TEAR STRIP CONSTRUCTION FOR CARTONS OF CORRUGATED MEDIA

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Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

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ABSTRACT OF THE DISCLOSURE

This invention pertains to packaging and more particularly to new and useful improvements in cartons of a corrugated medium wherein the carton may be quickly and easily opened.

In shipping different types of material quite often shipping cartons made of a corrugated medium are utilized, and generally speaking the cartons regardless of the exact shape, includes side and end walls and a bottom. The open top of the carton is usually closed by end flaps and overlapping or meeting side flaps which are firmly glued together.

In order to open a carton made of such heavy, corrugated medium it is almost always necessary to utilize some sort of implement to cut or tear the glued flaps so that the contents of the carton can be exposed.

In the past, in order to overcome this difficulty, suggestions have been made to provide some sort of a tear strip, but in almost all instances the tear strip weakens the carton strength and also renders the carton useless as a storage container after it has been opened.

It is, therefore, a primary object of the present invention to provide a carton made from a corrugated medium which is firmly closed, but which may be quickly and easily opened when desired.

Another important object of the present invention is to provide a carton of corrugated medium in which the side flaps are secured together in such a way as to provide a tear strip for quickly and easily opening the flaps to facilitate the easy opening of the carton.

A further object of the present invention is to provide a carton which, when opened, may be easily used for storage of the unused material therein, or for other purposes.

Another object of the present invention is to provide a carton of corrugated medium provided with a tear strip in which the side flaps overlap and are glued together, each of the overlapping portions being provided with a scored or weakened longitudinally extending line, and wherein the lower portion is glued to the end flaps in such a manner that it can be readily torn therefrom.

Still another object of the present invention is to provide suitable outlines on the end flaps so that the side flaps can be glued thereto as indicated to allow the tear strip to be quickly and easily separated therefrom.

A more specific object of the present invention is to provide a carton having end flaps which when folded inwardly are positioned with their end terminations in close proximity one to the other and wherein said side flaps overlap to provide weakened tear strips with the under portion of one side flap terminating within the end termination of the outer overlapping portion of the tear strip to provide a grip for separating the combined glued strips from said side flaps.

A still further object of the invention is to provide an easily opened carton of a corrugated medium which is simple in its construction, reliable in its operation and not liable to become damaged and weakened during shipping.

With these and other objects in view to the end of attaining any other advantage hereinafter appearing, this invention consists in certain features of construction and combination, arrangement and formation of parts hereinafter described, pointed out in the claim and illustrated in the accompanying drawings, in which:

FIGURE 1 is an end elevational view in perspective of a carton constructed in accordance with the present invention, the novel tear strip being shown in a partially separated position;

FIGURE 2 is a fragmentary top plan view in perspective of the carton with the tear strip removed and illustrating how the side flaps can then be quickly and easily opened to expose the contents;

FIGURE 3 is a top plan view showing the side flaps in an opened position prior to securing the same in place and clearly illustrating the outline on the end flaps and the spots for gluing the side flaps and tear strip in place;

FIGURE 4 is a transverse fragmentary section taken on the line 4—4 of FIGURE 1 of the drawings and looking in the direction of the arrows, and

FIGURE 5 is a fragmentary longitudinal section taken on the line 5—5 of FIGURE 1, looking in the direction of the arrows.

A clearer understanding of the construction and method of operation of the invention will be had by referring to the drawings (form ing part of the present specification), wherein like reference characters designate the same or similar parts throughout the several views.

The carton C may be constructed in any size or configuration depending upon the material or articles to be carried within the carton. However, generally speaking cartons of corrugated medium involve vertical side walls 10, end walls 11 and a bottom 12 providing an open top portion. The top open is generally closed by providing end flaps 13 which are usually integral with end walls 11 and are folded along the fold lines 14. These end flaps may be of a size and configuration to meet, overlap or be spaced one from the other. Also provided for the closure and integral with the side walls 10 are the side flaps 15 and these flaps are bent or folded along the fold or weakened lines 16. As is common in the paper industry, and particularly in the carton industry, these cartons are formed in blanks and fold lines are usually weakened or indented and the carton sides secured together at one corner, for example the corner 17, or the like (not shown). When set up, as illustrated primarily in FIGURE 1 of the drawings, the carton is filled with the desired articles or material, end flaps are folded inwardly, glue is applied to the end flaps and inner surface of the side flaps and the same are brought together and firmly glued in place. The glue utilized is extremely effective and makes the separation of the flaps extremely difficult, and in fact, it is almost invariably necessary to cut the walls of the carton in order to open and expose the contents. Thus, the opening of a carton is a difficult job and therefore, there has long been a need for some means to easily and quickly open a carton without damaging its effectiveness for storage of unused material or articles.

