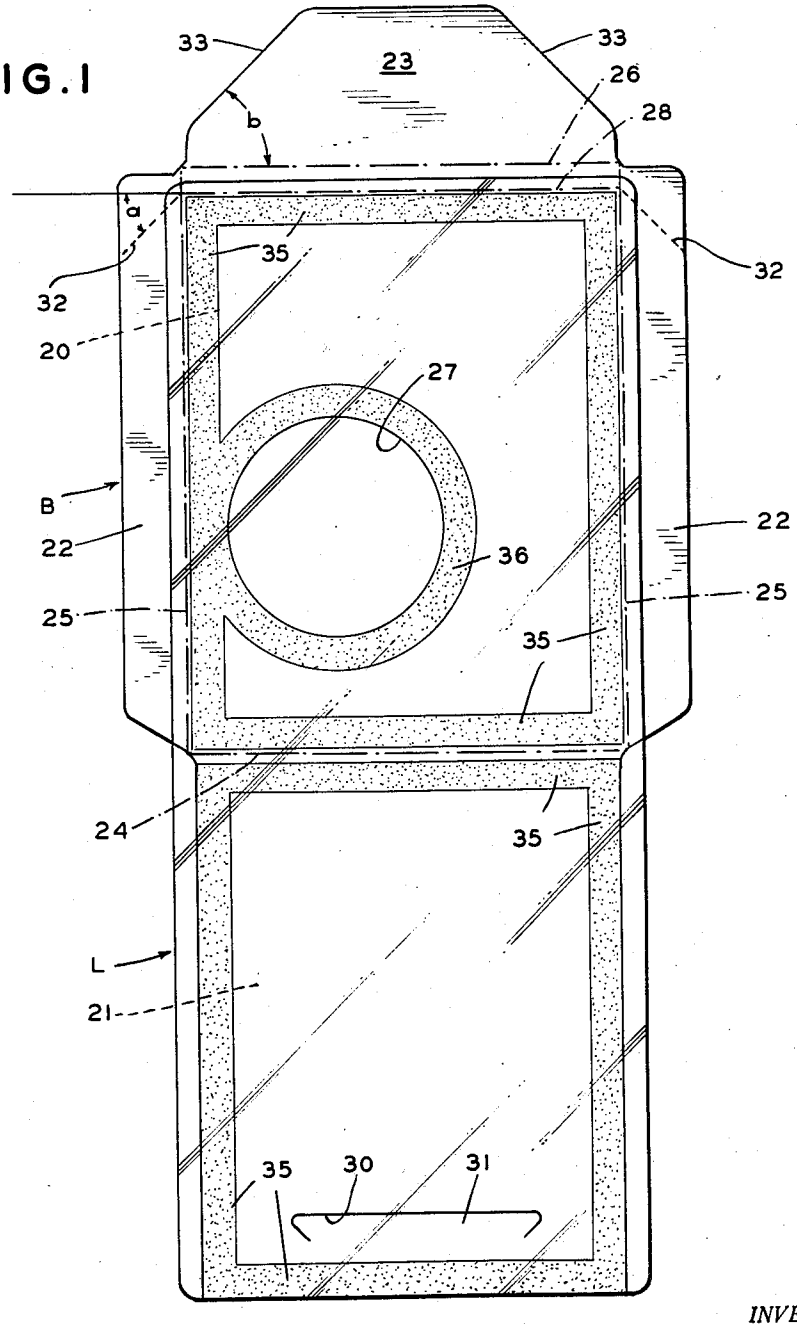
Dec. 23, 1958 O. W. STONE 2,865,555

BOXBOARD CONTAINER

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FIG. 1



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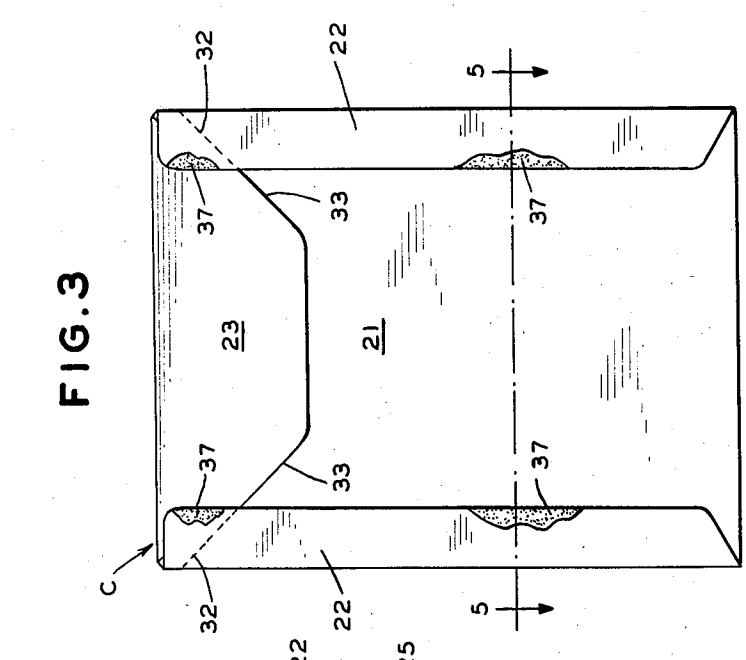


