6 and a receiving chamber 7 of less diameter at the inner end of the bore which chamber is open at its top to receive material from the reservoir 2 above. A tapered valve seat 8 is also formed in the casing at the meeting of the two chambers and the spring chamber is closed at its outer end by a screw cap 9 and provided with a discharge opening 10 at its lower side adjacent to the valve seat.

The cap 9 forms a bearing for a valve stem 11 which extends therethrough and carries a valve member on its inner end comprising a cylindrical plug 12 having a flange on its outer end forming a valve 13 to engage the seat 8. The plug fits within the

bore of the chamber 7 to slide freely therein and is provided with a detachable and adjustable head 28. This head coöperates with the plunger 12 in forming a deep groove 14 to receive measured quantities of liquid soap from the chamber 7 and reservoir 2 and discharge the same into the chamber 6 when the plug and valve are moved to the position shown in Fig. 5 against the action of a coiled spring 15 sleeved upon the stem 11 between the plug and the cap 9. The adjustable and detachable head 28 has a screwthreaded shank 29 to engage a screwthreaded axial opening in the plug. A lock nut 30 is provided on the stem to lock the head in any position to which it may be adjusted by turning the stem into or out of the said opening. The quantity of soap contained in the groove will readily flow directly therefrom when the plug is so moved, downward and out through the discharge 10 and the spring and spring chamber will be prevented from becoming clogged thereby. Waste of material is also prevented by the delivery of a small quantity at a time and the operation of the device is positive and accurate.

For ordinary use, the stem 11 may be conveniently operated by hand, but when used in hospitals, and similar places where it is undesirable to have a hand operated device, foot operated means may be provided for actuating the valve, consisting of an arm 17 pivotally attached to a fixed arm 18 on the casing and engaging at its lower end a head 19 on the stem 11. A lever 20 is connected at one end to the arm 17 and extends rearwardly toward the wall or other support to which the bracket 4 is secured. The lever 20 can be operated by means of a treadle (not shown).

When the valve 13 leaves its seat and the liquid soap contained in the groove 14 is discharged, a film of soap will adhere to said seat, and when the valve is again closed this film of material will be forced out over the edge of said valve and fall into the spring chamber where it will get into the spring, corroding the same and causing an unsanitary condition. To prevent the soap from getting into the spring chamber in this manner, a flange 31 may be provided upon the stem 11 as by forming the same integral therewith as shown, or in any other suitable manner, said flange being spaced a short distance from the forward end of the

valve 13 to form a groove between said flange and valve into which the soap will fall as it is forced over the valve by the seating thereof. From said groove the soap will
5 gradually work out at the lower side thereof and pass out through the discharge opening.

Having thus fully described my invention what I claim is:—

10 In a liquid soap holder, the combination of a casing having a bore formed therein providing communicating inner and outer chambers, said outer chamber having a discharge opening and said inner chamber a large inlet opening, a receptacle arranged
15 above said casing and having a wide outlet communicating with the inlet opening of the inner chamber of said casing, a valve member extending into the inner chamber and in proximity to the edge thereof, said member
20 having a tapered portion adapted to seat at the junction of said inner and outer chamber, an adjustable head carried by the inner end of said member and spaced from the inner end of the inner chamber of said casing

and cooperating with said member in providing an annular slot capable of having its area increased and decreased by adjusting said head, said slot being in communication with the inlet opening of the inner chamber of said casing and adapted to receive material from the inlet opening and the space between said head and the end wall of said inner chamber, a spring in the outer chamber to normally hold said valve member in a closed position, a stem on the valve member extending outward through the end of the outer chamber for moving the valve member against the action of said spring, and a peripheral flange on said stem in parallelism with the end of said member and shielding
4 said spring as said member is seated.

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

JAMES F. HENDERSON.

Witnesses:

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