July 7, 1964 L. BARR 3,140,019

DISPENSER TOP

Filed Feb. 26, 1962

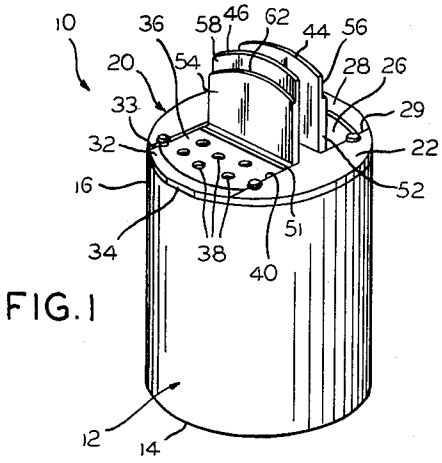


FIG. 1

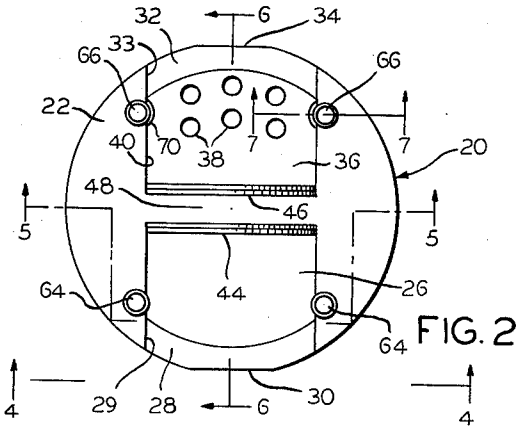


FIG. 2

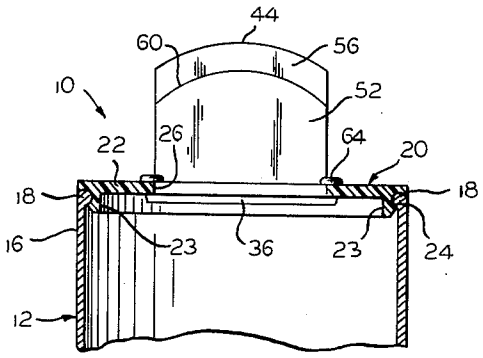


FIG. 5

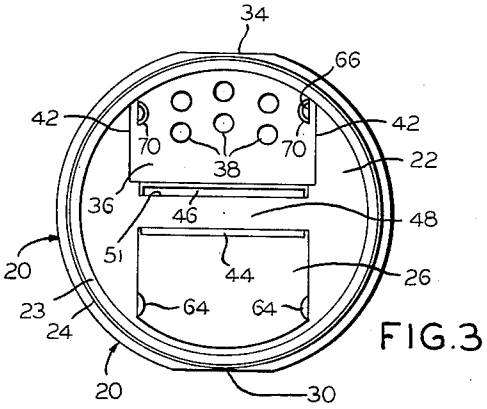


FIG. 3

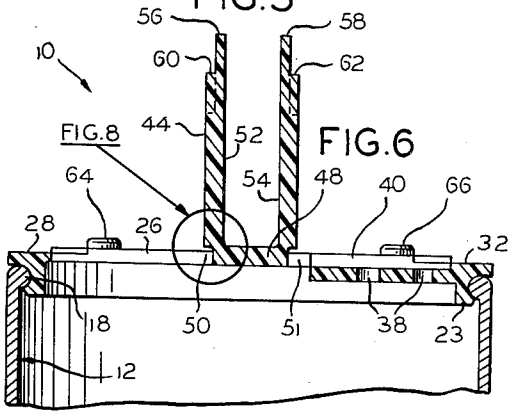


FIG. 6

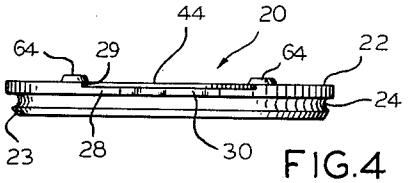


FIG. 4

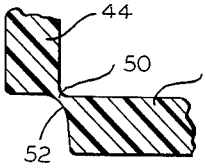


FIG. 8

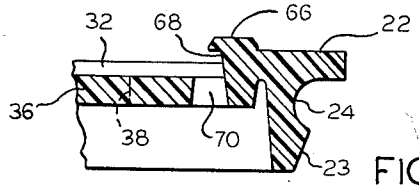


FIG. 7

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United States Patent Office 3,140,019 Patented July 7, 1964

3,140,019

DISPENSER TOP

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Filed Feb. 26, 1962, Ser. No. 175,780
2 Claims. (Cl. 222—480)

This invention relates to a dispenser top for containers, particularly condiment containers, and to a dispensing container embodying the top.

