DISPENSER FOR GRANULAR CONDIMENT HAVING A NOISEMAKER

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INVENTOR.

WILLIAM G. PHILLIPS

INVENTOR.

WILLIAM G. PHILLIPS

ATTORNEY.
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William G. Phillips, Berea, Ohio, assignor, by mesne assignments, to SCM Corporation, New York, N.Y., a corporation of New York
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AbSTRACT OF THE DISCLOSURE

An inexpensive, disposable, non-refillable dispenser for granular condiment comprising a permanently closed container having a rotor mounted for rotation with respect thereto, each of the container and rotor having apertured sections cooperating to provide a metered flow of the condiment therethrough as a result of their relative rotation. All parts of the dispenser are preferably made from inexpensive, non-metallic, organic materials, such as paperboard or a polymeric sheet or plastic, so that the container is readily disposable after use. In the preferred embodiment, the container includes a noise-maker to simulate a grinding sound, such as upon turning the rotor.

Background of the invention

It is common practice to sprinkle onto foods granular or discrete condiments such as pepper, salt, sugar, and still other spices from a crust, saltcellar, shaker or the like. Often small actual grinders or mills are employed and form part of a table setting, simultaneously to grind and dispense a condiment, for example, grinding a peppercorn to produce particles of pepper.

Since such containers or dispensers are normally intended to be refillable and reused again and again, they previously were made of sturdy and permanent construction. The use of metals was entirely avoided and the parts composed of organic "throw-away" materials such as plastics, particularly thermoplastics, paperboard, cardboard, pasteboard, fiberboard, and the like. Further, the dispenser may comprise a minimum of parts, such as only a container and rotor mounted for rotation with respect to each other, the container and rotor having cooperating, apertured, overlying sections to provide a metered flow of condiment therethrough as a result of their relative rotation. While the apertures of the dispenser must necessarily be of a size to pass granular condiment, as used herein the term "non-refillable" means that the dispenser has no other relatively large openings or port through which it may be quickly filled again.

To incorporate the popular appeal of a "pepper grinder" or the like, the present dispenser may also include a noise-maker, for instance one actuated by the dispensing movement itself, to simulate the grating sound of a true pepper grinder and to create the impression that a grinding operation attends the exiting flow of condiment. Under this modified concept, the dispenser may be considered a "novelty" item and yet one which has further utility in that it may actually be used as a dispenser for pepper and the like.

Brief description of the drawing

The accompanying drawings illustrate the invention wherein:

FIGURE 1 is a perspective view, partly in section, of one embodiment of the present dispenser, the cooperating plates being relatively widely spaced apart for purposes of illustration;

FIGURE 2 is a section of FIGURE 1 on the line 2—2;

FIGURE 3 is a fragmentary, perspective view, partly in section, of a further embodiment of the present invention, the cooperating plates again being relatively widely spaced apart for purposes of illustration;

FIGURES 4 and 5 are center, longitudinal, sectional views of additional embodiments of the dispenser;

FIGURE 6 is a section of FIGURE 5 on the line 6—6;

FIGURE 7 is a side elevational view of a still further embodiment;

FIGURE 8 is a fragmentary section of the upper end of the embodiment of FIGURE 6;

FIGURE 9 is a section of FIGURE 8 on the line 9—9.

Description of the preferred embodiments

The accompanying drawings illustrate several embodiments of the present condiment-dispensing package. They are all similar in that a rotor and stator are telescopingly combined and, by turning the rotor, openings are alternatively covered and uncovered to discharge condiment. In order to simulate the sound of grinding, suitable noise-making means may be included which is preferably operable upon movement of the rotor.

Referring initially to the embodiment of FIGURES 1 and 2, a container 10 for the condiment has a tightly fitting cover 11 at its open end and a pair of relatively large openings 12 at its closed end. The cover 11 has an oversized opening freely to receive the shank of a rotatable handle 13. The handle carries within the container an apertured plate 14 having a plurality of relatively small openings uniformly spaced over its surface. A third apertured plate 15 is spaced inwardly from the container 10 and from the plate 14. Preferably, the plate 15 does not turn with the handle 13 but may have a wedged fit against the sides of the container 10 and readily pass the handle 13 through a central oversized opening. In general, to provide an orderly discharge of condiment, the apertures of plate 15 and the end apertures 12 are smaller in number but larger in area than the apertures of plate 14.