To my knowledge tear strips have been utilized in the past but in most instances they have taken the form of weakened lines along the side vertical walls of the carton, and not only were they difficult to use but if utilized correctly, destroyed the usefulness of the carton as a storage means for unused material, particularly since no effective cover is left.

In order to overcome this difficulty, the present invention includes a tear strip which merely frees or separates the side flaps 15 in such a manner that they may be readily opened and exposed the unglued end flaps 18 so that the contents of the carton can be readily utilized and seen and the end flaps may then be rejoined and the side flaps put in place as desired.
Therefore a carton constructed in accordance with the present invention includes overlapping side flaps 15, the overlapping portions of which are provided with a weakened or scored line 19 and 20 respectively, and the end flaps are so formed as to provide the inwardly extending slots 21 and 22, respectively, and these slots actually extend inwardly and terminate adjacent the respective weakened lines 19 and 20 to define the end tabs 23, 24, 25 and 26 respectively. Attention is now directed to the end flaps 18 which are identical in shape and are constructed in accordance with the conventional carton and it is noted that the end terminations of each end flap meet as indicated by the reference numeral 27 when folded over the material or articles within the carton. In order to take best advantage of the instant invention each end flap is provided with an outline in the configuration of the side flaps 15 and each is further provided with spot indications 28 for the application of glue to the end of securing side flaps 15 in place. One side flap 15 is provided with the weakened line 19 and includes a portion of the tear strip indicated by the reference numeral 29. It should be noted that this portion 29 is glued directly to the end flaps 18 and the tabs 23 and 24 thereof are provided with cut out portions 30 which terminate short of the end termination 31 of the tear strip portion 32 secured to the other flap 15 and provided with the weakened line 20. Thus, when the tear strip portion 29 is first glued to the end flaps 18 tear strip portion 32 exactly overlies portion 29 and is firmly glued thereto and end termination 31 overlaps cut out portion 30 to provide a space 33 so that the fingers or nails thereof can reach under to start the separation of the tear strip (note FIG. 5).

Therefore it should be noted that the under surface of tear strip 29 is glued to the end flaps and portion 32 is glued to tear strip portion 29 in a much more firm manner so that when end tabs 23 and 25 are moved upwardly in the direction of the arrow Figure 1, the tear strip, i.e., two portions 29 and 32, are removed together to entirely separate the peripheral edges of the side flaps 15. All that is necessary to further open the carton is to grip either side flap adjacent the edges 34 and these flaps can be easily separated from small glued ends 35. The carton is quickly opened but leaves intact the major portions of the end and side closure flaps.

It should also be readily apparent that the glue need not be applied in spots as indicated, but it is important that the extreme end terminations of the overlapping portions 29 and 32 not be glued so that a weakened portion is provided to start the upward motion of the tear strip. Of course, the tear strip can be started from either end, i.e., overlapping tabs 24 and 26, or tabs 23 and 25.

From the foregoing, it is believed that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course, be understood that changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention and scope of the appended claim.

1 claim:
1. A carton of corrugated media including vertical side, end and bottom walls providing an open top portion, a closure for said open top portion comprising end tabs integral with said end walls adapted to be folded over said opening with the end terminations of said tabs positioned adjacent one wall, side flaps integral with said side walls adapted to fold over said end flaps, the outer end portions of each side flap overlapping and glued, the inner overlapped portion of said respective side flap being glued to said end flaps, said overlapping portions of said side flaps being more firmly glued together than the inner surface of said inner side flap is glued to said end flaps, scored lines on each end flap adjacent said overlapping portions to provide a tear strip, and projecting end tabs on said overlapping portions of said side flaps, said inner end tabs being provided with cutout portions and said upper end tabs terminating beyond said cutout portion and said inner end tabs to provide a space for separating the tear strip from the carton.

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