FIG. 3

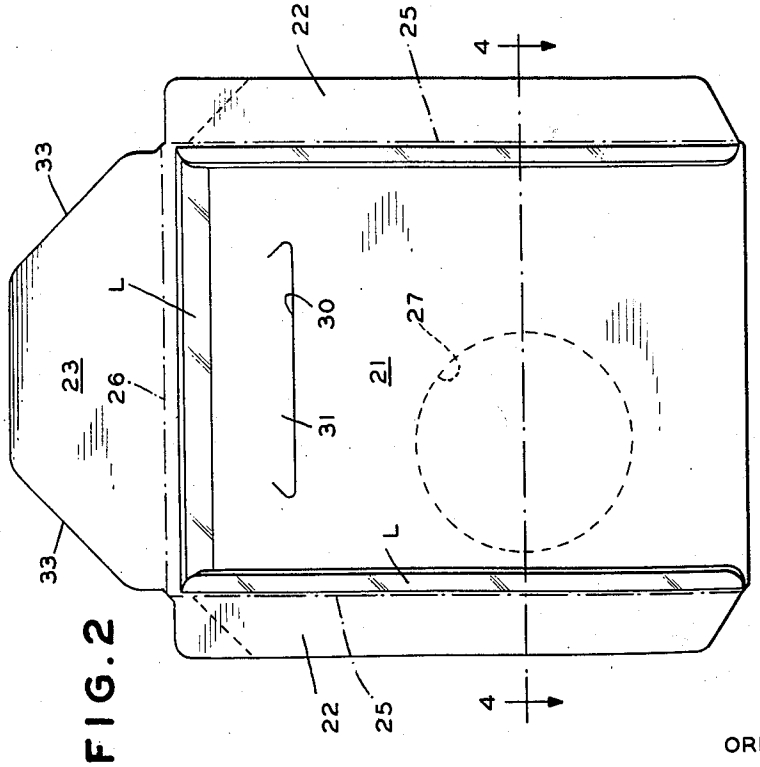


FIG. 2

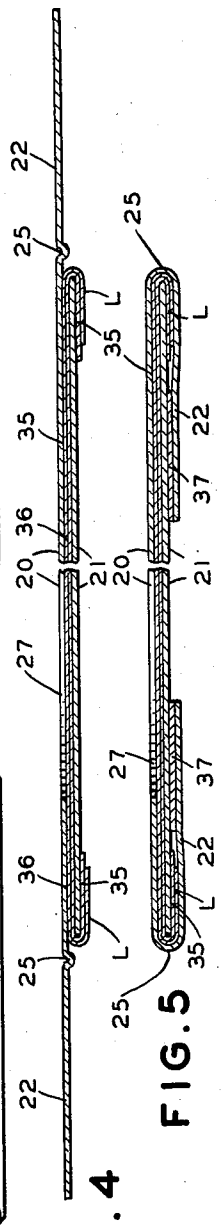


FIG. 4

FIG. 5

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BOXBOARD CONTAINER

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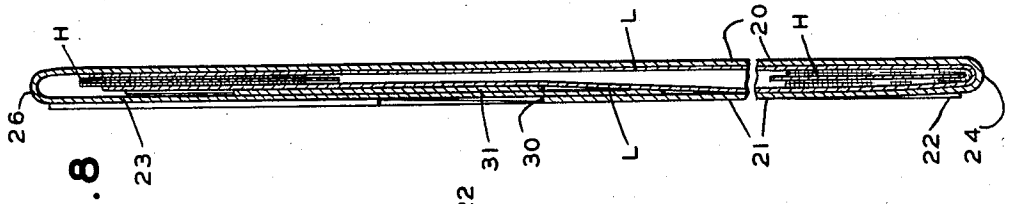