If desired, the embodiment of FIGURE 1 may be equipped with a noise-maker to simulate a grinding operation. For example, the shaft of the handle 13 may have an integral scraper 16 engageable with a serrated strip 17 extending circumferentially around the interior of the container 10. The strip 17 may be suitably adhe to or formed integrally with the body of the container 10.

As in all of the embodiments herein illustrated and described, the parts of the dispenser of FIGURES 1 and 2 are formed of relatively inexpensive, non-metallic, organic carbonaceous material. Synthetic organic resinous polymers such as polystyrene, polypropylene, or nylon are well suited for this purpose. Especially where the resins are thermoplastic the dispensing parts may conveniently be heat-sealed in assembly. Alternatively, the parts may be easily fabricated from paperboard, cardboard, pasteboard, fiberboard, and the like.

The plates or discs 14 and 15 and the closed end of the container 10 are shown in exploded view in FIGURE 1, as indicated by the dotted lines 18, for purposes of illustration. In use, the plates 14 and 15 are in close proximity to each other and to the closed end of the
container by the openings 12. For example, there may be a spacing of about one-fourth inch or less between indicated parts. The handle 13 may, if desired, merely rest upon the bottom of the container and its plate 14 spaced from the end of the handle a desired amount. When the handle 13 turns, the condiment works its way, in turn, through the openings of plate 15, then those of plate 14, and finally out openings 12 of the closed end. Simultaneously, the scraper 16 engages the strip 17 and emits a grinding sound as it passes over the serrated edge. At the same time, the scraper 16 stirs the condiment and prevents its caking or clogging within the container.

The embodiment of FIGURE 3 is similar to the embodiment of FIGURES 1 and 2, except that an impeller replaces the plate 14 and the noise-making element 16. In particular, a container 20 has a multi-aperture or foraminous end 21 and rotatable handle means indicated at 22 which may be like the handle 13 of FIGURE 1. A curved vane 23 fixed to the handle 22 rides over the apertures of end 21 and simultaneously brushes against a serrated strip 24 integral with the interior of the cover 25. As the container 20 rotates, the vane 23 engages the teeth of a vane 24, for example, atop the strip 24. In use, as the handle 22 is turned, condiment drops through the openings of plate 25, and the impeller vane 23 sweeps it over and through the openings in the end section 21. At the same time, the tip of the vane 23 rides against the serrated edge of the strip 24 emitting a grinding noise.

The cap of the dispenser may serve as part of the handle means. In the embodiment of FIGURE 4, a container 28 is perforated as at 29 at its closed end and has a beaded rim 30 at its open end. The bead 30 lies between depending, concentric flanges 31 of a rotatable cover 32. A shaft 33 fixed to the cover within a bushing 34 is mounted for rotation on a pin 35 which extends through an oversized opening in the bottom of the container 28. An apertured plate 36 fixed to the shaft 33 limits the extent of the penetration of the pin 35. The shaft 33 also carries a core 37 extending generally diagonally of the length of the container 38, the upper end of which engages a serrated edge of a strip 39 suitably secured circumferentially about the inner wall of the container. In use, the cover 32 and shaft 33 turn in unison relatively to the container 28. This brings the openings of the plate 36 in and out of registry through the openings of said apertured section 38 to cause a milling grinding sound.

The embodiment of FIGURES 5 and 6 features a rotatable cap and noise-making means positioned between the apertured plates or grids through which the condiment flows. More particularly, a container 40 has a false bottom defined by an inwardly spaced apertured or reticulated grid 41. The grid has an upstanding boss 42 freely to receive a spindle 43 having an apertured flange 44 nesting within the false bottom of the container. 40. At its other end, the spindle 43 is fixed to a boss 45 of an inverted cup-shaped cover 46 which encloses the container. In addition, being apertured, the flange 44 has a serrated edge 47, and the false bottom 40 has an integral, depending dent 48 engageable with the serrated edge as shown particularly by FIGURE 6. In practice, by turning the cap 46 the spindle 43 rotates the flange 44 relatively to the false bottom 41 so that condiment passes through the openings of these two elements when brought in registry. At the same time, a simulated mill grinding sound is emitted by the striking of the detent 48 against the teeth of the serrated edge 47.

