A series of open topped display trays are filled with a plurality of packages of a product, the packages terminating in a common plane parallel to the bottoms of the trays. The trays are stacked in superimposed relation in a tubular container having top and bottom closures. A removable tear strip encircles the container near to and spaced from, the lower closure. The area of the container walls above the tear strip is creased so that this area may be folded inwardly and upwardly after the tear strip has been removed to provide a display stand upon which the display trays may be stacked.
SHIPPING AND DISPLAY CONTAINERS

BACKGROUND OF THE INVENTION

During recent years the use of display trays for containing cans, bottles, or a series of cartons has become increasingly popular. The display units may be removed from an outer container, price marked without handling the individual units to be displayed, and placed upon a shelf or display stand from which they may be removed by the customer. The customer removes the individual bottles, cans or cartons from the tray, and when emptied, the tray is removed and replaced.

It has also been found that the use of display stands to display products is normally more effective than placing the trays of products on shelves. When placed upon a display stand, where it stands out alone, the product usually sells in greater volume than when it is merely placed upon the shelf with other products. Consequently, many companies provide display stands upon which the product may be displayed. Displays of this type are normally quite expensive, and the cost may be prohibitive where the product being displayed is relatively inexpensive. Such displays are sent to super markets or other stores, they may be used or discarded depending upon the personnel of the store. As a result, many companies follow the practice of hiring representatives to go from store to store and to set up the displays to make sure that they will be used. This is also an expensive procedure.

SUMMARY OF THE INVENTION

It has been found that if a series of display trays packed with the product are placed in a shipping container in superimposed relation and if the shipping container is properly printed and constructed, the shipping container may be used as a display stand, after the contents have been removed. Preferably, the shipping container is provided with a tear strip which encircles the walls of the shipping container. By removing the tear strip, the contents may be removed. By properly locating the tear strip, a display stand of proper height may be provided for supporting the superimposed trays.

A feature of the present invention resides in the provision of the container designed to contain a stack of superimposed product containing trays, to provide a tear strip enclosing the walls of the container near one end thereof, and in creasing the walls of the container adjoining the tear strip so that the walls may be folded in a manner to provide a rounded or folded edge upon which the container may rest when used as a display stand. Preferably, a fold line extends across all of the walls in spaced parallel relation to the tear strip. Diagonal fold lines extend from the juncture of this transverse fold line with each of the lines of fold defining the container walls. These diagonal folds permit the portions of the wall adjoining the tear strip to be folded inwardly and upwardly, presenting a folded edge for supporting the container when used as a stand.

The advantage of this construction is multi-fold. In the first place, the removal of the tear strip usually leaves somewhat of a ragged edge on the container along the edge of the removed strip which would be somewhat unsightly if the container were to rest upon this edge. Secondly, the floor on which the stand may rest is sometimes wet during rainy or snowy weather, or when the floor is cleaned. The folded edges will stand up much better under wet conditions than a single cut edge into which the moisture can readily wick.

A further feature of the present invention resides in the provision of simple display trays which may be quickly and easily set up, or tray, if desired, and stored for reuse. Each tray includes a bottom panel having tapered side walls hinged securely thereto along opposite edges thereof. The side walls are provided with corner flaps which fold inwardly into opposed relation. The rear wall of the tray is folded outwardly of the corner flaps, and includes a rear wall lining panel hinged to its upper edge which may be folded down inwardly of the corner flaps and locked in position to the base panel. Handles are provided on the side walls by forming elongated slots therein, which tilt the contents toward the rear of the tray when lifted due to the angle of the hand holes.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the closed container as it is shipped and stored.

FIG. 2 is a perspective view of the stacked container contents as they are removed from the container.

FIG. 3 is a perspective view of the container contents stacked upon a portion of the container serving as a display stand.

FIG. 4 is a perspective view of the end of the open container showing the manner in which the lower ends of the container panels are folded to form a rounded lower edge.

FIG. 5 is a perspective view of a tray being lifted, showing the manner in which the tray normally tilts rearwardly when lifted by the hand holes to incline the tray contents against the rear of the tray.

FIG. 6 is a diagrammatic view of the blank from which the outer container is formed.

FIG. 7 is a perspective view of one of the display trays with the contents removed.

FIG. 8 is a diagrammatic view of the blank from which the display tray is formed.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the drawings, a container is shown which is designed to hold five trays, each of which contains 12 cartons of product. The trays are arranged in a single stack. Obviously, the number of trays may be varied depending upon the proportions of the product. Furthermore, the outer container may be made to hold more than one stack of trays if it is so desired.

