

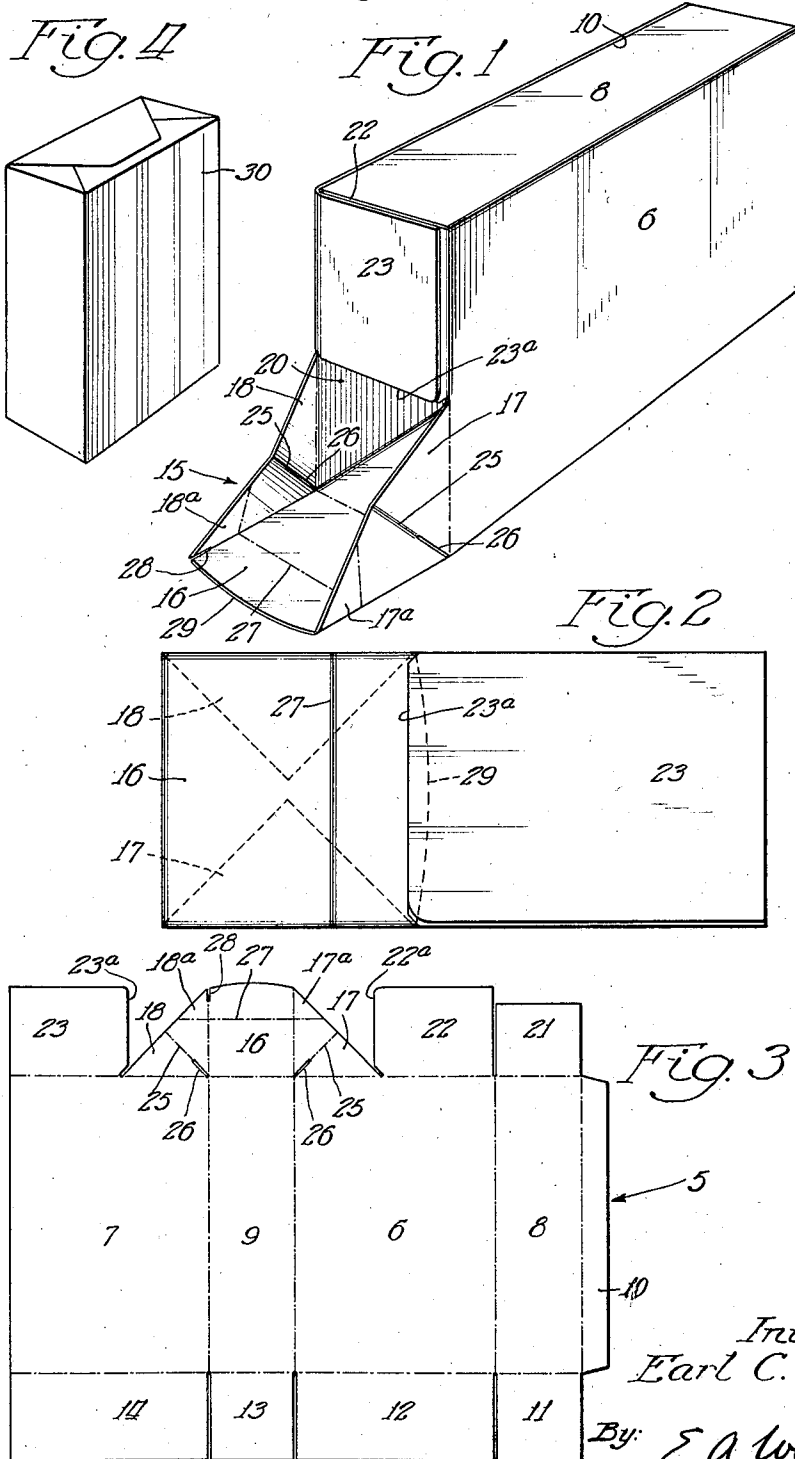
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CARTON

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CARTON

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5 Claims. (Cl. 229—17)

This invention relates to dispensing containers and more particularly to a dispensing container in the form of a carton in which a collapsible dispensing spout is provided which is adapted for use in one position as a closure and in another position to direct the flow of contents from the container.