It is not necessary for a dispenser to have a shaft or spindle in order to realize some of the advantages of the present invention. For example, the simulated mill of FIGURES 7, 8, and 9 comprises a closed container 50 of tapering sides, said smaller end of the container being perforated. The container 50 may be closed after filling by a heat-sealed or pressure-fitted bottom lid (not shown). At its upper and smaller end, the container has a radially enlarged, overhanging portion 51, the underside of which (FIGURE 9) is roughened or stippled to provide a coarse, sandpaper-like surface 52. An apertured cup-shaped cap 53 fits over the container 50 and has an inwardly and upwardly folded lip 54 along the edge of its open rim. Especially when the cap 53 is made from a flexible plastic, the cap may be molded with its sides in a more nearly vertical plane than shown in FIGURES 7 and 8. Consequently, in assuming their position about the container 50, the sides of the cap 53 are forced somewhat outwardly and make a snap-fit about radially enlarged portion 51. The tension thereby created in the sides of the cap 53 is inwardly directed to a single but substantial large opening is fixed relative to the walls of the container 50 and freely passes the handle 22 through a central oversized opening. The disc 25 and vane 23 are shown in exploded view as indicated by the dotted lines 26. In use, the disc 25 is introduced to the vane 23, for example, atop the strip 24. In use, as the handle 22 is turned, condiment drops through the opening of plate 25, and the impeller vane 23 sweeps it over and through the openings in the end section 21. At the same time, the tip of the vane 23 ride against the serrated edge of the strip 24 emitting a grinding noise.

The cap and container move into registry, condiment leaves the container. Simultaneously, movement of the cap 53 scratches the lip 54 across the roughened surface 52 to emit a simulated grinding sound. Although certain modifications have necessarily been illustrated and described by means of separate embodiments, it is understood that any modification may be used in combination with any other modification.

I claim:

1. An article of manufacture, a disposable non-refillable dispenser for granular condiment comprising a permanently enclosed container body for holding the condiment and having adjacent one end apertures and an outwardly enlarged portion, a cap rotatably mounted about said end having apertures disposed adjacent those of said body, whereby rotation of the cap periodically brings the apertures of the container body and cap into registry for metered flowing therethrough of the granular condiment, said outwardly enlarged portion and cap having interengaging areas adapted to emulate a grinding sound upon relative rotation therewith.

2. The dispenser of claim 1 wherein said outwardly enlarged portion has an underside, and the cap has a skirt portion terminating in an inwardly turned lip, at least said cap being made of a flexible plastic and thereby making a snap fit about said enlarged portion and contacting its lip against said underside, and at least one of said underside and lip having an engaging roughened surface to emit the grinding sound upon said relative rotation.

3. An article of manufacture, a disposable, non-refillable dispenser for granular condiment comprising a permanently enclosed container body for holding the condiment, an apertured section defining a portion of said body, a shaft rotatably mounted within the container body, an apertured plate carried by the shaft, said apertured section and apertured plate being mounted in overlying proximity and adapted for relative rotation with respect to each other, whereby rotation of the shaft periodically brings the openings of the apertured section and plate into registry for metered flowing therethrough of the granular condiment, and an agitating impeller mounted with respect to the shaft within the container body and positioned between said apertured section and said apertured plate to urge the flow of the granular condiment from said plate to the openings of said apertured section, said agitating impeller being effective to prevent
caking or clogging of the granular condiment within
said body, said container body having an interior surface
area engagable with said agitating impeller and adapted
to emulate a grinding sound upon relative rotation there-
between simultaneously with the agitation by said im-
peller.

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ROBERT B. REEVES, Primary Examiner
N. L. STACK, Jr., Assistant Examiner
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