

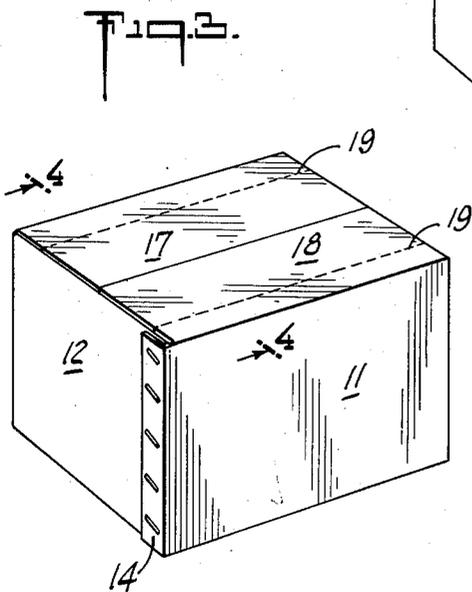
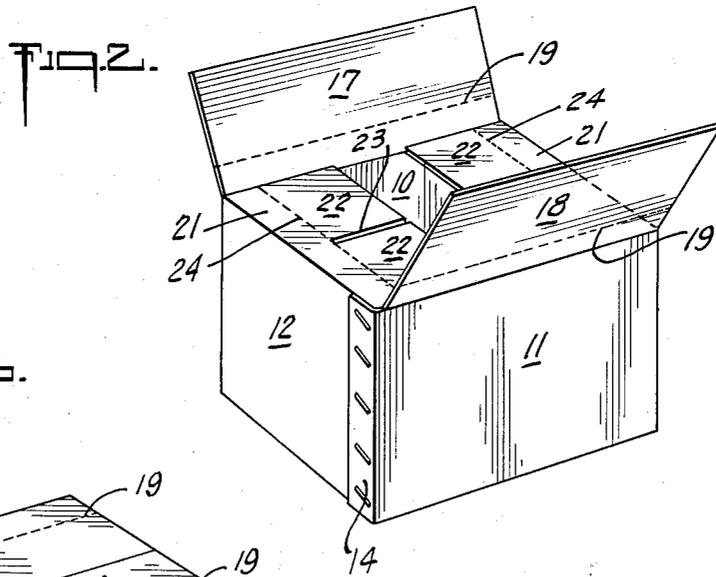
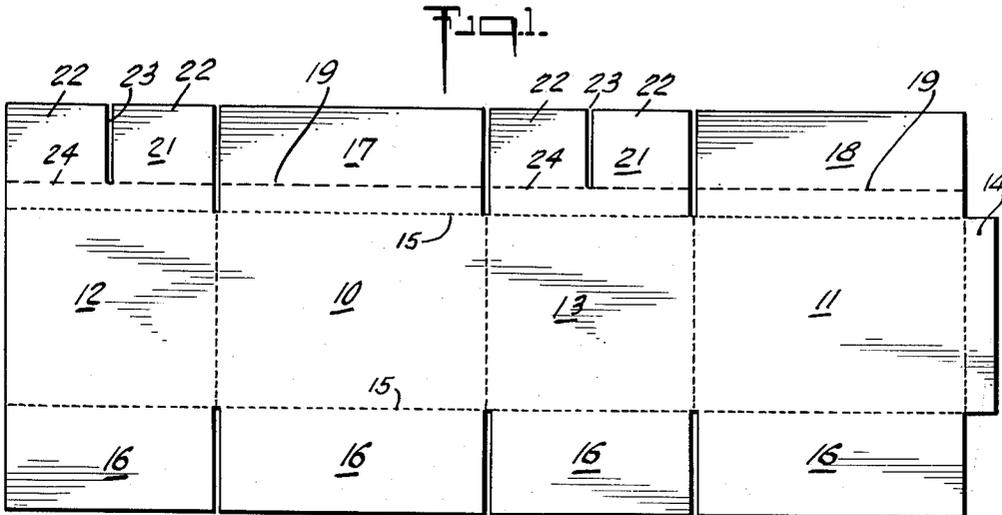
July 19, 1955

J. H. NUTE ET AL
EASY OPENING CONTAINER

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3 Sheets-Sheet 1



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Fig. 4.

