March 3, 1953 T. L. HELLAWELL 2,630,265

DISPLAY CARTON

Filed Aug. 3, 1948 2 SHEETS—SHEET 1

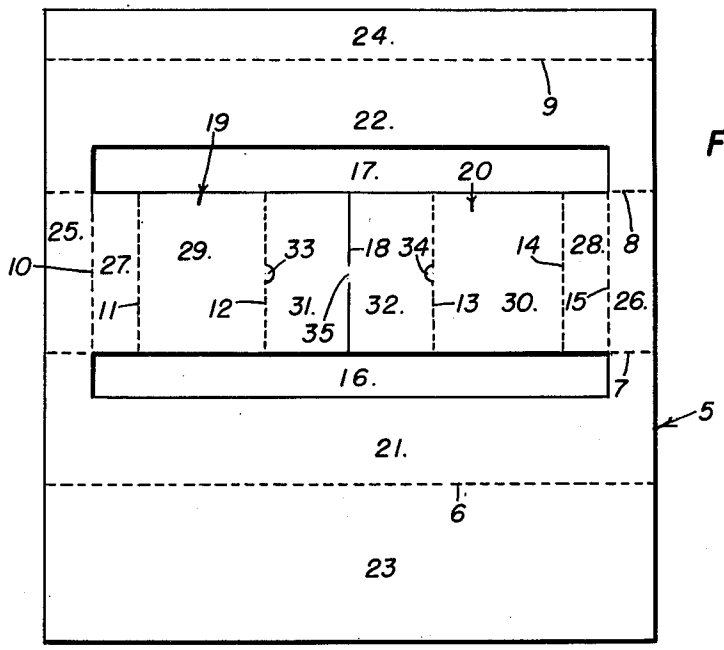


Fig. 1.

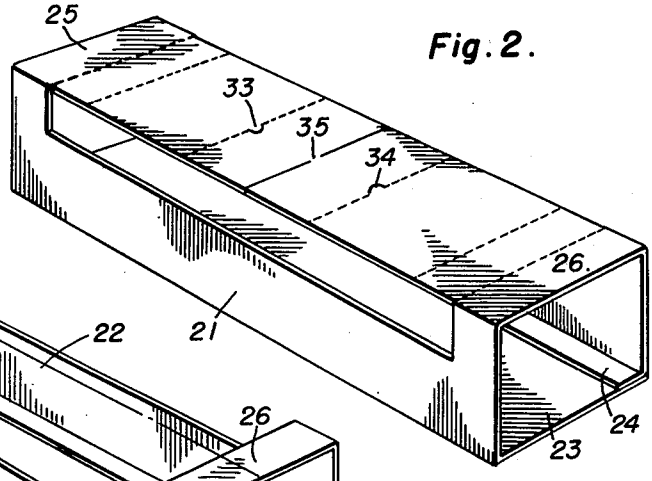
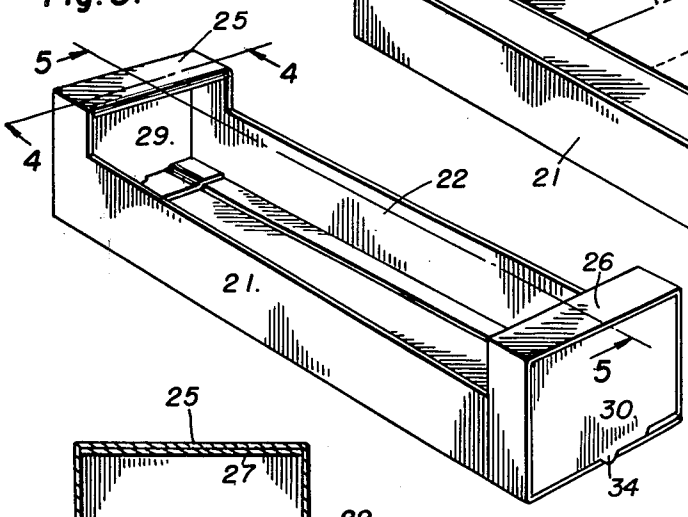


Fig. 2.

