

April 28, 1959

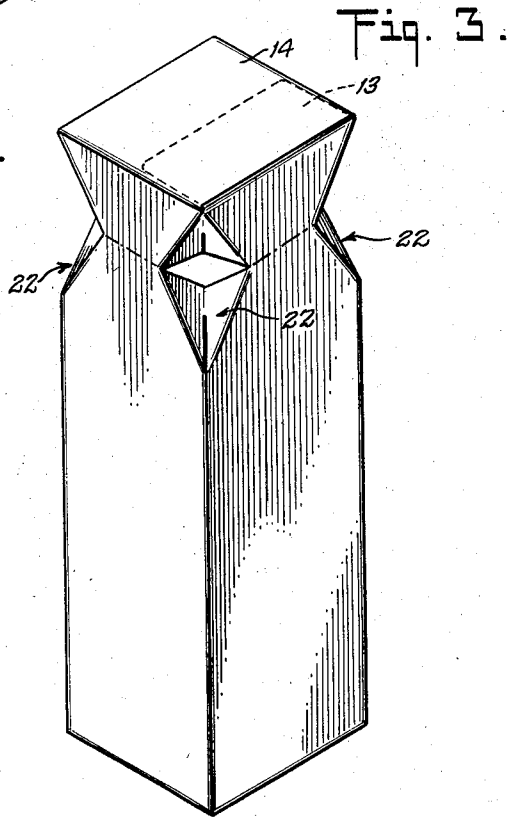
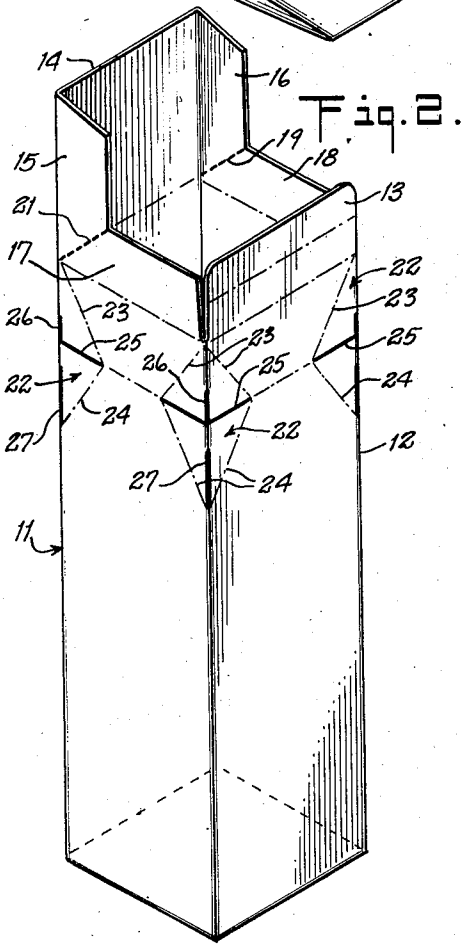
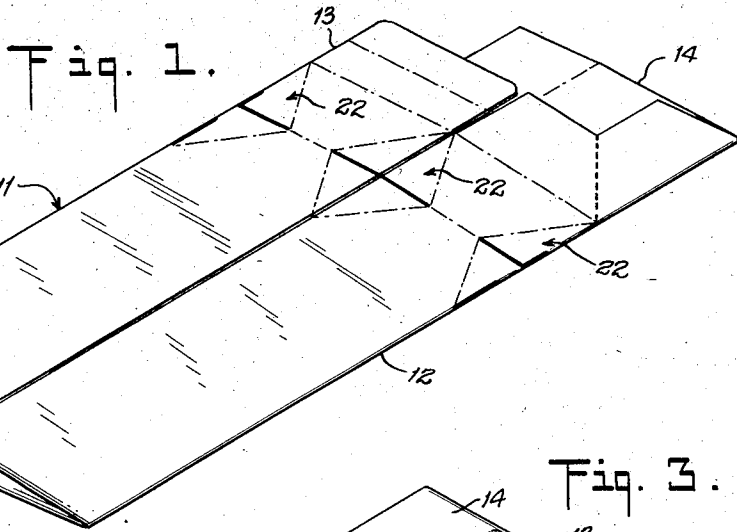
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2,884,181