FIG. 8

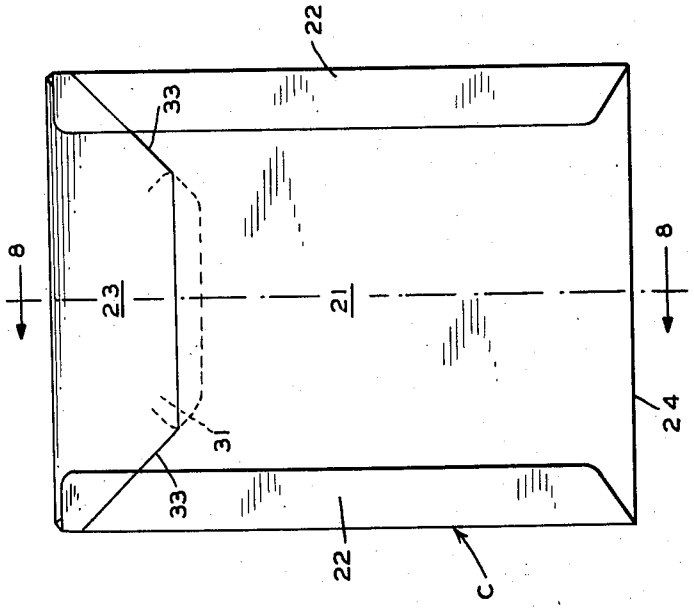


FIG. 7

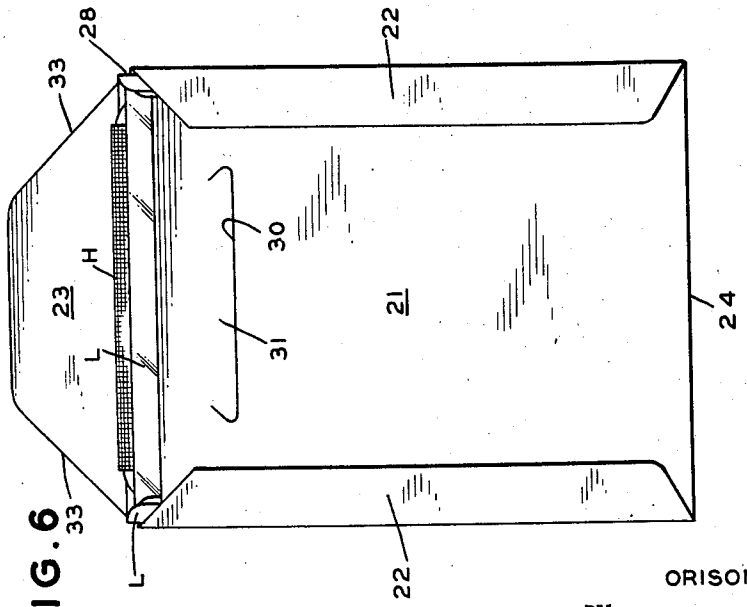


FIG. 6

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BOXBOARD CONTAINER

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FIG. 9

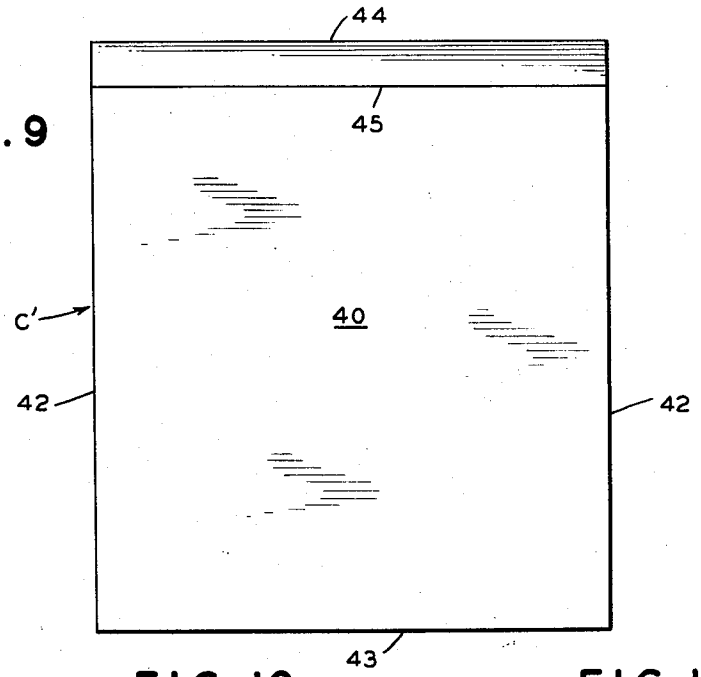


FIG. 10

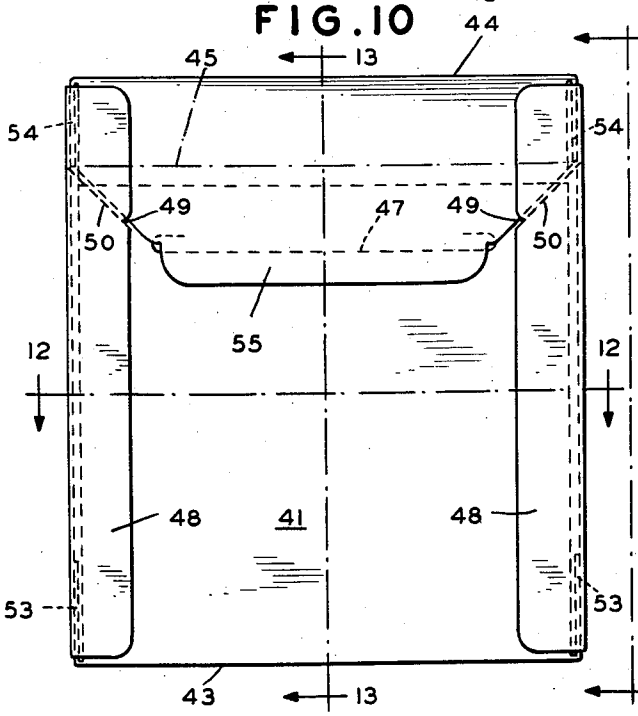
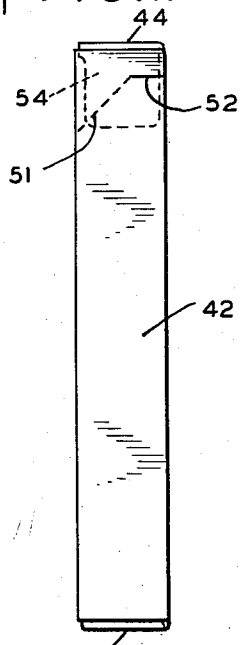


