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A. M. RICHERT

2,054,522

TOOTH POWDER DISPENSER

Filed March 30, 1936

Fig. 1.

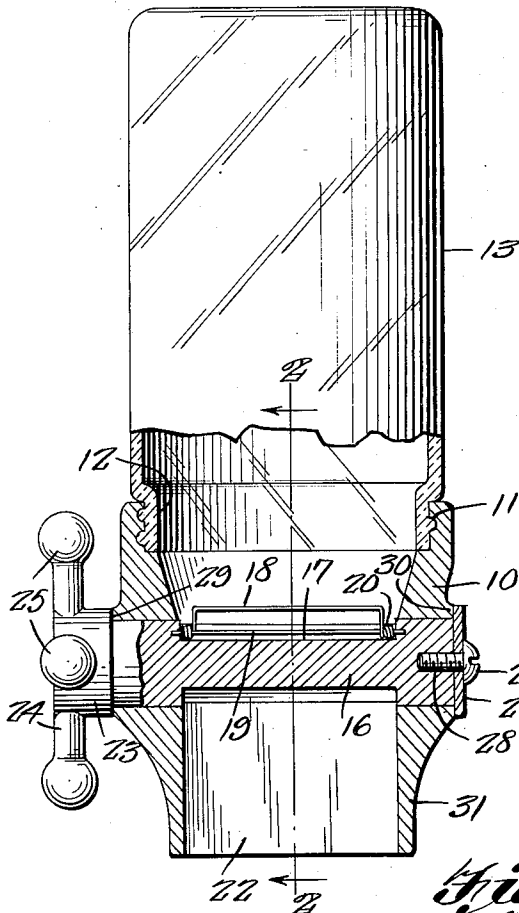


Fig. 2.

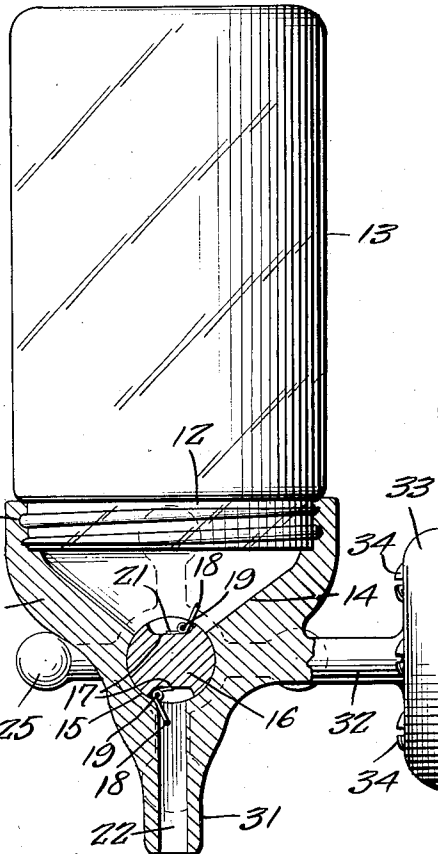


Fig. 3.

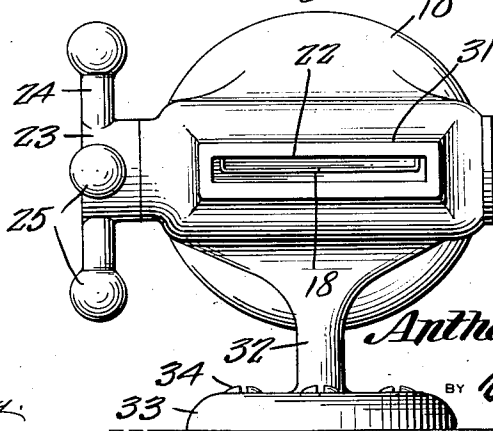
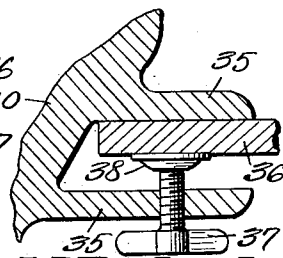


Fig. 4.



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TOOTH POWDER DISPENSER

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1 Claim. (Cl. 221—106)

This invention relates to tooth powder dispensers and has for an object to provide a sanitary compact dispenser that will dispense a measured quantity of tooth powder, or other material, at each single turn of the dispensing valve.

A further object of the invention is to provide a dispenser having a valve provided with a long narrow measuring pocket which is adapted to be brought into registration with a similarly shaped opening in the discharge spout so that a line of tooth powder will be dispensed on the tooth brush accurately and without waste.

