

Sept. 7, 1926.

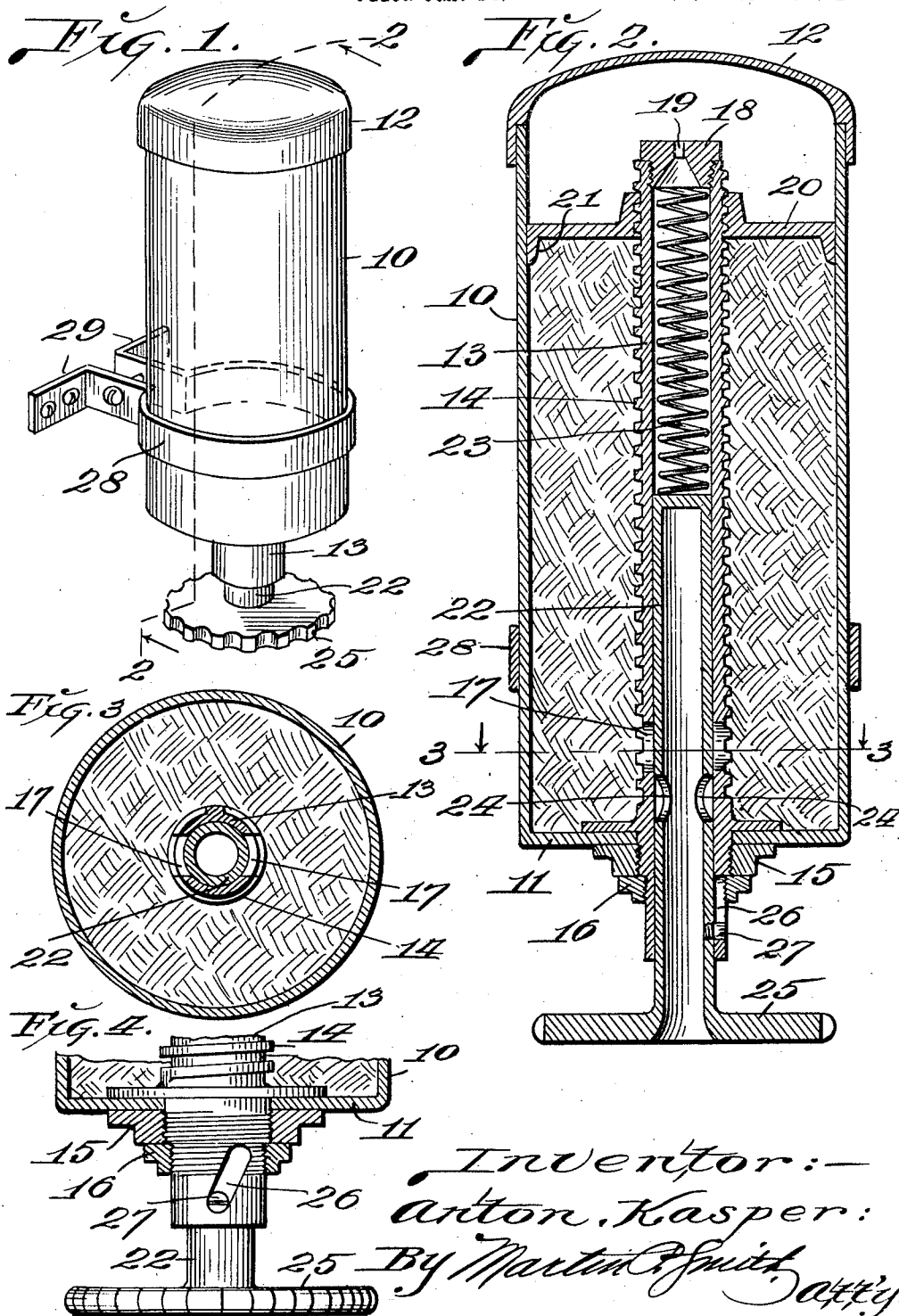
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A. KASPER

