May 14, 1935. L. D. WHITNEY 2,001,441

POWDER DISPENSER

Filed Nov. 3, 1934

Fig. 1.

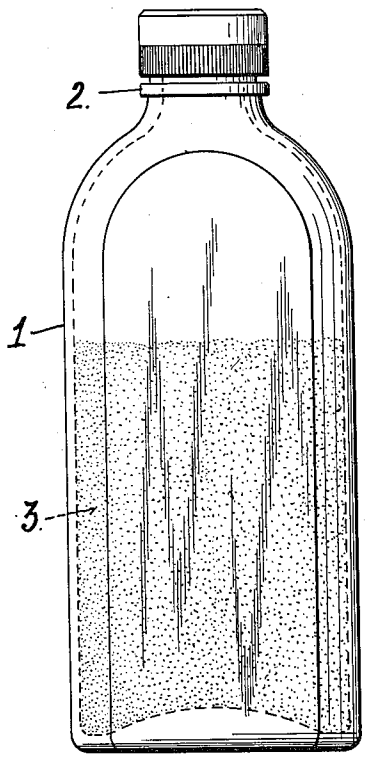


Fig. 2.

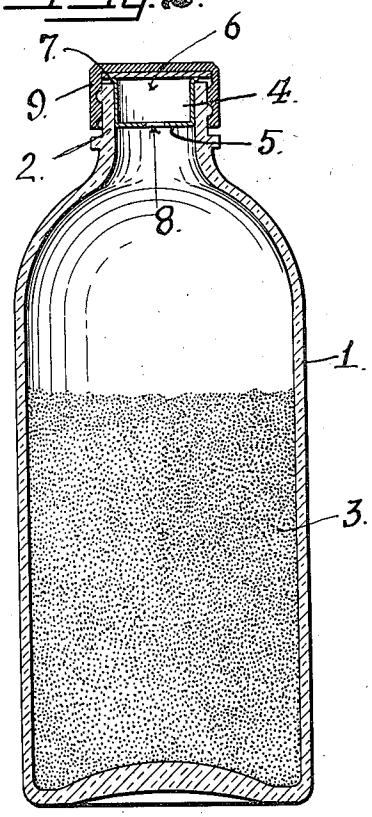
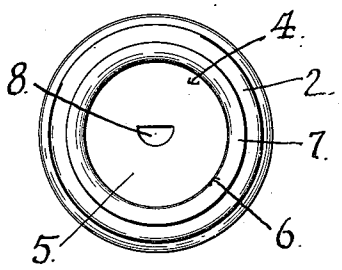


Fig. 3.



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POWDER DISPENSER

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Application November 3, 1934, Serial No. 751,365

1 Claim. (Cl. 221—61)

My invention relates in general to receptacles for dispensing powder which by reason of its nature and use requires a modicum of the receptacle content.

In particular, it concerns such dispensing receptacles as are adapted for hand use, the discharge of the fluent solid being controlled by one or more relatively small or contracted apertures. Such receptacles, for example, are hand shakers for various powders, salt, pepper, talcum, tooth powder, insect powder, and many other fluent solids.

Though my invention is not essentially confined to glass containers, still, for several reasons which I shall hereinafter set forth, it is structurally adapted for glass bottles, in which connection it is my present opinion that its best use lies.

The object of my invention is to provide for such containers, particularly glass bottles, without impairment of their customary neat and attractive appearance, a simple, effective and substantially unnoticeable dispensing device which is readily and securely fitted subsequent to the original free filling of the bottle, and which by reason of being easily removable may restore the bottle to its original freedom of access for refilling or for any other subsequent use, if such be desired.

To this end, my invention consists in the novel construction, arrangement and combination of parts hereinafter fully described, it being understood that changes and modifications may be made without departing from the spirit of the invention within the scope of the claim hereunto appended.

In the accompanying drawing, Fig. 1 is an elevation of a glass bottle showing its powder content and its typical flat top screw-cap illustrative of customary appearance but not disclosing the discharge control which is concealed within the bottle neck.

Fig. 2 is a longitudinal section of the bottle, disclosing the complete dispensing device.

Fig. 3 is a top plan enlarged, the screw-cap being removed.

1 is the container, which in its preferred form is a glass bottle of common type, having an externally threaded shouldered neck 2, with a full-open, relatively capacious throat, through which the bottle may be freely supplied with its powder content 3.

4 is a sleeve, preferably of metal, having a bottom wall 5 and a full-open top 6 with an outer flange 7.

The bottom wall 5 is apertured being provided with one or more openings of relatively small size, here shown by preference as a single opening 8, the shape of which may be varied, but is shown preferably, as seen in Fig. 3, of semi-circular or half-moon contour. The outer diameter of the sleeve is substantially the same as the inner diameter of the bottle neck and the length of the sleeve is proportioned to that of the neck-throat, so that when said sleeve is slipped down into the neck to a frictionally tight fit with its flange 7 resting upon the top of the neck and limiting its insertion, said sleeve by reason of its apertured bottom wall 5, presents in the bottle-throat a diaphragm control well down within the neck, and restricting by its opening 8, the flow of the powder to the proper modicum when the bottle is tipped.

9 is a flat-top screw-cap of usual type adapted for closing the bottle, when not in use. For use of the powder, the screw-cap 9 is removed. The bottle is then tipped, and the restricted flow passes freely out.

Glass bottles for powder dispensing containers of this class, while desirable for many reasons, both commercial and esthetic, present difficulties which have hitherto restricted or prevented their use. As bearing upon the invention herein, the following should be noted. Reducing stoppers in the form of apertured corks are usually resorted to for the sake of frictional security. These commonly are supplemented by outer closures usually projecting more or less inconveniently and unsightly from the top. Moreover, for the sake of fixity, the corks have to be so tightly fitted that they are practically permanent. Thus their easy removal for refilling the bottle or for any after-use, is out of the question.

In contrast, my device by having its dispensing sleeve made of metal with its diaphragm control below and its limiting flange above can be inserted in the neck of a glass bottle with sufficient frictional contact throughout its entire length including its relatively rigid or stiff bottom wall to safely hold it in place against dislodgement due to inversion, tipping or shaking, and yet permit it to be easily lifted out if it be desired to refill the bottle, or to use it subsequently for any purpose.

And, finally, due to its limiting top flange which rests on the neck top, the usual flat-top screw cap can be set close down upon the bottle neck without interior interference, or without exterior projecting impediments. Thus the interior parts of the device are normally concealed and the bot-

tle presents exteriorly the desired neat and attractive appearance.

I claim:—

A powder-dispenser comprising in combination a glass-bottle having an externally-threaded neck with a full-open throat; a metal sleeve in said throat of a length proportioned to that of the neck-throat and of a diameter adapting it for readily insertable and removable frictional contact throughout its length with the throat wall, said sleeve having a full-open top with a penetration-limiting flange resting on the top of the neck and a partially open, relatively stiff bottom-wall of less discharge capacity than the full-open top; and a flat-top screw-cap fitted upon the neck of the bottle to lie closely upon and cover the full-open top of the sleeve.

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