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RECLOSABLE CARTON

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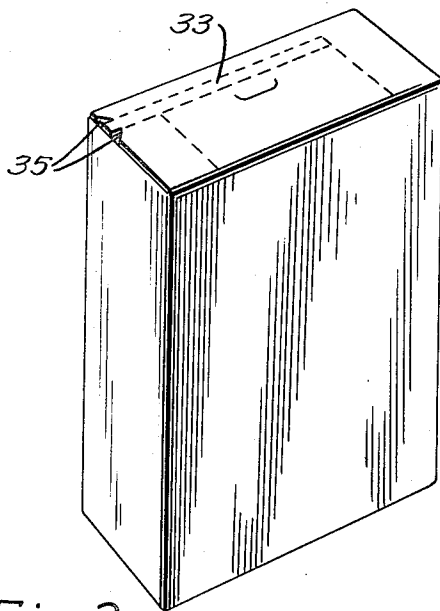
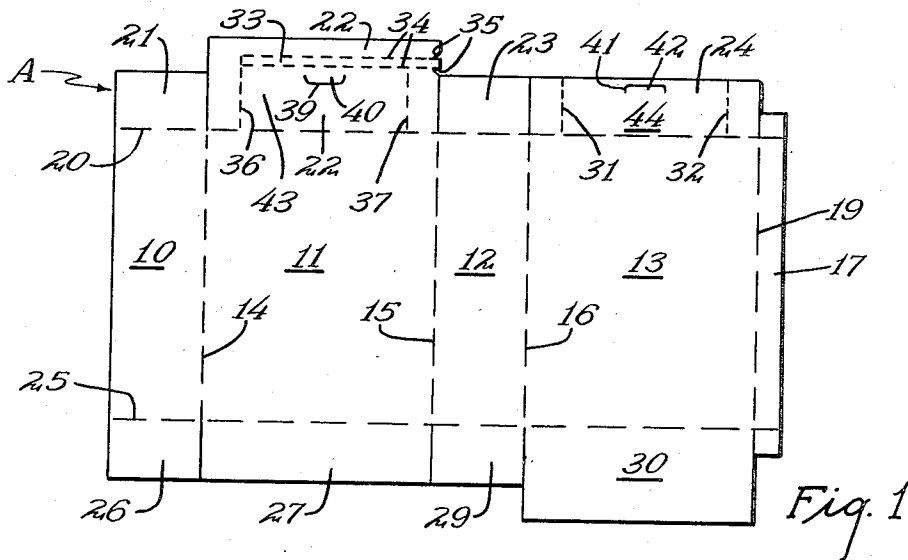


Fig. 2

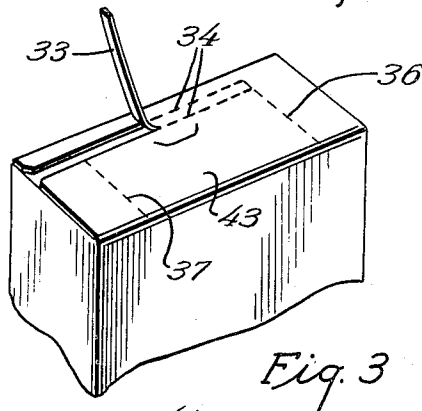


Fig. 3

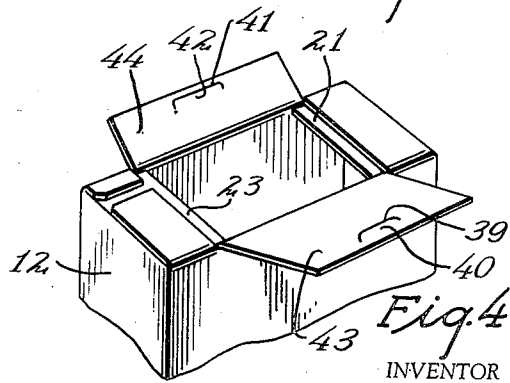


Fig. 4

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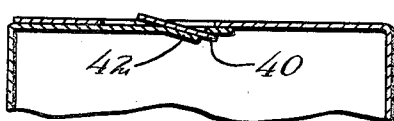


Fig. 5

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RECLOSABLE CARTON

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4 Claims. (Cl. 229—51)

This invention relates to an improvement in reclosable cartons and deals particularly with a carton used for containing a product not all of which is used at one time.