FIG. 11



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BOXBOARD CONTAINER

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FIG. 12

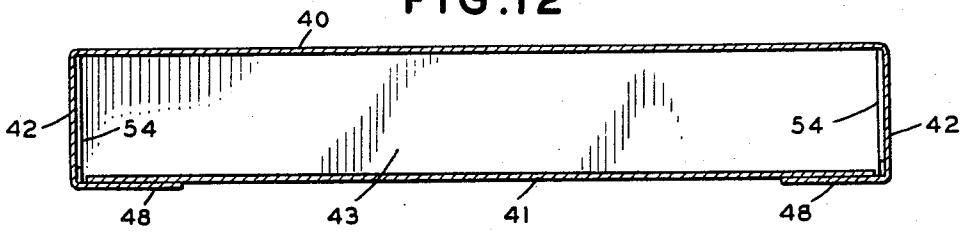


FIG. 13

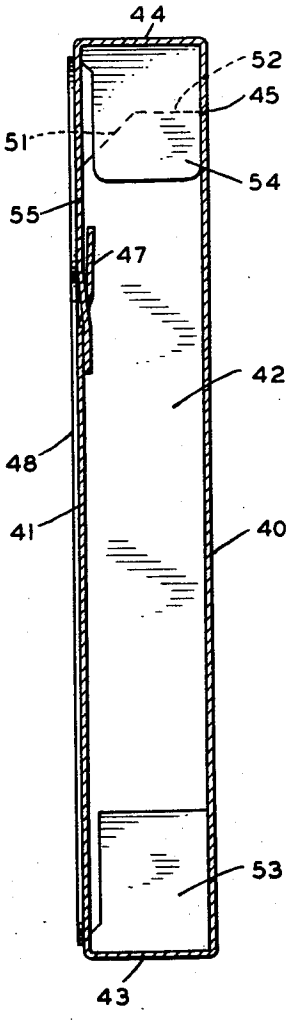


FIG. 14

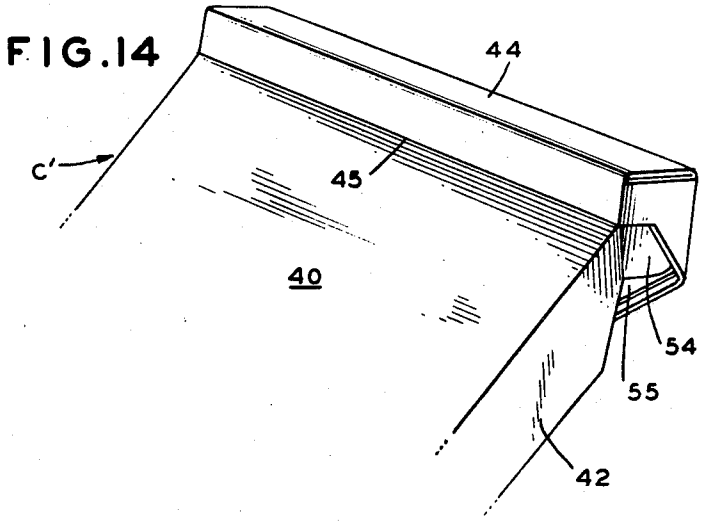
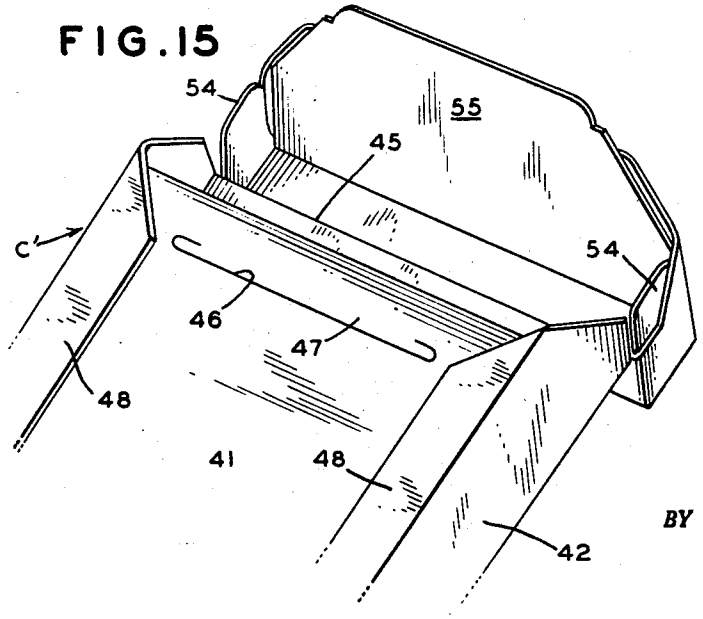


FIG. 15



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United States Patent Office

2,865,555

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BOXBOARD CONTAINER

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Application February 28, 1958, Serial No. 718,226

12 Claims. (Cl. 229—51)

This invention relates to containers for merchandise and pertains, more particularly, to an improved and inexpensive container for readily packaging, adequately protecting and/or attractively displaying merchandise, the parts of the container being so constructed and arranged that, when it is opened, the contents are conveniently accessible and readily extricable.

A container constructed in accordance with this invention may be advantageously employed for packaging a wide variety of solid merchandise including relatively thin and compact articles, such as ladies' hosiery, handkerchiefs and the like, and relatively bulky products including items of wearing apparel, such as shirts, blouses and sweaters, and various food items. The container may have the general form of a flat envelope when used to hold relatively thin and compact items and the general form of a box when used to hold relatively bulky items.

The container of this invention, whether in the form of an envelope or a box, is formed from a blank of a stiff foldable sheet material and is preferably made of a suitable weight and grade of an appropriate boxboard. The blank is generally cruciform in configuration and is provided with a plurality of fold lines to define a first panel which serves as the front wall of the container, a second panel which serves as the rear wall of the container, a top flap and a pair of side flaps.

In the assembled container, the rear wall constitutes an extension of the lower end of the front wall and is disposed behind the front wall; each side flap constitutes an extension of a corresponding side of the front wall and is disposed behind the rear wall; and the top flap constitutes an extension of the upper end of the front wall and is also disposed behind the rear wall. The