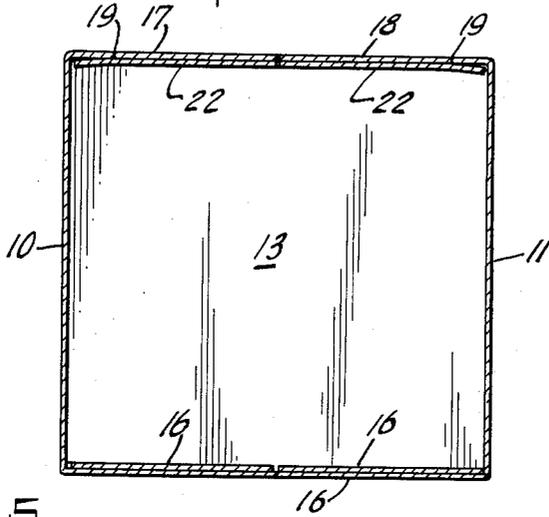


Fig. 5.

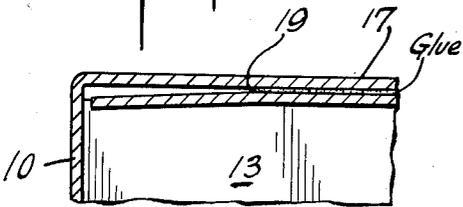


Fig. 6.

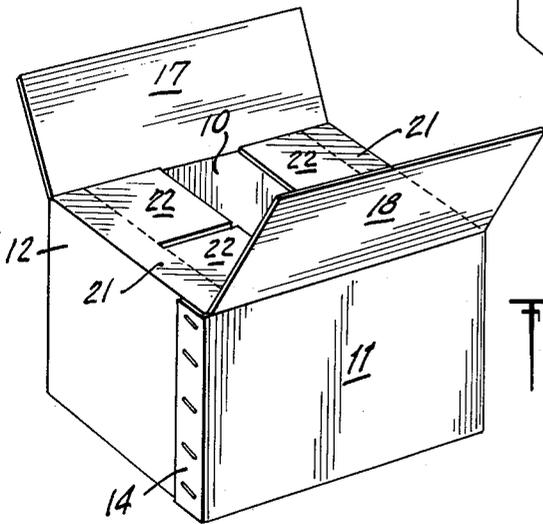
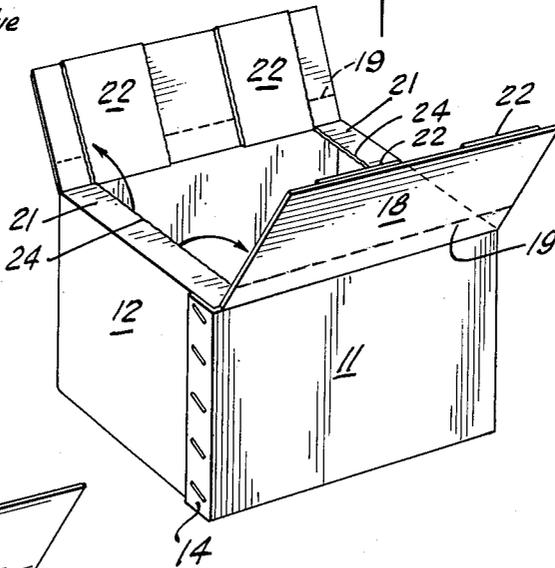


Fig. 7.

