

July 17, 1928.

1,677,709

W. J. COUSINS

SOAP DISPENSER

Filed March 25, 1924

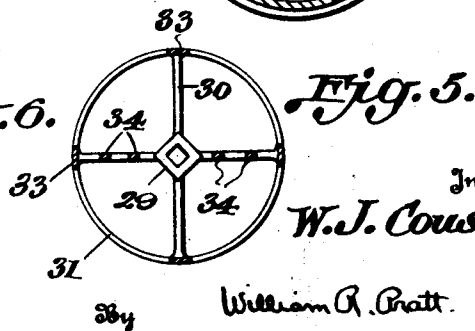
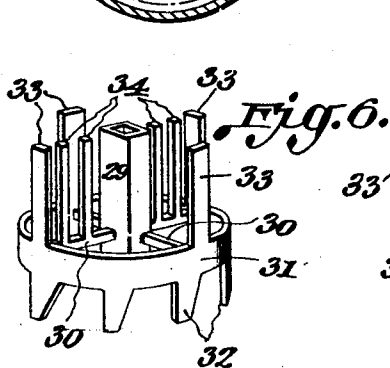
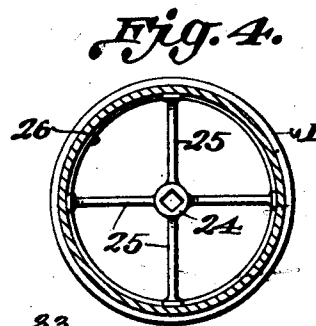
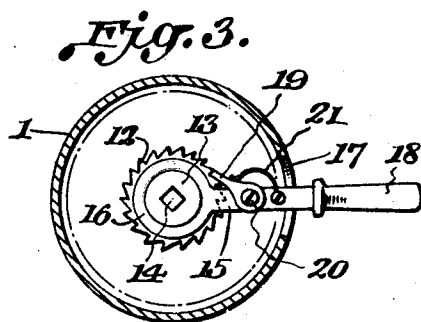
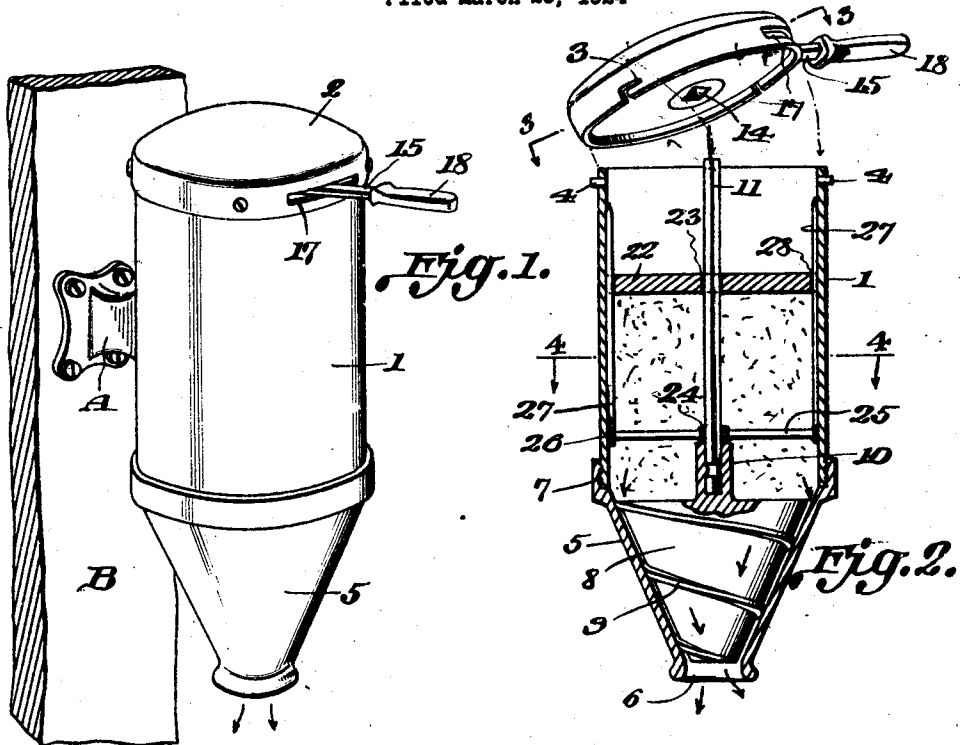


Fig. 5.

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Patented July 17, 1928.

1,677,709

UNITED STATES PATENT OFFICE.

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SOAP DISPENSER.

Application filed March 25, 1924. Serial No. 701,783.

This invention relates to dispensers for soap, particularly for grit soaps or washing compounds which have a small amount of moisture and which are neither so dry nor so liquid as to flow freely from the container.

An object of the invention is to provide a container for substances of this character from which they can be caused to flow in small measured quantities as desired.

Another object is to provide a dispenser which is simple in operation and can be readily refilled as desired.

A further object is to provide means whereby the same act which feeds a quantity of the compound from the dispenser will prevent the contents from becoming closely attached to the inside of the wall of the container, or from caking.

Another object is to provide a feeding means which will tend to prevent waste or too rapid feed of the soap or similar substance being dispensed.

Other objects will be apparent from the following detailed description and the appended claims.

In the drawings:

Figure 1 is a side elevation of a form of dispenser embodying my invention and supported in position for use.

