Dec. 25, 1956 J. J. CANNON 2,775,386

TAPERED TOP CONTAINER DEPRESSOR

Filed June 4, 1953

FIG. 1.

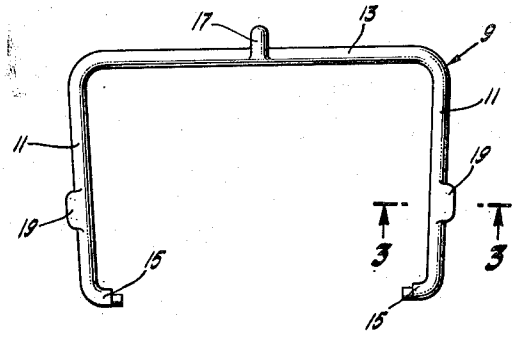
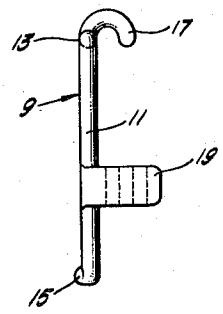


FIG. 2.



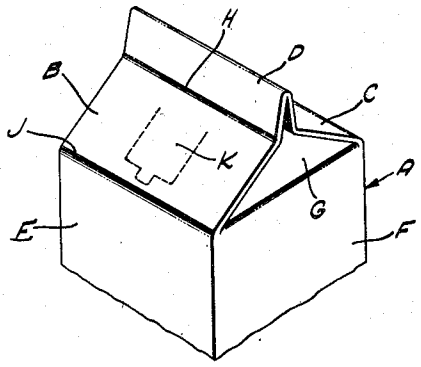


FIG. 4.

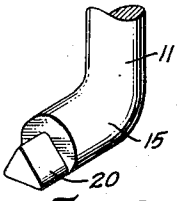
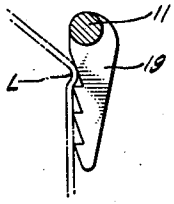


FIG. 7.

FIG. 3.



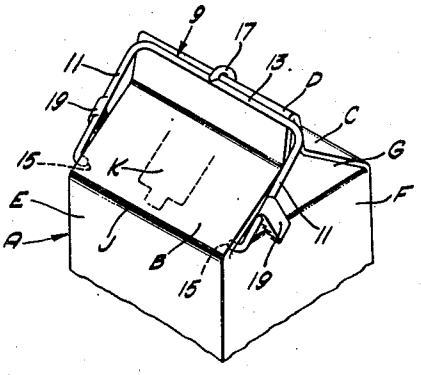


FIG. 5.

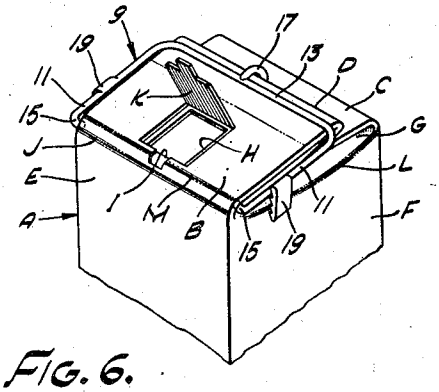


FIG. 6.

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TAPERED TOP CONTAINER DEPRESSOR

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1 Claim. (Cl. 229—7)

This invention relates to and has for its primary object the provision of a depressor for depressing the tapered top of a container or carton, such as a milk carton.

A large number of cartons, particularly milk cartons, have their tops tapered, and such a carton has a pouring spout or opening formed in one of the inclined top walls thereof. For reasons best known to the hydraulic engineers, when it is attempted to pour the liquid contents of the carton therefrom the liquid frequently issues forth in a series of surges in a pulsating fashion, instead of in a steady stream, thereby making it difficult to regulate the amount poured and its direction, and frequently resulting in splashing or spilling of the liquid contents on the area surrounding the container into which it is sought to pour the liquid.

When the pouring spout or opening is disposed in a wall disposed at substantially right angles to the length of the carton, the liquid contents, when poured, issue forth in a steady stream.

As before-mentioned, it is a primary object of the present invention to provide a depressor for depressing the tapered top of such a carton to enable ready pouring therefrom, and particularly to provide a depressor which will function to retain the depressed top of the carton in its depressed condition.

The pouring lip of the pouring spout of the conventional tapered top carton is normally disposed in spaced relationship with respect to the crease between the top wall in which the pouring spout is formed and the front wall of the carton.

Another object of the present invention is to provide a depressor which is operable when the carton top is depressed to form a bulge in the mentioned top wall along a line coinciding with the pouring lip to form a pouring shoulder at the location of the lip to facilitate pouring liquid from the carton.

Various other objects of the present invention will be apparent from the following description taken in connection with the accompanying drawing, wherein:

Fig. 1 is a front elevational view of a depressor embodying the concepts of the present invention.

Fig. 2 is a side elevational view of the depressor of Fig. 1.

Fig. 3 is a sectional view taken along line 3—3 of Fig. 1, showing the serrations of a serrated lug of the depressor engaging a bulge formed in a side of the carton, the bulge being shown in phantom lines.