CARTON FOR BOTTLES OR THE LIKE

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3 Sheets-Sheet 1



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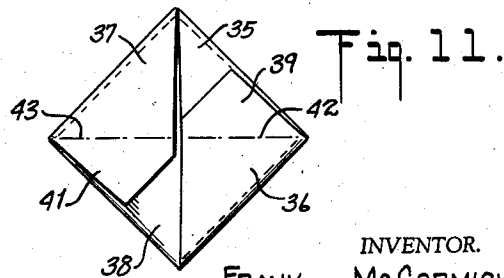
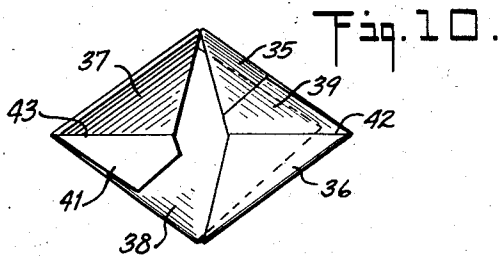
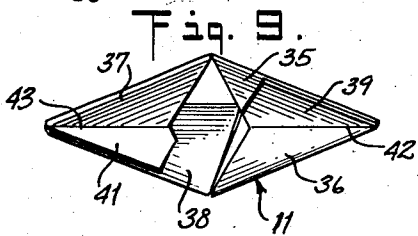
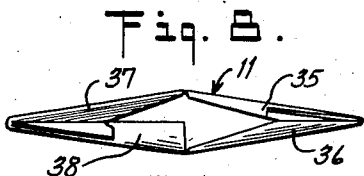
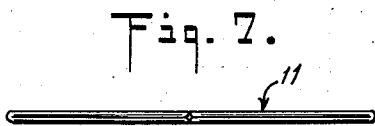
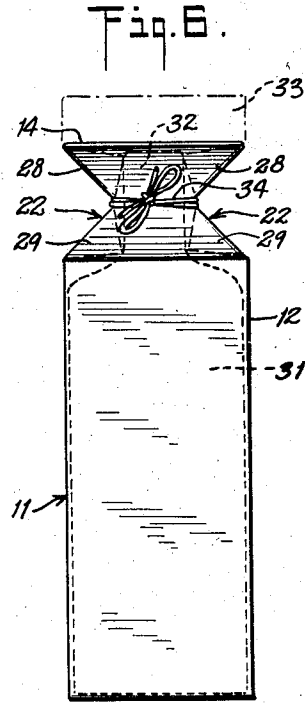
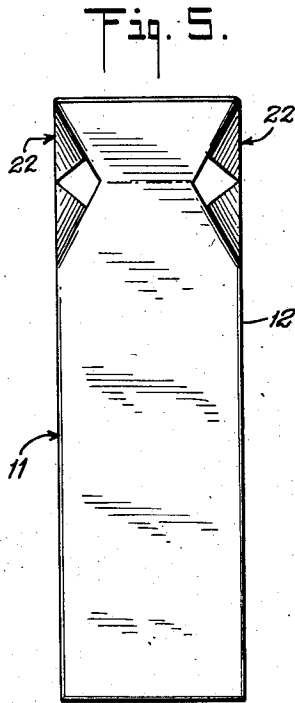
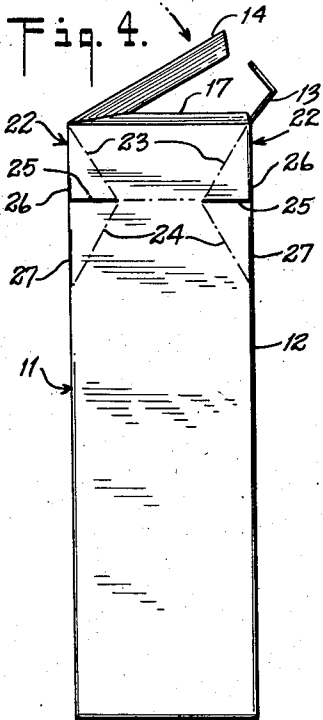
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CARTON FOR BOTTLES OR THE LIKE