Various dispensing devices have been mounted on containers in the past. As an example, salt cartons have included two dispensing attachments, one providing a large pouring opening and the other providing small dispensing openings for shaking small amounts of salt therethrough. The former attachment is a hinged metal device mounted in an opening in one location on the top of the container. The latter is a one-piece perforated plastic body having a hinged cover flap. It is mounted in another opening in the container top, and has a peripheral groove receiving the surrounding edge of the container top therein.

Dispensing arrangements of the foregoing type require two separate parts with accompanying costs of manufacture and assembly. Such arrangements also are not well-adapted for small condiment containers, such as table-size salt and pepper shaker cartons, spice containers, containers for flavoring agents, and the like.

An object of the present invention is to provide an improved one-piece dispenser top for containers, which includes both a large pouring opening and small dispensing openings or apertures, and means for covering the openings.

Another object is to provide such a dispenser top which is especially suitable for small condiment containers and the like.

A particular object is to provide a one-piece molded plastic top which is readily secured to a container body to furnish both a top closure thereon, and a pouring opening and dispensing apertures therein, and which includes improved closure flaps for closing the pouring opening and dispensing apertures, improved means for retaining the closure flaps in their closed positions, and improved means by which the flaps may be readily opened.

A further object is to provide a dispenser top which is simple and economical to manufacture, particularly, in one molding operation, and which is convenient and reliable in use.

These and other objects, advantages and functions of the invention will be apparent in reference to the specification and to the attached drawings illustrating a prefered embodiment of the invention, in which like parts are identified by like reference symbols in each of the views, and in which:

FIGURE 1 is a top perspective view of a preferred dispensing container;

FIG. 2 is a top plan view of the dispenser top thereof;

FIG. 3 is a bottom plan view of the dispenser top;

FIG. 4 is a side elevational view of the dispenser top, with the flaps thereof in their closed positions, taken on line 4—4 of FIG. 2;

FIG. 5 is a vertical sectional view of the top of the container taken on lines 5—5 of FIG. 2;

FIG. 6 is a vertical sectional view of the top of the container taken at right angles to the view of FIG. 5, on line 6—6 of FIG. 2;

FIG. 7 is an enlarged fragmentary vertical sectional view of a part of the dispenser top, taken on line 7—7 of FIG. 2; and

FIG. 8 is a further enlarged fragmentary vertical sectional view illustrating the hinge mounting of the flaps, corresponding to the encircled portion in FIG. 6.

The invention provides a one-piece dispenser top which includes a body having two large openings therethrough, one of which provides a large pouring opening, a perforated member extending across the remaining large opening and having small dispensing apertures registering with the large opening, and flap means for covering the large opening. The dispenser top includes means adjacent its periphery for interengaging it and a container body to close the latter. The dispenser top is especially suitable for mounting on an open end container body to provide a closure therefor.

Referring to the drawings, the dispensing container is generally indicated by the number **10** in FIGS. 1, 5 and 6. It includes a cylindrical tubular container body **12** having a closed end **14** and an open end or mouth **16**. An annular peripheral inwardly protruding beaded rim **18** is integral with the open end therearound. The container body may be constructed in a conventional manner from cardboard or other suitable materials.

A one-piece molded plastic dispenser top **20** is mounted on the open end **16** of the container body in sealing engagement therewith, to provide a top or end closure thereon. The dispenser top includes a flat circular body portion or body **22** and an integral annular depending peripheral flange **23**. An annular arcuate groove **24** is formed on the outer surface of the flange, and it receives the rim **18** of the container body **12** therein, to secure the top and the body together. The parts are assembled simply by pressing the top **20** against the rim **18** of the body until the rim snaps into its position in the groove **24**. It will be evident that the parts may be joined by other equivalent interengaging means.

As seen more clearly in FIGS. 1–3, 5 and 6, a large opening **26** provides a pouring opening in the body portion **22**. The pouring opening is bordered on its outer side by a marginal arcuate portion **28** of the body portion **22**, which arcuate portion is recessed from the upper surface of the body portion to provide a recess **29** extending to the pouring opening, for a purpose to be described. The outer edge of the arcuate portion is cut back to form a flat section **30**, seen more clearly in FIGS. 2 and 3.

A second large opening **40** is provided in the body portion **22**. A second marginal arcuate portion **32** of the body portion **22** is diametrically opposed to the first arcuate portion **28**, and it is recessed from the upper surface of the body portion to provide a recess **33** extending to the second large opening **40**. It is also cut back to provide a flat section **34** on its outer edge. A perforated member or portion **36** of the dispenser top is integral with the body portion **22**, and it includes a group of small dispensing apertures or perforations **38**. The perforated member is mounted on the under surface of the body portion **22** and extends across the large opening **40**, with the apertures **38** registering with the opening. As illustrated in FIGS. 3 and 5, the perforated member **36** is formed with its side margins **42** overlapping the integral body portion **22**. The outer end of the perforated portion is integral with the arcuate portion **32** and the flange **23**, as seen in FIG. 6.

