Nov. 30, 1954 E. S. TUPPER 2,695,732

COMBINATION DISPENSER AND SEAL

Filed July 28, 1953

Fig. 1

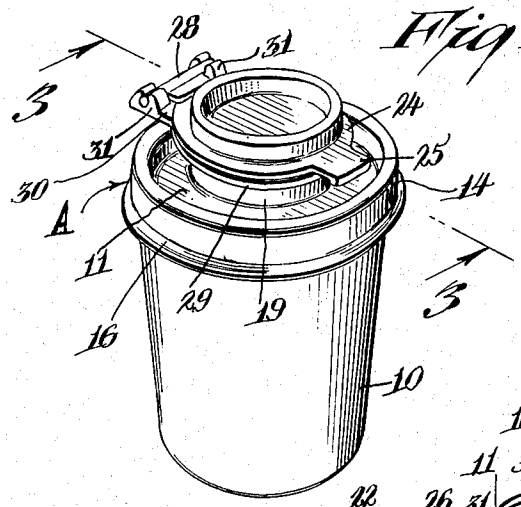
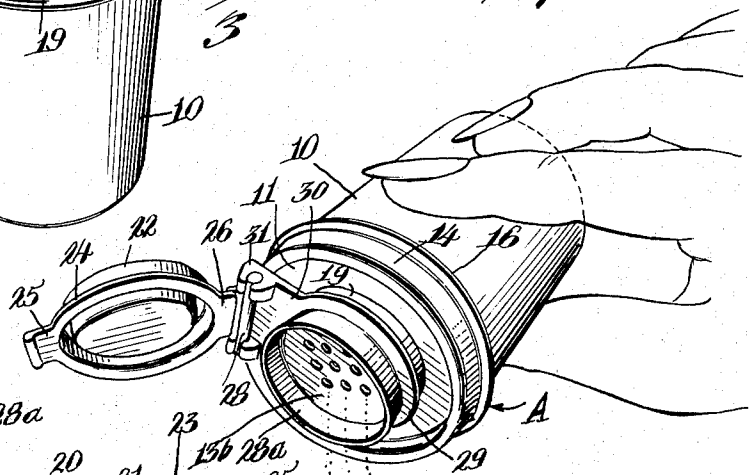


Fig. 2



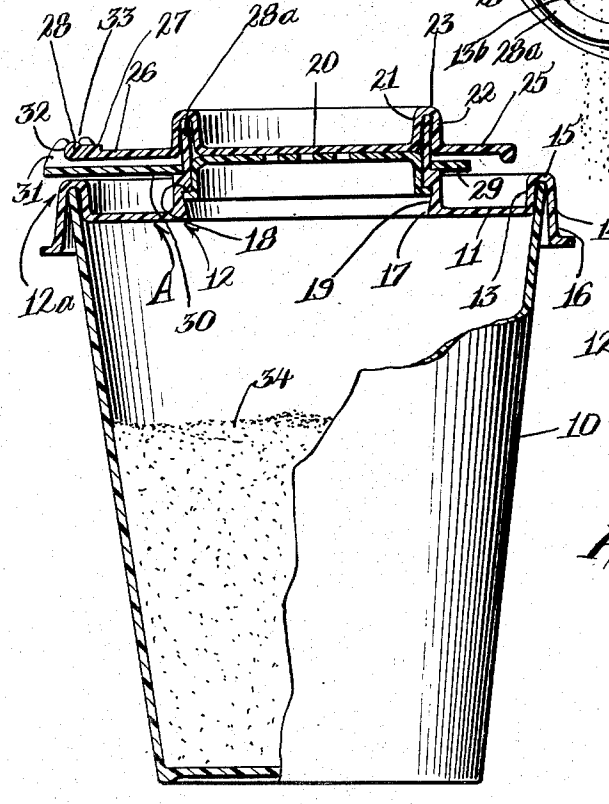


Fig. 4

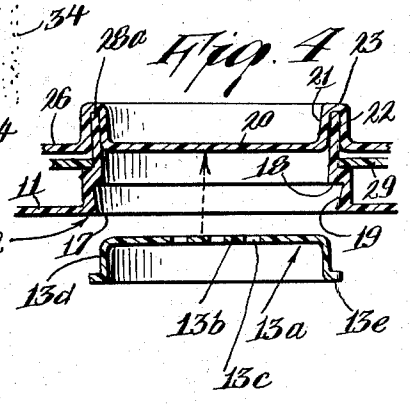


Fig. 3

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COMBINATION DISPENSER AND SEAL

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9 Claims. (Cl. 222—189)

This invention relates generally to a spice and condiment dispenser having both a removable distributor element and a hinged and swivellable seal therefor to maintain a non-spillable relationship with the distributor element when the dispenser is not in use.

