Aug. 21, 1956 M. LEVY 2,759,655

KNOCK-DOWN DISPLAY BOX

Filed Dec. 17, 1952 2 Sheets-Sheet 1

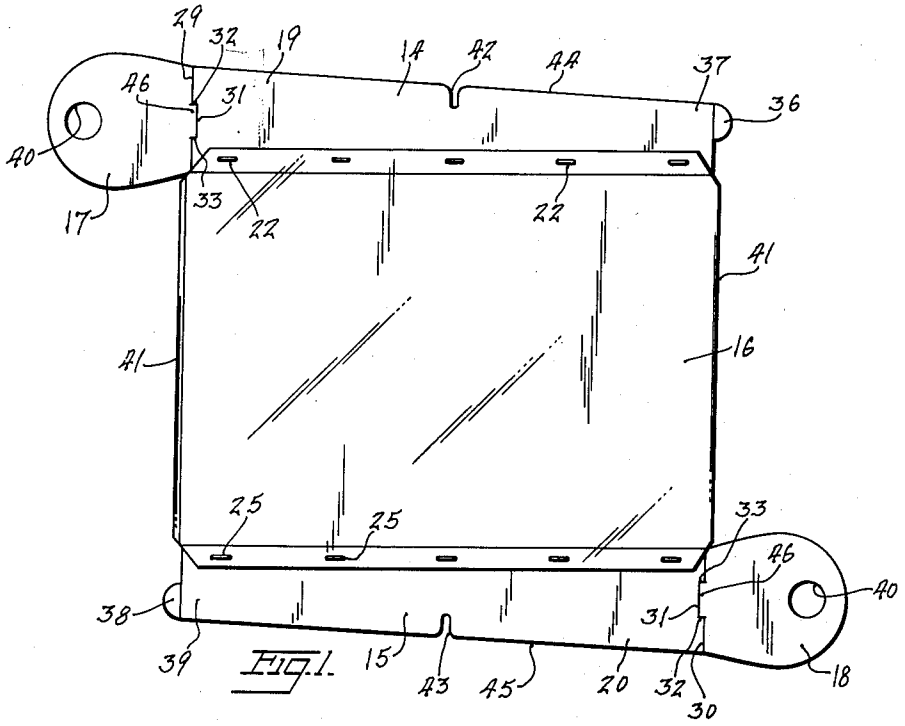


FIG. 1.

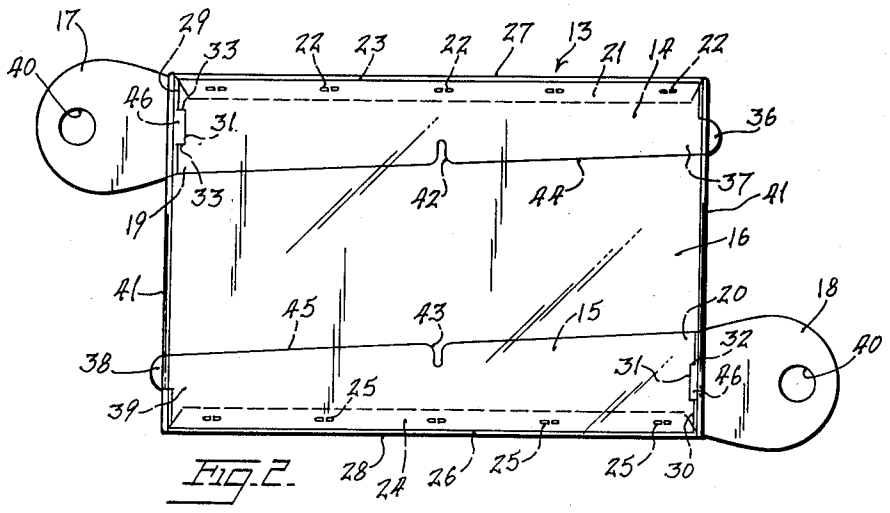


FIG. 2.

INVENTOR.
MILTON LEVY.