In the construction of cartons which are used for products of the type which are used from time to time it is desirable to construct the cartons so that they may be reclosed between uses. This arrangement is desirable to prevent contamination of the product after the carton has once been opened.

An object of the present invention lies in the provision of a carton which may be sealed closed and which may be easily opened for removal of the product. The carton is also constructed so it may be reclosed after use.

An added feature of the present invention resides in the provision of a carton having top closure flaps arranged in overlapping relation and which may be adhered together to form an affective closure. A tear strip which is designed by weakened lines of separation such as perforations, cut scores and the like is provided in the outermost layer. By removing this tear strip, the top of the carton may be easily opened.

A feature of the present invention resides in the provision of a carton provided with a tear strip by means of which the carton may be opened and in providing an arrangement for locking the closure flaps in closed position. As a result, the top of the carton may be effectively closed after it has been opened.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a diagrammatic view of the carton blank from which the carton is formed.

Figure 2 is a perspective view of the sealed carton.

Figure 3 is a perspective view showing the carton partially open.

Figure 4 is a perspective view of the carton in fully opened position.

Figure 5 is a cross sectional view through a portion of the reclosed carton showing the manner in which it is reclosed.

The carton is indicated in general by the letter A and includes four side walls 10, 11, 12 and 13 connected together in series. A fold line 14 connects the panels 10 and 11 and a similar fold line 15 connects the panels 11 and 12. The panels 12 and 13 are connected by fold line 16 and a glue flap 17 is foldably connected to the edge of the panel 13 by a fold line 19. The glue flap 17 is normally glued in overlapping relation with the panel 10 to form a rectangular carton.

A fold line 20 connects the panels 10, 11, 12 and 13 with top closure flaps 21, 22, 23 and 24. A fold line 25 parallel to the fold line 20 connects the bottom edges of the side wall panels 10, 11, 12 and 13 with bottom closure flaps 26, 27, 29 and 30.

In the arrangement illustrated the panels 22 and 30 are of the full width of the top of the carton, while the other flaps are somewhat shorter. The bottom of the

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carton is closed by folding the flaps 26 and 29 into a common plane and then folding the flap 27 therebeneath. The panel 30 is then folded beneath the panel 27 and adhered thereto to form a tight bottom closure.

The top of the carton is similarly closed. The flaps 21 and 23 are normally folded into a common plane and the flap 24 is folded thereover. The flap 22 is next folded over the flap 24 and adhered thereto along its end and edge surface. As will be noted in Figure 1 of the drawings the flap 24 is provided with a pair of spaced weakened lines of separation 31 and 32 which are parallel and which are at right angles to the fold line 20.

A tear strip 33 extends longitudinally of the flap 22, extending parallel to the fold line 20 at a point spaced from the free edge of the flap. This tear strip 33 is formed by spaced side by side weakened lines of separation 34. Notches 35 are preferably provided at one end of the weakened lines of separation or in the end edge of the flap 22. This permits the tear strip to be grasped and pulled outwardly.

A pair of parallel weakened lines of separation 36 and 37 extend from the fold line 20 to the tear strip 33. The weakened lines 36 and 37 substantially register with the weakened lines 31 and 32 when the package is sealed.

A generally U-shaped cut line 39 is provided in the center of the flap 22 defining a short tongue 40 which is directed toward the fold line 20. The flap 24 includes a U-shaped cut line 41 in the center thereof which forms a short tongue 42 which is directed in the same direction as the tongue 40 when the package is closed. The purpose of this arrangement will be more clearly described.

When it is desired to open the sealed package illustrated in Figure 2 of the drawings, the end of the tear strip 33 between the notches 35 is grasped and the tear strip pulled outwardly as indicated in Figure 3 of the drawings.