The assembly and parts herein utilizes the structure described and claimed in U. S. Patent No. 2,487,400, granted to the applicant herein on November 8, 1949, and further utilizes the structure described in applicant's application for Patent Ser. No. 327,958, filed December 26, 1952.

Essentially, the seal assembly to maintain the vessel contents air and vapor tight comprises a closure member formed of polyethylene or other plastic having similar physical characteristics and is hingedly and swivellably secured to a neck formed on the condiment receiving vessel such as a bottle, or to a neck formed on a wall of other type of container. The neck is preferably, but exclusively, also made of polyethylene or other plastic having similar characteristics to enable a live seal to take place between the closure member and the lip of the neck.

At the base of the neck, the invention contemplates the application of a removable and snap-type of distributor or strainer element having a perforated upper wall which is adapted to seal-tightly engage a depressed wall portion of the closure member when the closure is closed whereby the spice or other condiment within the container is prevented from spilling during movement or transportation of the device.

Another object of the invention resides in the utilization of a material in conjunction with specified structure such as polyethylene or other plastic having similar characteristics comprising a rubber-like thermal plastic composition which does not absorb and is not readily wetted by water, is odorless, resistant to acids, solvents and other chemicals, will not soften in ordinary temperatures, is unbreakable, has flexibility and elasticity with a slow rate of recovery, is frictional to the touch, is light in weight, is unaffected at working temperatures and affords a sterile medium for and consequently is resistant to mildews, micro-organisms and insects.

Another feature of the invention resides in the provision of a non-spillable condiment vessel having a closure member hingedly supported on a swivellable frame member disposed on the neck of the vessel, the said closure member having its lower or depressed wall in contact with a removable strainer or distributor element in the neck of the vessel when the said closure member is in sealing position, the said closure, frame and strainer members all being capable of being molded by compression or injection in all their parts, and which are economical to manufacture, durable, easy to clean, and efficient in operation.

A further feature of the invention resides in the convertibility of a condiment cellar or distributor to a pouring vessel provided with a seal.

These objects and other incidental ends and advantages will hereinafter appear in the progress of the disclosure and as pointed out in the appended claims.

Accompanying this specification is a drawing showing a form of the invention wherein:

Figure 1 is a view in perspective of the hinged closure member mounted on a frame swivellably engaged to a spout or neck on the wall of a flat cover member for the container or vessel, the closure concealing the straining element within the spout or neck.

Figure 2 is a view in perspective of the device of Figure 1 shown with the closure member in open position and showing dispensing or distribution of the condiment material.

Figure 3 is an enlarged sectional view of Figure 1 across the plane 3—3 thereof showing the plane contact between the lower or depressed bottom wall of the closure member and the upper surface of the straining element to prevent spilling.

Figure 4 is a sectional view of the upper portion of Figure 3 showing the strainer or distributing element in a lower and displaced position from the spout of the cover of the vessel.

In accordance with a form of the invention shown, numeral **10** indicates a vessel, which may be of any type, having a top closure wall **11**, and a spout generally indicated by numeral **12**. Vessel or container **10** may be used for any purpose but with the provision of a pouring neck or spout may readily be converted into condiment holder by the application of a removable snap-in type of straining element insert generally indicated by numeral **13***a*.

The neck or spout **12** forms an opening for the container or vessel, but as shown is formed on wall **11** forming part of a removable cover member generally indicated by letter A. Cover A is comprised, as has been mentioned, of a main central wall already designated by numeral **11**, and has an upwardly extending peripheral rim generally indicated **12***a*, said rim being formed as an inverted groove and having an inner wall **13**, a spaced outer wall **14**, a top connecting wall **15** and a portion **16** offset from the base of the outer wall **14**, the rim **12***a* being adapted to sealably engage the upper edge of the container **10**. Cover A is preferably made of polyethylene or other substance having similar physical characteristics, but for purposes of the invention herein is not so limited.