BY Zoltan Polachek

ATTORNEY

Aug. 21, 1956 M. LEVY 2,759,655

KNOCK-DOWN DISPLAY BOX

Filed Dec. 17, 1952 2 Sheets-Sheet 2

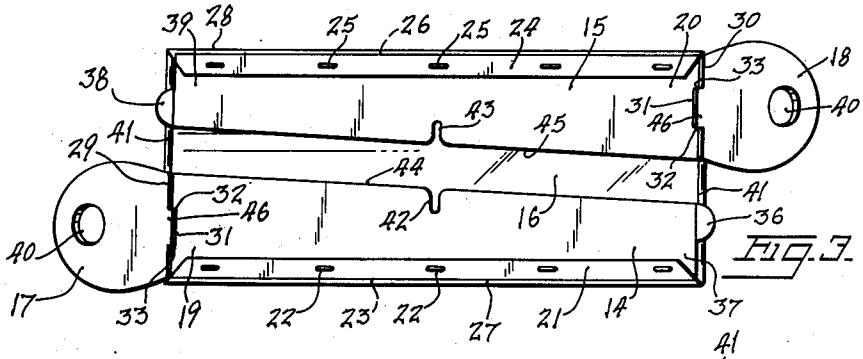


FIG. 3.

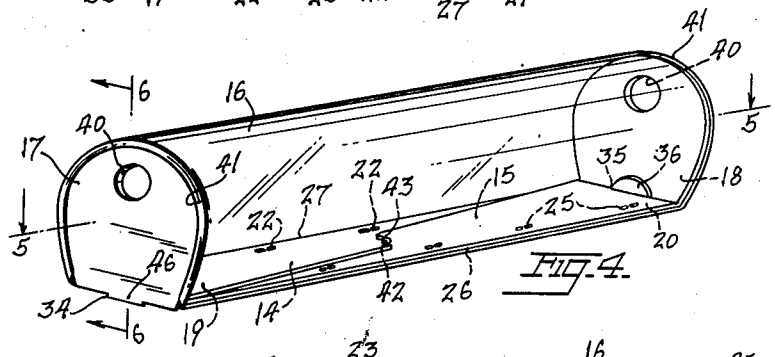


FIG. 4.

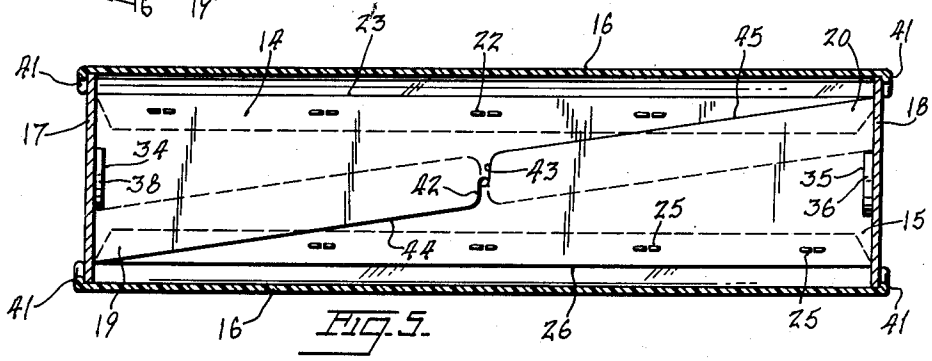


FIG. 5.

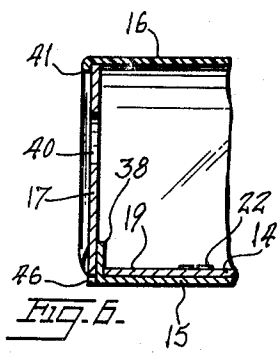


FIG. 6.