A further object of the invention is to provide a dispensing device having a glass container which may be easily removed for replenishing the contents thereof, and which may be conveniently cleansed inside and out so as to be maintained in a sanitary condition.

A further object is to provide a device of this character having a dispensing valve provided with resilient wire frames which perform the dual function of breaking up packed material and at the same time permitting the valve to be rotated in only one direction.

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 claims 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 side elevation of a dispensing device constructed in accordance with the invention and showing the body and the valve in section.

Figure 2 is a cross sectional view taken on the line 2—2 of Figure 1 and showing parts in elevation.

Figure 3 is a bottom plan view of the dispenser showing the shape of the discharge spout.

Figure 4 is a detail cross sectional view of a modified form of attaching clamp.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a cylindrical barrel which may be formed of metal or other material and which is provided at the top with screw threads 11 to receive the threaded neck 12 of a glass receptacle 13 which may be in the nature of a fruit jar if desired.

The barrel 10 is constricted in the bottom, as shown at 14 in Figure 2, so as to be substantially funnel-shaped on the inside. At the lowest point

in the funnel-shaped bottom of the barrel an opening 15 is formed to rotatably receive a dispensing valve 16 of the plug type. The valve is provided with a longitudinal measuring opening 17 which is substantially rectangular in longitudinal and in transverse section. In the form of the invention indicated the opening is approximately the same in length as a conventional tooth brush and is preferably somewhat narrower in width than the width of a conventional tooth brush. Thus a measured quantity will be dispensed on the tooth brush in the nature of a line of the tooth powder so that waste will be prevented.

In each pocket or measuring opening 17 a wire frame 18 is mounted on a shaft 19, the ends of the latter being secured in suitable openings in the end walls of the pocket. The frame is substantially U-shaped and the ends thereof are provided with integral coil springs 20 which encircle the shaft 19, the extreme ends of the springs bearing upon the bottom of the measuring opening as shown at 21 in Figure 2. When the valve is rotated in a clockwise direction as shown by the arrowhead in Figure 2, the frames will move through the tooth powder and break up any packing of the material. As each frame arrives at the bottom 14 of the barrel it will be moved back by the latter into its associated measuring pocket so as to be housed within the pocket while passing through the opening 15. As will be seen by referring to Figure 2 should an attempt be made to rotate the valve in a direction opposite to the arrowhead the spring frames which may at that time be located in the discharge opening 22 of the device, will engage the wall of said opening and positively prevent retrograde movement of the valve. Thus the frames 17 perform the dual function of an agitator for breaking up packed material and a ratchet for permitting rotation of the valve in one direction only.

The dispensing valve is provided with a handle which is preferably formed integral therewith and which comprises a hub 23 and spokes 24 which terminate in balls 25. The dispensing valve is anchored in place by means of a washer 26 through which a screw 27 is passed and screwed into a threaded opening 28 in the dispensing valve. The hub 23 of the handle and the washer 26 are snugly held against bearing surfaces 29 and 30, respectively, on the barrel so that endwise play of the dispensing valve is prevented.

The barrel is provided with an integral spout 31 within which is located the above described discharge opening 22. The opening 22 is substan-

tially the same in length and in width as each measuring opening 17 in the dispensing valve so that when the valve is turned through one half of a complete revolution the tooth powder lodged in the measuring opening of the valve will be discharged through the discharge opening 27 of the spout.

The length and width of the discharge opening 22 is such that when the tooth brush is pushed against the bottom of the spout the discharge opening will lie wholly within the length and the width of the bristles so that a line of the tooth powder will be deposited longitudinally of the bristles without waste.

For securing the dispenser to a wall the barrel is provided with a bracket arm 32 which terminates in a disc 33 which may be screwed as shown at 34 to the wall. In the event the device is to be secured to a shelf a clamp is provided comprising a pair of tongues 35 adapted to receive the shelf 36 between them. A set screw 37 is threaded through the lower tongue and is provided with a swivel disc 38 which may be clamped tightly against the bottom of the shelf.

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 dispenser comprising a cylindrical barrel, a receptacle supported upon the barrel, a discharge spout at the bottom of the barrel, a measuring valve rotatably mounted in the bottom of the barrel and communicating with the spout, there being a longitudinal measuring opening in the valve, a shaft in the opening, and a wire frame having integral coil springs surrounding the shaft and having the terminals of the springs engaging the bottom of the measuring opening, said frame being collapsed into the measuring opening against the tension of its controlling springs when the valve is rotated in one direction and being urged by its controlling springs to engage the wall of the discharge opening in the spout and prevent rotation of the valve in a reverse direction.

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