front wall has a transverse fold line which extends thereacross and is located intermediate its upper and lower ends. The top flap has a pair of downwardly convergent side edges. Each side flap is secured to the rear wall and a corresponding portion of the top flap and is formed with a line of weakness, such as a perforated line, that is substantially coincident with one of the side edges of the top flap. Each line of weakness extends to an end of the transverse fold line.

The parts of the container are so constructed and arranged that the top flap is adapted to be moved away from the rear wall by pulling, to thereby tear the side flaps along the lines of weakness. This permits tilting of the top flap and the upper portion of the container about the transverse fold line relative to the remainder of the container. This fold line is at a predetermined distance below the upper end of the front wall so that, when the container is opened as stated above, the contents project above the rear wall and transverse fold line and are readily accessible for removal.

The container may include a protective liner that is coextensive with the front and rear walls. This liner is preferably made of a thin sheet of a flexible, moisture-proof, transparent, synthetic plastic material, such as cellophane. One or more walls of the container may be provided with an opening which serves as a window for viewing the contents through the transparent protective liner.

It is a primary object of this invention to provide a container having improved structural and design characteristics.

Another object of the invention is to provide a container made from a blank of a suitably stiff foldable sheet material which may be economically cut, folded and assembled to form the container with the aid of conventional equipment.

A further object of the invention is to provide an inexpensive container for readily receiving, adequately protecting and attractively displaying merchandise.

A still further object of the invention is to provide a container of the character indicated which is reasonable in material and manufacturing costs, which is adapted to be readily assembled and closed, which may be easily and quickly opened, which, when opened, permits of convenient access and ready removal of its contents, which may be easily reclosed, and which is capable of performing its intended functions in an entirely satisfactory manner.