SOAP DISPENSER

Filed Jan. 14, 1926

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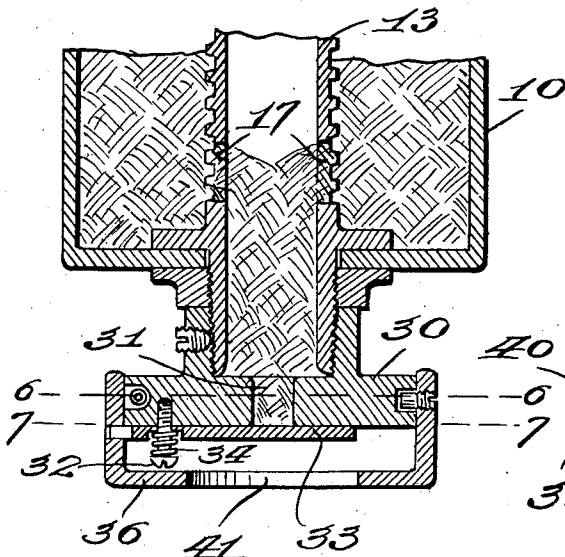
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SOAP DISPENSER

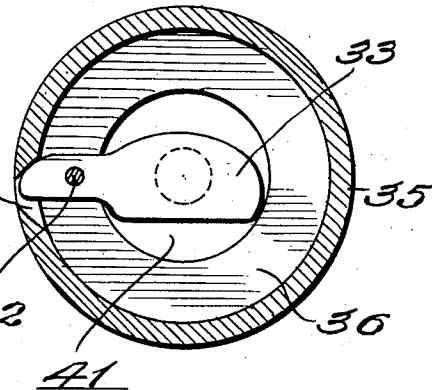
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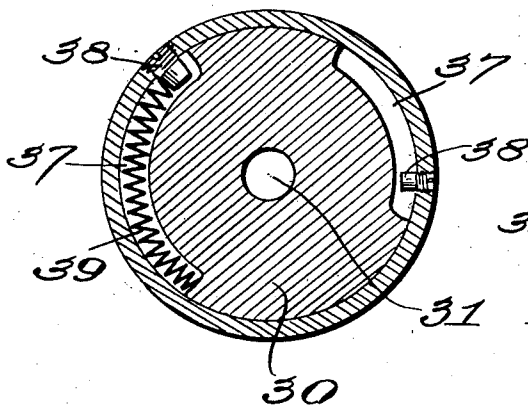
*Fig. 5.*



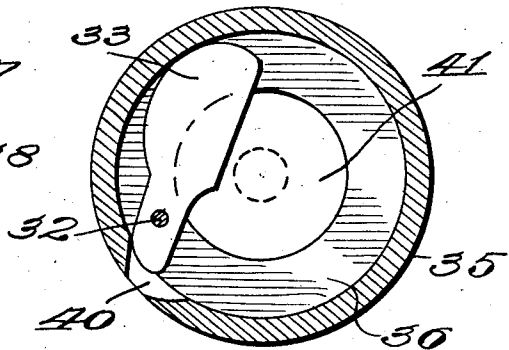
*Fig. 7.*



*Fig. 6.*



*Fig. 8.*



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# UNITED STATES PATENT OFFICE.

ANTON KASPER, OF LOS ANGELES, CALIFORNIA.

## SOAP DISPENSER.

Application filed January 14, 1926. Serial No. 81,152.

My invention relates to a soap dispensing device that is designed to occupy a fixed position above and adjacent to the wash-bowls in hotels, work rooms, factories, and the like, and which device when properly manipulated delivers into the hand of the user a small quantity of soap.

The principal objects of my invention are to generally improve upon and simplify the construction of the existing forms of soap dispensers, to provide a device of the character referred to that is relatively simple in construction, capable of being easily and cheaply produced and which, when actuated, will be effective in positively delivering a small amount of relatively soft paste-like soap.

A further object of my invention is to provide a soap dispenser that has relatively few parts, thereby enabling the device to be manufactured and installed with economy and at the same time minimizing the liability of the device becoming inoperative due to disarrangement of its operating parts.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will hereinafter be more fully described and claimed and illustrated in the accompanying drawing, in which—

Fig. 1. is a perspective view of a soap dispensing device embodying the principles of my invention.

Fig. 2. is a vertical section taken approximately on the line 2—2 of Fig. 1.

Fig. 3. is a horizontal section taken on the line 3—3 of Fig. 2.

Fig. 4. is a detail elevational view partly in section and showing the pin and slot connection between the soap delivery tube and its enclosing sleeve.

Fig. 5. is a vertical section taken through the lower portion of a modified form of the dispenser.

