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Improvements in or relating to a dispenser

THE PRESENT INVENTION relates to dispensers, and particularly to dispensers such as condiment shakers, wherein provision is made for the selective dispensing of condiments through a plurality of distinct dispensing ports.

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Such shakers are well known and basically fall into two categories, those incorporating multiple dispensing ports, each provided with its own individually manipulated cover component, and those wherein selective opening of the ports requires manipulation of a single cover.

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Examples of shakers provided with multiple discharge ports with separate manipulable cover components for each port are described in U.S. Design Patent No. 200,270 and U.S. Patent No. 3,262,606. In these patents, the cover consists of two separate manipulable components, each specifically associated with one of the ports and configured to conform solely to the associated port. Thus, the cover itself is a rather elaborate structure capable of being utilized only in one specific orientation relative to the top wall. In fact, it will be noted that as described in U.S. Design Patent No. 200,270 the cover is permanently affixed to the top wall.

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Another example of this general type of dispenser is described in U.S. Design Patent No. 173,652, which describes a dispenser having separate compartments that are open at their upper ends. The upper ends are each sealable by an individual openable component specifically associated therewith.

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U.S. Patent No. 3,381,859, describes another dispenser having multiple compartments, each with its own port, and wherein all of the ports are simultaneously opened by manipulation of a single cover member.

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U.S. Patent No. 3,093,272, is directed to yet another form of dispenser wherein manipulation of a cover is required not only to align outlets with individual ports, but also to effect an opening and closing of the individual ports. With shakers of this general type, manipulation of the cover relative to the container normally requires the use of two hands, one stabilizing the container and the other rotating the cover. Further, alignment with a specific port, from the closed position of the cover, normally requires what might be considered an excess rotation of the cover until the desired port is located.

An aim of the present invention is at least to mitigate the problems associated with prior art dispensers.

According to the invention there is provided a dispenser for holding and selectively dispensing a condiment or the like through any one of a plurality of discharge ports; said dispenser comprising a container having bottom and side walls, and a top wall, said walls defining an internal compartment, and said top wall having a plurality of discharge ports therethrough at spaced points thereabout; a cover removably receivable over said top wall, said cover, when positioned over said top wall being adapted to close the plurality of discharge ports but including a portion thereof alignable with one of said discharge ports and selectively movable relative to the remainder of the cover between a first, closed, position in which the aligned discharge port is closed by the portion and a second, open, position to enable discharge of material through the aligned discharge port, said cover being adapted to be received over said top wall in any of a plurality of positions, the selectively movable portion of the cover aligning with one of said discharge ports in any selected position of said cover.

Thus, the dispenser of the present invention utilizes a unique top wall and cover combination wherein one condiment can be selectively dispensed from any one of a plurality of distinct discharge ports by utilizing a cover with a single movable portion or component. The movable portion may be suitably positioned relative to a single selected port and is movable between a first position sealing this port and a second position away from the port to enable discharge therethrough.

The cover is selectively positionable on the top wall for an alignment of the movable, port exposing, portion with any selected one of the ports for exposure thereof, the cover sealing the remaining ports until such time as the cover is physically removed and repositioned for alignment of the movable portion with another one of the dispensing ports. In this manner, once a determination has been made as to the type of port desired for the condiment contained in the container, the cover is mounted with the movable component or portion overlying the chosen port. The chosen port can then selectively be accessed merely through a manipulation of the single movable cover component whilst the remaining ports are, at all times, effectively sealed against any possibility of an accidental opening thereof. By the same token, should there be a conscious decision to utilize a different port, this can quickly be effected through a simple reorientation of the cover with the movable component aligned with the newly chosen port.

The invention has been found to provide the advantage that it is no longer necessary to provide multiple movable components or portions on a cover to expose different ports. Further, once a particular port has been chosen, it is not necessary to manipulate the entire cover. To the contrary, an opening and closing of the chosen port only requires a relatively straightforward manipulation of a single movable component of the cover.

In a preferred embodiment of the invention a dispenser, in the form of a condiment shaker has a substantially triangular configuration, the container portion of the shaker being formed of equilateral walls with rounded apexes. A closed bottom is provided integral with the side walls. The top wall, wherein three distinct discharge ports are defined, is mounted, through a snap-lock interfit, to the side walls. The cover, incorporating sealing means for all of the ports, is received over the top wall.