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3 Sheets-Sheet 2



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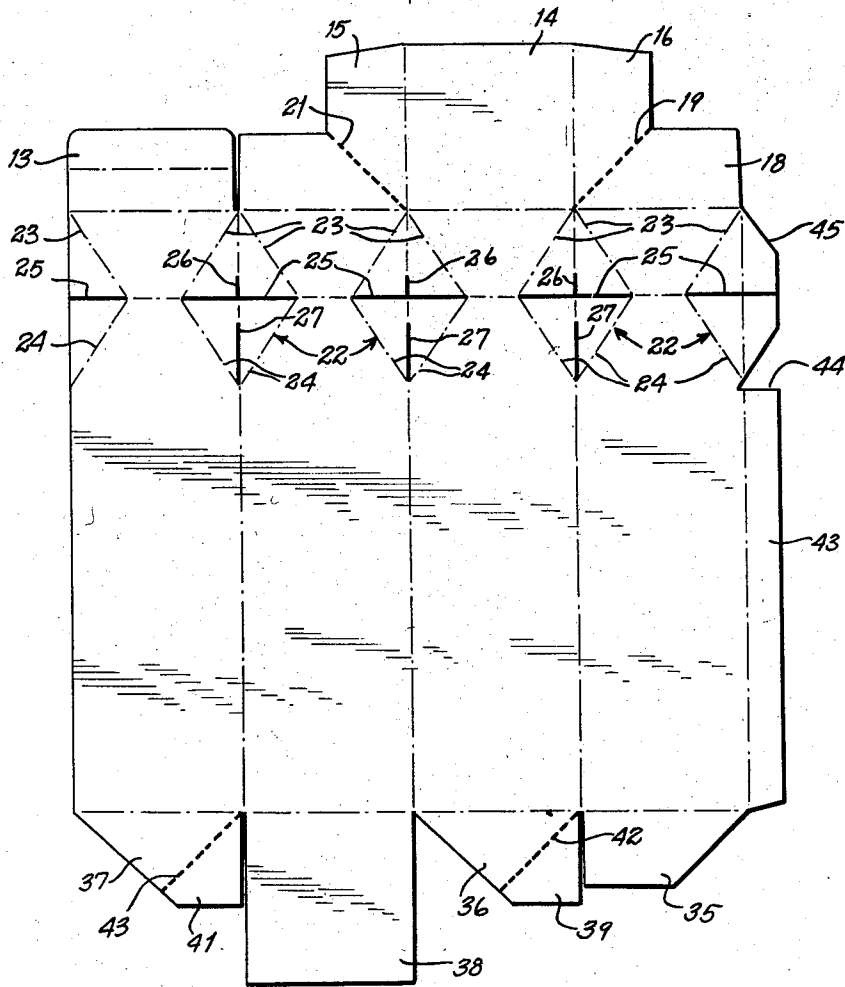
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Fig. 12.



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CARTON FOR BOTTLES OR THE LIKE

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Application May 9, 1957, Serial No. 658,146

2 Claims. (Cl. 229—41)

The present invention relates to cartons and particularly to such cartons which are adapted to securely retain necked bottles or the like.

It is an object of the present invention to provide a carton particularly adapted to securely package a necked bottle in a carton of simple and inexpensive construction and which presents an attractive appearance.

It is another object of the present invention to provide a carton which may be folded flat for shipping and storage, but which may be readily spread open to receive a bottle and thereafter closed to securely package the bottle therein.

It is still another object of the present invention to provide a carton for bottles or the like with an integral constriction to secure the neck of the bottle contained therein.

It is a further object of the present invention to provide a carton for bottles or the like with an integral foldable section which may be folded inward to provide a constricted section in the carton for securing the contents thereof.