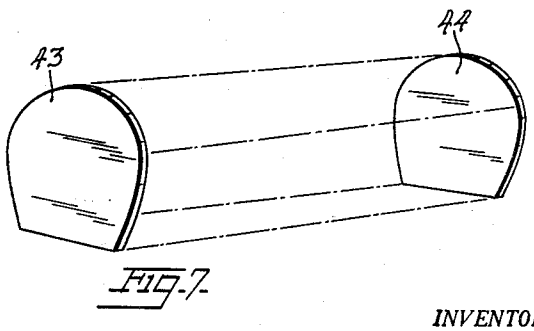


FIG. 7.

INVENTOR.
MILTON LEVY

BY Zoltan Polachek

ATTORNEY

United States Patent Office 2,759,655
Patented Aug. 21, 1956

2,759,655

KNOCK-DOWN DISPLAY BOX

Milton Levy, Woodmere, N. Y.

Application December 17, 1952, Serial No. 326,488

5 Claims. (Cl. 229—41)

This invention relates to new and useful improvements in folding containers, cartons and boxes.

More particularly, the present invention proposes the construction of a new and improved folding container, having two interlocking base sections and a cover section, which can be stacked, shipped and stored as a flat blank of single thickness and which can be quickly and easily assembled into a container without the necessity of any staples, string or additional fastening devices.

Another object of the present invention proposes forming the cover section of the folding container of flexible transparent plastic and the two base sections of stiff cardboard with die cut interlocking elements so that the entire unit may be made inexpensively and mass produced.

Still further, the present invention proposes constructing the foldable container with end members having finger openings for ease in raising and lowering and to permit free passage of air through the container.

As a further object, the present invention proposes arranging the two base sections of the new folding container in wedge shaped form with the end members or panels on the larger ends and providing the base sections with centrally opposed slots in their free sides so that the larger end of each base section may be superposed on the smaller end of the other wedge shaped base section, coacting tab locking elements being also provided to hold the base sections securely in such position.

The present invention further proposes a novel arrangement of a folding box which can be used as a display container, box or carton for packaging hair brushes, powder puffs, items of clothing, or food products such as bakery goods or produce.

For further comprehension of the invention and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a plan view of a blank for forming the folding container of the present invention.

Fig. 2 is a view similar to Fig. 1 but showing the two base sections folded under the center cover section.

Fig. 3 is a bottom view illustrating the method of folding and assembly of the container.

Fig. 4 is a perspective view of the container after assembly.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 4.

Fig. 6 is a fragmentary enlarged sectional view taken on line 6—6 of Fig. 4.

Fig. 7 is a perspective view of two end pieces which may be inserted in the container on each side of the contents of the container to block the holes in the end members when this is desired.

Referring more particularly to the drawing, the new and improved container is composed of a blank 13 having two wedge shaped base sections 14 and 15 and a cover section 16. The base sections 14 and 15 have end panels

or members 17 and 18 respectively. End panel 17 is hinged to the larger end 19 of base section 14 and end panel 18 is hinged to the larger end 20 of base section 15.

Preferably the base sections 14 and 15 and the cover section 16 are formed in three pieces as shown with the cover section 16 having one side portion 21 connected as by staples 22 to side 23 of base section 14 and having its other side portion 24 connected as by staples 25 to side 26 of base section 15. The base sections 14 and 15 preferably are made of stiff cardboard or fibreboard and the cover section 16 of transparent flexible thermoplastic sheeting. Sheeting of .005 to .020 gauge, inclusive, has been found particularly suitable for this purpose.

The base sections 14 and 15 may be die cut or stamped and joined by staples 22 and 25 (or wire stitches, eyelets, rivets, cement and other fastening devices, not shown) to the cover section 16. Side portions 21 and 24 of cover section 16, to which the sides 23 and 26 of base sections 14 and 15 are secured respectively, are bent under and parallel to the rest of the cover section along crease lines 27 and 28, respectively. Crease lines 27 and 28 may easily be formed in thermoplastic sheeting by means of a heated blade. This may be done by the maker of the blank or by the assembler of the container from the blank. Or this step may be omitted if the material from which the cover section is formed is flexible enough to permit bending without initial creasing.

