June 21, 1938. C. C. POPE ET AL 2,121,047

TOOTH POWDER DISPENSER

Filed May 28, 1937

Fig. 1.

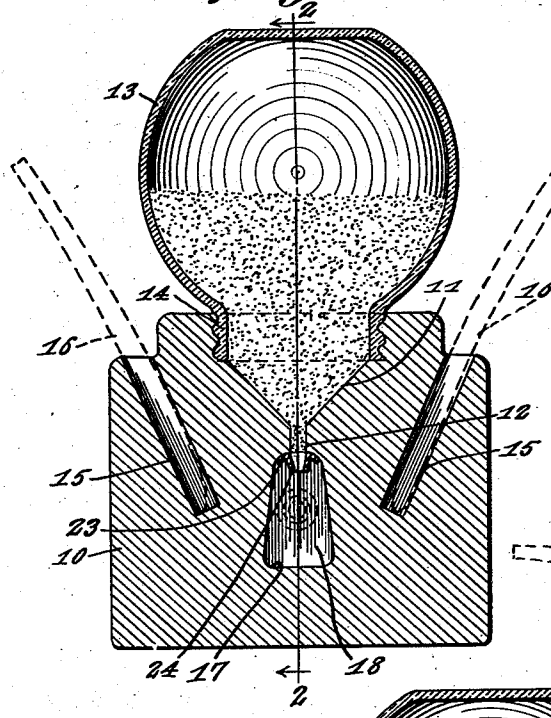


Fig. 2.

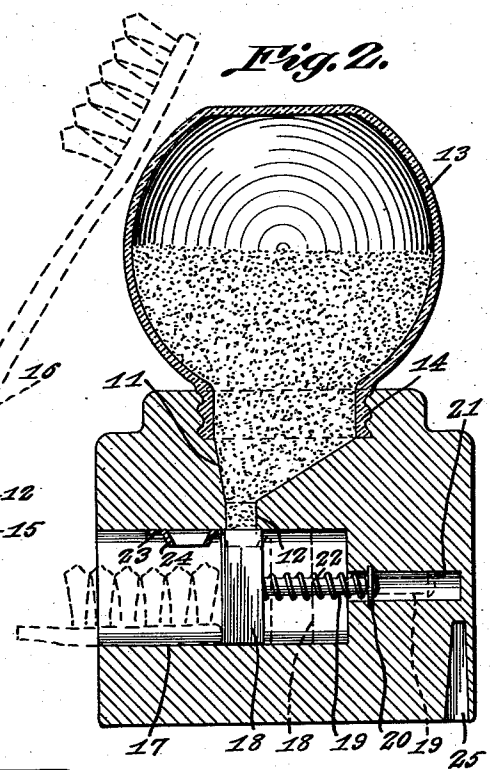
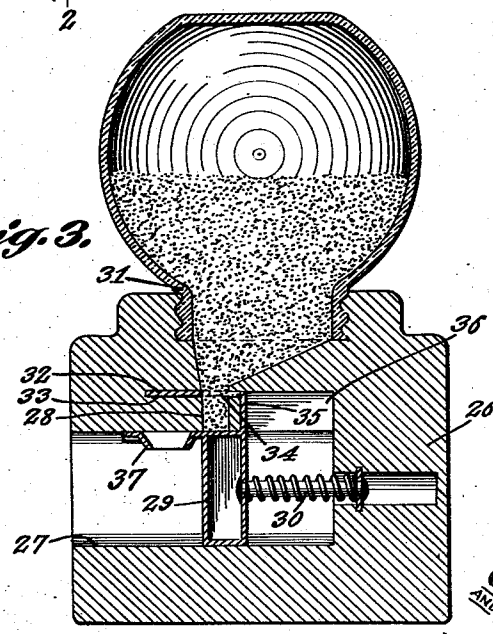


Fig. 3.



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TOOTH POWDER DISPENSER

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1 Claim. (Cl. 221—62)

This invention relates to tooth powder dispensers and has for an object to provide a device of this character having a spring pressed cut off valve adapted to be opened by pressure of the tooth brush to permit the tooth powder gravitating onto the tooth brush without waste.

