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END LOADING, TOP OPENING, FOLDING CARTON

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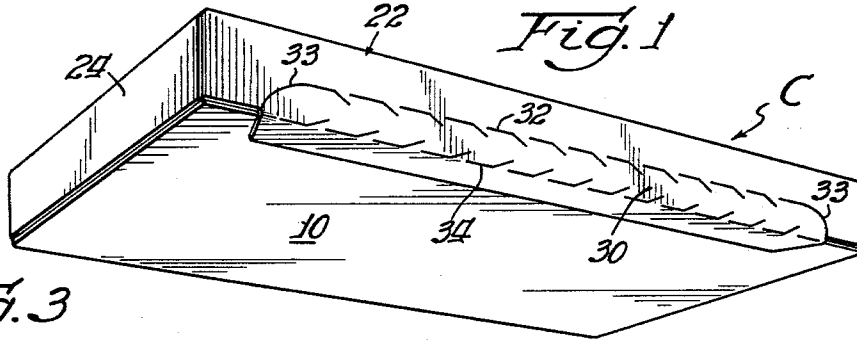
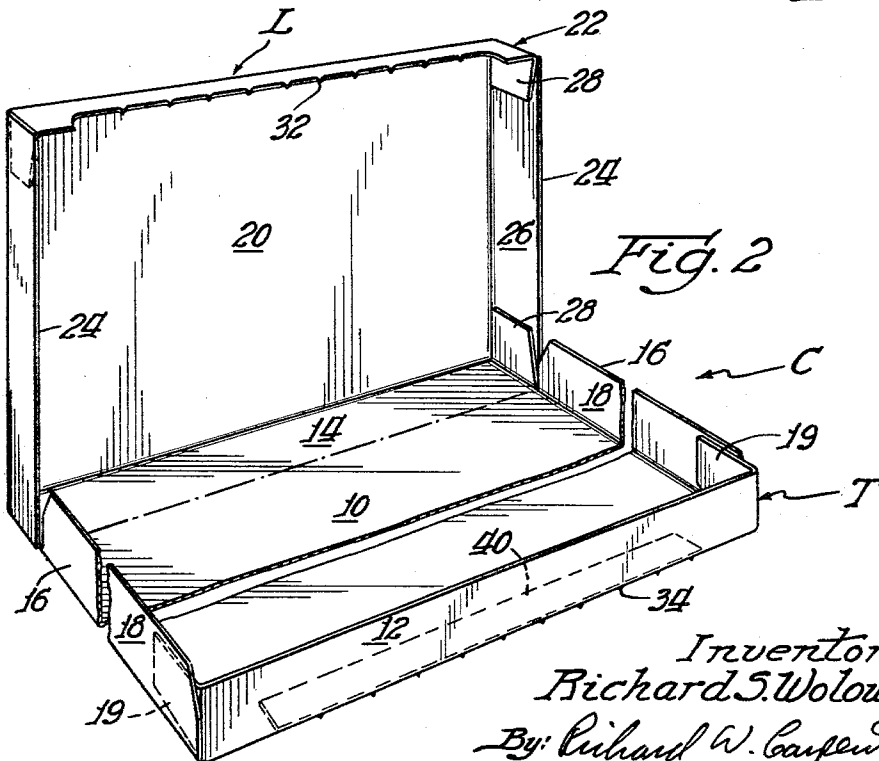
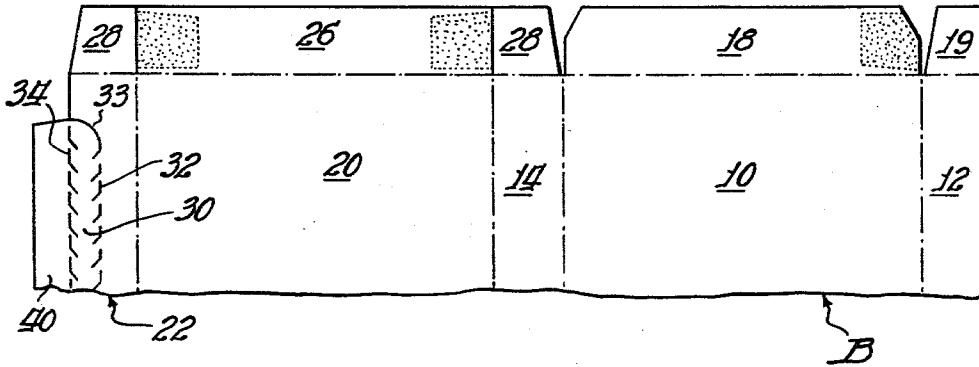