Fig. 4 is a fragmentary perspective view of a carton of the type to which the depressor of the present invention is adapted to be applied.

Fig. 5 is a view similar to Fig. 4, showing the depressor as having been applied to the carton top and showing the parts in the condition they assume prior to depressing the carton top.

Fig. 6 is similar to Fig. 5, showing the carton top as having been depressed by operation of the depressor.

Fig. 7 is a fragmentary perspective view showing one end of the depressor.

Referring to the accompanying drawings, wherein similar reference characters designate similar parts throughout, Figs. 1, 2 and 3 best show the depressor of the present invention, which is adapted to be applied to a tapered top carton generally entitled A, such as disclosed in Fig. 4. Carton A includes front and back top walls B and C, upwardly converging and then peaked to form a ridge at D; a front wall E and a back wall (not shown); side walls F (only one of which is shown); inclined side top walls G (only one of which is shown) which extend under the front and back top walls B and C. A pouring spout H is formed in front top wall B, the pouring lip I of which is conventionally disposed in spaced relationship to the crease J between the inclined top wall B and front wall E. A flap K, formed from inclined top wall B, initially covers pouring spout H.

The depressor comprises a U-shaped bail member 9 having legs 11 joined by a medial portion 13. Legs 11 are spaced apart a distance slightly greater than the width of the carton A to adapt the same to straddle the front top wall B to permit the depressor to be applied to the carton. Preferably legs 11 taper inwardly towards their ends to adapt the ends for fitting under eaves formed by the side margins of top walls B and C. The ends 15 of legs 11 are bent inwardly and curved somewhat upwardly, compare Figs. 1 and 2 for a purpose to be presently described. Formed on legs 11 adjacent medial portion 13 are depending serrated lugs 19, the purpose of which will presently appear.

In operation, legs 11 are slightly sprung apart to enable ends 15 to be fitted under the eaves of the carton top adjacent the juncture J of the front top wall B and the front wall E, see Fig. 5. The depressor is then pivoted downwardly to dispose medial portion 13 in contact with ridge D. At this time, serrated lugs 19 perform no function.

Pressure is now applied to medial portion 13 to pivot the depressor about ends 15 and depress the carton top, to cause an inward collapse of back top wall C about the crease line between top wall C proper, and the portion thereof forming the back of ridge D, see Fig. 6. Front top wall B proper and the portion thereof forming the front of ridge D are forced into a substantially coplanar relationship down on the folded back top wall C.

During the depression of the carton top, the inclined top walls G are forced into a horizontal plane and the walls function (because they are forced outwardly) to form bulges L at the upper portion of side walls F. As the depressor is depressed, the serrations on lugs 19 engage the bulges, and since the serrations are upwardly directed, they catch on said bulges and function to retain the carton top in its depressed condition.

Also, as the depressor is depressed, the upwardly curved ends 15, which are initially disposed in engagement with the underside of the eaves substantially along a line coinciding with lip I, function to form a bulge in front top wall B along said line to form a pouring shoulder M (see Fig. 6). With the formation of such shoulder, and the flattening of the carton top, ideal conditions exist for proper pouring of the liquid contents of the carton from spout H.

As best shown in Fig. 7, the ends 15 of legs 11 are beveled at 20 to fit upwardly into the eaves formed by ridge D, adapting the depressor to be used as a handle to enable a carton to be readily carried from one place to another, such as, for instance, from store to home.

By the present invention, a depressor has been provided which is simple and inexpensive in construction and which can be readily applied to a tapered top carton and operated to depress the top of such a carton, while providing a pouring shoulder at the lip of the pouring spout, said depressor functioning to retain said top in

its depressed condition by virtue of the engagement of the serrated lugs with the bulges L formed at the sides of the carton. It is apparent that cartons having flattened tops can be readily stacked on top of one another. Although the depressor of the present invention can be formed in many ways and from various materials, such depressors can be conveniently molded from suitable plastic materials.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made in its construction by those skilled in the art without departing from the spirit of the invention as defined in the appended claim.

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

A depressor for depressing the tapered top of a carton, which top is defined by upwardly converging walls, the side margins of which form eaves and wherein a pouring spout is formed in one of said side walls, comprising a U-shaped bail member of substantially the same width as the width of the carton, said bail member having substantially parallel legs and a medial portion joining said legs, the length of said legs being less than the length of the converging walls, inwardly serrated lugs having upwardly directed teeth affixed to said legs, said lugs extending outwardly from one side of the bail and normal to the plane thereof in spaced relation to the free ends of the legs, the ends of said legs extending inwardly toward one another to fit under the eaves formed by one of the converging walls of the container top at the lower portion thereof to provide a pivotal axis for the bail member, said bail member having its medial portion adapted to rest against the peak of the carton, whereby the top may be depressed substantially flat by applying pressure on the medial portion of said bail member, whereby said serrated lugs will engage the sides of said carton to retain said carton top and bail member in substantially flat position.

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