

1,116,613.

Fig. 1

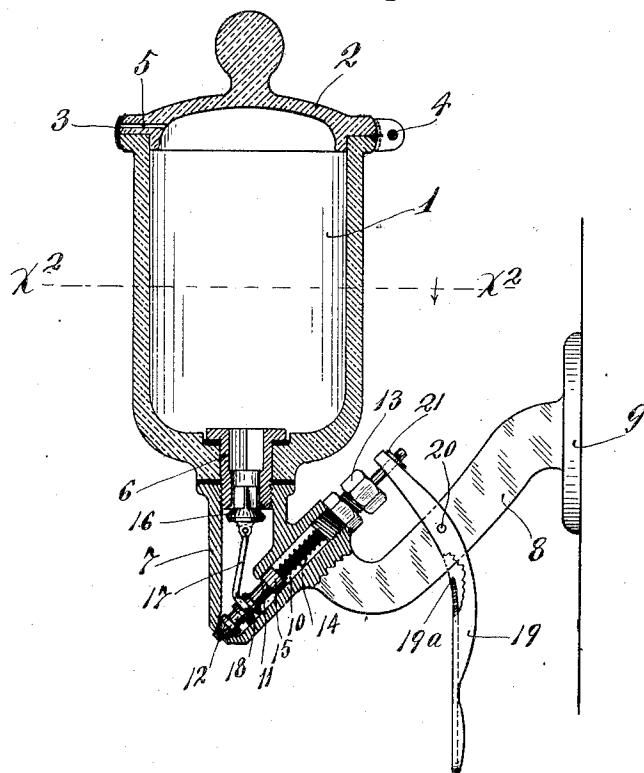


Fig. 2

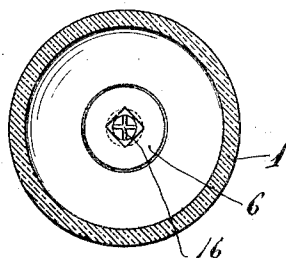
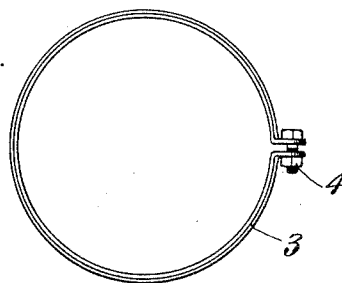


Fig. 3



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UNITED STATES PATENT OFFICE.

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LIQUID-SOAP DISPENSER.

1,116,613.

Specification of Letters Patent.

Patented Nov. 10, 1914.

Application filed March 14, 1913. Serial No. 754,254.

To all whom it may concern:

Be it known that I, MARINUS J. C. NYBORG, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Liquid-Soap Dispensers; and I do hereby 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.

My invention has for its object to provide a simple and efficient device for dispensing liquid soap, and to such ends, generally stated, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in vertical section with some parts left in full, showing a jar and valve mechanism for dispensing liquid soap; Fig. 2 is a horizontal section taken on the line $x^2 x^2$ on Fig. 1; and Fig. 3 is a plan view showing a lid clamping band removed from the jar.

The soap jar 1, which is preferably of glass, is provided with a cover 2 which is securely but detachably held to the jar by a channel-shaped clamping ring 3, the ends of which are drawn together by a short nutted bolt 4. The bead on the upper edge of the jar and the projecting flange of the cover, are preferably rounded so as to fit the channel of the clamping ring 3, and the said cover is provided with a small air passage 5 which permits air to slowly enter the jar, it being understood that there will be sufficient leakage between the cover and the clamping ring to afford the necessary supply of air required to permit the free flow of soap from the jar. At its lower end, the jar 1 is provided with a tubular metallic coupling sleeve 6, the lower end of which is preferably threaded and screwed into the sleeve-like end 7 of a supporting bracket 8. This supporting bracket 8 is shown as provided with a base flange 9 adapted to be secured by screws, or otherwise, to a wall or other upright support.