Fig. 3.



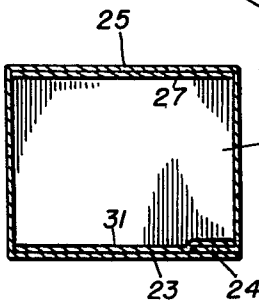


Fig. 4.

Thomas L. Hellawell
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

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DISPLAY CARTON

Filed Aug. 3, 1948 2 SHEETS—SHEET 2

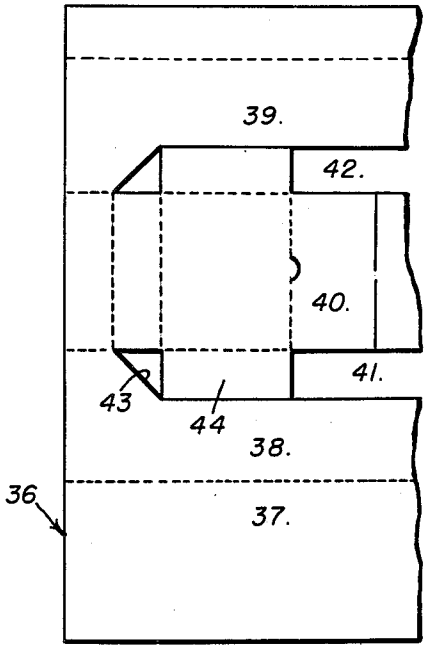


Fig. 6.

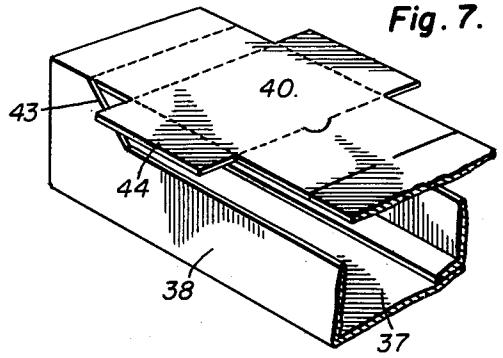


Fig. 7.

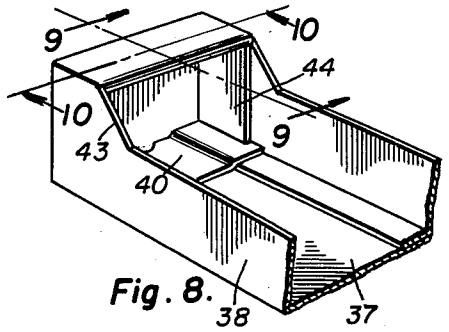


Fig. 8.

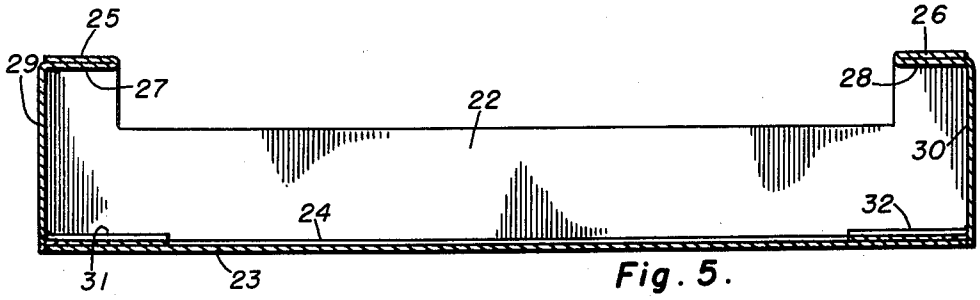


Fig. 5.

