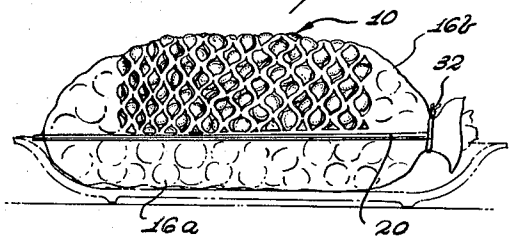
April 12, 1966 W. B. CRANE 3,245,606

SLIT PACKAGING BAG

Filed Nov. 13, 1963

Fig. 1



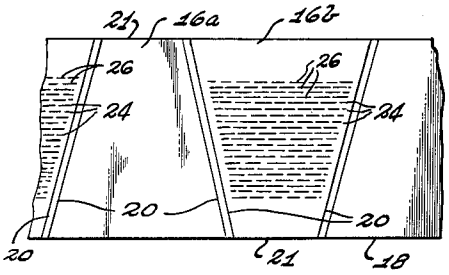


Fig. 1a

Fig. 3

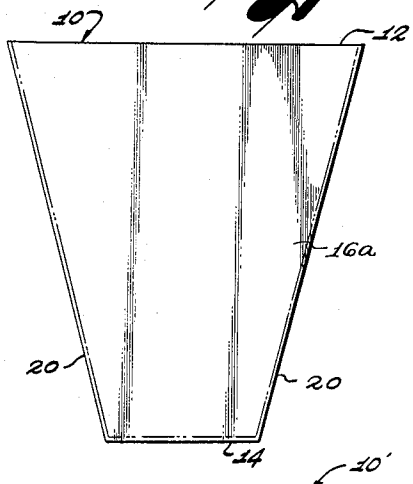
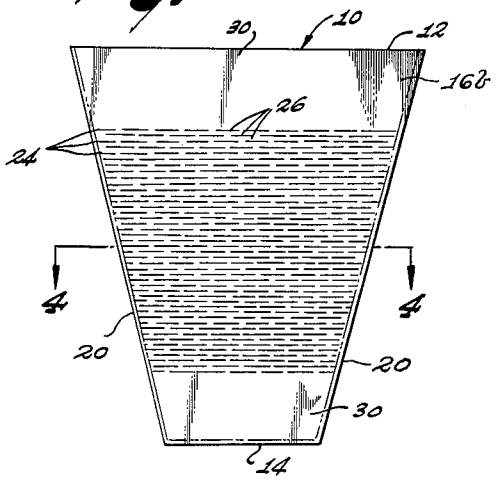


Fig. 2



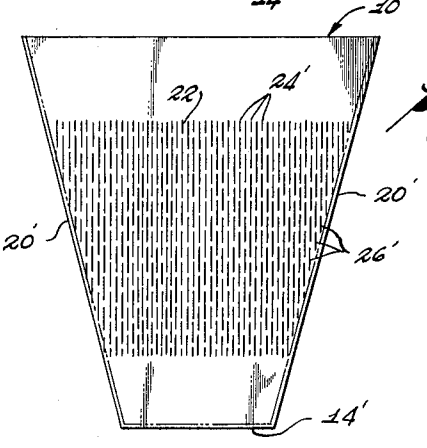
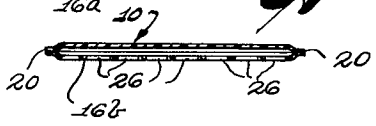


Fig. 5

Fig. 4



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SLIT PACKAGING BAG

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2 Claims. (Cl. 229—53)

This invention relates generally to the packaging art and, more particularly, to a novel packaging bag.

The packaging bag of the present invention is designed primarily for use in packaging grapes and other produce for retail sale. For this reason, the bag is disclosed herein in connection with such use, and specifically in connection with the packaging of grapes. It will become evident as the description proceeds, however, that the present packaging bag may be used to advantage for packaging a wide variety of other articles.

