July 26, 1966 N. S. WATERMAN 3,262,606

CONTAINER CLOSURE

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FIG. 1.

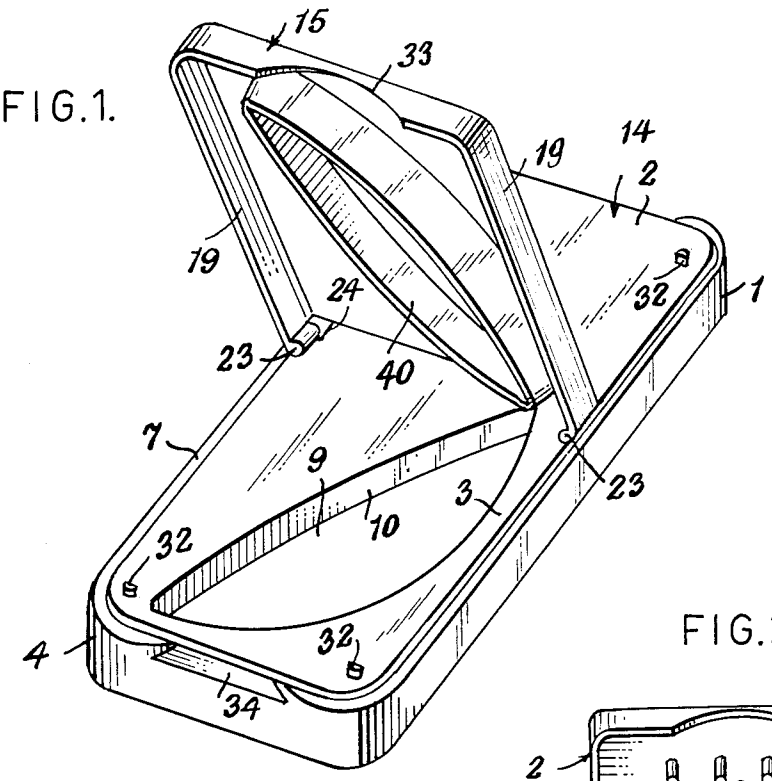


FIG. 2.

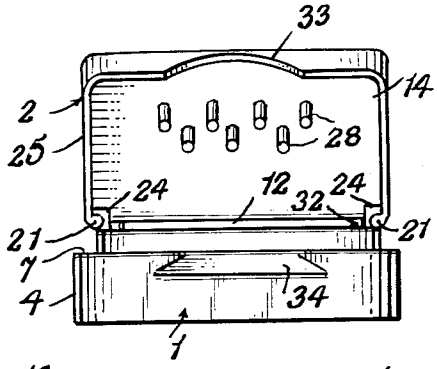
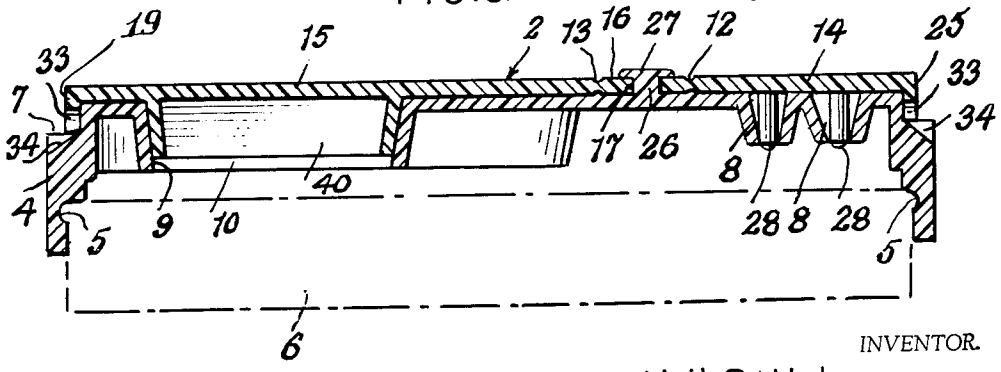


FIG. 3.



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FIG.4.