It is still a further object of the present invention to provide a carton as described above which may be tied about the constricted section with a decorative tie piece wherein the tie piece will be prevented from slipping out of place by the presence of the constricted section of the carton.

Other objects and advantages will be apparent from consideration of the following description in conjunction with the appended drawings in which—

Fig. 1 is an isometric view of a carton according to the present invention, said carton being collapsed or folded as for storing or shipping.

Fig. 2 is an isometric view of a carton according to the present invention, said carton being open to receive contents therein.

Fig. 3 is an isometric view of a carton according to the present invention, with the top of the carton closed.

Fig. 4 is a side elevational view of a carton according to the present invention, in its unfolded condition but before the indentations in said carton are depressed.

Fig. 5 is a side elevational view of a carton according to the present invention, with the top closed and the indentations depressed.

Fig. 6 is a side elevational view of a carton according to the present invention, closed and secured by a tie and further shows in dotted lines the position of a bottle within said carton.

Fig. 7 is a bottom end view of the carton of Figs. 1 through 6 in the fully folded position.

Fig. 8 is a bottom end view of the carton of Figs. 1 through 6 one-quarter unfolded.

Fig. 9 is a bottom end view of the carton of Figs. 1 through 6 one-half unfolded.

Fig. 10 is a bottom end view of the carton of Figs. 1 through 6 three-quarters unfolded.

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Fig. 11 is a bottom end view of the carton of Figs. 1 through 6 fully unfolded.

Fig. 12 is a plan view of the blank from which the carton of Figs. 1 through 11 may be constructed.

Referring now to Fig. 1, a carton 11 is shown constructed according to the principles of the present invention. The body 12 of the carton 11 is formed in the shape of a rectangular tube which is shown collapsed in Fig. 1. The carton of Fig. 1 is thus of rectangular cross-section when unfolded as shown in Fig. 2. However, it should be understood that a triangular carton, or in fact a carton having a cross-section in the shape of a polygon of any other number of sides can be constructed according to the present invention.

A flap 13 and a cover 14 are provided at the top of the carton 11 to provide a closure for the carton.

The details of the carton 11 are better shown in Fig. 2. The cover 14 is provided with cover side flaps 15 and 16. Inner flaps 17 and 18 are formed from extensions of the carton body 12. Diagonal flat fold lines are provided at 19 and 21 so that the cover 14, slide flaps 15 and 16, and inner flaps 17 and 18 may all be simultaneously folded downward into a horizontal plane as shown in Figs. 4 and 5. The flaps 15 and 16 cooperate with the cover 14 to provide a slot for the insertion of flap 13 to retain the cover 14 in closed position and provide a complete closure for the carton. The particular cover or closure shown in Figs. 1 through 4 is not essential to the present invention in itself and any suitable closure might be provided for a carton according to the present invention.

Foldable indentations 22 are provided in each vertical edge of the carton body 12. The indentations 22 are located at the top of the carton body 12 in the particular embodiment shown. It is obvious however that depending upon the conformation of the contents desired to be packed in the carton the indentations 22 could be located at any point along the vertical edges of the carton.

In the particular embodiment of the invention illustrated, the foldable indentations 22 are formed by providing a cut 25 extending across each edge of the carton body 12 and by fold lines 23 and 24 extending obliquely upwardly and downwardly from the ends of the cut 25 to points on the edge of the carton body 12.

To facilitate the inward folding of the foldable indentations 24, slots 26 and 27 may be provided along the edge of the carton body 12. The slots 26 and 27, obviously cannot extend the full length of the respective halves of the foldable indentation. As an alternative to the slots 26 and 27 shown in the carton illustrated, perforated fold lines might be provided in some instances. The corner fold existing at the edge of the carton would in some cases be adequate for the inwardly folding indentation and in such case no special perforated or other fold line need be provided.

The indentation shown in the carton illustrated is particularly desirable for certain applications to provide a carton of neat and attractive appearance. However, it is obvious that half of the indentation shown could be omitted. In other words, rather than a diamond shape foldable indentation section a section of triangular shape conforming substantially to half the indentation illustrated could be used.

