June 20, 1939. E. FRANK 2,162,999

DISPENSING CONTAINER CLOSURE

Filed July 14, 1938

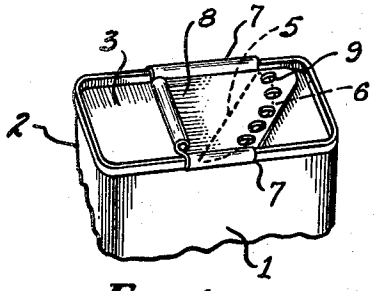

FIG. 1.

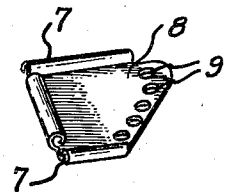

FIG. 2.

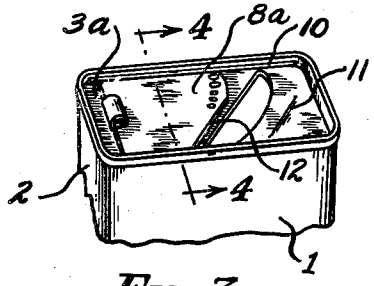

FIG. 3.

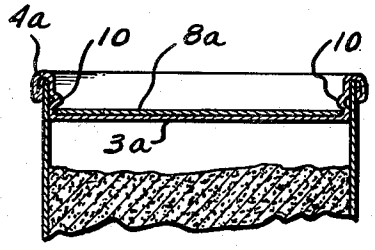

FIG. 4.

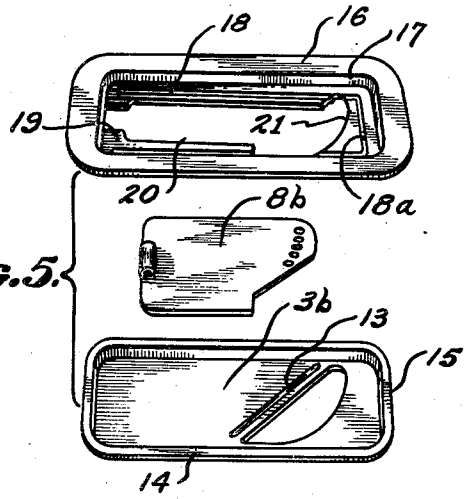

FIG. 5.

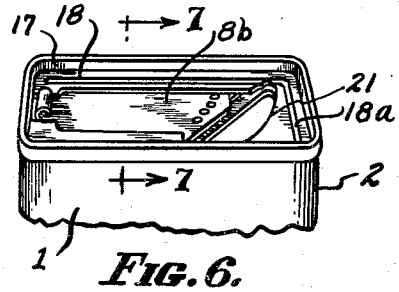

FIG. 6.

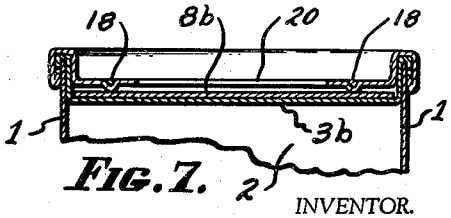

FIG. 7.

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DISPENSING CONTAINER CLOSURE

Emil Frank, Cincinnati, Ohio

Application July 14, 1938, Serial No. 219,217

2 Claims. (Cl. 221—62)

My invention relates to dispensing container closures wherein by the movement of a sliding member sifting or dispensing openings in a wall of a metallic container is provided. In my application Serial No. 106,406, of which this application forms a continuation in part, I have disclosed a container having a top wall with a segmental opening therein, the chord of which is greater than the thickness of the container, and a slide for closing the opening having an edge parallel with the chord of the arc of the segmental opening and perforations in the slider conforming to the arc of the opening.

In such copending application the construction of the dispensing closure is illustrated in Figs. 1 and 2 which figures form Figs. 1 and 2 of this application.

It is an object of my invention to describe various modifications of closure openings susceptible for use with the inventive features of my invention as set forth in said copending application.

It is an object of my invention to provide dispensing closures wherein the sliding member forming the closure is held in position during one of the normal operations of the can construction.

It is an object of my invention to provide a dispensing opening closure which will be inexpensive, non-liable to become displaced, and in which the manipulation of the closure may be simply accomplished.

The above objects and other objects to which reference will be made in the ensuing description, I accomplish by that certain construction and arrangement of parts of which I have illustrated several preferred embodiments.

Referring to the drawing:

Figure 1 is a perspective view of one type of dispensing opening closure in a metal can.