Two oppositely directed covering or closure flaps **44** and **46** are integral with a central strip portion **48** of the body portion **22**. As seen in FIG. 6 and as illustrated for one flap **44** in FIG. 8, the flaps are pivotally joined to the strip portion by relatively thin integral hinge portions **50**. The inner sides of the hinge portions are formed by relatively large radius curved concavities **52** at the junctures of the flaps and the strip portion. This construction furnishes resilient hinge portions which urge the flaps **44** and **46** into their normal positions illustrated

in FIG. 6, wherein the pouring opening **26** and the dispensing apertures **38** are uncovered. In the construction of the dispenser top **20** by molding, the parts are molded in the positions shown in FIGS. 6 and 8, so that the hinges **50** are stressed when the flaps **44** and **46** are moved towards the body portion **22**. When the flaps are unrestrained, the hinge portions urge the flaps into the upright positions illustrated and maintain them in such positions. As seen in FIGS. 1, 3 and 6, a narrow opening **51** remains between the inner end of the perforated portion **36** and the strip portion **48** in the process of molding the dispenser top **20** in one piece.

The flaps **44** and **46** include inner covering or closure end portions **52** and **54** and integral outer arcuate tab end portions **56** and **58**, respectively. The tab portions form the outer ends of the flaps and have lesser depth or thicknesses than the inner portions, thereby forming respective curved shoulders **60** and **62** at the junctures of the tab portions and the inner portions.

The flaps **44** and **46** are independently movable for covering and uncovering, or closing and opening, the large pouring opening **26** and the second large opening **40**, respectively. The dispensing apertures **38** are covered and uncovered together with the latter opening. The pouring opening may be covered when using the dispensing apertures, and the dispensing apertures may be covered when using the pouring opening. Both the pouring opening and the dispensing apertures may be covered by the flaps at the same time, or both may be uncovered. Thus, one flap **44** may be moved pivotally on its hinge portion **50** in the direction of the body portion **22**, and the inner end portion **52** of the flap is received closely within the large pouring opening **26**. The curved shoulder **60** on the flap, forming the outer margin of the end portion **52**, is adjacent to the first arcuate body portion **28**, forming the outer boundary of the opening **26**, and the side margins of the flap are adjacent to the side boundaries of the opening **26**, so that the opening is closed. The tab portion **56** of the flap overlies the arcuate body portion **28** and fits between the side boundaries of the recess **29** formed by it and the adjoining parts of the body portion **22**.

Similarly, the remaining flap **46** may be pivotally moved towards the dispenser top body portion **22**, and the inner flap portion **54** is received closely in the large opening **40** above the perforated member **36**. The flap shoulder **62** is adjacent to the second arcuate portion **32**, and the side margins of the inner portion are adjacent to the side boundaries of the opening **40**. The small dispensing apertures **38** and the narrow opening **51** are then covered by the flap. The tab portion **58** lies on the second arcuate portion **32** and is received in the recess **33** formed with adjoining parts of the body portion **22**.

Referring especially to FIG. 2, two nibs **64** are integral with the upper surface of the dispenser top body portion **22** on opposite sides of the pouring opening **26**, and they extend over the opening. Similarly, two nibs **66** are mounted on the upper surface of the body portion on opposite sides of the remaining large opening **40** and overhang the opening. The nibs have beveled heads, as seen in FIGS. 4 and 7, which yield sufficiently to permit the flaps **44** and **46** to be pressed into the openings **26** and **40**, respectively. As shown for the nib **66** in FIG. 7, the nibs are provided with undercuts **68** which receive the side edges of the flaps and hold or lock the flaps in their covering or closing positions. The manner in which the flaps are held is illustrated for one flap **44** in FIG. 4. In molding the dispenser top, semicircular openings **70** are formed in the perforated member **36** around the nibs **66**, as seen in FIGS. 2, 3 and 7. These openings are covered by the flap **46** when the flap is down.

Either flap **44** or **46** may be raised by inserting a finger under its tab portion **56** or **58**. The flat cut-back sections **30** and **34** are provided for that purpose. The nibs **64** and **66** yield resiliently to permit the flaps to be removed from engagement therewith, and the nibs then return to their holding positions illustrated. When the flaps have cleared the nibs, the hinge portions **50**, while still stressed, urge the flaps to their upwardly extending positions, where they remain until forcibly moved into their covering positions.