A further object is to provide a tooth powder dispenser having a measuring valve assembled with the cut off valve for permitting of a measured quantity of tooth powder being dispensed each time the cut off valve is opened.

A further object is to provide a device of this character having a guard in advance of the cut off valve for preventing a wet tooth brush from contact with the tooth powder in the dispensing opening.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a longitudinal sectional view of a tooth powder dispenser constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view of the tooth powder dispenser taken on the line 2—2 of Figure 1.

Figure 3 is a longitudinal sectional view of a modified form of the dispenser showing the cut off valve equipped with the measuring valve.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a base which may be formed of "Bakelite" or other suitable material and may be formed of two similar parts to permit assembly of the mechanism, the parts being secured together by bolts or other suitable connectors.

The base is provided in its top with a powder receiving recess 11, having a cylindrical side wall and having a bottom wall tapering in the direction of an elongated discharge opening 12. A glass jar 13, or metal container, is provided with a neck 14 which is screw threadedly engaged with the cylindrical wall of the recess 11. The base is also provided with openings 15 to receive the handles of tooth brushes 16.

A tooth brush receiving opening 17 is formed in the base, the opening being of the general shape shown in Figure 1 and extending to and past the discharge opening 12 as best shown in Figure 2. A cut off valve 18, preferably formed of a hollow casing of the same shape as the recess 17, is provided with a stem 19 which is slidably fitted in a combined guide and stop washer 20 which is imbedded in the base across a bore 21 into which the bore of the stem extends when the valve is opened by pressure of a tooth brush 16 against the front side of the valve. When the valve is open the tooth powder may gravitate on to the center of the brush in sufficient quantity to permit cleansing the teeth without waste.

A spring 22 is sleeved on the stem between the valve and the washer, and normally holds the valve in position to seal the discharge opening from the powder and brush receiving recess 17 in the base.

A guard 23 is secured to the cut off valve 18 at the top thereof in advance of the dispensing opening 12. The guard is in the nature of an arcuate plate, as best shown in Figure 1, having a spout 24 which performs the dual function of preventing wet bristles of a tooth brush from entering the dispensing opening 12 and also permits the powder to be dispensed from the opening in a thin stream longitudinally on the center of the brush.

An opening 25 is formed in the base to receive any suitable supporting bracket or other securing device for mounting the device upon a wall. However, the device may be simply supported upon a table, shelf or other suitable support without resorting to a securing bracket.

A modified form of the invention is shown in Figure 3 in which the base 26 is similar to the base above described having therein a brush receiving opening 27, intercepting a powder dispensing opening 28 in which is mounted a cut off valve 29 having a spring pressed stem 30 which normally holds the valve to seal the dispensing opening. A glass jar 31 similar to the glass jar above described contains the supply of tooth powder.

The novel feature of the form of the invention shown in Figure 3 is a measuring valve 32 which is slidably fitted in a slot 33 which is formed in the base above and parallel to the brush receiving opening 27. The valve is provided with a port 34 and beyond the port the valve is secured to the cut off valve 29 by a ver-

tically disposed bracket arm **35** which is slidably fitted in a recess **36** which communicates with the rear end of the brush receiving opening **27** at the top thereof. The cut off valve **29** is provided with a combined guard and dispensing nozzle **37** as previously described.

In operation, in the modified form of the invention, when the cut off valve is in closed position the port **34** of the measuring valve **33** permits a predetermined quantity of tooth powder to collect in the dispensing opening **28** and open the top of the cut off valve. When the cut off valve is pushed open by a tooth brush, as previously described, the measuring valve **33** is slid rearwardly as a unit with the cut off valve and seals the discharge opening so that only the desired quantity of tooth powder may be dispensed on the tooth brush.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

A powder dispenser comprising a base having a powder receiving recess in the top, a powder container having a neck screw threadedly engaged in said recess, there being a brush receiving opening in the base intercepting said recess, a valve in said opening, a stem for the valve receivable in a bore in the base formed in axial alignment with said opening, a spring sleeved on the stem for normally holding the valve to close the recess, pressure of a brush in said opening being adapted to dislodge the valve to unseal the recess, and a guard integral with the valve and having a spout providing a discharge opening adapted to register with said recess when the valve is opened, said spout preventing contact of the brush with the walls of said recess.

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