

July 29, 1924.

1,502,936

J. N. BORROUGHS

SOAP DISPENSER AND CONTAINER

Filed April 25, 1921

Fig. 3.

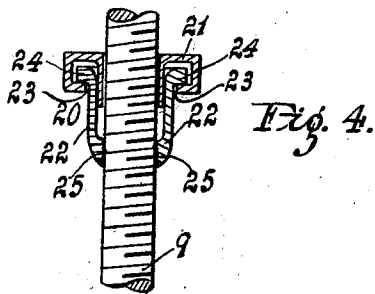
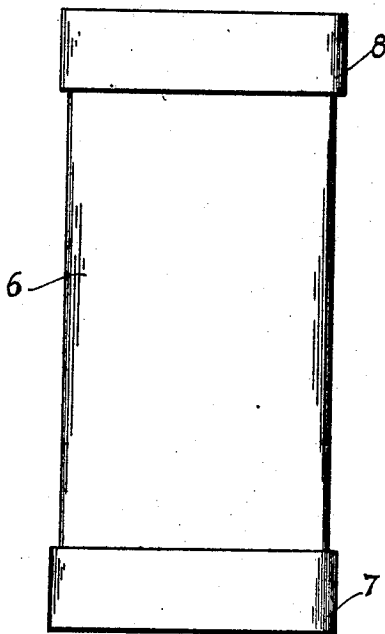


Fig. 2.

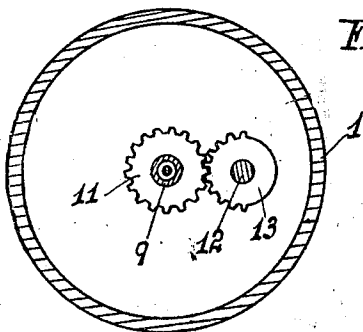
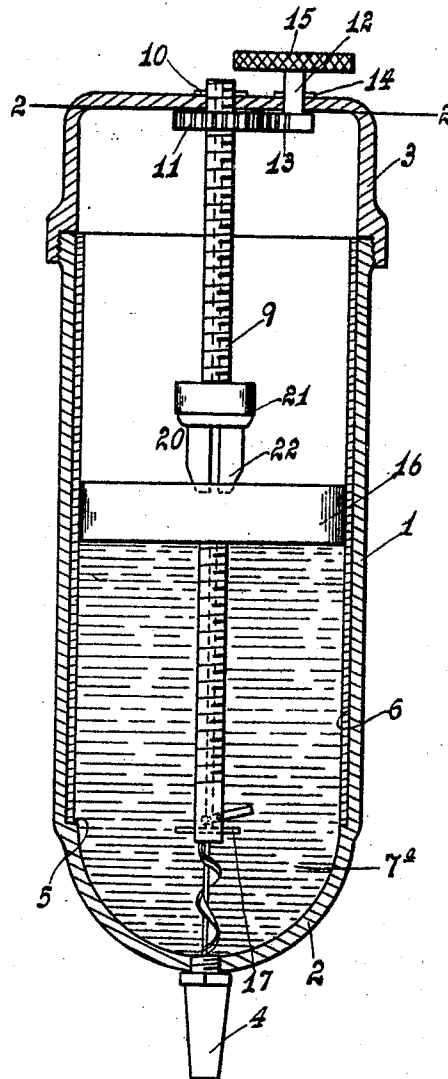


Fig. 1.



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UNITED STATES PATENT OFFICE.

JOSEPH N. BORROUGHS, OF OAKLAND, CALIFORNIA.

SOAP DISPENSER AND CONTAINER.

Application filed April 25, 1921. Serial No. 464,120.

To all whom it may concern:

Be it known that I, JOSEPH N. BORROUGHS, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Soap Dispensers and Containers, of which the following is a specification.

My invention is an improved soap dispenser for dispensing soap in a semi-liquid form, which is constructed to be charged with soap cartridges.

Referring to the annexed drawing in which my invention is illustrated and which forms a part of this specification:

Figure 1 is a vertical longitudinal section of my soap dispenser.

Figure 2 is a cross section of my soap dispenser taken on line 2—2 of Figure 1.

Figure 3 is a side elevation of the soap cartridge.

Figure 4 is a sectional view of the screw clutch.

Figure 5 is a vertical longitudinal section of a modified form of my soap dispenser. Figure 6 is an elevation of same.