One of the port sealing means on the cover is incorporated in a movable portion of the cover which is hingedly connected with the remainder of the cover to enable exposure of the port aligned therewith by upward pivoting of the movable cover portion. In this manner, once a decision has been made as to the type of port desired for a particular condiment, the cover can be mounted with the single manipulable portion of the cover positioned selectively to expose or conceal the chosen port. If use

of a different port is dictated by, for example, the use of the shaker with a different type of condiment, the cover need merely be quickly manually repositioned to align the pivotal portion thereon to lie over and cooperate with the newly chosen port. Similarly, inasmuch as the top wall is snap-mounted in position, there also exists the possibility of providing for multiple interchangeable top walls without the necessity of providing either, or both, a new container or a new cover.

In order that the invention may be more readily understood, and so that further features thereof may be appreciated, an embodiment of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of a dispenser of the present invention with the cover thereon in a closed position;

FIGURE 2 is a perspective view similar to Figure 1 illustrating the cover in an open position exposing one dispensing port while maintaining the remaining ports sealed;

FIGURE 3 is a perspective view of the dispenser of Figure 1 but with the entire cover removed;

FIGURE 4 is an enlarged cross-sectional view taken substantially on a plane passing along line 4-4 in Figure 1;

FIGURE 5 is a partial cross-sectional view, with the components exploded from each other, taken substantially on a plane passing along line 5-5 in Figure 1;

FIGURE 6 is a bottom plan view of the top wall of the dispenser;

FIGURE 7 is a partial perspective view of the upper portion of the dispenser corresponding to Figure 2 but with the cover reoriented, relative to Figure 2, for the exposure of a second selected one of the dispensing ports; and

FIGURE 8 is a sectional detail illustrating the snap-locking interengagement of a cover mounted sealing flange with a corresponding dispensing port collar.

5 Referring to the drawings, a preferred embodiment of a dispenser, in the form of a condiment shaker incorporating features of the present invention, is designated at 10. The shaker 10 consists of three interacting units a container body 12, defining a single internal compartment, a top wall 14, that is adapted to be snap-locked to one end of the container body 12, and a cover 16 that is releasably and adjustably mountable in overlying relation to the top wall 14.

10 As illustrated, the container body 12 has a cross section that is substantially an equilateral triangle and comprises vertically elongate side wall portions 18, each of an equal width and of an equal angular orientation to one another. Each wall portion 20 that defines the angle between the side wall portions 18, preferably has an arcuate configuration, so avoiding sharp inner corners with the container 12 wherein condiments or the like may wedge.

15 As shown in Figure 4, the body 12 is formed with an integral base or bottom wall 22. The periphery of the bottom wall 22 is provided with a depending ridge 24 which slightly elevates the lower surface of the bottom wall to enable accommodation of "molded-in" indicia, which may be used as a source designation or the like, without affecting the stability of the standing shaker.

20 The container body 12 terminates in an open upper-end and presents a continuous upper edge 30. An integrally defined protruberance or rib 28 extends continuously about an inner surface of the side wall of the container body immediately below the upper edge 30.

25 The top wall 14, which is desirably a one-piece moulded assembly, includes a planar base panel 32 that has a configuration conforming to the cross-sectional configuration of the body 12. The panel 32 includes a depending peripheral flange 34 that terminates at a lower edge 36 which is positioned to abut directly against the upper edge 30 of the container body

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12 upon an alignment of the top wall 14 thereover. The peripheral flange 34 is shaped to define a gripping recess 38, preferably at a position corresponding to one of the angular wall portions 20 of the container body 12 to facilitate selective opening and/or removal of the top wall 14 as shall be described further hereinbelow.

A second integral flange 40 depends from the panel 32 in inwardly spaced parallel relation to the peripheral flange 34. The inner flange 40 is positioned to be received within the upper portion of the container body 12 upon seating of the lower edge 36 of the outer flange 34 on the upper edge 30 of the open top of the container body 2. Further, a lower portion of the flange 40, which depends to a greater distance than the outer flange 36, is provided with an outwardly directed continuous rib 42 which, upon a forceful downward movement of the top wall 14, locks immediately below the body rib 28 in order to provide a positive yet releasable locking of the top wall 14 to the container body 12. Both ribs 28 and 42 include tapered surfaces which, with an inherent degree of flexibility in the flange 42 and body 12, enables a snap-locking of the top wall 14 to the body 12. It is contemplated that the ribs 28 and 42 will interact in a manner which provides a positive retention of the top wall 14 on the body 12 against any accidental release therefrom, while at the same time allowing for a manual removal of the top wall for purposes of replacement, cleaning, or the like.