Spout **12** may form the top terminal of a container such as a bottle or other vessel, but as shown forms a neck surrounding an opening **17** in wall **11** of cover A. The spout as shown is provided with an intermediate shoulder **18** extending at the top from an outwardly inclined wall **19** at the inner side of the base of the spout.

The strainer element **13***a* is in the form of a cap having a top wall **13***b* provided with perforations **13***c* and a peripheral side wall **13***d* terminating in a peripheral outwardly directed flange **13***e*. Flange **13***e* is adapted to snap in and out of shoulder **18** as best seen in Figures 3 and 4 and makes a snug fit therein by virtue of the inclination of the spout lower inner wall **19**. Shoulder **18** at the horizontal portion acts as an upper stop for flange **13***e* while inclined wall portion **19** serves as a frictional stop against normal downward travel.

The closure for the spout **12** consists of a depressed lower wall **20** having a peripheral and upwardly extending inverted grooved rim formed of an inner wall **21**, an outer wall **22**, a top connecting wall **23**, and an outwardly extending flange **24** continuing from the lower edge of outer wall **22**. Flange **24** at opposite diametric points has a finger-operable tab projection **25** and an extension **26** provided with a platform **27** respectively. The said platform at its rear edge carries a cylindrical rod **28** which projects beyond each of the side edges thereof and the diameter extends above the platform **27** as best shown in Fig. 3.

It is to be noted that sealing by the closure member described is effected at the upper portion of the inside of outer wall **22** and the inside of top wall **23** with respect to the upper terminal wall **28***a* of spout **12** (outwardly inclined from shoulder **18** as shown). The outer diameter of spout wall **28***a* therealong is greater than the inner diameter of wall **22** whereby positive sealing engagement is assured between the closure member and the spout. When the spout wall **28***a* is made of polyethylene or of a substance having similar physical characteristics as the closure member, a live seal is effectuated between the respective parts.

In order to provide the closure member with hinge and swivellable characteristics relative to spout **12**, there

is provided a cooperating mounting device or frame for removable application to the spout.

The frame as shown consists of a centrally apertured disc **29** provided with a rear extension apron **30** having along the rear edge thereof a pair of aligned lugs each indicated by numeral **31**, said lugs having aligned cylindrical openings each indicated by numeral **32** and with a diameter sufficient to permit rod **28** to slide therethrough. Each of the cylindrical openings **32** communicates with a top lug notch **33**, each of said notches being substantially of width to permit apron **27** to slide therethrough.

As shown in Figure 3, disc or frame **29**, which is made of any suitable material but preferably resilient plastic such as polyethylene or vinyl for accommodating differences in spout diameters, is applicable over the upper portion of spout wall **28***a* and is based on the upper horizontal portion of shoulder **18** thereof for swivellable engagement therewith. Frame **29** is further capable of removability when desired from the spout wall **28***a* by an upward pull necessary to compress the said spout wall.

As best shown in Fig. 2, rod **28** is removably insertable by lateral linear motion into the aligned openings **32** of lugs **31** while notches **33** permit clearance for linear movement of apron **27** therethrough. Lugs **31** permit the closure member at rod **28** to be hinged for 180 degree rotary movement adjacent to the lip of the spout wall **28***a* for opening and closing purposes. The type of hinging described also permits full withdrawal of the closure member from frame **29** and further permits the closure member at wall portion **20** to lie flat on strainer wall **13***b* thereby to prevent spillage as will hereinafter appear.

Although frame **29** with the closure member mounted thereon is capable of being swivellable while the closure member is in open position, nevertheless swivelling may be accomplished with the closure member in closed position.

As shown in Figure 1, it is to be observed that the width of apron **27** is less than the distance between the opposing inner walls of lugs **31** to permit rotation of rod **28** within the cylindrical openings **32** for approximately 180 degrees as has been mentioned.

In applying the strainer cap **13***a* to the spout walls, it is to be observed that cover member A of the vessel **10** is first removed and the strainer cap is snapped into position between shoulder **18** and the inner side of spout wall **28***a* by being forced through opening **17**. In this operation, since the diameter of opening **17** is less than the diameter of flange **13***e*, finger pressure is necessary. Similarly for removable purposes, the closure member A must be first removed from vessel **10** to snap the strainer out by downward pressure against the spout wall **19**.