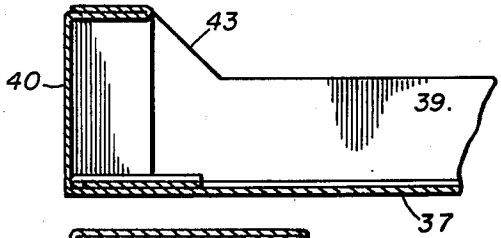


Fig. 9.

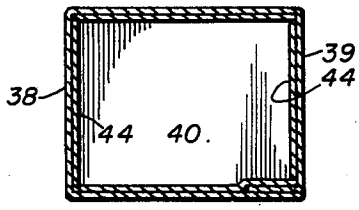


Fig. 10.

Thomas L. Hellawell
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

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UNITED STATES PATENT OFFICE

2,630,265

DISPLAY CARTON

Thomas L. Hellawell, Port Washington, N. Y., assignor to Tuk-Bak Trays, Incorporated, a corporation of New York

Application August 3, 1948, Serial No. 42,291

3 Claims. (Cl. 229—41)

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The present invention relates to new and useful improvements in collapsible display cartons or containers adapted for the display and merchandising of fruits, vegetables and other products.

An important object of the invention is to provide a display container for the sanitary handling and merchandising of food products and in which the carton is constructed of a flat, foldable single sheet of cardboard or other suitable material adapted to be shipped or distributed in knockdown form and which may be readily assembled for the display and merchandising of the product without requiring the use of special tools or other equipment.

A further object of the invention is to provide a display carton cut and assembled from a single cardboard blank in a manner wherein the size of the blank is reduced to a minimum and in which the cutting and assembling is simplified to reduce the time and labor involved.

A still further object is to provide an article of this character of simple and practical construction, which is strong and durable, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a plan view of the cardboard blank from which the carton is cut and assembled;

Figure 2 is a perspective view showing the first step in folding the carton to form a substantially rectangular container;

Figure 3 is a similar view showing the finished carton;

Figure 4 is a transverse sectional view taken substantially on a line 4—4 of Figure 3;

Figure 5 is a longitudinal sectional view taken on a line 5—5 of Figure 3;

Figure 6 is a fragmentary plan view of the blank embodying a modified construction;

Figure 7 is a fragmentary perspective view of the first step in folding the modified form of the invention;

Figure 8 is a similar view of the finished carton;

Figure 9 is a fragmentary longitudinal sectional view taken on a line 9—9 of Figure 8; and

Figure 10 is a transverse sectional view taken on a line 10—10 of Figure 8.

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Referring now to the drawings in detail and first with respect to the form of the invention illustrated in Figures 1 to 5, inclusive, the numeral 5 designates the cardboard blank or other sheet of suitable material from which the carton is formed and which is preferably die cut and die scored during a single operation along the parallel score or fold lines 6, 7, 8, and 9 and along the score or fold lines 10, 11, 12, 13, 14, and 15, extending transversely between the score lines 7 and 8.

Rectangular openings or areas 16 and 17 are cut from the material between the score lines 6 and 7 and between the score lines 8 and 9 and with the score lines 7 and 8 in alignment with one edge of the respective openings 16 and 17. The material between the openings 16 and 17 is severed along a transverse line 18 which separates the material between the openings into a pair of flaps designated generally at 19 and 20 of equal area.

The blank 5 is folded downwardly along the score lines 7 and 8 to form a pair of side walls 21 and 22 and the side wall 21 is folded inwardly along the score line 6 to form a bottom 23. The side wall 22 is folded inwardly along the score line 9 to form an attaching flap 24 which overlies the bottom 23 and is cemented or otherwise suitably secured thereto.

The material between the score lines 10 and 15 and the adjacent edges of the blank form top panels 25 and 26 at each end of the carton and the flaps or panels 19 and 20 are folded downwardly along the score lines 10 and 15, respectively, and the panels 27 and 28 between the score lines 10 and 11 and the score lines 14 and 15, respectively, are folded upwardly under the top panels 25 and 26, respectively, to form end walls 29 and 30 of the panels between the score lines 11 and 12 and between the score lines 13 and 14, respectively, to close the ends of the carton.