In the drawing 1 indicates a soap container, the lower end of which is closed by a rounded wall 2 while its upper end is closed by a cap 3 screw seated thereon. A spout 4 projects from the lower wall 2. The container 1 has an internal annular shoulder 5 just above the end wall 2 on which shoulder rests the lower end of a soap cartridge 6 containing soap in a semi-liquid form, which cartridge is placed within the container through the upper end thereof. The soap cartridges may be made of waxed paper and are closed at their ends by caps 7 and 8. A screw 9 extends longitudinally within the container, the upper end of the screw being journaled in the upper wall of the cap 3. A cotter pin 10 extends through the outer end of said screw and engages the outside of the upper wall of the cap 3. A gear 11 is secured on the screw 9 within the cap 3 close to the upper wall thereof. A shaft 12 extends through and is journaled in the upper wall of the cap 3, a mutilated gear 13 being secured on the inner end of said shaft close to the inner side of said upper cap wall, which gear meshes with the gear 11. A pin 14 extends through the shaft 12 against the outside of the upper wall of the cap 3. A thumb wheel 15 is secured on the outer end of the shaft 12. A piston 16 slides on the

screw 9 within the cartridge 6. A pin 17 extends through the lower inner end of the screw 9 to limit the downward movement of the piston 16. A screw clutch 20 is mounted on the screw 9, said clutch including a hollow collar 21 slidable on the screw and a pair of screw engaging jaws 22 pivoted in said collar, the collar having slots 23 in its lower wall through which the upper ends of the jaws 22 extend and the upper ends of said jaws being formed with external flanges 24 which engage the inside of said lower wall. The inside of the upper ends of the jaws 22 are inclined outwardly to allow the lower ends of the jaws 22 to swing outwardly so that said ends, which have threads 25 for normally engaging the screw 9, may disengage said screw to allow the clutch to move freely along the screw.

The piston 16 rests upon the upper end of the soap 7 and the clutch 20 rests just above the piston with its jaw threads 25 engaging the screw 9 and the lower ends of the jaws 22 engaging the upper side of said piston. Upon turning the tumb wheel 15 the piston 16 is advanced downwardly through the medium of mutilated gear 13, gear 11, screw 9 and clutch 20, and the soap is ejected from the container through the nozzle 4. The mutilated gear determines the advancement of the piston at each turn of the wheel 15 and the amount of soap ejected through the nozzle.

The modified form of my dispenser shown in Figs. 5 and 6 includes a container 30 and a cap 31 which screws on the upper end of the container. The lower end of said container converges downwardly into a cylindrical mouth 32. The container 30 is provided with a pair of longitudinal slots 33 and 34 arranged diametrically opposite each other. A knurled nut 35 is connected to one end of a chain 36, the other end of which chain is connected to the lower wall of the container 1. A tube 36 containing soap is inverted and placed in the container 1 with the externally threaded nozzle 37 of said tube extended through the mouth 32. The nut 35 is screwed on the lower outer end of the tube nozzle 37 against the end of the mouth 32, whereby the tube is held firmly in position in the container. A key 38 is inserted through the slots 33 and 34 and wound around the upper end of the tube, downwardly in said slots, whereby the soap is forced out of the tube through its nozzle 37.

Having described my invention, I claim:

1. A soap dispenser including a soap container, a nozzle extending from one end of said container, a screw journaled longitudinally in said container, a piston slidable on said screw, a clutch on said screw for engaging said piston when the screw is rotated to advance said piston to eject soap through said nozzle, a gear on said screw, a shaft in the upper end of the container extending outside the container, a mutilated gear on said shaft meshing with the gear on said screw, and a thumb wheel on the outer end of said shaft.
2. A soap dispenser including a soap container, a nozzle extending from one end of said container, a screw journaled longitudi-

nally in said container, a piston slidable on said screw, a clutch on said screw for engaging said piston when the screw is rotated to advance said piston to eject soap through said nozzle, said clutch including a hollow collar slidable on said screw and provided with slots in its lower wall, and a pair of screw clutch jaws extending through said slots formed with external flanges at their upper ends and with outwardly inclined inner surfaces at said ends and with threads on its lower ends for engaging said screw, and means for rotating said screw.

In testimony whereof I affix my signature.

JOSEPH N. BORROUGHS.