The manner in which the indentation may be pressed inwardly to form the constriction in the carton is shown in Fig. 3. To further secure the carton and to provide a further constriction in the carton a tie 34 may be placed around the carton at the location of the indentations 22 as shown in Fig. 6. By utilizing the tie 34 as shown in Fig. 6 a particularly secure and attractive carton is provided. When the carton is tied as in Fig. 6

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the indentations 22 fold to provide inwardly extending flaps 28 and 29 within the carton. These flaps in fact form braces which may be designed to bear against a portion of the contents of the carton 11 to retain it more securely in place.

A further advantage accrues from using a tie 34 for the carton 11 in that the top of the carton is depressed by the compression of the sides of the carton body 12. The top of the carton therefore is lowered by an amount indicated by dotted lines at 33 in Fig. 6 and thus the carton may be designed so that the placing of the tie causes the top of the carton to be pressed firmly down against the contents of the carton such as the bottle illustratively shown at 31 in Fig. 6.

It will be seen from Fig. 6 that a carton according to the present invention is particularly adapted as a container for bottles in that the flaps 28 bear against the upper portion of the neck 32 of the bottle 31, the flaps 29 support the lower portion of the bottle neck and the shoulder of the bottle, and the top of the carton may be pulled down to press firmly against the top of the bottle 31 and prevent sliding of the bottle within the carton. Although a string tie 34 is shown at Fig. 6 the carton may be tied by any suitable means. Accordingly, the term tie will be understood to include any string or ribbon and also elastic bands or any other device suitable for compressing the carton. As previously pointed out the tie for the carton may be omitted in some circumstances.

Figs. 7 through 11 show a particularly desirable bottom structure for the collapsible carton of Figs. 1 through 6. The carton 11 is shown folded flat or collapsed in Fig. 7.

In Fig. 8 the carton 11 is shown one-quarter unfolded showing the triangular bottom flaps 35, 36 and 37 and also the rectangular carton bottom 38.

In Fig. 9 the carton 11 is shown one-half unfolded. Connecting tabs 39 and 41 are provided for fastening together triangular flaps 35 and 36 and for fastening triangular flap 37 to bottom flap 38 respectively. Tab 39 may be formed as an extension to flap 36 and glued to flap 35. Similarly, tab 41 may be formed as an extension of flap 37 and glued to the carton bottom 38.

With the construction shown the bottom of the carton may be folded flat inside the carton as shown in Fig. 7, yet when the body 12 of the carton 11 is open the bottom flaps will fold about fold lines 42 and 43 as shown in Figs. 8 through 11 to form a sturdy rectangular carton bottom as shown in Fig. 11. It will be understood that the particular construction of the carton bottom is in itself unnecessary to the present invention and that any suitable bottom can be provided for a carton according to the present invention.

The steps required to pack an object such as a bottle in a carton according to the present invention will now be explained to illustrate the simplicity and convenience provided by the present invention. The carton 11 will normally be shipped or stored collapsed or folded as shown in Fig. 1. The carton may be unfolded causing the bottom of the carton to unfold as shown in Figs. 7 through 11. The complete carton will then assume the shape illustrated in Fig. 2 at which time a bottle or other suitable object may be placed in the container. The indentations of the container may then be pressed inward and the top closed as shown in Figs. 3 and 5. Although it is generally preferable that the indentations be depressed before closing the top, the reverse procedure may be followed in some instances.

In some cases the carton as shown in Figs. 3 and 5 may be utilized without a tie 34 as shown in Fig. 6. However it is thought that it will generally be preferred to tie the carton 11 with a tie 34 as shown in Fig. 6, thereby compressing the sides of the carton tightly about the neck 32 of the bottle 31 and simultaneously causing the top cover 14 of the carton to be lowered into contact

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with the top of the bottle 31. In some instances, it may be desired to slip an elastic band around the top of the carton rather than using the tie 34 as shown in Fig. 6. After placing an elastic band around the carton to compress the sides a decorative tie may be placed around the top of the carton if desired.