Flaps 31 and 32 at the free end portions of the panels 19 and 20 are folded along the score lines 12 and 13, respectively, to project inwardly and lie on the bottom 23 when the carton is in its erected or assembled position, as shown in Figure 3 of the drawings.

The folding of the panels 19 and 20 to form the end walls of the carton provides an open top for the carton between the top panels 25 and 26 and the removal of the areas 16 and 17 from the side walls 21 and 22 reduces the height of the side walls to expose the products placed in the carton for the effective display thereof.

Locking tabs or tongues 33 are struck from the

panels 19 and 20 along the score lines 12 and 13, respectively, which project downwardly below the lower edge of the end walls 29 and 30 to engage the end edges of the bottom 23 to hold the end walls from accidental inward collapsing movement. The end tabs 31 and 32 bearing against the bottom 23 prevent outward collapsing movement of the end walls.

After the blank has been cut and scored as indicated in Figure 1 of the drawings and the bottom flap 24 secured to the bottom 23 as shown in Figure 2, the side walls 21 and 22 may be folded downwardly into a collapsed position for convenient shipping and storage.

The line of severance 18 is interrupted at its center to provide a connecting portion 35 at the adjoining edges of panels 19 and 20 which holds the panels in connected relation until the carton is ready for assembly and the connecting portion 35 is then broken to separate the panels 19 and 20 for folding downwardly to provide the end walls for the erected or assembled carton.

In the form of the invention illustrated in Figures 6 to 10, inclusive, the blank sheet of material is shown at 36 which is cut and scored to form the bottom 37, side walls 38 and 39 and a top panel 40 at each end of the carton.

The cut-out areas 41 and 42 in the side walls at each side of panel 40 are inclined at their ends, as shown at 43, to slope the upper end edges of the openings in the side walls when the carton is erected.

The panel 40 is formed with flaps 44 at each side edge which fold against an adjacent side wall, as shown in Figures 8 and 9, to further aid in holding the end walls from moving outwardly by pressure of the contents of the carton.

After the carton has been erected and filled with the product to be displayed, the carton is wrapped with a suitable transparent wrapping (not shown) to maintain the contents in a sanitary condition while permitting view thereof.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A collapsible carton comprising a bottom, side walls and an open top except at its ends, top panels at the ends of the carton connecting the side walls, said top panels having foldable free end portions forming end walls closing the ends of the carton, foldable tabs at the side edges and at the lower edges of the end walls and positioned respectively against the side walls and bottom of the carton to hold the end walls from swinging outwardly, and locking tongues struck from the end walls and engaging the end edges of the bottom to hold the end walls from inward movement.

2. A collapsible carton comprising a bottom and side walls, a pair of top panels connected at their outer ends to the upper end edges of the side walls and foldable downwardly under their connected end portions to form a pair of end walls closing the ends of the carton, inwardly foldable bottom tabs on the lower portions of said end walls resting on the bottom of the carton said side walls being reduced in height at a point between the connected portions of said top panels, inwardly foldable tabs carried by said top panels at the side edges of the latter and bearing flatly against an adjacent inner surface of the carton and said last-named tabs also underlying the connected end portions of the top panels and frictionally engaging the bottom tabs to hold the end walls from outward movement, and tongues struck from the top panels and engaging an adjacent end of the carton to hold the end walls from inward movement.

3. A collapsible carton comprising a bottom and side walls, a pair of top panels connected at their outer ends to the upper end edges of the side walls, a severable web connecting the inner ends of the top panels to each other to hold said panels co-planar while the carton is in a collapsed position, said top panels being foldable downwardly under their connected end portions to form end walls for the carton when said web is severed, inwardly foldable tabs carried by said top panels bearing flatly against an adjacent inner surface of the carton to frictionally hold the end walls from outward movement, and tongues struck from the top panels and engaging an adjacent end of the carton to hold the end walls from inward collapsing movement.

THOMAS L. HELLAWELL.

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