One object of the invention is to provide a dispensing carton of the class described in which an opening of maximum size is provided without cutting the flaps of the carton longer than would be required for an ordinary folding carton.

Another object of the invention is to provide a simple and effective means for retaining the dispensing spout in collapsed condition over the dispensing opening to provide a closure therefor.

Another object of the invention is to provide a collapsible dispensing spout which, when in collapsed condition, may be temporarily deformed to permit its extremity to be tucked in under a retaining portion on the carton, but which, at the same time, has sufficient elasticity to regain approximately its former condition so that the spout will be effectively retained in closed position over the dispensing opening.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawing, illustrating the preferred embodiment of the invention,

Fig. 1 is a perspective view of the dispensing carton with the spout open and in position to permit the contents to flow out;

Fig. 2 is a plan view illustrating the dispensing spout in position closing the dispensing opening;

Fig. 3 is a view of the blank; and

Fig. 4 is a perspective view illustrating the container enclosed within a wrapper.

Similar reference characters throughout the several views indicate the same parts.

The present invention, as disclosed, provides a carton adapted for retaining and dispensing pulverulent and granulated materials where it is desirable to remove only a small portion of the contents from time to time and, during the use of the contents, to retain the remaining portion thereof relatively free from contact with the air so as to maintain the contents in a substantially fresh condition.

The carton, in its preferred form, comprises a folding or one piece carton having a bottom, relatively wide side walls and narrower end walls, and a top formed in two parts, one part being

a permanent partial closure and the other part being a dispensing spout which may be utilized as a closure for the remainder of the top of the carton not closed by the permanent closure section.

Referring more particularly to the drawing, the blank 5 of the carton is cut and scored to provide side walls 6 and 7, and end walls 8 and 9. The wall 8, in the present instance, is preferably provided with a glue flap 10 for securing this wall to the wall 7 by adhesive in a manner which is well known. Flaps 11, 12, 13 and 14 are preferably provided to form a bottom for the container.

The dispensing spout, indicated as a whole at 15, comprises what may be termed a bottom 16 and side walls 17 and 18. The bottom 16 is carried by the end wall 9 and preferably forms an integral extension thereon. The side walls 17 and 18 are connected respectively to the upper edges of the walls 6 and 7 and are preferably formed as integral corner folds or extensions which extend between the side edges of the bottom 16 and the side walls 6 and 7.

The bottom 16 of the dispensing spout when in collapsed condition will close the opening and will be retained in a manner presently to be described.

To supplement the dispensing spout in closing the top of the container, a permanent closure is provided which, in the present instance, comprises a flap 21 on the end wall 8 and flaps 22 and 23 on the end walls 6 and 7.

The sides 17 and 18 of the dispensing spout are preferably scored at an angle of approximately forty five degrees from the upper corners of the end wall 9. These score lines are indicated at 25, 25. In order to facilitate inward bending of these side portions of the dispensing spout, short slits 26, 26 are provided in alignment with the score lines 25, 25.

The sides 17 and 18 are preferably of triangular shape, being cut along diagonal lines extending from the upper edge of the side walls 6 and 7 to the outer corners of the bottom 16 of the spout at an angle of approximately forty five degrees. The particular shape of the free edges of the sides 17 and 18 is not material as they may be cut along other than a straight line without substantially altering their function.

The flaps 22 and 23 which form the partial permanent closure section are formed with extended edge portions 22a and 23a projecting a short distance beyond the points at which the sides 17 and 18 of the spout meet the respective

side walls 6 and 7. While only one of the walls 22 and 23 may, if desired, be formed with an extended portion thereon, it is considered preferable to supply both of these flaps with such extensions. The relations between the parts are such that the end of the bottom wall 16 of the spout will underlie the edges of the flaps 22 and 23 to substantially the depth of the extended portions thereon. While this relation is preferred it is only necessary that a relatively small portion of the free edge of the bottom 16 of the spout be engaged beneath the extended edges of the flaps 22 and 23.