In Fig. 12 the flat blank from which the carton 11 may be constructed is illustrated. Fig. 12 is numbered to correspond with the preceding figures and is thought to be generally self-explanatory. It will be noted in Fig. 12, however, that a flap 43 may be provided on the blank for joining the edges of the blank to form a tubular carton body 12. The flap 43 may be glued or otherwise fastened to the opposite side of the carton blank. To avoid interference of flap 43 with the adjacent indentation section 22, notches 45 and 44 may be cut in flap 43. A double thickness of the carton along the fold lines of the indentation sections 22 adjacent to flap 43 is thereby avoided.

From the foregoing description and explanation it will be seen that a carton is provided which provides a particularly secure and attractive package for articles of non-uniform cross-section. Cartons according to the present invention are particularly adapted to provide a secure and attractive package for bottles without adding unduly to the expense or the complexity of the bottle package.

Modifications to the particular embodiment of the carton shown by the way of illustration have been suggested, and other variations and modifications to the particular embodiment shown will be obvious to those of ordinary skill in the art. Accordingly, the present invention is not to be considered to be limited to the particular embodiment of the invention illustrated and described, but is rather to be limited solely by the appended claims.

What is claimed is:

1. A collapsible carton for enclosing contents of non-uniform cross-section comprising four sides, diamond shaped indentation sections near the top of said carton and located at each of the edges formed by the junctions of said sides, each said indentation section comprising a horizontal slit across the horizontal diagonal of said diamond, fold lines forming the outline of said diamond, and fold lines along the vertical edge of said carton coinciding with the vertical diagonal of said diamond; a tie encircling said carton thereby being adapted to have a tie placed at said indentation sections to compress the sides of said carton to form a constriction in the cross-section of said carton; a carton top; and a carton bottom assembly comprising a rectangular bottom flap hingedly attached to the bottom edge of a first side of said carton, a first triangular flap hinged to the bottom edge of a second of said sides adjacent said first side, and a tab hingedly attaching said first triangular flap to said rectangular bottom flap along a line coinciding with the portion of the diagonal of said rectangular bottom flap extending to the junction of the bottom edges of said first and second sides; whereby said carton is formed with an integral constriction tending to maintain an object of non-uniform cross-section securely in place in said carton and whereby the top, bottom and constricted section are arranged to allow said carton to be folded flat for storage and shipping.

2. A collapsible carton for enclosing contents of non-uniform cross-section comprising four sides, diamond shaped indentation sections near the top of said carton and located at each of the edges formed by the junctions of said sides, each said indentation section comprising a horizontal slit across the horizontal diagonal of said diamond, fold lines forming the outline of said diamond, and fold lines along the vertical edge of said carton coinciding with the vertical diagonal of said diamond; said carton thereby being adapted to have a tie placed at said indentation sections to compress the sides of said carton to form a constriction in the horizontal cross-section of said car-

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ton; a carton top comprising a cover hingedly attached along the top of one of said sides of said carton, side flaps extending from the sides of said cover and adapted to fold against the bottom side of said cover to form a slot to receive a flap, and a top flap hingedly attached opposite 5 said cover and adapted to slide into said slot to retain said cover in closed position; and a carton bottom assembly comprising a rectangular bottom flap hingedly attached to the bottom edge of a first side of said carton, 10 a first triangular flap hinged to the bottom edge of a second of said sides adjacent said first side, a tab hingedly attaching said first triangular flap to said rectangular bottom flap along a line coinciding with the portion of the diagonal of said rectangular bottom flap extending to the junction of the bottom edges of said first and second sides; 15 further triangular flaps hinged respectively to the bottom edges of the third and fourth sides, and a tab hingedly attaching said further triangular flaps along a line coincid-

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ing with the portion of the diagonal of said carton bottom extending to the junction of the bottom edges of said third and fourth sides; whereby said carton is formed with an integral constriction tending to maintain an object of 5 non-uniform cross-section securely in place in said carton and whereby the top, bottom and constricted sections are arranged to allow said carton to be folded flat for storage and shipping.

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