The enumerated objects and additional objects, together with the advantages and benefits obtainable by the use of the container of this invention, will be readily understood by persons skilled in the art from the following detailed description taken in conjunction with the annexed drawings, which respectively describe and illustrate several forms of containers embodying the invention.

In the drawings, wherein like reference characters denote corresponding parts throughout the several views:

Fig. 1 is a plan view of a boxboard blank and a superposed protective liner from which an envelope type container of this invention may be made;

Fig. 2 is a rear elevational view of a partially assembled container made from the blank and liner of Fig. 1;

Fig. 3 corresponds to Fig. 2 and shows the container in completely assembled and sealed condition, parts being broken away for better illustration of other parts;

Fig. 4 is an enlarged view taken along line 4—4 of Fig. 2;

Fig. 5 is an enlarged view taken along line 5—5 of Fig. 3;

Fig. 6 corresponds to Fig. 3 and illustrates the container after it has been opened;

Fig. 7 corresponds to Fig. 6 and shows the parts of the container when it has been reclosed;

Fig. 8 is a view in enlargement taken along line 8—8 of Fig. 7;

Fig. 9 is a view in front elevation of a box type container according to this invention;

Fig. 10 is a rear elevation view of the container shown in Fig. 9;

Fig. 11 is a view in side elevation taken along line 11—11 of Fig. 10;

Fig. 12 is a view in enlargement taken along line 12—12 of Fig. 10;

Fig. 13 is a view in enlargement taken along line 13—13 of Fig. 10;

Fig. 14 is an isometric view of the upper portion of the container shown in Figs. 12 and 13, the top parts being shown in partly open position relative to the remaining parts; and

Fig. 15 is an isometric view corresponding to Fig. 14 and illustrates the upper portion of the container as observed from another position.

Reference is first had to Fig. 1 which illustrates a cruciform boxboard blank B and a superposed protective liner L which is preferably made from a sheet of thin, moisture-proof, transparent cellophane or equivalent synthetic plastic material.

Blank B is divided by a plurality of fold lines to define a first panel 20, a second panel 21, a pair of side flaps 22 and a top flap 23. First panel 20 serves as the front wall of the completed container C shown in Fig. 3 while second panel 21 serves as the rear wall of the container. Panel 20 is hinged to panel 21 along a fold line 24. Panel 20 is also hinged to side flaps 22 along fold lines 25 and to top flap 23 along a fold line 26. Panels 20 and 21 are rectangular and may be either oblong or square, as desired. Panel 21 is slightly smaller in size than panel 20.

Panel 20 is provided with a circular opening 27 which constitutes a window for viewing contents of the container. It would be apparent that this opening may be of any desired configuration and size and may be formed in any preferred location in the blank. Panel 20 has a transverse fold line 28 which is intermediate its upper and lower ends. This fold line is preferably a short distance below fold line 26.

Panel 21 has a C-shaped cut 30 to obtain a tab 31 which is movable into or out of the opening defined by the cut. These parts of panel 21 form a slit for the reception of an end portion of top flap 23, as will be explained further along herein.

Each side flap 22 has a line of weakness 32 which is preferably in the nature of a perforate line. This line defines an angle *a* with fold line 28, as indicated in Fig. 1.

Top flap 23 has a pair of converging side edges 33. Each edge 33 defines an angle *b* with fold line 26, as indicated in Fig. 1. Angles *a* and *b* are substantially equal and the parts are so constructed and arranged that each top flap edge 33 is substantially coincident with the perforate line 32 of a corresponding side flap when the container is completely assembled (Fig. 3).

Protective liner L is substantially coextensive with panels 20 and 21. This liner is slightly wider than these panels, and, as shown, extends laterally beyond fold lines 25 and the side edges of panel 21. The liner is affixed to panels 20 and 21 in any manner known to the art, preferably by gluing, as indicated by glue areas 35 and 36.

For the purpose of briefly describing a recommended procedure in assemblying and closing container C with selected merchandise therein, it is first assumed that blank B and liner L are united and laid out in flattened condition, as illustrated in Fig. 1. It is also assumed that the selected merchandise consists of a pair of ladies' hosiery H. The hosiery is prefolded and placed on the liner within the confines of panel 20 and with the top part projecting above transverse fold line 28, but below fold line 26. Panel 21 and the portion of liner L which is secured thereto are then swung about fold line 24 so as to overlie the hosiery. The free end of panel 21 will be below the top of the hosiery (Fig. 6). Top flap 23 is now swung about fold line 26 so as to overlie panel 21. Glue is next applied over the entire exposed area of each side flap 22 and these flaps are then swung about fold lines 25 to overlie portions of top flap 23 and panel 21. This completes closing and sealing of the container. It will be noted that the portion of top flap 23 between side flaps 22 is devoid of glue and also that flap 23 is not directly secured to panel 21.