Three dispensing ports 44 are provided in the top wall 14, each located immediately inward of one of the apexes of the substantially triangular top wall 14. Each port 44 includes one or more dispensing openings through the top panel 32, and a surrounding upwardly projecting annular collar 46. In the illustrated embodiment, one port presents a single enlarged dispensing opening through the panel 32, a second port presents two elongate or slotted dispensing openings and the third port incorporates four circular dispensing openings. It will be appreciated that the dispensing openings may be of any suitable form or shape. The collars 46 of each of the ports are of the same size and configuration. Further, each collar 46, as will be noted from the detailed view of Figure 8, includes an inwardly directed lip 48.

The utilization of three distinctly formed separate ports provides for a ready accommodation of a wide range of condiments or foodstuffs to be discharged by shaking, sprinkling, pouring, or the like as required both by the foodstuff itself and the particular discharge desired. Further, due to the removable nature of the top wall, both the top wall and the body can be easily be removed for cleaning and to facilitate filling of the dispenser. Additionally, the removable nature of the top wall 14 allows for ready replacement of the top wall in instances where other forms of dispensing ports might be desired.

As best shown in Figures 5 and 6, an integrally formed bar 50 depends from the under surface of the panel 32 and extends longitudinally across each of those ports 44 that incorporate multiple openings. In this manner, each bar 50 specifically rigidifies and strengthens the narrow bridge of material of the panel 32 between the openings. At the same time, in order to facilitate flow of material through these relatively small openings, the bar 50 acts to "break-up" lumps of condiments or foodstuffs. This feature is particularly desirable if the dispenser is to be used for dispensing condiments which have a tendency to form lumps or agglomerates, such as sugar, grated cheese, and the like. As shown in the drawings, each bar 50 tapers, along the length thereof and downwardly from the under surface of the panel 32, to present a narrow or knife edge, thus enhancing the ability to maintain a smooth flow through adjacent openings.

The top wall 14 also comprises an upwardly and outwardly directed offset or shoulder 52 immediately above the outer depending flange 34. The shoulder 52 provides for seated reception of the cover 16 as described hereinafter.

The cover 16 is shaped to correspond to the configuration of the top wall 14 and the container body 12, and thus in the illustrated embodiment, is generally triangular with arcuate apexes. The cover 16 includes a cover panel 54 that has an integral depending peripheral flange 56. The flange is discontinuous for a portion of its length, the discontinuous portion corresponding to one of the arcuate apexes, to define a gripping recess 58 similar to the recess 38 in the outer flange 34 of the top wall 14.

The cover also includes depending annular sealing flanges or rings 60, corresponding in number to the number of dispensing ports. As shown in the drawings, each annular flange 60 is located immediately inwardly of a respective apex of the triangular cover, and positioned to align with a respective one of the upwardly directed collars 46 of the discharge ports 44. As best seen in Figures 4 and 8, each depending annular flange 60 is adapted to engage closely and seal within a corresponding upwardly directed dispensing port collar 46. The engagement between each annular flange 60 and the associated collar 46 is enhanced by a continuous integral protruberance 62 that is provided peripherally about an outer surface of each of the annular flanges 60. The protruberances 60 engage or snap-fit beneath the inwardly directed lips 48 provided about the upper edge portion of each of the collars 46. When mounted, the cover is thus adapted to be secured in overlying sealing relation to the top wall 14 in a manner which, while preventing accidental dislocation therefrom, can be readily disengaged. It will also be appreciated that the peripheral flange 56 of the cover 16, upon a mounting of the cover 16 on the top wall 14, seats or is received on the annular upwardly and outwardly directed shoulder 52 of the top wall 14. In this manner, and as will be noted from Figures 1 and 4, upon an assembly of the three units of the shaker, the outer surfaces of the units are coplanar, providing a smooth continuous surface devoid of any projections.

As shown in Figures 1 and 5, the upper surface of the cover panel 54 may be provided with three shallow depressions 64, one aligned with each depending annular flange 60, which act as a guide or finger-receiving area to enable the application of pressure to the cover 16 directly over each port to achieve the desired cover-securing interlock represented in the detail of Figure 8.

While the entire cover is removable as a unit, to expose all three discharge ports, a portion 66 of the cover 16 is hingedly connected to the remainder of the cover to enable selective exposure of one of the dispensing ports 44 while the other ports remain sealed. As shown, the selectively openable portion 66 of the cover 16 incorporates one of the apexes thereof, preferably the apex having the recess 58. This portion 66 is defined by an elongated hinge-forming line of weakness 68 that extends transversely across the cover panel 54, perpendicular to an imaginary line bisecting the

included apex, and terminates in opposed relieved areas 70 provided in the peripheral flange 56. The hinge line 68, is positioned to be approximately equidistant from each of the annular sealing flanges 60, two of which are located to one side of the hinge 68, and one of which is located to the opposite side thereof and within the portion mounted for selective opening and closing of an aligned dispensing port.