*Fig. 3*



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**END LOADING, TOP OPENING,  
FOLDING CARTON**

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This invention relates to folding cartons, and more particularly to a carton of the type having integral, telescoping tray and cover portions formed from a unitary blank of foldable paperboard.

The invention comprehends an improvement in the end wall construction for cartons which is adapted to facilitate end loading of the cartons, before the end walls are sealed, and top opening of the cartons, after they have been loaded and fully sealed.

It is a primary object of this invention to provide a carton which may be erected to a tubular condition, loaded from an end, closed and sealed, and opened from the top for initial use, and which includes a reclosable cover.

A more specific object of the invention is to provide, in a carton of the type described, an integral tray and cover arrangement wherein the cover includes a top wall hinged to the rear wall of the tray and having depending from the front and side edges thereof front and side walls connected to each other but free from direct permanent attachment to the front wall of the tray.

These and other objects of the invention will be apparent from an examination of the following description and drawings, wherein:

FIGURE 1 is a perspective view, as seen from the bottom, of a folding carton embodying features of the invention, with the carton shown in an unopened condition;

FIGURE 2 is a perspective view of the carton illustrated in FIGURE 1, as seen from the top, with the carton shown in an open condition; and

FIGURE 3 is a plan view of a portion of the blank from which the carton of the other views may be formed.

It will be understood that, for purposes of clarity, certain elements have been intentionally omitted from certain views where they are illustrated to better advantage in other views.

Referring now to the drawing for a better understanding of the invention, it will be seen that the carton, indicated generally at C in FIGURES 1 and 2 of the drawing, includes integral tray and cover or lid portions T and L, respectively, which are hingedly interconnected, and which may be formed from the unitary blank B of foldable paperboard illustrated in FIGURE 3 of the drawing.

Referring now to the FIGURE 2 of the drawing it will be seen that the lower portion or tray includes a generally rectangular bottom wall 10 having opposed front and rear side walls 12 and 14 hinged to and upstanding from the front and rear side edges thereof and having a pair of opposed end walls 16 hinged to and upstanding from the end edges thereof. Each end wall 16 includes an end wall panel 18 hingedly attached to the end edge of bottom wall 10 and an end flap 19 hingedly attached to the adjacent end edge of front wall 12 and adhesively secured to the inside surface of panel 18.

Although this construction is preferable, if desired, it is possible to omit the end flaps 19 and leave the tray front wall free from the direct connection to the tray end walls.

The cover portion of the tray includes a generally rectangular top wall 20, of the same size and shape as tray bottom wall 10, and which may be hingedly attached along its rear edge to the upper edge of tray rear side wall 14. The tray cover also includes a front wall 22 and a pair of end walls 24 which are hinged to and depend from the

front and end edges of top wall 20. Each of the cover end walls 24 includes an end wall panel 26 hinged to and depending from the top wall 20 and a pair of end flaps 28 which are secured to the end edges of the cover front wall 22 and the tray rear side wall 14, respectively, and which are adhesively secured to the inside surface of panel 26.

Thus, it will be seen that the cover and tray portions are adapted to mate with each other in telescoping relation with the front and side walls of the cover overlying the front side wall and end walls of the tray, but being free from direct attachment thereto, when the carton is in closed condition.

As best seen in FIGURE 1, the cover front wall 22 has at its lower edge a removable portion 30 which is defined by a pair of upper and lower vertically spaced weakened lines of tear 32 and 34, respectively. Lower line of tear 34, it will be noted, coincides with the lower edge of the cover front wall. Although, if desired, the removable portion may extend the entire length of the cover front wall, it is only necessary for it to extend across a substantial medial portion of the cover front wall. It will also be noted that upper and lower tear lines 32 and 34 are substantially parallel throughout most of their length, but upper tear line 30 is preferably provided with arcuate end portions 33 which curve downwardly and terminate at the lower edge of the cover front wall where they meet the related ends of lower tear line 34 to completely outline the removable tear section 30.