It is to be observed by referring to Figure 3 that the strainer member **13***a* when in place presents a flat surface which is sealable by depressed central wall **20** of the closure member.

To open the closure member, the under side of finger tab **25** may be grasped by the thumb while the index finger bears against the central wall **20**. In this way, the seal between spout wall **28***a* and the engaging walls of the grooved rim of the closure is gradually and successively broken in a pealing off manner and at the same time the top wall **13***c* of the strainer element becomes exposed for distribution of condiment material **34**. When there is full disengagement, the closure member remains hingedly, rotatably and removably secured relative to spout **12**.

For removal of the closure member relative to frame **29**, the closure member is set at a 90 degree angle with respect to the horizontal plane and by lateral linear movement rod **28** is slid out of lugs **31**. For sealing purposes, the closure member is moved towards closed position on rod **28** mounted in lugs **31**, and the operation is most suitably completed by continuous sliding finger pressure along the top wall **23** from the rear forwardly.

Thus has been described a sealing assembly provided with a removable strainer wherein the vessel on which the assembly cooperates may be converted from a container for pouring liquids to a container for holding and for dispensing condiments or anything else in granular or powdered form. The closure for the strainer prevents spilling of the condiment contents between the wall **20** and the perforated wall **13***b* when the cellar is in inoperative position.

I wish it understood that minor changes and variations in the integration, size, shape, material and location of parts may all be resorted to without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. In combination, a container having a removable cover provided with a neck, said neck having an upper portion and a lower expanded portion forming a shoulder therebetween, a strainer cap having a perforated top wall removably insertable in said lower expanded neck portion from the underside of said cover, and a removable closure member having a central wall, and an upwardly directed peripheral and inverted grooved rim engageable with the upper neck portion, the central wall of the closure member being engageable with the perforated top wall of the strainer cap.

2. In combination, a container having a removable cover provided with a neck, said neck having an upper portion and a lower expanded portion forming a shoulder therebetween, a strainer cap having a perforated top wall removably insertable in said lower expanded neck portion from the underside of said cover, a closure member having a central wall and an upwardly directed peripheral and inverted grooved rim engageable with the upper neck portion, the central wall of the closure member being engageable with the perforated top wall of the strainer cap, a frame member rotatably engageable between the upper neck portion and a wall of the above mentioned shoulder, said closure member being removably and hingedly secured to said frame member.

3. In the combination as set forth in claim 2 wherein the closure member is formed of polyethylene or other substance having similar physical characteristics.

4. In the combination as set forth in claim 2 wherein the container cover, the closure member, the neck, the frame member and the strainer cap are formed of polyethylene or other substance having similar physical characteristics.

5. In combination, a container having a removable cover provided with a neck, said neck having an upper portion and a lower expanded portion forming a shoulder therebetween, a strainer cap having a perforated top wall removably insertable in said lower expanded neck portion from the underside of said cover, a closure member having a central wall and an upwardly directed peripheral and inverted grooved rim engageable with the upper neck portion, the central wall of the closure member being engageable with the perforated top wall of the strainer cap, said cover, neck, strainer cap and closure member being formed of polyethylene or other substance having similar physical characteristics.

6. In combination, a container having a removable cover provided with a flared neck, said neck having an upper portion provided with a lower undercut portion, a cap having a perforated top wall removably insertable in said undercut portion from the underside of said cover, a closure member having a central wall and an upwardly directed peripheral and inverted grooved rim engageable with the upper neck portion, the central wall of the closure member being engageable with the perforated top wall of the cap.

7. In combination as set forth in claim 6 wherein said closure member is formed of polyethylene or other substance having similar physical characteristics.

8. In combination, a container having a removable cover provided with a neck, said neck having an upper portion provided with a lower undercut portion, a cap having a perforated top wall removably insertable in said undercut portion from the underside of said cover, a closure member having a central wall and an upwardly directed peripheral and inverted grooved rim engageable with the upper neck portion, said rim having a finger engageable extension and said central wall of the closure member being engageable with the perforated top wall of the cap.

9. In combination as set forth in claim 8 wherein the container cover, the neck, the cap and the closure member are formed of polyethylene or other substance having similar physical characteristics.

No references cited.