In use, the cover 16 is aligned over the top wall 14 with the pivoted cover portion 66 overlying the discharge port which is to be utilized. The selection of the discharge port to be utilized may be based on the condiment contained within the dispenser and/or the specific type of discharge desired. With the cover 16 so positioned, the cover is secured to the top wall 14 with the three depending annular flanges snap-sealed into engagement with corresponding upwardly projecting port collars 46. The hingedly mounted portion 66 of the cover 16 can then be easily manipulated, that is snapped open or closed as desired in connection with the dispensing of condiments through the selected discharge port. The remaining or fixed portion of the cover seals the remaining two ports to prevent any accidental discharge therefrom. While the orientation of the hinge line 68 clearly defines the hingedly mounted portion 66 of the top cover 16, this portion can also be readily distinguished by the provision of the gripping recess 58 therein.

The three units or components of the shaker, that is the body 12, the top wall 14 and the cover 16, may all be molded of an appropriate inert, non-toxic plastics material.

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CLAIMS:

1. A dispenser for holding and selectively dispensing a condiment or the like through any one of a plurality of discharge ports; said dispenser comprising a container having bottom and side walls, and a top wall, said walls defining an internal compartment, and said top wall having a plurality of discharge ports therethrough at spaced points thereabout; a cover removably receivable over said top wall, said cover, when positioned over said top wall being adapted to close the plurality of discharge ports but including a portion thereof alignable with one of said discharge ports and selectively movable relative to the remainder of the cover between a first, closed, position in which the aligned discharge port is closed by the portion and a second, open, position to enable discharge of material through the aligned discharge port, said cover being adapted to be received over said top wall in any of a plurality of positions, the selectively movable portion of the cover aligning with one of said discharge ports in any selected position of said cover.
2. A dispenser according to claim 1, wherein said selectively movable cover portion is hingedly connected with the remainder of the cover.
3. A dispenser according to claim 1 or claim 2, wherein said top wall is of an equilateral configuration and the cover has a complementary configuration for reception thereover.
4. A dispenser according to claim 1, claim 2 or claim 3, wherein each discharge port includes an upwardly directed collar peripherally thereabout, and said cover includes a plurality of sealing rings that depend from a lower surface thereof and are receivable in sealing engagement one with each of said discharge ports, one of said sealing rings being positioned to depend from the selectively movable portion of the cover for sealing engagement with a discharge port aligned beneath the movable portion in the closed position of said movable portion.
5. A dispenser according to claim 4, further comprising means for releasably interlocking each said sealing ring within a corresponding collar.



5 6. A dispenser according to claim 5, wherein the means releasably interlocking each ring and collar comprises complementary projections on each collar and associated ring, the projections selectively engaging beyond each other upon the forceable introduction of each ring within the associated collar.

10 7. A dispenser according to any one of claims 1 to 6, wherein said side walls include upper edges defining an open upper end of the container, said top wall being removably received within said open end.

8. A dispenser according to claim 7, further comprising means for releasably interlocking said top wall within the upper end side walls.

15 9. A dispenser according to claim 8, wherein the means interlocking the top wall and the side walls include inwardly projecting rib means on said side walls immediately below the open upper end thereof, first flange means depending from said top wall for engagement with and along the upper edges of the side walls, and second flange means depending from said top wall inward from said first flange means for reception within the upper portion
20 of the side walls, said second flange means including outwardly directed rib means adapted to be selectively snap-engaged beneath the side wall rib means.

25 10. A dispenser according to claim 4 or any claim dependent thereon, wherein said cover includes a depression overlying each of said sealing rings, such depression providing location means for enabling the application of a closing force to the cover in the region of said sealing rings.

30 11. A dispenser according to any one of claims 1 to 10, wherein said container and side walls define a substantially equilateral triangular cross-section and said top wall has a similar triangular configuration.

35 12. A dispenser according to claim 11, wherein each discharge port is located immediately inward of one of the apexes of the top wall.

13. A dispenser according to any one of claims 1 to 12, wherein three discharge ports are provided through the top wall.



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14. A dispenser according to any one of claims 10 to 13, wherein said cover has a triangular configuration and said selectively movable portion of the cover is defined to include one of the apexes of the cover.

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15. A dispenser according to claim 14, wherein the selectively movable portion of the cover is defined by a hinge line inwardly spaced from said one of the cover apexes and traversing the cover in generally perpendicular relation to an imaginary line bisecting said one of said cover apexes.

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16. A dispenser substantially as herein described with reference to, and as shown in, the accompanying drawings.