Many and varied packaging means have been devised for packaging grapes and other produce for retail sale. One of the most common methods of packaging grapes, for example, involves simply placing the grapes in a produce basket. However, if the basket is left open, the packaged grapes are prone to separation from the basket, either accidentally or due to handling by shoppers. Accordingly, the grapes cannot be preweighed and stamped with the sales price. To avoid this drawback of open produce baskets, it has been proposed to cover the latter with a transparent film which exposes the packaged grapes to view and, at the same time, inhibits handling of the grapes by the shoppers as well as accidental separation of the grapes from the baskets. Packaging means of this kind, therefore, are satisfactory to the extent that they preserve, to a degree, the integrity of the produce package. These packaging means, however, are disadvantageous from the standpoint of cost, which is relatively high owing to the initial cost of fabricating the basket and film and the subsequent cost of the actual packaging operation.

One method of packaging which avoids this cost disadvantage of film-covered produce baskets involves the use of a packaging bag, the mouth of which is closed in some convenient way to retain the packaged produce therein. Generally, such packaging bags are transparent to expose the produce to view and are perforated to provide adequate ventilation for the produce.

It is a general objects of this invention to provide an improved transparent packaging bag, a wall portion of which is slit in such a way that the bag can stretch or expand to accommodate and conform to the packaged articles, thereby to create a finished package of unique and pleasing appearance.

A related object of the invention is to provide a slit packaging bag of the character described which is particularly suited to packaging produce and wherein stretching of the bag during packaging widens the slits into ventilation openings.

A highly important object of the invention is to provide a slit packaging bag of the character described wherein the slit portion of the bag wall occupies only a part of the total wall area of the bag and is surrounded by unslit portions of the wall which prevent excessive stretching of the bag and preserve its general overall shape.

Other objects, advantages, and features of the invention will become evident as the description proceeds.

The invention will now be described in detail by reference to the attached drawing, wherein:

FIG. 1 illustrates a present packaging bag filled with packaged articles and having its mouth closed to retain the packaged articles in the bag;

FIG. 1*a* is a view of the blanks from which the bag of FIG. 1 is formed;

FIG. 2 is a view of the packaging bag in FIG. 1 when empty and laid out flat;

FIG. 3 is a view of the reverse side of the packaging bag in FIG. 2;

FIG. 4 is a section taken on line **4**—**4** in FIG. 2; and

FIG. 5 is a view similar to FIG. 2 of a slightly modified packaging bag according to the invention.

The packaging bag **10** illustrated in FIGS. 1–4 of this drawing is made from a sheet or film of thin, pliable, transparent plastic. While the bag may have various shapes, the bag illustrated, which is intended primarily for packaging grapes or the like, has a tapered configuration, corresponding generally to the usual shape of a bunch of grapes. Because of its tapered configuration, the top or open end **12** of the bag has a larger transverse dimension than the bottom or closed end **14** of the bag. Bag **10** is made from the blanks **16***a*, **16***b* illustrated in FIG. 1*a*. These blanks, which may be cut or stamped from a larger plastic sheet or film **18**, are similar in shape and comprise generally trapezoidal-shaped panels. Bag **10** is formed by placing the panels **16***a*, **16***b* with the side edges **20** and end edges **21** thereof in contact and then joining these contacting edges, as by heat sealing them together, to form a bag. The joined panels, then, together form the wall of the completed bag.

According to this invention, a portion **22** of the bag wall is slit in such a way as to afford the bag with the ability to stretch or expand. Thus, in the bag illustrated, panel **16***b* is formed with generally straight and parallel rows **24** of substantially uniformly spaced, collinear slits **26**. The slits in the alternate slit rows are approximately aligned in a direction normal to the rows. The slits in adjacent rows, on the other hand, are offset in the lengthwise direction of the rows a distance such that the center of each slit is located approximately opposite the center of the space between two adjacent slits in each of the two adjacent slit rows. This slit pattern affords the slit portion or area **22** of the bag with the ability to stretch or expand in a direction transverse to the slit rows **24**. In the bag under consideration, the slit rows **24** extend transversely of the bag length, whereby the slit portion **22** is adapted to stretch in the lengthwise direction of the bag.