To open the container of Fig. 3, a user grasps the free end of top flap 23 and raises that flap thereby tearing side flaps 22 along perforate lines 32. The top flap may be swung to the position shown in Fig. 6 about transverse fold line 28. This exposes the top part of hosiery H and permits ready removal of the same from the container.

The container, after being opened, as outlined above, may be reclosed by swinging top flap 23 over panel 21 and inserting the free end of this flap into cut-score opening in panel 21 (Fig. 7).

Reference is now had to Figs. 9 through 15 which illustrate a box type container C' according to this invention. As in the case of container C, container C' is also made from a generally cruciform blank of a suitable boxboard material. While this container, to the extent illustrated, is not provided with a viewing window or a protective liner, corresponding to window 27 and liner L, it is to be understood that such parts may be incorporated therein.

Container C' comprises a front wall 40, a rear wall 41, a pair of side walls 42, a bottom wall 43 and a top wall 44. Front wall 40 and rear wall 41 correspond, respectively, to front wall 20 and rear wall 21 of the earlier described form of the invention. The front wall is provided with a transverse scored fold line 45 which corresponds to transverse fold line 28, earlier described.

Rear wall 41 has a C-shaped cut 46 and a tab 47 (Fig. 15) which are similar in configuration and the same in function as cut 30 and tab 31.

Each side wall 42 carries a side flap 48 which corresponds to flaps 22 and which overlies the rear wall, as shown in Fig. 10 and other views. Each side flap 48 has an edge notch 49 and a perforated line of weakness 50 which extends from its notch 49 to a perforated line 51 formed in corresponding side wall 42. A cut line 52 (Fig. 11) extends horizontally from the upper end of each perforated line 51 to an end of transverse line 45.

Bottom wall 43 carries a pair of upstanding flaps 53 which project into the interior of the container. Each of these flaps bears against the inner surface of a side wall and is secured thereto by gluing.

Top wall 44 carries a pair of depending end flaps 54. Each of these flaps bears against the inner surface of a corresponding side wall and is secured to the portion thereof above perforate line 51 and cut line 52 by gluing. The top wall also carries a flap 55 which corresponds to flap 23, earlier described.

When container C' is fully assembled and closed, as shown in Figs. 10 and 11, flap 55 overlies rear wall 41 and side flaps 48 overlie the rear wall and side portions of flap 55. These parts are united by glue which is coextensive with the entire inner surface of each side flap. It will be observed from an examination of Fig. 10 that the side edges of flap 55 are substantially coincident with perforate lines 50 of the side flaps.

To open the container, the lower end of flap 55 is grasped and pulled away from the rear wall. This tears the side flaps along perforate lines 50 and side walls 42 along the perforate lines 51 and permitting the entire upper top portion of the container to be raised and swung about transverse fold line 45 to the relative position shown in Fig. 15. With the parts in this relative position, the contents of the container are readily accessible for removal.

The container may be reclosed by repositioning top parts about the transverse score line 45 and inserting the free end of flap 55 into the cut-score opening in rear wall 41 (Fig. 13).

From the foregoing, it is believed that the objects, construction and advantages of my present invention will be readily comprehended by persons skilled in the art, without further description. Although the invention has been herein shown and described in several simple and practicable forms, it is recognized that certain parts are representative of other parts which may be used in substantially the same manner to accomplish substantially the same results. Accordingly it is intended that all matter contained in the description or shown in the drawings shall be interpreted as illustrative only and not in a limiting sense.

I claim:

1. In a container formed from a blank of a suitably stiff foldable sheet material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a rear wall constituting an extension of the lower end of the front wall and

disposed behind the front wall, a first flap constituting an extension of the upper end of the front wall and disposed behind the rear wall, said first flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap constituting an extension of a corresponding side of the front wall and being disposed behind the rear wall, each side flap being secured to the rear wall and a corresponding portion of the first flap and being formed with a line of weakness that is generally coincident with one of the side edges of the first flap, each line of weakness extending to an end of the said fold line, said first flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps along the lines of weakness and tilting of the first flap and the upper portion of the front wall about said fold line relative to the remainder of the front wall.

