Aug. 3, 1954 J. A ROBBENS 2,685,389

MUSTARD DISPENSER WITH THUMB-ACTUATED DISPENSING MEANS

Filed Aug. 17, 1950

FIG. 1.

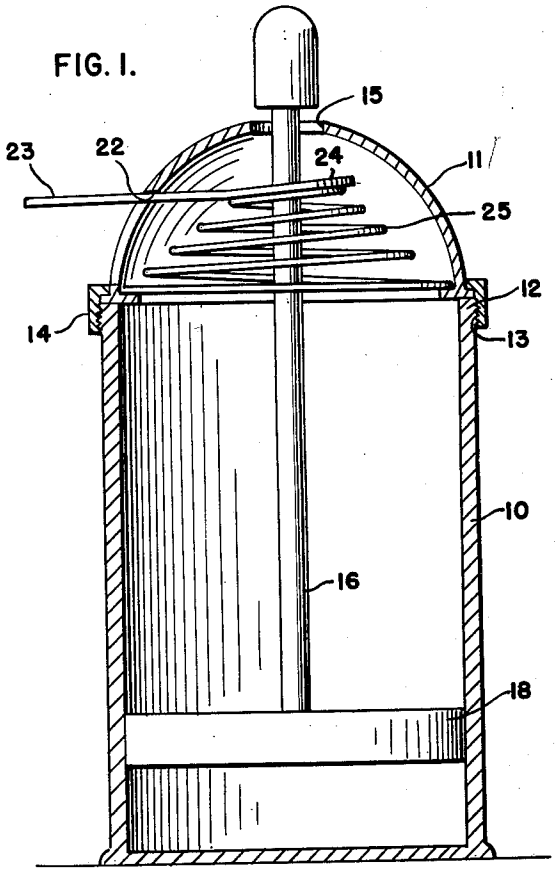
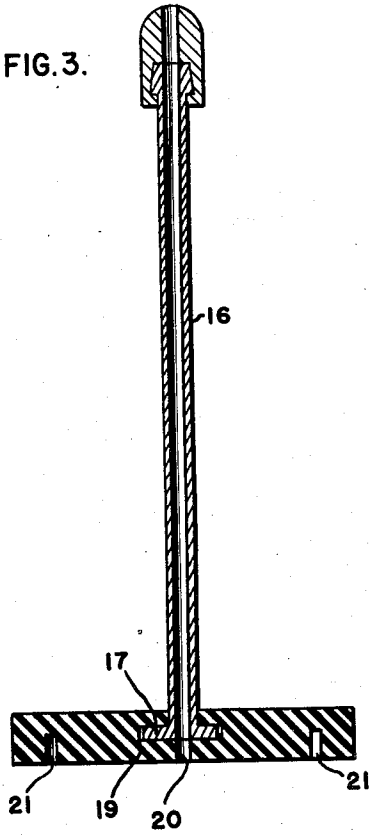


FIG. 3.



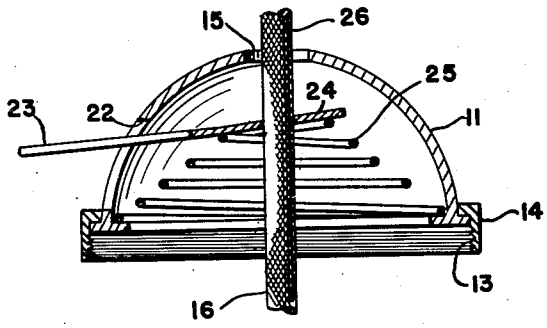


FIG. 2.

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MUSTARD DISPENSER WITH THUMB-ACTUATED DISPENSING MEANS

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3 Claims. (Cl. 222—320)

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The present invention relates to a dispenser assembly which is simple in structural detail, positive and efficient in operation and which finds particular application for dispensing mustard and similar viscous substances in an easy and sanitary manner.

Broadly, the dispenser assembly comprises a body portion, a top detachably secured to the body portion, a dispensing tube within the body portion and extending through an aperture in the top, a resilient disc attached to tube for effecting an air tight seal in the body portion, and finger operated means located within the top and cooperating with the dispensing tube to impart a step by step movement whereby the contents will be forced upwardly through the tube by the resilient disc.

It is well known that the dispensing of mustard presents a number of problems, the most important being to provide a sanitary container and to permit the contents to be dispensed easily in a minimum of time. Generally speaking, the usual mustard dispenser employed in restaurants and other eating establishments includes a transparent body and a metal closure cap having a discharge opening therein. To dispense the contents, it is necessary to either shake the container or strike the bottom thereof and neither of these techniques is entirely satisfactory. Obviously, it is quite difficult to regulate the amount of mustard to be dispensed and when the supply is nearly exhausted, it is practically impossible to remove the contents. Another objectionable feature is the fact that the contents are constantly open to the atmosphere which not only tends to create an unsanitary condition but causes the mustard to dry out and as a consequence, the supply must be replenished at frequent intervals.

An important object of the present invention is to provide a dispenser for mustard and similar products which will overcome the above and other undesirable characteristics now inherent in the art.

A further object of my invention is to provide a dispenser for materials of the character described which seals the contents from contact with air, dust and other foreign matter thus insuring that the contents will be kept fresh and sanitary over extended periods of time.