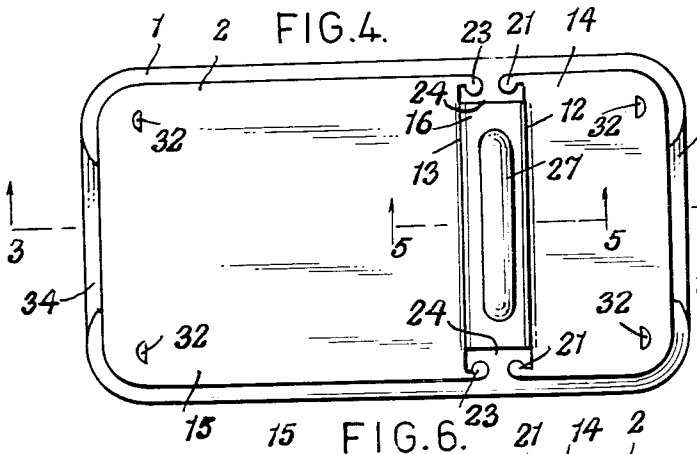


FIG.5.

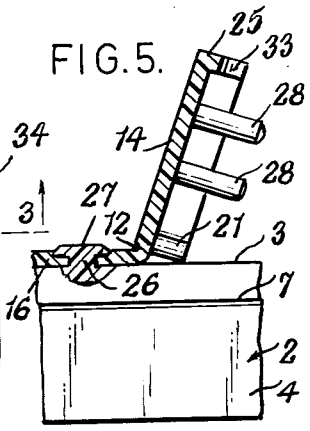


FIG.6.

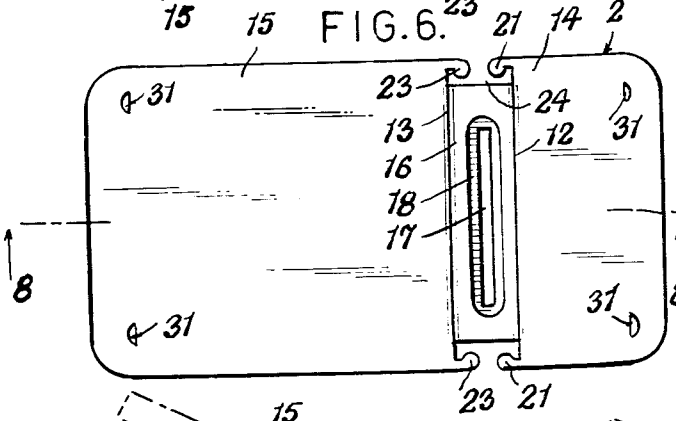


FIG.7.

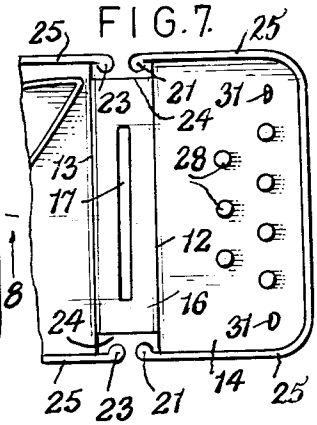


FIG.8.

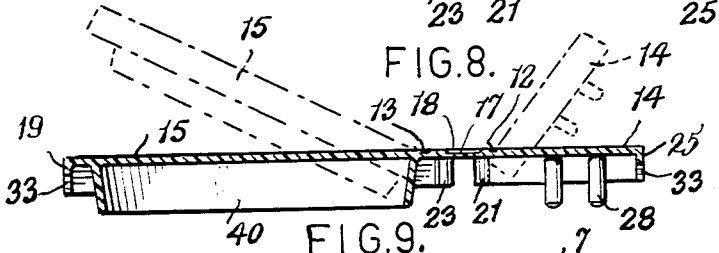


FIG.10.