Fig. 2 is a perspective view of the slider illustrated in combination in Fig. 1.

Fig. 3 is a perspective view of a modified type of closure.

Fig. 4 is a sectional view of the can illustrated in Fig. 3 taken along the lines 4—4.

Fig. 5 illustrates the combination of parts forming the end closure for the can top illustrated in Fig. 6.

Fig. 6 is a perspective view of the combination of parts illustrated in Fig. 5 in a further modified type of closure.

Fig. 7 is a sectional view taken along the lines 7—7 of Fig. 6.

Referring first to Figs. 1 and 2, the container is illustrated having side walls 1, end walls 2 and a top wall 3, the end and side walls being held in position by the downward crimping of the top wall as indicated at 4. Such construction is standard and forms no part of my invention.

The particular can to which I have applied my invention has a capacity of 1½ ounces of pepper and has dimensions as follows: side walls 2 by 3 inches, end walls 1 by 3 inches, and top wall 1 by 2 inches. The top wall is depressed about ⅛ inch. It will be obvious that in such construction it is not possible to make a dispensing opening for accommodating a teaspoon by cutting a hole in the top wall of segmentary shape with the chord of the segment extending across the width of the container, because a chord extending across the bowl of a teaspoon is normally over 1¼ inches long.

Accordingly I arrange a segmentary opening in the top wall of the container, the chord 5 of the segment extending diagonally across the container, the arc 6 of the segment, extending from the ends of the chord, being also diagonally positioned.

A slide having channels 7 and a flat body 8 is crimped in position on the container top and a series of perforations 9 are formed in the slide in an arcuate formation conforming to the arc of the segmentary aperture in the container top.

In assembling the can, the channel 7 may be crimped down in position during the crimping down of the top wall 4. Since in can manufacture an operation such as is necessary for crimping the top wall 4 to hold the can in assembled condition no further labor is required to, during the same operation crimp in the channel 7 of the sliding member, the flat body of which is indicated at 8.

In Figs. 3 and 4 the can illustrated has side walls 1 and end walls 2. In this modification a can top 3a has edge portions 4a which are crimped into position forming the end closure for the can.

During this same operation the slider having the body 8a is crimped in position underneath the crimped ledges 10 of the can top.

In Figs. 3 and 4 an indented ledge 11 is further shown which is engaged by a straight edge portion 12 of the slider, so that when the closure is closed the slider will be seated in position in which it will not be readily displaced.

In Figs. 5, 6 and 7, the can top is composed of a double wall. The can has the side walls 1 and end walls 2. A top 3b has a segmentary aperture therein and a grooved recess 13. The can top has upwardly extending side edge portions 14, 15. The slider 8b is similar to the slider of

the modification shown in Figs. 3 and 4. For securing the slider in position there is an auxiliary top member 16 having a recessed portion 17 provided with indented ribs 18. The flat surface 19 of the auxiliary top has a cut-out portion 20, the end 21 of which conforms to the segmental opening in the can top 3b.

The can top 3b, the sliding member 8b and the auxiliary top member 16 are secured together and the peripheral flange of the auxiliary top member is crimped as indicated in Fig. 6, thereby securing the assembly together. The indented ribs 18 prevent the top and auxiliary walls being crimped together so tightly that the sliding member will be frictionally locked between them. The rib 18a provides a frictional stop for retarding the free movement of the slider at the end of its limit of movement.

It will be observed that in all the modifications the peripheral bead of the top wall which secures the top wall to the side and end walls has integrally formed therewith the means for restraining the sliding member to a plane of movement parallel with the top wall of the container.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A closure for a container having side and end walls comprising a top wall member having a dispensing opening therein, a sliding member for opening and closing said dispensing opening and an auxiliary top member having a cut-out portion permitting limited movement of said sliding member, said auxiliary top member forming channels at the side edges of the sliding member for restraining said sliding member to a plane of movement parallel with said top wall, and said auxiliary top member having peripheral edge portions thereof crimped to the side and end walls of the container thereby securing said auxiliary top member in position.

2. A closure for a container having side and end walls comprising a top wall member having a dispensing opening therein, a sliding member for opening and closing said dispensing opening and an auxiliary top member having a cut-out portion permitting limited movement of said sliding member, said auxiliary top member forming channels at the side edges of the sliding member for restraining said sliding member to a plane of movement parallel with said top wall, and said auxiliary top member having peripheral edge portions thereof crimped to the side and end walls of the container thereby securing said auxiliary top member in position, said auxiliary top member having indented ribs therein spacing said member and the top wall member apart.

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