Fig. 6. is a horizontal section taken on the line 6—6 of Fig. 5.

Fig. 7. is a horizontal section taken on the line 7—7 of Fig. 5.

Fig. 8. is a section similar to Fig. 7 and showing the parts in shifted position to permit the discharge of soap.

Referring by numerals to the accompanying drawing, and particularly to the form of dispenser shown in Figs. 1 to 4 inclusive, 10

designates a hollow cylindrical container that is preferably formed of metal and which has a fixed bottom 11 and a readily removable cap or cover 12. Axially disposed within this container and extending through the bottom 11 thereof is a tube 13 that is externally threaded as designated by 14 for the greater portion of its length and said tube is mounted so that it rotates in its bearing in the bottom plate 11. Said tube is retained for rotary movement within the container by a nut 15 that is screw-seated on that portion of the tube that projects through said bottom 11 and said nut bearing against the under face of said bottom.

To retain the nut 15 on the tubular member 13, a lock nut 16 is seated on a threaded portion of said tube 13 and bears directly against the underside of said nut 15.

While I have shown and described nut 15 as being threaded on the tube 13, it may be pressed thereon. Formed through the wall of tube 14 a short distance above the bottom plate 11 are apertures 17. The upper end of tube 13 is closed by a screw plug 18 through the center of which is formed an aperture 19. The hub portion of a follower or pressure plate 20 is provided with a threaded aperture that receives the threaded tube 13 and the edge of said plate is provided with a flange 21 that engages the inner face of the cylindrical container 10.

Arranged to slide for a limited distance through the lower portion of tube 13 is a soap discharge tube 22, the upper end of which is closed and interposed between the upper end of this tube and the cap 16 is an expansive coil spring 23. Formed in the intermediate portion of this discharge tube 22 are apertures 24 which, when the tube is elevated to its limit of movement, coincide with the apertures 17. The lower end of this discharge tube 22 carries a disk 25, the edge of which is corrugated.

Formed in the lower portion of tube 13 is a slot 26 that is inclined slightly toward the right hand and passing through said slot and seated in the wall of tube 22 is a pin or screw 27.

My improved soap dispenser as herein described may be supported in any suitable manner above or adjacent to a washbowl, but as shown in Fig. 1, I prefer to support the dispenser by means of a strap 28 that is clamped around the lower portion of cylin-

der 10 and the end portions of said strap terminate in outwardly projecting brackets 29 that may be fixed in any suitable manner to the wall or to a support.

5 My improved soap dispenser is made ready for use by filling the chamber within cylinder 10 below the pressure plate 20 with soap in plastic or paste form and under normal conditions the spring 23 forces discharge tube 22 downward to its limit of movement with the projecting end of pin or screw 27 at the lower end of slot 26. When the discharge tube is thus positioned, the apertures 24 are positioned slightly below and out of registration with aperture 17 in tube 13.

To bring about a discharge of a small portion of the soap supply within the container the corrugated edge of disk 25 is engaged by the thumb and fingers of the hand with the palm positioned directly below the discharge end of tube 22. Sufficient pressure is applied to the disk to force the same upwardly and at the same time the disk is slightly rotated toward the right hand. As a result of these movements, discharge tube 22 is moved upward for a short distance within the lower portion of tube 13 thereby moving apertures 24 into registration with aperture 17 and as the tube 13 is partially rotated the follower or pressure plate 20 will be drawn downward a slight distance as a result of its threaded engagement with tube 13 and the pressure thus applied to the top of the relatively soft soap mass within the container will cause a small portion thereof to discharge through the registering apertures 17 and 24, and this soap will discharge through the open lower end of tube 22 into the palm of the user's hand. As soon as disk 25 is released, the pressure stored in coil spring 23 will act to move discharge tube 22 downward to its limit of movement and thus apertures 24 are moved out of registration with apertures 17.

The slot 26 that is traversed by pin 27 is purposely inclined toward the right hand in order to exert tendency or influence for the user's hand to impart slight rotary motion toward the right hand when the disk 25 is engaged and moved upwardly and in this connection it will be understood that it is necessary to slightly rotate tube 13 in order to cause pressure plate 20 to move downwardly and apply the necessary pressure to the soap mass within the container.