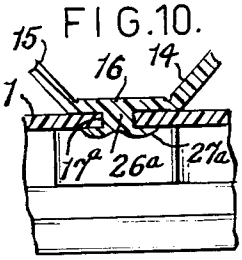
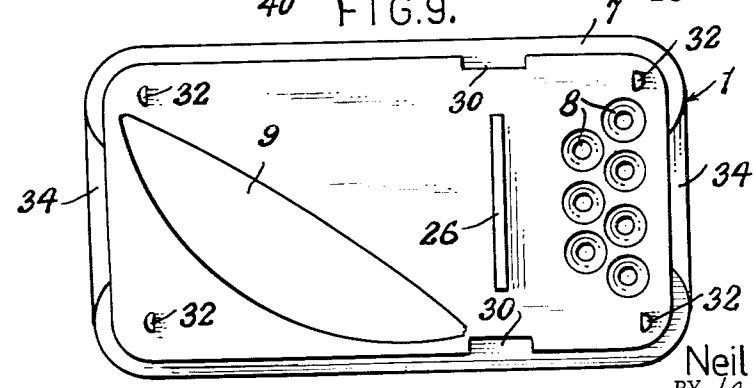


FIG.9.



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3,262,606

CONTAINER CLOSURE

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2 Claims. (Cl. 222—153)

This invention relates generally to containers and closures, but more specifically to a type of closure adapted to be fitted over containers of the kind used for holding powdered or pulverized materials such as salt, pepper, flour, spaces or many other materials adapted to be sifted and dispensed out of the container as needed for use.

An object of the invention is to provide a dispensing closure of this nature which can be wholly composed of molded plastic and which can be thus economically manufactured; which will provide a sifter top on the container as well as a top by which other measured quantities of the contents of the container can be dispensed.

It is a further object of the invention to provide closure means for a container and in which the sifting openings as well as the dispensing opening can be closed when the container is not being used to thereby protect its contents.

It is another object of the invention to provide a combined container and closure which can be sealed in a manner to prevent unauthorized tampering, removal or sampling of the contents of the container, and which will provide a closure structure of such a nature that the dispensing and sifting openings can be covered and protected by closure flaps.

More particularly, the invention comprises the provision of a two-part closure in which one of said parts constitutes a base member fitted on the top of a container and is provided with dispensing openings, and the second part constitutes a flapped cover member fitted on top of the base member and adapted to be permanently attached thereto, and which cover member provides pivoted flaps for either closing the dispensing openings or exposing them for use when the flaps are raised. The invention further contemplates the provision of means for maintaining either of the cover flaps in its raised position so as not to interfere with the dispensing of the container contents.

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

Accompanying this specification are drawings showing a preferred form of the invention wherein:

FIG. 1 is a perspective view of a container closure constructed in accordance with one form of the invention;

FIG. 2 is a front elevational view of the same, with one of the cover flaps shown in raised position;

FIG. 3 is a longitudinal sectional view, taken substantially on the line 3—3 of FIG. 4, looking in the direction of the arrows;

FIG. 4 is a top plan view of the closure;

FIG. 5 is a sectional view, taken substantially on the line 5—5 of FIG. 4, looking in the direction of the arrows;

FIG. 6 is a top plan view of the cover member of the

closure as it appears when it is detached from the base member;

FIG. 7 is a view of a portion of the under side of the cover member;

FIG. 8 is a sectional view, taken substantially on the line 8—8 of FIG. 6, looking in the direction of the arrows, and

FIG. 9 is a top plan view of the base member of the closure, and FIG. 10 shows a slightly modified construction.

In the present embodiment of the invention, the improved closure is composed of two main parts: a base member generally indicated at **1**, and a flap-bearing cover member generally indicated at **2**. Both of these main parts of the closure are preferably molded and formed from any suitable plastic including polyethylene and polypropylene.

The closure is adapted to be fitted to the top of a container, of the kind generally used for containing powdered or pulverized materials, such as salt, pepper, spices, flour, detergents and many other materials; and the closure is adapted to permit the contents to be sifted out of the container through sifter holes provided in the closure, or removed by pouring as through a pouring opening or by a spoon as required.