The outer container is indicated in general by the letter A, and is shown in FIG. 6 of the drawings as including a side wall panel 10, an end wall panel 11, a second side wall panel 12, and a second end wall panel 13, connected along parallel lines of fold 14, 15, and 16. A glue or stitch flap 17 is hingedly connected to an end wall of the series, such as a wall 10, along the fold line 19 which is parallel to the previously described lines of fold.

The transverse fold lines 20 defines what may be termed the upper edges of the various panels and connects the panels 10, 11, 12, and 13 to upper closure flaps 21, 22, 23, and 24 respectively. A similar transverse fold line 25 defines the lower edges of the panels 10, 11, 12, and 13 and connects these panels to closure flaps 26, 27, 29, and 30 respectively.

A third transverse fold line 31 extends across the upper panels parallel to and spaced from the fold line 25. The distance between the fold line 31 and the upper fold line 20 define the height of the display stand to be formed. Intermediate the fold lines 25 and 31, a tear strip is formed, the tear strip being defined by a pair of spaced parallel weakened lines of separation 33 and 34. Cut lines 35 connect the ends of the weakened lines 33 and 34 to the end edge 36 of the blank to facilitate grasping the end of the tear strip 32 and pulling it outwardly to completely detach the main portion of the container A, which is indicated in general by the numeral 37, and a cap portion, which is indicated in general by the numeral 39.

Each panel is provided with a pair of diagonally extending fold lines or perforations which extend from the lower corners of the wall panels adjoining the fold line 31 toward the upper weakened line of separation 33 defining the upper edge of the tear strip 32. Diagonal fold lines 40 extend from the juncture of the fold line 31 and the fold line 14 and 19 to the weakened line 33. Similar fold lines 41 extend in downwardly converging relation from the juncture of the fold lines 14 and 15 to the weakened line 33. Similar downwardly converging fold lines 42 and 43 are provided from the juncture of the fold line 31 with the fold lines 15 and 16 to the weakened line, and with the fold line 16 and the edge 36 of the panel 13, respectively.

The product supporting trays are best illustrated in FIGS. 7 and 8 of the drawings. The trays B each include a rectangular bottom panel 44 which is hingedly connected along parallel fold lines 45 to side walls 46 which are generally trapezoidal in outline so that the upper edges of each side wall tapers up.
wardly and rearwardly. Corner flaps 47 are hingedly connected to the rear or longer of the parallel edges of the side walls 46 aligned along fold lines 49. The corner flaps 47 may be considered to be connected to the rear edges of the side walls 46. A rear wall 50 is hingedly connected to the bottom 44 along a fold line 51 which is at right angles to the fold lines 45. A rear wall liner panel 52 is connected to the upper edge of the rear wall 50 along a double fold line 53. The end edge of the liner panel 52 is provided with a pair of spaced short projecting tongues 54 which are designed to extend into slots 55 extending along the fold line 51 in the base panel 44.

The side walls 46 are provided with a hand hole 56 therein designed to accommodate the fingers to simplify the lifting of the tray. The side walls 46 may be bulged outwardly to some extent by the fingers when the tray is being carried.

In erecting the tray B, the side walls 46 are hinged upwardly into right angular relation to the base panel 44, and the corner flaps 47 are folded inwardly into coplanar relationship, extending along the fold line 51. The rear wall panel 50 is then folded upwardly, outwardly of the corner flaps 47, and the rear wall liner panel 52 is folded over the upper edges of the corner flaps 47 and downwardly to engage the short locking tongues 54 in the slots 55. Obviously, the panels 50 and 52 are of substantially equal vertical length.

The erected trays are filled with the product and then appear as indicated in FIGS. 3 and 4 of the drawings. The filled trays are stacked one upon another. An outer container A is slipped over the stack of trays B, and the ends of the tubular container are closed by first folding the end wall closure flaps 22, 24, 27, and 30 into a common plane. The side wall closure flaps 21, 23 are folded to lie outwardly of the first folded flaps 22, 24 and are secured thereto by adhesive, tape, or other suitable means. The side wall closure flaps 26, 29 are also folded to underlie the previously folded flaps 27, 30 and are adhered or otherwise secured in face contact therewith to form the closed container illustrated in FIG. 1 of the drawings.

The method of opening the container is illustrated in FIG. 1 of the drawings. The tear strip 32 is removed while the trays are in an upright position in which the lowermost tray will project from the cap portion 39 to be later removed therefrom. The body portion 37 of the container A is removed by sliding this member upwardly in the manner illustrated in FIG. 2 of the drawings until it is free of the stack of trays B.