While end panels or members 17 and 18 may be separate pieces hinged to the base sections, preferably they are formed integral with the base sections as shown. End panel 17 is simply an extension of base section 14 and end panel 18 an extension of base section 15. A score line 29 separates end panel 17 from the base section 14 and a score line 30 separates end panel 18 from base section 15. The fibrous nature of the cardboard or other similar material from which these parts are formed provides a hinge at each scoreline.

Each base section 14 and 15 has a cut 31 adjacent and parallel to its score line with cuts 32 and 33 at the ends of cut 31. The cuts 32 and 33 extend across the scorelines to form together with the cut 31 locking tab openings 34 and 35 when the end members 17 and 18 are raised from the blank.

Base section 14 is provided with a locking tab 36 at its smaller end 37 and base section 15 with a similar tab 38 at its smaller end 39.

End panels 17 and 18 have finger openings 40 extending through them for raising and lowering these end panels in forming, and opening and closing the container. In addition, finger holes or openings 40 serve as means to ventilate the container and permit free passage of air through it. The end panels 17 and 18 are shown of rounded contour but may be of any shape to provide a frame for the flexible cover section of any desired form.

Cover section 16 as shown is an oblong or rectangular thermoplastic sheet. A beaded or rolled edge 41 is formed on each end of the cover section, these ends being of a length to go around the free edges of the end panels.

The base sections 14 and 15 also have centrally opposed slots 42 and 43 in their free side edges 44 and 45 respectively for interhooking to dispose the larger end of each wedge shaped base section over the smaller end of the other wedge shaped base section in superposed relation. (See Figs. 3, 4 and 5.)

To assemble or set up a container from the blank 13, it is necessary only to draw the base sections 14 and 15 together and interhook the slots 42 and 43 with the larger end of each base section superposed on the smaller end of the other base section. The end panels 17 and 18 are then raised and by finger holes or openings 40

pushed inside the cover section **16** and then pulled back until they abut the beaded edges **41** on the ends of the cover section **16**.

Locking tabs **36** and **38** are then bent upwardly and inserted into the locking tab openings **34** and **35** to secure the container in assembled form. It will be noted that the downwardly projecting member **46** below the bottom edges of the end panels **17** and **18**, formed by the cuts **31**, **32** and **33** in the base members provides a guide and end abutment for the locking tabs.

While it will be desirable to have finger openings **49** open for ventilating the container in many instances when such openings are not desired, insertion plates **43'** and **44** (see Fig. 7) may be provided, one plate being inserted in each end of the container between the product (not shown) in the container and the end panels **17** and **18**. The cover section may be slightly precurved from one side to the other to aid in assembly.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. A display container comprising a cover section, tapered base sections secured to said cover section in opposed relation, end panels extending from said tapered base sections, means on said tapered base sections engaging said end panels in locking relation, and opposed slots intermediate the ends of said base sections in interlocking engagement, said end panels being hingedly secured to the base sections, cuts intermediate the ends of said end panels, and said last named means comprising tabs engaging the cuts in the opposed end panels to lock the display carton together.

2. The combination of claim 1, wherein said cover section is rectangular, and one side of each tapered base section is parallel to said rectangular cover section.

3. The combination of claim 2, wherein said cover section includes opposed parallel crease lines, and said parallel side of each tapered base section also includes crease line, the cover section and base section crease lines overlapping each other, and fastening means joining said crease lines together.

4. The combination of claim 3, wherein said end panels include finger openings.

5. The combination of claim 4, and including insertion plates for said end panels.

References Cited in the file of this patent

UNITED STATES PATENTS

1,545,771	Hout	July 14, 1925
1,951,249	Little	Mar. 13, 1934
2,283,406	Bacon	May 19, 1942
2,290,144	Katz	July 14, 1942
2,455,795	Murphy	Dec. 7, 1948
2,481,302	Fogel	Sept. 6, 1949
2,591,276	Middleton et al.	Apr. 1, 1952

FOREIGN PATENTS

653,687	Great Britain	May 23, 1951
653,688	Great Britain	May 23, 1951