The supporting bracket 8 is provided with an oblique tubular valve chamber 10, the lower portion of which intersects the cham-

ber of the neck 7. Working in the valve chamber 10 is a plunger valve 11, the lower end 12 of which is in the form of a truncated cone, the outer end of which normally projects through a conical discharge passage formed in the extreme lower end of the said valve chamber. The stem of the valve 12 works through a suitable stuffing box 13 applied to the upper end of the valve chamber 10. A spring 14 is compressed between the stuffing box 13 and a collar 15 on the valve 11. This collar 15 never leaves the cylindrical upper portion of the valve chamber 10 and closely fits the walls thereof, so that it affords a guide insuring true axial movements of the valve. This valve 11, for the purpose of distinction, is herein designated as the primary valve. For direct coöperation with the lower end of the coupling sleeve 6, I also provide a valve 16 herein designated as the secondary valve. This valve 16, when raised, closes the passage through the sleeve 6, and it is arranged to be moved into a closed position when the primary valve 11 is moved into an open position, and conversely, to be moved into an open position when the said primary valve is moved into a closed position. This movement, as shown, is accomplished by a link 17, the upper end of which is pivotally connected to the said valve 16 and the lower end of which is pronged and works in a channel 18 formed in the said valve 11.

An operating lever 19, which, as shown, is bifurcated so that it straddles the arms of the bracket 8, is pivotally connected to the latter at 20, and its upper end straddles the upper end of the stem of the valve 11 and engages a stop in the form of a washer 21 secured to the end of the said valve stem by a pin or otherwise. Normally, the spring 14 holds the primary valve closed and the secondary valve opened and the lever 19 in the position shown in Fig. 1. To simultaneously open the primary valve and close the secondary valve, the lower end of the lever 19 is moved outward or toward the left in respect to Fig. 1, and its movement in this direction will be limited by the engagement of the edge of its flange 19^a with the inner edge of the arms of the bracket 8.

With this arrangement, it is evident, when the valves are in normal position shown in Fig. 1, the liquid soap will run from the jar through the sleeve 6 and will fill the chamber within the sleeve or hollow head 7 of the

bracket 8. Then when the primary valve is moved into an open position and the secondary valve closed, the predetermined amount of liquid soap contained in the head
 5 7 will be discharged for use. This prevents a waste of the liquid soap. Obviously, where there is but a single valve, the soap will run from the jar as long as the said valve is held open and this will occasion a
 10 great loss and waste of the soap, especially when the dispensing device is used in public places where the persons using the soap do not pay for the same, and consequently, do not have an incentive for economy.

15 The dispensing device described, while of small cost and of simple construction, is efficient for the purposes had in view.

What I claim is:

20 1. The combination with a soap container, of a bracket supporting said container and having a hollow head formed with a soap delivery conduit and an obliquely intersecting valve chamber, a spring-pressed plunger valve working in said valve chamber and
 25 normally closing the discharge end of said conduit, means for moving said plunger, a secondary valve for closing the upper extremity of said soap conduit, a link connecting said secondary valve to said primary
 30 valve and causing the former to be closed when the latter is opened, and vice versa.

2. The combination with a soap container, of a bracket supporting said container and having a hollow head formed with a soap
 35 delivery conduit and an obliquely intersecting valve chamber, a spring-pressed plunger

valve working in said valve chamber, and normally closing the discharge end of said conduit, means for moving said plunger to close the discharge passage, a secondary
 40 valve for closing the upper extremity of said soap conduit, a link connecting said secondary valve to said primary valve and causing the former to be closed when the latter is opened, and vice versa, and a lever
 45 pivoted to said supporting bracket and connected to the projecting stem of said primary valve.

3. The combination with a soap container, of a bracket supporting said container and
 50 having a hollow head formed with a soap delivery conduit and an obliquely intersecting valve chamber, a spring-pressed plunger valve working in said valve chamber and normally closing the discharge end of said
 55 conduit, a secondary valve for closing the upper extremity of said soap conduit, a link connecting said secondary valve to said primary valve and causing the former to be closed when the latter is opened, and vice
 60 versa, and a lever pivoted to said supporting bracket and connected to the projecting stem of said primary valve, the said lever having a portion engageable with the said bracket to limit its movement in a direction to open
 65 said primary valve.

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

MARINUS J. C. NYBORG.

Witnesses:

BERNICE G. WHEELER,
 HARRY D. KILGORE.