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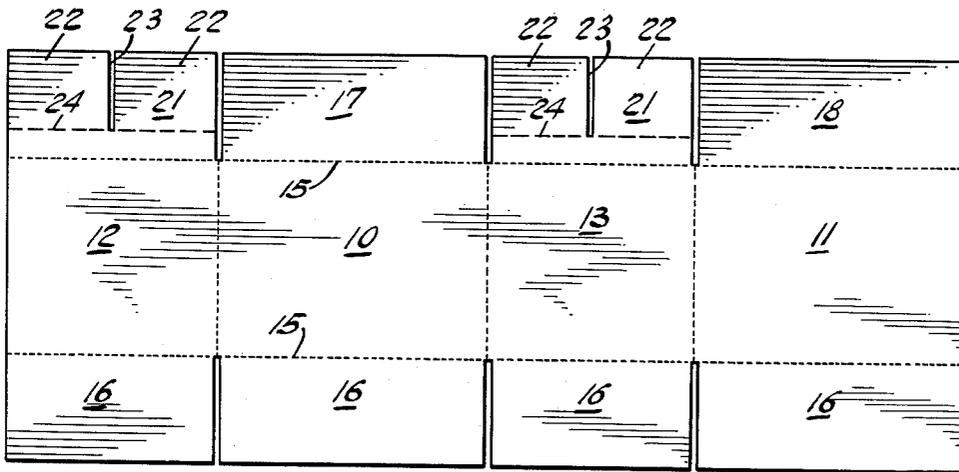
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3 Sheets-Sheet 3

Fig. 8.



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EASY OPENING CONTAINER

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5 Claims. (Cl. 229—51)

The present invention relates to a container, preferably a shipping container, which may be opened easily.

In containers of corrugated and solid fiber paperboard customarily used for shipping articles such as canned foods, the container is ordinarily a regular slotted carton glued at the overlapped top and bottom flaps over large areas so that it is rather difficult to open the box by pulling on the top flaps. Sometimes a sharp device is used to completely cut off the top of the box, but besides requiring the availability of the cutting instrument, a possibility of damage to the contents exists. Various modifications of the containers have been proposed to facilitate opening, such as installing tear strips in the container, but such devices are expensive and not always completely satisfactory in opening the box. It is also at-times desirable to remove only a small portion of the contents, and in that event, it is desirable that the top of the container remain intact and be available for folding back to close the container. In addition, it is desirable to have a neatly opened box for use as a carry-out box by the customer. Alternatively, it may be desirable to remove the top for display purposes or for ease in marking the merchandise.

It is therefore an object of the present invention to provide a device for easily opening containers having overlapping glued flaps.

It is a further object of the present invention to provide a device for easily and neatly opening containers having overlapping glued flaps wherein no portion of the container is necessarily removed.

It is a further object of the present invention to provide a container having overlapping glued flaps which may be easily opened and which may have substantially the whole top neatly removed for display purposes.

These and other objects are achieved by the present invention. The invention will be more readily understood by reference to the attached drawings illustrating preferred embodiments of the invention, but it will be understood that variations and substitutions may be made within the scope of the claims. In the drawings:

Fig. 1 is a plan view of a container blank;

Fig. 2 is a perspective view of the blank of Fig. 1 assembled, but with the top only partially closed;

Fig. 3 is a perspective view of the container illustrated in Figs. 1 and 2 with the top completely closed;

Fig. 4 is a cross-sectional view taken on the lines 4—4 of Fig. 3;

Fig. 5 is a fragmentary cross-sectional enlargement of one corner of the container illustrated at Fig. 4;

Fig. 6 is a perspective view of the container with the top torn open, and;

Fig. 7 is a perspective view similar to Fig. 2 of an alternative container with the cover partially closed.

Fig. 8 is a plan view of a container blank adapted to form a container similar to that shown in Fig. 7, but adapted to be fastened by a tape.

With reference to the drawings, it will be seen that there is illustrated a modified slotted carton comprising

side walls 10 and 11 and end walls 12 and 13 as well as a glue or stitch flap 14, each defined from the other by fold or score lines 15. Continuous with the walls 10, 11, 12 and 13, and defined therefrom by fold lines 15 are the bottom flaps 16. Continuous with side walls 10 and 11 are outer top flaps 17 and 18, respectively defined from the walls 10 and 11 by fold lines 15, and containing perforated tear lines 19, preferably located nearer the fold line than the outer edge of the flap.