The tear strip can extend entirely across the top of the package or may terminate at the weakened line 36. In sealing the package adhesive is applied outwardly of the tear strip 33 and outwardly of the parallel weakened lines 36 and 37, the area beneath the center portion of the flap not being coated with adhesive. Similarly, the areas of flap 24 outwardly of the tear lines 31 and 32 are coated with adhesive so that these outer portions of the flap 24 will adhere to the flaps 21 and 23. Due to the fact that the flaps 21 and 23 project inwardly slightly more than the width of the portions of flaps 22 and 24 lying outwardly of the weakened lines of separation thereof, these innermost flaps 21 and 23 form inwardly projecting ledges or shoulders as is shown in Figure 4 of the drawings.

After the tear strip 33 has been removed, the carton may be opened by inserting the fingers beneath the center portion 43 of the top flap 22 and pulling upwardly, tearing or separating the flap 22 along the fold lines 36 and 37. The hand may then be inserted beneath the center portion 44 of flap 24 and this flap opened by pulling it upwardly, tearing the same along the fold lines 31 and 32.

When open, the carton appears as indicated in Figure 4 of the drawings. The remaining opening in the carton top is of sufficient size to permit ready access to the contents of the carton and at the same time the portions of the carton top which remain intact considerably strengthen the top of the carton and hold it in proper shape.

When it is desired to reclose the carton, the center portion 44 of the flap 24 is folded back so that the ends of this flap overlie the ledges formed by the projecting ends of the flaps 21 and 23. The center portion 43 of the panel 22 is folded to overlap the flap portion 44,

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When in this position a downward pressure is exerted upon the tongue 40, tending to press this tongue downwardly. This pushes the center portion of flap 34 downwardly to an extent sufficient to cause the tongue 40 to engage in the wider opening defined by the tongue 42. In other words, the lower top panel portion 44 bends down into the carton until the tongue 40 engages in the slot formed by the cut line 42. This is possible because the tongue 40 normally slightly overlaps the edge of the flap portion 44 adjoining the cut line 41 when the carton is closed.

Reopening of the carton may be accomplished by merely grasping the free edge of the panel portion 43 and pulling it upwardly disengaging the locking tongue 40 from the slot formed by the cut line 41.

In accordance with the patent statutes, I have described the principles of construction and operation of my carton, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A reclosable carton including a series of side walls connected in tubular relation, top closure flaps connected to the upper ends of said side walls, said closure flaps including a pair of opposed flaps folded into a common plane, a third closure flap folded to overlie the first folded flaps and having parallel weakened lines of separation extending at substantially right angles to the fold line connecting said third closing flap to its respective side wall, said weakened lines dividing said third closure flap into a center portion and end portions, means adhering the end portions to the first folded flaps, and a fourth flap folded to overlie the third flap and including weakened lines of separation at substantially right angles to the fold line connecting the fourth flap to its respective side wall, said last named weakened lines being substan-

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tially in registry with the weakened lines of said third flap, a tear strip extending at right angles to said weakened lines of said separation in said fourth closing flap near the free edge thereof, said tear strip being defined by spaced weakened lines of separation and defining a removable strip portion therebetween said first mentioned weakened lines of separation in said fourth flap extending from said tear strip to the fold line connecting said fourth flap to its respective side wall, the portions of said fourth closing flap outwardly of said tear strip toward the free edge thereof and outwardly of said first named weakened lines of separation in said fourth flap being adhered to the next beneath element.

2. The construction described in claim 1 and in which said third closing flap extends only a portion of the distance across the top of the carton, leaving end portions of the first folded closing flaps exposed and adhered to the fourth closure flap.

3. The construction described in claim 1 and including interlocking means on said third and fourth closing flaps which may be engaged for holding the carton reclosed.

4. The construction described in claim 1 and in which the third and fourth closing flaps are provided with similarly directed interlocking tongues, the tongue in the uppermost fourth closing flap engaging in the slot formed by the tongue in the third closing flap.

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