Yet a further object of the invention is to provide a dispenser for mustard and the like which includes few essential working parts thereby enabling the dispenser to be easily cleaned and permit the unit to be manufactured and sold at a reasonable price.

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Still a further object of the present invention is to provide a dispenser for foodstuffs wherein the resilient disc carried by the dispensing tube for forcing the contents through the tube to the point of use also effectively seals the contents against exposure to the atmosphere and foreign substances.

And yet another object of my invention is to provide a dispenser for viscous materials wherein the contents are discharged from the body portion by the manipulation of a finger piece which is resiliently supported within the closure cap thus permitting the amount discharged to be regulated within very fine limits.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like reference characters denote corresponding parts in the several views, and in which:

Figure 1 is a vertical sectional view of a dispenser made in accordance with my inventive concept.

Figure 2 is a vertical sectional view of the closure cap and the finger operated piece and

Figure 3 is a vertical sectional view of the dispensing tube and the disc or piston for sealing the contents and forcing the contents through the tube.

With reference to Figure 1, I have indicated a body portion of any suitable material such as, plastic, glass or metal 10 and the open upper end thereof is adapted to be closed by a dome-shaped cap 11, preferably of a light-weight metal. The body is internally threaded as shown at 12 which threaded area is engaged by external threads 13 on a knurled ring 14 surrounding the lower periphery of the cap and the ring is desirably made of the same material as the body 10.

The cap is formed with an opening 15 in the upper wall for receiving a dispensing tube 16 and the tube is of slightly less diameter than that of the opening in order that the tube may readily move therethrough, as will later be more fully described. The tube 16 is fabricated from a suitable plastic and is of greater length than the body and cap to insure that the upper end of the tube will extend beyond the cap when the lower end of the tube is adjacent the bottom wall of the body portion 10. An annular flange 17 is car-

ried by the lower end of the tube and supports a resilient disc or piston 18. The disc 18 is of substantially the same diameter as the inside of the body portion and is provided with an annular recess 19 in which the flange 17 is lodged and the lower end of the tube merges with an opening 20 in the lower wall of the disc. The disc is further formed with an annular groove 21 in its lower wall adjacent the outer periphery of the disc to assure that the area below the disc will be completely sealed against contact with the air. The upper end of the tube may support a detachable spout or nozzle having an outlet aperture of any desired configuration.

In order to move the tube 16 and disc 18 downwardly in the body, it will be noted that the wall of the cap 11 is provided with a slot 22 through which projects a finger piece 23. The free or inner end of the finger piece carries a ring-like member 24 which surrounds the tube, the opening in the ring-like member being of greater diameter than the tube diameter and a spring 25 also encircles the tube at a point below the ring 24 to normally maintain the wall of the opening in the ring out of engagement with the tube 16. Hence, the application of pressure to the finger piece will cause the ring 24 to compress the spring 25 and cause the wall of the opening to engage the periphery of the tube to move the tube and disc 18 downwardly a short distance whereupon the contents will be forced upwardly through the tube and out of the spout. Upon release of the finger piece, the spring will urge the ring 24 of the finger piece away from the tube. If desired, the periphery of the tube 16 may be roughened as at 26 in order that the ring may obtain better purchase on the tube.

In using the dispenser, the cap 11 and the tube 16 together with the disc 18 are removed from the body portion 10. The body is then substantially filled with the material to be dispensed and I have found that the best results are achieved when the body is filled to about three-fourth capacity. The tube 16 is then inserted through the opening 15 in the cap until the disc is adjacent the lower end thereof. The cap is secured to the body by turning the knurled ring 14 and the dispenser is ready for use.

The contents may easily be dispensed by merely using one hand since the body may be held by the fingers while the thumb can be employed to operate the finger piece 23. The alternate application and release of pressure to the finger piece will impart a step by step downward movement to the tube and as a result, the necessary amount of material can be forced through the discharge spout. Inasmuch as the disc completely seals the contents from the air, the contents will remain fresh and sanitary and there is no wastage of the contents as is true of the majority of dispensers in current use. Furthermore, the essential parts may be quickly disassembled for cleaning purposes and the unit presents few if any problems from the repair and maintainence point of view.

The invention is not to be confined to any strict conformity with the showing in the drawing, but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

I claim:

1. In a dispenser for mustard and the like, a body portion having an open end, a closure cap for the open end, a tube located in the body portion and extending through an opening in the closure cap, a resilient piston head supported by the lower end of the tube and adapted to engage the surface of the mustard in the body portion with the periphery slidably engaging the inside of the body portion and seal the contents from contact with air, a rigid substantially flat ring-like member within the closure cap having an opening therein of greater diameter than the tube for receiving the tube, spring means within the cap below the ring-like member for normally maintaining the wall of the opening in said member out of contact with the tube, and an operating element carried by the ring-like member projecting through a slot in the closure cap adapted to be depressed and force one wall of the ring-like member into contact with the tube against the action of the spring means to displace said tube and piston head downwardly in the body whereby the piston head forces the contents upwardly through the tube.

2. In a dispenser as claimed in claim 1 wherein the operating element is integrally formed with the ring-like member and said tube is detachably connected to the resilient piston head.

3. In a dispenser as claimed in claim 1 wherein the lower face of the resilient piston head is provided with an annular groove adjacent the periphery of the resilient piston head to effect an air tight seal between the disc and the body portion.

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