2. In a container formed from a blank of a suitably stiff foldable sheet material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a rear wall constituting an extension of the lower end of the front wall and disposed behind the front wall, a first flap constituting an extension of the upper end of the front wall and overlying the rear wall, said flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap constituting an extension of a corresponding side of the front wall and overlying a portion of the rear wall and first flap, each side wall being secured to the rear wall and an underlying portion of the first flap and being formed with a line of weakness that is generally coincident with one of the side edges of the first flap, each line of weakness extending to an end of the said fold line, said first flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps along the lines of weakness and tilting of the first flap and the upper portion of the front wall about said fold line relative to the remainder of the front wall.

3. A container according to claim 2 including a protective liner bearing against the inner surfaces of the front and rear walls and being substantially coextensive therewith, said liner comprising a sheet of a flexible, transparent and substantially moisture-proof material.

4. A container according to claim 2 wherein the rear wall is cut to obtain a tab that is movable into and out of an opening within the confines of the rear wall, said first flap normally overlying the tab and being adapted to have its lower end portion inserted in said opening.

5. In an envelope type container formed from a blank of a suitably stiff foldable sheet material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a rear wall joined to the lower end of the front wall along a fold line and disposed behind the front wall, a top flap joined to the upper end of the front wall along a fold line and disposed behind the rear wall, said top flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap being joined to a corresponding side of the front wall along a fold line and being disposed behind the rear wall, each side flap being secured to the rear wall and a corresponding portion of the first flap and being formed with a line of weakness that is generally coincident with one of the side edges of the top flap, each line of weakness extending from a side edge of a side flap to an end of the transverse fold line, said top flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps along the lines of weakness and tilting of the top flap and the upper portion of the front wall about the transverse fold line relative to the remainder of the front wall.

6. In an envelope type container formed from a blank of a suitably stiff foldable sheet material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a rear wall joined to the lower end of the front wall along a fold line and overlying the front wall, a top flap joined to the upper end of the front wall along a fold line and overlying the rear wall, said top flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap being joined to a corresponding side of the front wall along a fold line and overlying a portion of the rear wall and first flap, each side flap being secured to the rear wall and an underlying portion of the first flap and being formed with a line of weakness that is generally coincident with one of the side edges of the top flap, each line of weakness extending from a side edge of a side flap to an end of the transverse fold line, said top flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps along the lines of weakness and tilting of the top flap and the upper portion of the front wall about the transverse fold line relative to the remainder of the front wall.

7. A container according to claim 6 including a protective liner between and substantially coextensive with the front and rear walls, said liner comprising a sheet of a flexible, transparent and substantially moisture-proof material.

8. A container according to claim 6 wherein the rear wall is cut to obtain a tab that is movable into and out of an opening within the confines of the rear wall, said top flap normally overlying the tab and being adapted to have its lower end portion inserted in said opening.

9. In a box type container formed from a blank of a suitably stiff foldable material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a bottom wall, a pair of spaced side walls, a top wall and a rear wall spaced from the front wall and constituting an extension of the bottom wall, a top flap joined to the top wall along a fold line and disposed behind the rear wall, said top flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap being joined to a corresponding side wall along a fold line and being disposed behind the rear wall, each side flap being secured to the rear wall and a corresponding portion of the top flap and being formed with a first line of weakness that is generally coincident with one of the side edges of the top flap, each side wall being formed with a second line of weakness that extends from a corresponding first line of weakness toward an end of the transverse fold line, said top flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps and side walls along said lines of weakness and tilting of the top flap and the upper portion of the container about the transverse fold line relative to the remainder of the container.

10. In a box type container formed from a blank of a suitably stiff foldable material, an upstanding front wall having a transverse fold line extending thereacross intermediate its upper and lower ends, a bottom wall, a pair of spaced side walls, a top wall and a rear wall spaced from the front wall and constituting an extension of the bottom wall, a top flap joined to the top wall along a fold line and overlying the rear wall, said top flap having a pair of downwardly convergent side edges, and a pair of side flaps, each side flap being joined to a corresponding side wall along a fold line and overlying a portion of the rear wall and top flap, each side flap being secured to the rear wall and an underlying portion of the top flap and being formed with a first line of weakness that is generally coincident with one of the side edges of the top flap, each side wall being formed with a second line of weakness that extends from a corresponding first line of weakness toward and end of the transverse fold line, said top flap being adapted to be moved away from the rear wall to thereby effect tearing of the side flaps and side walls along said lines of weakness and tilting of the top flap and the upper portion of the container about

the transverse fold line relative to the remainder of the container.

11. A container according to claim 10 including a protective liner between and susbtantially coextensive with the front and rear walls, said liner comprising a sheet of a flexible, transparent and substantially moisture-proof material.

12. A container according to claim 10 wherein the rear wall is cut to obtain a tab that is movable into and out of an opening within the confines of the rear wall, said top flap normally overlying the tab anf being adapted to have its lower end portion inserted in said opening.

No references cited.