In the form of device illustrated in Figs. 5 to 8 inclusive, sliding tube 22 is dispensed with and a disk 30 is secured to the lower end of threaded tube 13. Formed in the center of this disk 30 is a soap discharge aperture 31 and pivotally mounted on a pin or screw 32 that is seated in the underside of disk 30 to one side of aperture 31 therein, is a plate 33 that normally closes aperture

31. A spring 34 is arranged on screw 32 beneath plate 33 and tends to force the latter against the under face of disk 30.

The annular wall 35 of a cup-shaped member 36 encloses disk 30 and seated in said annular wall and projecting into grooves 37 that are formed in the edge of disk 30 are pins 38. Occupying one of the grooves 37 and interposed between the pin therein and the end of said groove is an expansive coil spring 39. The outer end of plate 33 projects into a notch or slot 40 that is formed in the wall 35 of cup-shaped member 36 and under normal conditions, or with spring 39 expanded, the cup-shaped member and plate 33 occupy positions as illustrated in Figs. 6 and 7 with plate 33 closing aperture 31. Formed in the base plate of cup-shaped member 36 is a relatively large aperture 41.

In the operation of the modified form of the dispenser, the hand is placed beneath the cup-shaped member 36 with the fingers and thumb bearing on the annular wall 35 and said cup-shaped member is then rotated toward the right hand. As the cup-shaped member is thus initially rotated, the rear end of notch or aperture 40 bearing on the outer end of plate 33 will swing the same into the position shown in Fig. 8, thereby opening discharge aperture 31. When the inner end of plate 33 bears against the wall 35, the further rotary motion imparted to the cup-shaped member will impart rotary motion to disk 30 and the threaded tube 13 to which said disk is connected with the result that the pressure plate 20 will be moved downward a short distance, consequently forcing a small amount of the soap through apertures 17 and downwardly through discharge aperture 31 and thus the discharged soap is delivered into the palm of the user's hand. As the cup-shaped member is released, spring 39 will cause the same to return to its normal position and in so doing plate 33 will return to its normal position, thereby closing discharge aperture 31.

Thus it will be seen that I have provided a soap dispensing device that comprises relatively few parts and which may be easily and conveniently manipulated by one hand for the purpose of effecting a discharge of a small quantity of soap.

Obviously minor changes in the size, form and construction of the various parts of my improved soap dispenser may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. In a soap dispenser, a container, an externally threaded tube extending axially therethrough, a pressure plate having threaded engagement with said tube, the lower portion of said tube having an open-

ing that constitutes a discharge aperture for the soap within the container, a tube arranged for sliding movement in the lower portion of the threaded tube, which sliding tube is provided with an aperture that is adapted to register with the discharge aperture in the threaded tube and a manually engageable disk on the lower end of said sliding tube.

10 2. In a soap dispenser, a container, an externally threaded tube extending axially therethrough, a pressure plate having threaded engagement with said tube, the lower portion of said tube having an opening that constitutes a discharge aperture for the soap within the container, a tube arranged for sliding movement in the lower portion of the threaded tube, which sliding tube is provided with an aperture that is adapted to register with the discharge aperture in the threaded tube, a manually engageable disk carried by the lower end of said sliding tube and a spring bearing upon the upper end of said sliding tube.

25 3. In a soap dispenser, a container, an externally threaded tube extending axially therethrough, a pressure plate having threaded engagement with said tube, the lower portion of said tube having an opening that constitutes a discharge aperture

for the soap within the container, a tube arranged for sliding movement in the lower portion of the threaded tube, which sliding tube is provided with an aperture that is adapted to register with the discharge aperture in the threaded tube, a spring bearing upon the upper end of said sliding tube and a manually engageable disk carried by the lower end of said sliding tube. 35

4. In a soap dispenser, a container, an externally threaded tube extending axially through said container and arranged for rotary movement on the bottom thereof, said tube being provided near its lower end with an opening that constitutes a discharge aperture for the soap within said container, a pressure plate having threaded engagement with said threaded tube, a tubular member arranged for sliding movement in the lower portion of the threaded tube and having an aperture that is adapted to register with the discharge aperture in said threaded tube, a spring bearing on said sliding tube, a manually engageable disk on the lower end of said sliding tube and a pin and slot connection between the sliding tube and the threaded tube for limiting the sliding movement of said sliding tube in both directions. 40 45 50 55

In testimony whereof I affix my signature.

ANTON KASPER.