Hingedly attached at its forward edge to the lower edge of the cover front wall removable section 30 along a hinge line which coincides with lower weakened line of tear 34 is a relatively narrow elongated glue strip 40 of substantially the same length as removable section 30. Glue flap 40 is adhesively secured to the outer surface of the tray bottom wall adjacent the forward edge of the bottom wall to seal the carton in closed condition.

It will be understood that when the carton is initially formed the only gluing operation will be that required to secure glue flap 40 to the underside of carton bottom wall 10, so that the carton can be shipped to the user in collapsed, tubular condition.

The carton may then be filled from one end thereof, and then the glue flaps 19 and 28 may be adhesively secured to tray cover end wall panels 18 and 26, respectively, to close and seal the ends of the carton.

When the carton is opened for use tear strip or removable section 30 of the tray front wall is pulled away, so that the cover is free to be lifted upwardly about its hinge line to open the carton and afford access to the tray.

The integral construction of the cover top, front, and end walls permits the reclosure of the carton after initial opening.

I claim:

1. An end loading, top opening carton having a pair of telescoping portions formed from a unitary blank of foldable paperboard comprising:

(a) a tray portion including a horizontal bottom wall and a pair of opposed, vertical, front and rear side walls and a pair of opposed, vertical, end walls hinged to side and end edges, respectively, of said bottom wall and extending normal thereto to form a box-like enclosure;

(b) a cover portion including:

(i) a horizontal top wall hinged at its rear edge to the upper edge of said tray portion rear side wall;

(ii) a front wall hinged at its upper edge to the front edge of said top wall and disposed to overlie said tray portion front side wall but being free from direct attachment thereto;

- (iii) a pair of end walls hinged at corresponding edges to end edges of said top wall and disposed to overlie said tray portion end walls but being free from direct attachment thereto;
- (c) means hingedly connecting opposite ends of said tray portion rear side wall to respective end walls of said cover portion;
- (d) said cover portion front wall having immediately above its lower edge a removable section extending transversely across only a part of said front wall and having its ends spaced inwardly from the ends of said front wall and being defined in part by a pair of vertically spaced weakened lines of tear which, for the greater part of their length, extend parallel to each other and to the lower edge of said front wall;
- (e) a glue flap the same length as the removable section hingedly attached at its forward edge to the lower edge of said cover portion front wall removable section, on a hinge line coinciding with one of said weakened lines of tear, and being adhesively secured to a marginal portion of the outer surface of said tray portion bottom wall immediately adjacent the front edge of said bottom wall.
2. An end loading, top opening carton having a pair of telescoping portions formed from a unitary blank of foldable paperboard comprising:
- (a) a first portion including a horizontal wall and a pair of opposed, vertical, front and rear side walls and a pair of opposed, vertical, end walls hinged to side and end edges, respectively, of said horizontal wall and extending normal thereto to form a box-like enclosure;
- (b) a second portion including:
- (i) a horizontal wall hinged at its rear edge to horizontal edge of said first portion rear side wall;
- (ii) a front wall hinged at one edge to the front edge of said second portion horizontal wall and disposed to overlie said first portion front side wall but being free from direct attachment thereto;

- (iii) a pair of end walls hinged at corresponding edges to end edges of said second portion horizontal wall and disposed to overlie said first portion end walls but being free from direct attachment thereto;
- (c) means hingedly connecting opposite ends of said first portion rear side wall to respective end walls of said second portion;
- (d) said second portion front wall having immediately above its opposite edge a removable section extending transversely across only a part of said front wall and having its ends spaced inwardly from the ends of said front wall and being defined in part by a pair of vertically spaced weakened lines of tear which for the greater part of their length, extend parallel to each other and to said opposite edge of said front wall;
- (e) a glue flap the same length as the removable section hingedly attached to its forward edge to said opposite edge of said second portion front wall removable section, on a hinge line coinciding with one of said weakend lines of tear, and being adhesively secured to a marginal portion of the outer surface of said first portion horizontal wall immediately adjacent the front edge thereof.

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