The base member **1** of the closure is provided with a horizontal top wall **3** surrounded by a peripheral dependent skirt **4** which is internally grooved as shown at **5** in FIG. 3, for its engagement with the top edge portion of a container of any shape, but rectangular as shown. A portion of the container is shown in dotted lines and indicated at **6** in FIG. 3. The base member **1** is also provided with a shoulder **7** extending around it and against which the skirt of the cover member seats when the cover member is fitted to the top of the base member.

Near one end, the top wall **3** of the base member **1** is formed with a plurality of frusto-conical openings **8** constituting sifter openings and through which the contents of the container can be sifted when desired, and when the cover flap which normally covers said openings, is in a raised position, substantially as shown in FIGS. 2 and 8.

Adjacent to its opposite end, the top wall **3** of the base member **1** is provided with a larger opening **9**, which may be made in any suitable shape, but as shown is elliptical in order to enable a spoon to be inserted through it for a measured removal of its contents. Opening **9** may also be used for pouring out substantially large amounts of the container contents and is provided with a depending flange **10** around the perimeter.

Cover member **2**, adapted to be fitted on the top of the base member and permanently attached thereto for cooperation therewith in forming the complete closure, is shown in FIGS. 6 to 8. Cover member **2** has a top wall which is weakened on transverse lines **12** and **13** to provide fold or hinge lines for two flaps or pivoted covers indicated respectively at **14** and **15**, said flaps being formed from and as an integral part of the top wall of the cover member. The hinge lines **12** and **13** are spaced apart to provide a strip portion or bridge **16** between them, said strip portion **16** being formed with a transversely-extending elongated slot **17** surrounded by a perimetric slight depression **18**.

Cover member **2** is further provided with a peripheral skirt **19** around cover flap **15** and a skirt **25** which extends around the cover flap **14**. Skirt **25** is provided at its ends near its hinge line **12** with inwardly-projecting rounded detents **21**. Similarly, skirt **19** extending around the cover flap **15** is provided with similar detents as shown at **23**. The detents **21** and **23** are located in notches **24** provided at the opposite side edges of the top wall of the cover member at the ends of the strip portion **16** as clearly shown in FIGS. 6 and 7.

When cover member **2** is fitted to the top of the base member **1**, the lower edges of the skirts **19** and **25** come to rest on the shoulder **7**, and the slot **17** in the strip portion **16** fits around an upwardly-projecting transverse fin **26** formed integrally with and rising from the top wall of the base member. Fin **26** is adapted to extend through and beyond slot **17**. By application of heat to the projecting part of fin **26**, same is caused to spread outwardly to form a head **27** over the top of the slot and constitute a fastening to permanently attach the cover member **2** to the base member **1**.

Cover member **2**, so attached to the base member, causes the pivoted flap **14**, hingable on the fold line **12**, to cover the part of the base member in which the sifter holes **8** are formed. The under side of flap **14** is provided with projecting clean-out pins **28** which enter into the openings **8** and clear the same of any of the contents of the container which may have accumulated in these holes.

Flap **15**, which covers the opposite end portion of the top wall **3** of the container wherein the pouring or dispensing opening **9** is formed, said flap being shown in its raised position in FIG. 1, is provided on its under side with a continuous flange **40** corresponding to the shape of opening **9** and its depending flange **10** and fitting therein when the cover flap **15** is in its closed position as in FIG. 3.

When either of the closure flaps **14** and **15** is raised, as shown for example in FIGS. 1 and 2, it is desirable that such raised flap shall remain in its raised or open position during the time that the contents of the container are being sifted or being otherwise dispensed out of the container. While such flaps are closed, the detents **21** and **23** remain positioned in the notches **30** provided in the base member **1**. However, when either of the cover flaps is raised, its detents **21** or **23** will extend over the top of the wall **3** of the base member, as shown in FIGS. 1 and 2 and thus act to retain the respective cover flap in its raised position until sufficient manual force is applied on the raised flap to force the detents down past the sides of the wall **3** to then enter the notches **30** and lie therein substantially as shown in FIG. 4.

Cover member **2** is provided with holes **31** for engaging with registering pins **32** provided on the base member and to attain the registry of the flaps with the base member when the flaps are brought down to their seated or closed positions. These pins and holes, however, are not absolutely essential to the satisfactory operation of the closure since the frictional engagement of the skirts **19** and **25** with the upper wall parts of the base member adjacent shoulder **7** and which underlie these skirts is sufficient to hold the flaps in their seated or closed positions.