The body portion 37 is then converted into a display stand by folding inwardly the portions of the container walls between the fold lines 31 and the weakened line of separation 33. This is accomplished by forcing the triangular areas on either side of the fold lines 14, 15, 16, and 17 inwardly and downwardly as indicated generally in FIG. 4, and folding the trapezoidal panels 59 therebetween inwardly and downwardly. This operation results in the provision of a floor stand having an open lower end which may be partially closed by the trapezoidal areas 59 between the converging fold lines 40, 41, 42, and 43 which incline upwardly and inwardly. This arrangement tends to hold the lower end of the stand squared up, and presents a folded lower edge to the floor or other supporting surface. This edge is not only neat in appearance but will not absorb liquid in the same manner as the edge formed by the weakened line 33.

The container body portion 37 which forms the floor stand is then placed in the desired position with the closed end uppermost, and the trays B are stacked upon the stand as is shown in FIG. 4 of the drawings.

The present construction has the advantage of providing a floor stand which costs virtually no more than the shipping case which would normally be used for shipping and storing the contents. The outer container may be printed or decorated to provide an attractive support, and to advertise the product, and serves as an advertisement during shipment of the goods as well as when a portion of the container is in use as a stand.

It will be noted that the hand holes 56 are elongated in a direction parallel to the inclined edges 57 of the trapezoidal side walls 46. As a result, as each tray B, with its contents, is lifted, the inclined edges 57 are on a horizontal plane, and the bottom panel 44 inclines downwardly and rearwardly toward the rear panel 50 and rear liner panel 52. The packages of product C resting upon the bottom panel are urged toward the rear of the tray, and are prevented from falling from the open front of the tray. The trays may thus be restacked upon the display stand 37 without dropping the contents or product C.

1. A shipping and display container in combination with a series of product units of substantially similar dimensions comprising:

a series of similar display trays including a bottom panel, a rear wall panel and side wall panels, said side and rear wall panels extending upwardly from said bottom panel and secured together, to provide an open topped tray, product filling said trays and extending at least to the height of the side and rear walls of said tray and terminating on planes parallel to the planes of said bottom panels, a tubular rectangular container including four hingedly connected wall panels of proper dimensions to snugly accommodate a plurality of superimposed trays of product, and a removable tear strip extending about the walls of said tubular rectangular container near one end thereof and operable, when removed to divide the container into a display stand and a separate end cap, said container having end closures which form the end of the cap and display stand when said tear strip is removed, said display stand being adapted to support said displays in superimposed relation resting upon one of said end closures when removed from the cap.

2. The structure of claim 1 and in which said display stand container portion of said container is creased along a line parallel to said tear strip and spaced therefrom, the portion of said display stand between said crease line and said tear strip being foldable inwardly and upwardly to provide a folded edge upon which said display stand may rest.

3. The structure of claim 2 and in which the area of said display stand between said crease line and said tear strip includes diagonally extending crease line with the sides of said wall panels to said tear strip.

4. A container comprising:

a series of foldably connected rectangular wall panels hingedly connected in similar relation, end closure flaps hinged to the ends of said wall panels and folded into superimposed relation to provide end closures, a removable tear strip extending across said wall panels parallel to, and spaced from, the "fold" lines connecting said wall panels to said closure flaps, said tear strip being closer to one end of said panels than to the other, said tear strip, when removed, dividing said container into a larger and a smaller open ended container portions, a crease line extending across the wall panel portions of said larger container portion in spaced parallel relation to said tear strip, each said last named panel portions including a pair of diagonal fold lines converging from the juncture of said crease line with the sides of said wall panels to said tear strip, said diagonal fold lines dividing the area of each wall panel between said crease line into a trapezoidal center portion and a pair of similar triangular portions, whereby when said tear strip is removed, the said areas of said wall panels may be folded inwardly to position said trapezoidal center portions at an acute angle to the wall panels to which they are hinged.

5. The structure of claim 4 and in which said tear strip is defined by two parallel side-by-side weakened lines of separation.

6. The structure of claim 1 and in which each said display tray includes a pair of corner flaps hinged to the rear edges of said side wall panels and are folded inwardly of said rear wall panel and including a rear wall liner panel foldably connected.
5. The structure of claim 6 and in which said bottom panel includes a slot adjoining its line of connection with said rear wall, and in which said rear wall liner panel includes a locking tongue engaged in said slot to provide means holding said side and rear wall panels extending upwardly from said bottom panel.

8. The structure of claim 1 and in which said side wall panels include hand holes.

9. The structure of claim 1 and in which said side walls are generally trapezoidal in shape, the upper edges of the side walls incline upwardly and rearwardly from the front to the rear wall panels thereof.

10. The structure of claim 9 and in which the hand holes are elongated in a direction parallel to the upper edges of said side walls.