For the purpose of facilitating the tucking in of the edge of the collapsed spout beneath the permanent partial closure section, score line 27 is preferably impressed across the bottom 16 and the sections 17a and 18a of the side walls on the spout. This score line is preferably parallel to the hinge of the spout and in the present instance is spaced back from the free edge of the spout at a distance of from one-quarter to one-third of the total length of the bottom wall 16. When the spout is moved to collapsed condition to serve as a closure for the dispensing opening, the edge portion thereof between the score line 27 and the end of the bottom 16 may be bent somewhat downward by the fingers to permit it to be tucked in beneath the permanent closure section. The connection between side walls 17 and 18 and the bottom 16 of the spout causes the parts 17a and 18a when in collapsed condition to lie relatively close to the under surface of the bottom 16 so that in bending downward the edge of the bottom 16, it will also be necessary to some extent to bend the extremities of the sections 17a and 18a of the sides. The tendency of these portions of the sides, however, is to resist deflection of the bottom 16 of the spout so that the result is that when the edge of the bottom 16 is inserted beneath the permanent closure section there is a tendency for it to at least partially regain its original plane form. This tends to prevent the spout from becoming accidentally displaced and, thus, substantially insures that the carton will remain closed until the spout is forcefully opened by grasping the sides with the fingers and pulling upward.

While the use of score lines in the sections 17a and 18a of the side walls is preferred for the sake of simplifying the manufacture and use, such score lines are not necessary and may, if desired, be dispensed with, in which case the score line would extend only across the bottom 16.

In order to still further increase the flexibility of the outer free edge of the bottom 16 of the spout, a small slit 28 is preferably formed adjacent to a corner of the bottom 16 and in alignment with the score line between the bottom and one of its adjacent side walls.

The outer edge of the bottom 16 may be somewhat rounded, as indicated at 29, whereby the introduction of this edge beneath the flaps 22 and 23 is somewhat facilitated.

In the use of the carton of the present invention, the bottom flaps are sealed after which the carton is filled. The dispensing spout is then moved to closed position over the dispensing opening, and the flaps 21, 22 and 23 are brought down to permanent position and glued. It is to be noted that in moving the collapsed dispensing spout first into closed position and then sealing the flaps 22 and 23, the extensions 22a and 23a on these flaps will overlie the edge of

the collapsed spout. While this procedure is not always necessary, it is considered preferable.

In some instances it is found very desirable to first seal the top flaps after which the carton is filled while in inverted position. The bottom flaps are then sealed in a usual manner and the carton is ready to be wrapped.

The carton, after being filled and sealed, is preferably enclosed in an outer wrapper 30 which may contain the label identifying the contents and may also contain directions for opening the dispensing spout and using same. When an outer wrapper is used, this wrapper will serve as a retaining device for the spout in the event the edge of the spout is not tucked in below the edge of the permanent closure section.

It is apparent that the carton of the present invention provides a dispensing opening of maximum size without requiring the use of any excessive amount of stock in cutting out the carton blanks. This is due to the fact that the flaps at both the top and bottom of the carton are not greater in length than the width of the end wall. At the same time, however, by providing extensions on the flaps 22 and 23, in a position overlying the lower part of the sides 17 and 18 of the spout (see Fig. 5), it is possible to provide a retaining member for the spout end, at the same time, utilize substantially the full length of the flap forming the bottom 16.

While the present description sets forth a preferred embodiment of the invention, certain changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

This application is a substitute for my abandoned application, Serial Number 130,661, filed March 13, 1937.

I claim:

1. A dispensing carton comprising a bottom, two side walls, two end walls, a permanent top closure section connected to the side walls and extending from an end wall inwardly and terminating short of the other end wall at one edge to provide a dispensing opening, said permanent top closure section having its said edge extending beyond the length of its connections to the side walls whereby to overhang the box interior, a movable pouring spout adapted in one position to serve as a closure for the dispensing opening, said pouring spout comprising a bottom and two side walls carried respectively by the end and side walls of the carton adjacent to the dispensing opening, the side walls and bottom of the spout being defined from the walls of the carton by score lines on which said walls are adapted to swing, the side walls of the spout being scored thereacross at an angle of forty-five degrees from the upper edges of the carton side walls whereby the side walls of the spout will collapse inwardly to permit the bottom of the spout to fold flat over the dispensing opening and close the same, the bottom of the spout being of a length sufficient so that the edge portion will somewhat underlie the said edge of the permanent closure section to retain the dispensing spout in closed condition, and the bottom of the spout also having a score line impressed therein, generally parallel with, but spaced from, its free edge whereby the end portion of the spout may be bent down to facil-

itate tucking in under the permanent closure section.