The top and bottom slit rows **24** are spaced from the top and bottom edges of the panel **16***b*, thereby leaving an unslit wall portion or border **30** along the top and bottom of the slit portion **22**. The panel **16***a* of the bag is unslit, as shown. It is evident, therefore, that the dimensions of the unslit back panel **16***a* and the slit front panel **16***b*, measured circumferentially of the completed bag, in any plane normal to the bag length are equal and each is about one-half of the total bag circumference measured in this plane.

In use, the articles to be packaged, such as a bunch of grapes, are inserted into the bag **10** through its open top **12** or mouth. The mouth of the bag is then closed in any convenient way, as by knotting a cord **32** about the bag adjacent the mouth, to retain the packaged articles in the bag. When the articles are inserted into the bag, the slit portion **22** of the bag wall stretches to accommodate the articles, the slits **26** thereby widening into openings, as shown in FIG. 1. When grapes or other produce is packaged, these openings serve as ventilation openings which permit free circulation of air through the bag interior. Owing to the fact that the slit portion **22** of the bag wall stretches in this way, the bag wall and particularly its slit portion tend to conform closely to the packaged articles and thereby produce a finished package of very unique and pleasing appearance.

The unslit back panel **16***a* and unslit borders **30**, completely surrounding the slit portion **22** of the bag as they do, act to limit stretching of the slit portion, as well as

the bag as a whole, whereby the latter is prevented from stretching completely out of shape, as it would do if the bag were slit about its entire circumference. In other words, the unslit portions **16***a* and **30** of the bag will serve to preserve the general overall shape of the bag, whereby the latter can be conveniently used to transport, as well as contain, the packaged articles. In this regard, it is significant to note that the lower unslit portion **30** of the panel **16***b* defines with the unslit panel **16***a* an upwardly opening pocket. When the bag is held in its normal upright position by grasping the closed mouth of the bag, the contents of the bag are supported by this pocket and the major portion of the weight of such contents is carried by the relatively non-stretchable unslit panel **16***a*.

In addition, the unslit back panel **16***a* furnishes a suitable bottom surface for the bag when the latter is placed with its slit side uppermost. For example, when one filled bag is stacked on top of another, the unslit back panel of the upper bag rests on the slit front wall of the lower bag, whereby there is no tendency for the slit portions of the two bags to become snarled or for parts of the packaged articles which may protrude through the slit openings of one bag to become caught in the slit openings in the other bag. Also, of course, the unslit back provides a convenient surface on which to indicate the price and weight of the package.

The modified bag **10'** in FIG. 5 is identical to the bag **10** just described except that the rows **24'** of slits **26'** in the slit portion **22'** of the bag wall extend in the lengthwise direction of the bag. As a result, the slit portion **22'** expands or stretches in a direction transverse to the bag length.

Clearly, therefore, the invention herein described and illustrated is capable of attaining the objects and advantages preliminarily set forth.

What is claimed is:

1. Packaging means, comprising:

a bag having a wall constructed of a thin, pliable, transparent plastic film,

said bag having an open normally upper end and a closed normally lower end,

a portion only of said wall having generally straight and parallel rows of spaced slits, the slits in alternate rows being approximately aligned in a transverse direction of the rows and the slits in adjacent rows being offset lengthwise of the rows, whereby said wall portion is adapted to stretch in said transverse direction, and

the slits adjacent the lower end of said bag being spaced a distance from said lower end, whereby said lower end of the bag defines an upwardly opening pocket for supporting the contents of the bag when the latter is held in its normal upright position and the major portion of the weight of said contents is carried by the unslit portion of the bag wall.

2. Packaging means, comprising:

a bag composed of two similarly shaped panels of thin, pliable, transparent plastic film having side and bottom edges joined to form a bag with an open normally upper end and a closed normally lower end,

one of said panels only having generally straight and parallel rows of spaced slits, the slits in alternate rows being approximately aligned in a transverse direction of the rows and the slits in adjacent rows being offset lengthwise of the rows, whereby said one panel only is adapted to stretch in said transverse direction, and

the slits in said one panel adjacent the lower end of said bag being spaced a distance from the joined bottom edges of said panels to provide said one panel with a lower solid portion which defines with the other panel an upwardly opening pocket for supporting the contents of the bag when the latter is held in its normal upright position, whereby the major portion of the weight of said contents is carried by said other panel.

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