When the closure is applied to a container and it is desired to prevent unauthorized opening of the flaps and tampering with or sampling of its contents, flaps **14** and **15** may be sealed down in their closed or lowered positions by lightly heat-sealing them at the lower ends of their skirts **19** and **25** to the shoulder **7** on the base member. This serves to fasten down the flaps and to retain them in their closed position, to prevent any possible seepage out of the contents, and to prevent tampering with or sampling of the contents of the container.

When it is desired to raise either of the flaps, sufficient lifting force applied to the flap will break the heat-seal and permit the flap to be raised. To facilitate the raising of either of the flaps **14** and **15**, the skirts **19** and **25** of these flaps are each provided with a front notch **33** which co-operates with a downwardly inclined surface **34** at the opposite ends of the base member and intermediate portions of shoulder **7** to enable a finger nail to be inserted under the edge of the skirt on either flap to swing the flap upwardly on its respective hinge to the position where its detents **21** or **23** will hold said flap in such position as to enable the contents of the container to be dispensed from the holes **8** or the opening **9** as required.

From the foregoing, it is apparent that a dispensing closure is provided which is sanitary, easily applied to a container, and one which permits the contents of the container to be readily and conveniently removed as required. The closure flaps provide for the complete closure of the container and serve to fully protect the contents thereof—particularly during periods of non-use. Moreover, with the initial heat-seal fastening down of the flaps as seen by the purchaser, the purchaser is assured of a completely full container when it is purchased.

Having described and shown in FIGS. 1 to 9 inclusive, the base member **7** provided with a fin **26** which extends through slot **17** and expanded over the top of the base member, a modified arrangement is shown in FIG. 10. Therein the strip portion **16** of the cover member is formed with a fin **26***a* which extends through a slot **17***a* provided in the top wall of the base member, said fin being expanded or headed over on the under side of the top wall of the base member as shown at **27***a*.

Having thus described a single preferred embodiment of the invention, it is understood that minor changes and variations in material, integration, structure, shape, size and movement of parts may all be resorted to without departing from the spirit of the invention and the scope of the appended claims.

What I claim is:

1. A dispensing device or closure for a container comprising, a base member fitted on the top of a container, said base member having a top wall provided with a group of sifter holes near one end of said base member and having a larger dispensing opening near its opposite end, a cover member fitted over the base member and attached thereto along a line extending transversely of the base member and between the group of sifter holes and the dispensing opening, said cover member having a pivotal flap at one end fitting over and closing the sifter holes, said flap carrying pins which enter into and close the sifter holes when the flap is in a closed position, the cover member having a flap pivotally extending over and closing the dispensing opening, each flap having means to effect a sealing closure between it and the base member when said flap is closed down, sealing engagement means on the base member for effecting a sealing engagement between it and the top of a container, at least one of the flaps including a skirt having end portions provided with inturned detents, the base member having notches in which said detents are positioned when the flap is in aperture-covering position, and said detents extending over the top of the base member and holding the flap against closing movement when it is located in a raised position.

2. A dispensing closure for a container comprising, a base member having a top wall surrounded by a peripheral skirt, the top wall having a plurality of sifter holes and a dispensing opening, a cover member mounted on top of the base member, said cover member having integral pivoted flaps for respectively covering the sifter holes and the dispenser opening, an integral bridge piece on the cover member between the flaps, an upstanding element formed integrally with the base member and projecting through the bridge piece and headed over the upper surface of the same to thereby attach the cover member to the base member, the base member having

a shoulder extending around it, the flaps on the cover member each having a skirt resting against the shoulder when the flaps are in closed position, each of the skirts on the flaps having inwardly-directed detents, the detents on each flap being directed toward one another, the base member having notches above the shoulder and into which said detents extend when the flaps are in their closed position, said detents engaging over the top of the base member when the flap on which they are formed is raised to uncover the opening or openings in the base member.

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