Continuous with ends 12 and 13 and separated therefrom by fold lines 15, are inner top flaps 21, each comprising two substantially equal portions or tabs 22 divided by a slot 23 and extending from the outer edge of the flap inwardly to a perforated tear line 24 which may, in the blank, be continuous with tear lines 19 in the flaps 17 and 18.

In the assembly of the container, the four ends and sides are folded to a rectangular form and the glue flaps adhered to an end wall by gluing or stapling as illustrated. Alternatively, other fastening means such as a tape could be substituted. The bottom flaps 16 are folded inwardly and secured as by gluing, but these in turn may be stapled or taped. The container is then ready to be filled. After filling, the flaps 21 are folded inwardly and glue placed on the flaps 17 and 18 which are folded and secured to tabs 22. Staples may be used in place of the glue, but whether staples or glue are used, it is important that such fastening means be kept within the areas of tab 22 as is shown more clearly at Fig. 5, such that a marginal edge is left around the container when the top is torn open, as illustrated at Fig. 6. It is also desirable to keep the fastening means within the areas between the tear lines and the outer edges of flaps 17 and 18 so that if it is desired to tear the top flaps along the perforated lines 19 in order to remove the cover for display purposes, no glued surfaces need be delaminated.

An alternative form of the container is shown at Fig. 7 wherein the perforated line 19 is not included, so that the container may be opened as easily as the preferred embodiment, but no perforated line is provided for removing the entire top for display purposes.

In order to open the container all that is necessary is to insert a finger between the two outer flaps and lift smartly. The inner flaps then separate on the lines of perforation 24 and the container opens neatly, easily and quickly. The thus opened flaps 17 and 18 may be easily removed by tearing along the perforations 19.

It will be understood by those skilled in the art that the container may be made of any material suitable for the purpose, including corrugated and solid fiber paperboard, and while the invention is directed primarily to a shipping container, it may apply as well to a folding carton. It will also be understood that while the container illustrated is a regular slotted carton having a boxmakers' corner, the invention may be applied to other types of containers having overlapping closure flaps. If desirable, the invention can be applied to both the top and the bottom of a container.

The advantages of the present invention are many. The invention provides a container which is easily folded and closed. By means which are so inexpensive as to be negligible, there is provided a container which may be easily opened by pull on either of the top flaps. This is accomplished without a tear strip or any other extraneous device. It is also possible by the present invention to easily remove substantially the entire top of the box neatly so as to present an attractive appearance if used for display purposes. The invention eliminates the need for the use of any cutting tool. The invention further permits easy reclosure of the top after opening. The invention can be installed in regular manufacturing operations. The container after being opened and having the

contents removed provides a neat carry-out box for customer use.

While the drawings indicate the slot 23 forming two equal tabs 22, it is within the scope of the invention to move these slots to one side or the other to the extent that the position generally may be described as substantially midway between the lateral edges thereof. A desirable reason for a slightly off-center slot is that if the outer flaps do not come completely together, a portion of the underneath tabs will cover the space between the upper flaps so that the goods will not be uncovered. Another reason is that one of the outer flaps may, if desired, be glued to four of the tabs 22 to two of which the other outer flap is also glued. This glue line extending to the second set of tabs, if used at all, should be relatively narrow so that the container can still be opened by finger pull. Alternatively, it will be understood that it is within the scope of the invention to move the slot 23 off center accompanied by the use of a top flap 17 of a different width than top flap 18. This, however, is somewhat less desirable since the container blank deviates from the rectangular.

It will be appreciated that substitutions and deviations from the description herein, particularly as applied to substitutes for slots, extent of the slots, interchangeability of side and end walls, and the parallel relation of the perforated lines, as well as substitutes for perforated lines, will be obvious to those skilled in the art.