Figure 2 is a longitudinal section of the same with the cover detached.

Figure 3 is a section on the line 3—3 of Figure 2.

Figure 4 is a section on the line 4—4 of Figure 2.

Figure 5 is a similar section of a modified form.

Figure 6 is an elevation of the weight and agitator shown in cross section in Figure 5.

There is provided a generally cylindrical body 1 which is provided with a removable cover 2 held in position by the engagement of bayonet slots 3 in the cover with pins 4 carried by the container. A tapering bottom member 5 having a delivery orifice 6 is screw threaded or otherwise detachably attached to the body 1, as shown at 7. The container body may be provided with an arm A which is fastened to a support B, but the particular manner of supporting the dispenser forms no part of the present invention.

Fitting within the tapering bottom member 5 is a similarly shaped member 8 provided with a screw thread 9 on its outer periphery. This thread contacts with the in-

ner wall of the member 5 and forms a spiral passage way for the delivery of the substance held within the container. The screw threaded member 8 has a central hub 10 having a central square or other non-circular opening. Fitting within this opening is a similarly shaped rod 11 which extends up to the top of the container 1.

Suitably supported within the cap 2 is a ratchet 12 having a central hub 13 provided with an opening 14 adapted to fit over the rod 11 when the cap or cover 2 is fastened in position on the container body 1. An arm 15 has a portion 16 provided with a circular opening adapted to fit over and freely rotate upon the hub 13 of the ratchet. This arm projects outwardly through a slot 17 in the cap 2 and is provided with a handle 18. Within the cap the arm has a pawl 19 pivoted thereto at 20 and normally pressed by a spring 21 into engagement with the ratchet 12. Obviously when the handle 18 is moved in one direction the pawl 19 will turn the ratchet 12 and thereby the rod 11 which is non-rotatably connected to the screw member 8. This turning movement will feed a certain amount of material out through the exit opening 6. The extent of movement of the handle is limited by the ends of the slot 17, which will tend to prevent waste of the material.

The soap or other substance in the container is pressed down by a weight 22 which is provided with a central opening 23 of the same form as the rod 11. A central hub 24 which fits non-rotatably over the rod 11 has spider arms 25 extending outwardly and these arms are connected to a ring member 26 from which extend upwardly a plurality of metal bars 27 which pass through cut outs 28 in the edge of the weight 22. Obviously, as the rod 11 is turned, the weight 22 must turn also, and through the rotation of the hub 24 with the rod 11 and the engagement of the bars or strips 27 with the weight, these bars must also turn. These bars extend up to near the top of the container and are in close contact with the wall of the container, so that their turning tends to scrape the wall and keeps the contents of the container from packing. The hub 24 is supported upon the central hub 10 of the member 8. It is particularly important that the material be prevented from clogging around the sides of the container body, since delivery of the material takes place through

the spiral passage between the outside of the member 8 and the inside of the member 5.

Various modifications of different features may be made without departing from the spirit of the invention, and in Figures 5 and 6 is shown a modified form of the agitator mechanism. Instead of the hub 24 there is provided an elongated hub or bearing 29 which fits over the rod 11. Arms 30 extend outwardly and are connected to a band member 31 from which extend downwardly relatively short projections 32 preferably straight on one face and inclined on the other. From the band there also extend upwardly four arms 33 which fit within the wall of the container body and are adapted to scrape the same when the device is rotated. From some of the arms 30 extend rods 34 which lie within the material and stir the same when the device is rotated. The exact position and arrangement of these arms and rods is immaterial, so long as the general result is achieved. The weight 22 may be used with this form of agitator or not as desired.

It is obvious that the device can be quickly disassembled for filling or cleaning, and that it consists of a simple and efficient arrangement of parts. It is adapted to feed grit soap so long as the latter is not fluid enough to flow freely. The pitch of the screw 9 may be varied to give a greater or less inclination to the passage through which the material passes, and the size of the screw and consequent space between the members 5 and 8 may be varied for the feeding of greater or lesser amounts of material. The weight will insure regular delivery of material, and the agitator will prevent caking or clogging thereof.

Many details can be changed without de-

parting from the spirit of the invention, and while particularly adapted for feeding grit or similar soaps, it can be used for other substances. In general, it is to be noted that the invention is limited only by the scope of the appended claims.

I claim as my invention:

1. A dispensing container comprising a body portion, a delivery portion connected thereto, a rotatable feeding device in the delivery portion, means for giving said device a step-by-step rotation, means for limiting the extent of said rotation, and a weight upon the material in the container and connected to rotate with the screw, and scrapers rotating with said device and engaging said weight.

2. A dispensing container comprising a body portion, a delivery portion connected thereto, means for feeding the material from said delivery portion, a weight upon the material and connected to rotate with the feeding means, and scrapers for the inside wall of the body portion connected to rotate with said feeding means.

3. A dispensing container comprising a body portion, a delivery portion connected thereto, a screw for feeding the material from the delivery portion, an agitator for the material, a weight resting thereon, and means for rotating the screw, weight, and agitator in unison.

4. A dispensing container comprising a body portion, a delivery portion connected thereto, a screw for feeding the material from the delivery portion, an agitator for the material, a weight resting thereon, and pawl and ratchet means for rotating the screw, weight and agitator in unison.

In testimony whereof I affix my signature.

WALLACE J. COUSINS.