2. A dispensing carton comprising a bottom, two side walls, two end walls, a permanent closure section extending from an end wall and terminating short of the other end wall to provide a dispensing opening, a pouring spout comprising an extension hinged to the top edge of the end wall adjacent to the opening and forming the bottom of the spout, extensions joined to the side edges of the bottom of the spout, said extensions being foldable to a collapsed condition on the inner face of the spout bottom when it has been moved to a position to close the dispensing opening, a score line impressed in the bottom of the pouring spout at a distance from the outer end thereof to facilitate the downward deflection of the end portion of the spout to permit insertion of the end beneath the adjacent edge of the permanent closure section, the side extensions on the spout extending to the outer end of the bottom and tending to resist deflection of the end of the spout whereby, after the end of the spout has been inserted beneath the edge of the permanent closure section, the side extensions will tend to cause the bottom of the spout to return to its original undeflected form, there being a slit formed between the bottom panel of the pouring spout and a side wall thereon extending a short distance back from the free end of the spout to thereby further facilitate downward bending of the free edge portion of the spout.

3. A dispensing carton comprising a bottom, two side walls, two end walls, a permanent closure section having one marginal edge attached to and extending from one end wall toward the opposite end wall and having its opposite marginal edge terminating short of the other end wall to provide a dispensing opening, the other marginal edges of said permanent closure section being secured to the side walls from said one end wall to within a relatively short distance of said opposite marginal edge of said permanent closure section and being free from said side walls over said short distance, a pouring spout comprising an extension hinged to the top edge of the end wall adjacent to the opening and forming the bottom of the spout, extensions joined to the side edges of the bottom of the spout, said extensions being foldable to a collapsed condition on the inner face of the spout bottom when it has been moved to a position to close the dispensing opening, the free end portion of the bottom and side extensions of the pouring spout, when in collapsed condition, being adapted to be bent downward to permit insertion of the end

of the spout beneath the said opposite marginal edge of the permanent closure section.

4. A dispensing carton comprising a bottom, two side walls, two end walls, a permanent closure section extending from an end wall and terminating short of the other end wall to provide a dispensing opening, a pouring spout comprising an extension hinged to the top edge of the end wall adjacent the opening and forming the bottom of the spout, extensions joined to the side edges of the bottom of the spout, said extensions being foldable to a collapsed condition on the inner face of the spout bottom when it has been moved to a position to close the dispensing opening, a score line impressed in the bottom of the pouring spout at a distance from the outer end thereof to facilitate the downward deflection of the end portion of the spout to permit insertion of the end beneath the adjacent edge of the permanent closure section, the side extension on one side of the spout extending to the outer end of the bottom of the spout and tending to resist deflection of the end of the spout whereby, after the end of the spout has been inserted beneath the edge of the permanent closure section, the said one side extension will tend to cause the bottom of the spout to return to its original undeflected form, the other of said side extensions being joined to the other side of the spout over a distance terminating short of the outer end of the spout.

5. A dispensing carton comprising a bottom, two side walls, two end walls, a permanent closure section extending from an end wall and terminating short of the other end wall to provide a dispensing opening, a pouring spout comprising an extension hinged to the top edge of the end wall adjacent the opening and forming the bottom of the spout, extensions joined to the side edges of the bottom of the spout, said extensions being foldable to a collapsed condition on the inner face of the spout bottom when it has been moved to a position to close the dispensing opening, the side extensions on the spout extending to the outer end of the bottom and tending to resist deflection of the end of the spout whereby, after the end of the spout has been inserted beneath the edge of the permanent closure section, the side extensions will tend to cause the bottom of the spout to return to its original undeflected form, there being a slit formed between the bottom panel of the pouring spout and a side wall thereof extending a short distance back from the free end of the spout to thereby facilitate downward bending of the free edge portion of the spout.

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