We claim:

1. An easy opening corrugated paperboard rectangular container for articles comprising two oppositely disposed end walls, two oppositely disposed side walls, a bottom and a top, said top comprising end flaps of substantially equal size extending from the said end walls, respectively, and folded toward one another, a perforated tear line extending between the lateral edges of said end flaps parallel to the top edge of said respective end walls and closer thereto than to the outer edges of said end flaps, a slot in each of said end flaps substantially midway between the lateral edges thereof, and extending substantially perpendicularly from the outer edges of said end flaps to the said perforated tear lines therein, side flaps of substantially equal size extending, respectively, from the upper edges of said side walls, said side flaps being folded toward one another to overlie said end flaps with their outer edges substantially abutting, a perforated tear line extending between the lateral edges of said side flaps parallel to the upper edge of the said respective side walls and nearer to said upper edges of said side walls than to the outer edges of said side flaps, and said side flaps being adapted to be glued to said underlying end flaps only in the area of said side and end flaps between the said perforated lines and the outer edges thereof.

2. An easy opening paperboard rectangular container for articles comprising two oppositely disposed end walls, two oppositely disposed side walls, a bottom and a top, said top comprising end flaps of substantially equal size extending from the said end walls, respectively, and folded toward one another, a perforated tear line extending between the lateral edges of said end flaps closer to the top edge of said respective end walls than to the outer edges of said end flaps, a slot in each of said end flaps substantially midway between the lateral edges thereof, and extending substantially perpendicularly from the outer edges of said end flaps to the said perforated tear lines therein, side flaps of substantially equal size extending, respectively, from the upper edges of said side walls, said side flaps being folded toward one another to overlie said end flaps with their outer edges substantially abutting, and said side flaps being adapted to be fastened

to said underlying end flaps only in the area of said end flaps between the said perforated lines and the outer edges thereof.

3. A container blank adapted to be erected to form a container for articles comprising a substantially rectangular sheet of paperboard having four side-by-side panels defined by two opposite edges of the blank and three spaced parallel fold lines parallel to and intermediate said opposite edges, each panel having flaps extending, respectively, from opposite edges of the panel and defined from the panel by fold lines at right angles to said first-mentioned spaced parallel fold lines, the flap on the corresponding edge of each of two alternate panels having a perforated tear line extending between the lateral edges of said flap closer to the fold line defining the flap from the panel than to the outer edge of the flap, and a slot in each of the two perforated flaps substantially midway between the lateral edges thereof, and extending substantially perpendicularly from the outer edge of the respective flap to the said perforated tear line therein.

4. An easy opening paperboard rectangular container for articles comprising two oppositely disposed end walls, two oppositely disposed side walls, a bottom and a top, said top comprising end flaps of substantially equal size extending from the said end walls, respectively, and folded toward one another, a perforated tear line extending between the lateral edges of said end flaps closer to the top edge of said respective end walls than to the outer edges of said end flaps, severing means in each of said end flaps substantially midway between the lateral edges thereof, and extending substantially perpendicularly from the outer edges of said end flaps to the said perforated tear lines therein, side flaps of substantially equal size extending, respectively, from the upper edges of said side walls, said side flaps being folded toward one another to overlie said end flaps with their outer edges substantially abutting, and said side flaps being secured to said underlying end flaps in the area of said end flaps between the said perforated lines and the outer edges thereof.

5. A container blank adapted to be erected to form a container for articles comprising a substantially rectangular sheet of paperboard having four side-by-side panels defined by two opposite edges of the blank and three spaced parallel fold lines parallel to and intermediate said opposite edges, each panel having flaps extending, respectively, from opposite edges of the panel and defined from the panel by fold lines at right angles to said first-mentioned spaced parallel fold lines, the flap on the corresponding edge of each of two alternate panels having a perforated tear line extending between the lateral edges of said flap closer to the fold line defining the flap from the panel than to the outer edge of the flap, and severing means in each of the two perforated flaps substantially midway between the lateral edges thereof, and extending substantially perpendicularly from the outer edge of the respective flap to the said perforated tear line therein.

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