The dispenser top **20** is very readily and economically molded in a conventional manner from a suitable plastic material having the required flexibility and resiliency, such as a synthetic organic thermoplastic resin. A preferred material of construction is polypropylene, and other polyolefins may be employed. The dispenser top is molded in dies which conform to the outlines of the portions as they are illustrated in the several views, with the exception of FIG. 4 wherein the flaps are closed.

The container body **12** initially is filled with powdered or fine granular or flaked condiment or the like, and the dispenser top **20** is pressed on the beaded rim **18**. With the flaps **44** and **46** in their closed positions and held by the nibs **64** and **66**, a closed package is provided which may be distributed in the usual manner. The user may dispense the contents simply by raising one or the other of the flaps. The container may be employed as a shaker by raising the flap **46** and shaking the container to dispense the contents through the small dispensing apertures **38**. When it is desired to pour the contents from the container, the remaining flap **44** is raised to uncover the pouring opening **26**. The openings are closed simply by pressing the flaps against the nibs **64** and **66**, whereupon the flaps snap past the nibs and into their covering positions. With the container thus closed, the contents are prevented from spilling out, and are also protected against contamination and moisture.

It will be apparent that various changes and modifications may be made in the construction and arrangement of the parts within the spirit and scope of the invention. It is intended that such changes and modifications be included within the scope of the appended claims.

What is claimed is:

1. A one-piece molded plastic dispenser top for condiment containers and the like, which comprises a flat body having two large openings therethrough, said openings each having an inner boundary, side boundaries, and an outer boundary, one of said openings providing a pouring opening, a perforated member integrally mounted on the under surface of said body and extending across the remaining one of said openings to provide small dispensing apertures registering therewith, means forming two recesses on the upper surface of said body each having side boundaries extending from the outer edge of the body to the outer boundary of one of said openings, a cut back outer edge section on said body at each of said recesses, two hinges respectively adjacent to said opening inner boundaries and integral with said body thereat, and two closure flaps each having an inner margin, side margins, and an outer margin, said inner margins respectively being integral with said hinges for hinged movement of the flaps to open and close the adjacent openings, said flaps respectively being received in said adjacent openings and in said recesses extending thereto with the flap side margins bounded by the side boundaries of the openings and recesses in closing said openings, each said flap including an inner closure end extending outwardly from its inner margin and received in the adjacent opening, each said flap including an outer tab end extending inwardly from its outer margin to said closure end and received in the said recess extending to the latter opening, said closure end having a greater depth throughout than said tab end and extending below said recess, the outer and side margins of said closure end being closely adjacent to the outer and side boundaries of the latter opening, whereby the latter opening is closed by said closure end, said tab end extending outwardly beyond said cut back section at said recess for access thereto to raise the flap to an open position.

2. A one-piece molded plastic dispenser top for con-

diment containers and the like, which comprises a flat ings each having an inner boundary, side boundaries, and body having two large openings therethrough, said openan outer boundary, one of said openings providing a pouring opening, a perforated member integrally mounted on the under surface of said body and extending across the remaining one of said openings to provide small dispensing apertures registering therewith, means forming two recesses on the upper surface of said body each having side boundaries extending from the outer edge of the body to the outer boundary of one of said openings, a cut back outer edge section on said body at each of said recesses, two hinges respectively adjacent to said opening inner boundaries and integral with said body thereat, two closure flaps each having an inner margin, side margins, and an outer margin, said inner margins respectively being integral with said hinges for hinged movement of the flaps to open and close the adjacent openings, said flaps respectively being received in said adjacent openings and in said recesses extending thereto with the flap side margins bounded by the side boundaries of the openings and recesses in closing said openings, each said flap including an inner closure end extending outwardly from its inner margin and received in the adjacent

opening, each said flap including an outer tab end extending inwardly from its outer margin to said closure end and received in the said recess extending to the latter opening, said closure end having a greater depth throughout than said tab end and extending below said recess, the outer and side margins of said closure end being closely adjacent to the outer and side boundaries of the latter opening, whereby the latter opening is closed by said closure end, said tab end extending outwardly beyond said cut back section at said recess for access thereto to raise the flap to an open position, and two pairs of nibs on the upper surface of said body and having beveled heads, said nibs in each pair being disposed on opposite sides of one of said openings and overhanging the opening, whereby each of said flaps may be moved from its open position past said nibs to close the adjacent opening and said nibs hold the flap in its closed position.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,140,019 July 7, 1964

Leslie Barr

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 5, lines 2 and 3, for "ings each having an inner boundary, side boundaries, and body having two large openings therethrough, said open-" read -- body having two large openings therethrough, said openings each having an inner boundary, side boundaries, and --.

Signed and sealed this 10th day of November 1964.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents