

May 17, 1960

R. GUYER
DISPENSING CARTON

2,936,937

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2 Sheets-Sheet 1

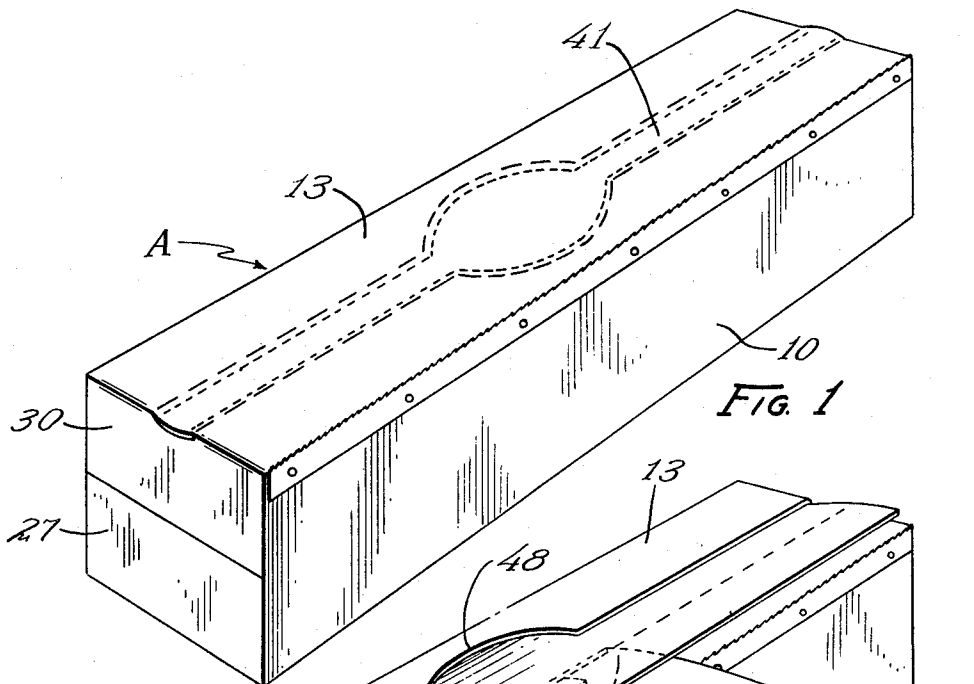
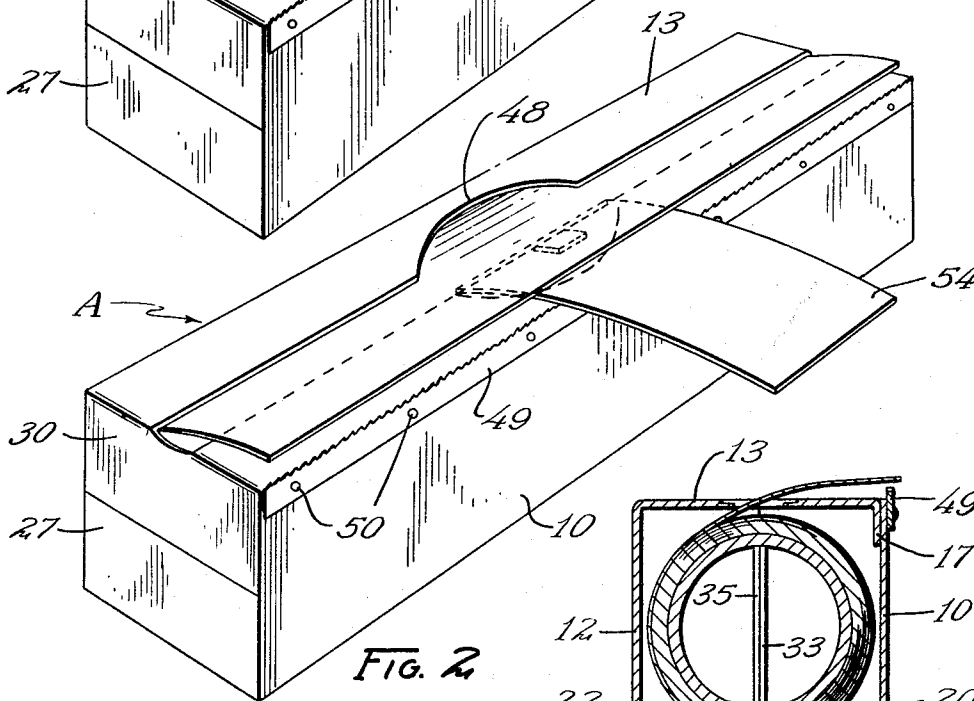
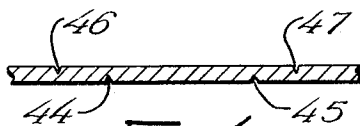
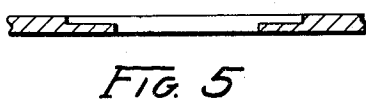
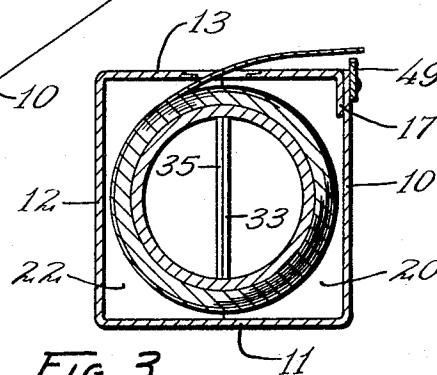


FIG. 3

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2 Sheets-Sheet 2

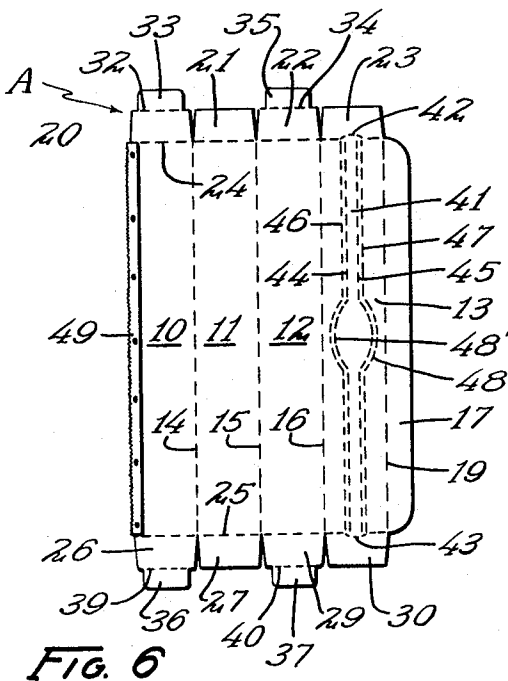
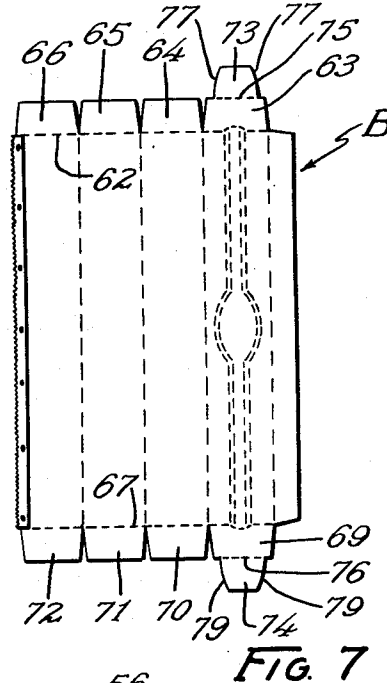
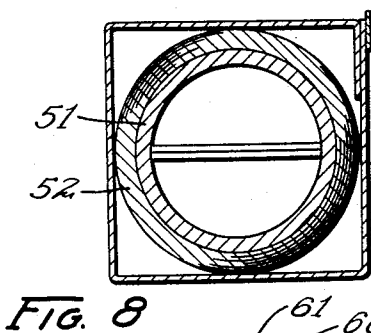
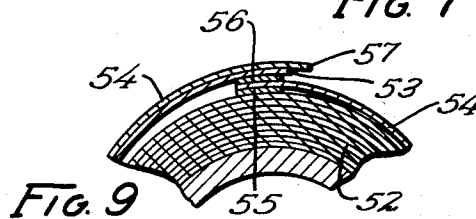
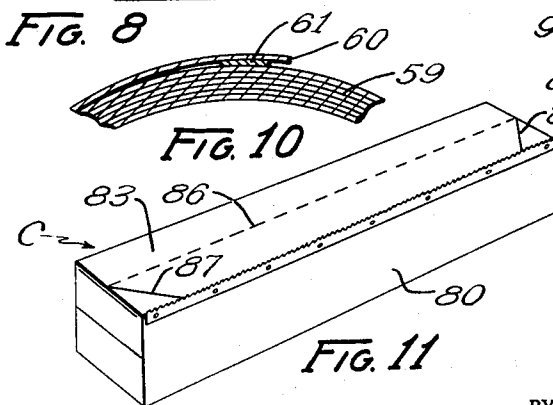
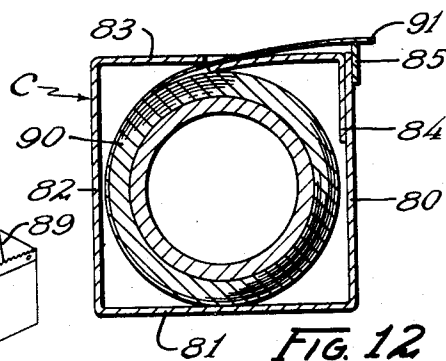


FIG. 12
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2,936,937

DISPENSING CARTON

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7 Claims. (Cl. 225-48)

This invention relates to an improvement in dispensing carton and deals particularly with a carton useful in containing rolled sheet material and for supporting the roll during the dispensing operation.

Sheet material such as metal foil, waxed paper and the like is often contained in elongated cartons having a top cover panel which is foldable into or out of closed position and which is usually provided with a tuck-flap which is designed to fold into the carton once the carton has been opened. The sheet material being dispensed is normally folded to extend between this tuck-flap and the adjoining front wall of the carton, and the front wall is usually provided with a metal cutting edge by means of which the sheet may be conveniently torn. While openings have sometimes been provided in the top panel to permit the upwardly projecting edge of the sheet material to be grasped, it is difficult to grasp a sheet and to pull it outwardly and under normal operation the cover of the package is opened each time the sheet is to be dispensed so that the sheet may be readily grasped and withdrawn. This arrangement necessitates the extra operation of opening and then closing the cover which is time consuming and bothersome.

An object of the present invention resides in the provision of a dispensing carton having an opening through which the sheet may be dispensed which is located at a point spaced from the metal cutting edge. The end of the sheet is withdrawn within the opening and drawn over a portion of the exterior surface of the carton. The sheet is then cut along the cutting edge so that a portion of the extremity of the sheet remains overlying the exterior of the carton. As a result, the next time sheet material is desired, the edge of the sheet is readily available and may be grasped to withdraw additional sheet material from the carton.

A feature of the present invention resides in a novel and effective means of resisting the rotation of the sheet material and its supporting core during transportation and handling. This means for resisting rotation also provides a tension in the sheet at all times so that the removal of the material may be more effectively controlled. In addition, this means resisting the rotation of the roll of sheet material in the carton acts to hold the marginal edge of the sheet in a set position prior to the time the carton is handled. Accordingly, when the carton is opened, the roll may be positioned so that the edge of the sheet is readily accessible for withdrawal and the roll will remain in this position from the time the carton is packed to the time it is opened.

An added feature of the present invention resides in the provision of a means for preventing the unwinding of the sheet material on its core during transportation and handling. As the carton containing the roll of sheet material is moved about, the sheet material has a tendency to unwind to some extent thereby causing the marginal edge of the sheet which would normally be exposed to creep around the surface of the roll. Means are provided

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for preventing the marginal edge of the sheet from unrolling, thereby keeping the marginal edge in a predetermined position until the carton is opened.

A further feature of the present invention lies in the fact that the roll may, if desired, be provided with a leader or a pull-strip which is relatively narrow as compared to the sheet being dispensed and which is attached between the marginal edge of the sheet and the next adjoining convolution of the sheet material. This leader may be arranged so that its end will be located adjoining the opening in the carton at the time the carton is opened. By pulling on this leader, the marginal edge of the sheet may be pulled away from the rest of the roll and through the carton opening so that the sheet material may be dispensed.

These and other objects and novel features of the present 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 perspective view of the closed carton.

Figure 2 is a view similar to Figure 1 showing the carton just after it has been opened.

Figure 3 is a cross sectional view through the carton in open position.

Figure 4 is an enlarged cross sectional view through a portion of the top panel of the carton, showing the potential tear strip therein.

Figure 5 is a view similar to Figure 2 after the tear strip has been removed.

Figure 6 is a diagrammatic view of the blank from which the carton is formed.

Figure 7 is a diagrammatic view of a modified form of blank construction.

Figure 8 is a cross sectional view through the carton before the carton is opened.

Figure 9 is an enlarged sectional detail showing the manner in which the marginal edge of the sheet is held from unwinding on its roll.

Figure 10 is a view similar to Figure 9 showing a modified form of sheet fastening means.

Figure 11 is a perspective view of a modified form of carton construction.

Figure 12 is a cross sectional view through the carton of Figure 11 after the same has been opened.

The carton is indicated in the drawings by the letter A. The carton normally appears as indicated in Figures 1 and 2 of the drawings and the blank from which the carton is formed is best illustrated in Figure 6 of the drawings.

The blank includes a front wall panel 10, a bottom panel 11, a rear wall panel 12, and a top wall panel 13 which are connected along parallel fold lines 14, 15 and 16, respectively. The top panel 13 is foldably connected to a glue flap 17 along a line of fold 19.

Carton closing flaps 20, 21, 22 and 23 are foldably connected along an end of the panels 10, 11, 12 and 13, along a line of fold 24. A line of fold 25 connects the other ends of these panels 10, 11, 12 and 13 to closing flaps 26, 27, 29 and 30. These closing flaps are designed to fold into right angular relation with the various wall panels described and to form end closures therefor.

Flap 20 is shown as extending approximately one-half the area of the end of the carton and this flap 20 is connected to a flap extension 33 along a fold line 32. A similar fold line 34 connects the flap 22 with a flap extension 35. Flap extensions 36 and 37 are foldably connected to the closing flaps 26 and 29 along lines of fold 39 and 40. The various flap extensions which have been described are designed to extend into the core of the roll of sheet material in a manner which will be later described more in detail.

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A tear strip 41 extends longitudinally of the top panel 13 throughout its length. Extensions 42 and 43 are provided at the end of the tear strip 41, these extensions being cut from the body of the flaps 23 and 30. These extensions 42 and 43 remain in the plane of the top panel of the carton and provide slight projections by means of which an end of the tear strip may be engaged. By pulling the tear strip upwardly, it may be removed from the top wall 13, leaving an elongated passage through the top wall of the carton.

As is indicated in Figure 4 of the drawings, a pair of cut score lines 44 and 45 extend in parallel relation across the undersurface of the top panel 13 from end to end thereof.

A second pair of cut score lines 46 and 47 extend into the upper surface of the carton in parallel relation, these cut score lines being spaced apart a distance somewhat wider than the spacing of the cut score lines 44 and 45 and being slightly outwardly thereof. Accordingly, as the end of the tear strip 41 is grasped and pulled upwardly, the stock forming the paperboard will split intermediate its upper and lower surfaces between the cut score 46 and the adjoining score 44 and also between the adjoining scores 45 and 47 to produce an opening which is shaped similar to that illustrated in Figure 5 of the drawings.

A metal cutting edge 49 is secured to the upper extremity of the front wall 10 and usually projects slightly above the level thereof. This cutting rule 49 may be secured in any way such as by prongs punched inwardly from circular areas 50 to extend through the carton stock and to be clinched over on the inside of the carton. As this structure is not novel, it is not shown in detail.

As is indicated in Figures 3 and 8 of the drawings, the carton A is designed to contain a hollow cylindrical core 51 on which is wound sheet material 52. As this material is extremely thin, Figures 9 and 10 have been added which are greatly enlarged for the purpose of illustration. Figure 9 of the drawings illustrates the sheet material 52 having a marginal edge 53 which is preferably located immediately below the tear strip 41, although this may be varied. A relatively narrow strip of paper or other suitable material which may be defined as a leader is indicated at 54 and is provided with a spot of pressure sensitive adhesive on one end on the under surface as indicated at 55, and a second spot of pressure sensitive adhesive 56 on the upper side thereof opposite the spot 55. The extent of the area of adhesive may obviously be varied but may be relatively short. Furthermore, the area of the adhesive 56 may be of a setting type if preferred. The end of the leader 54 which bears the adhesive is inserted between the free edge 53 of the sheet material and the adjoining convolution of this material. As a result, the free edge of the sheet is anchored to the remaining convolution, thus preventing the unrolling of the sheet during handling of the carton before the opening thereof.

The leader 54 is shown as encircling the sheet material 52 and having its free edge 57 located beneath the tear strip 41. Thus the edge or end of the leader may be grasped when the carton is opened and may be pulled to unwind the roll and to direct the marginal edge 53 of the sheet material 52 through the opening left by the tear strip 41. Due to the upward direction of pull of the leader, the adhesive spot 55 will become disengaged and permit the roll of sheet material to be unwound.

As is indicated in Figure 3 of the drawings, the flap extensions 33 and 35 extend into the interior of the core 51 at one end of the roll and the flap extensions 36 and 37 extend into the core at the other end of the carton. The flap extensions may be located either on the front and rear walls as illustrated, or on the top and bottom walls so as to extend horizontally when the top panel 13 is uppermost. The flap extensions are of such width as to frictionally resist the rotating of the core about these

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flap extensions and thus tend to hold the roll from rotating unless a pull is exerted upon the sheet. In other words, the construction is such as to resist rotation unless rotation of the roll is actually desired.

In Figure 10 of the drawings, I disclose a modified form of construction in which the roll of sheet material is indicated in general by the numeral 59 and the free end of the sheet is indicated by the numeral 60. In this arrangement, a spot of adhesive is indicated at 61 between the free end of the sheet and the next adjoining convolution. This arrangement holds the sheet material from unwinding about the core and holds the free edge 60 in a set position in the carton. As the roll is prevented from rotating accidentally by the flap extensions which have been described, the marginal edge of the sheet is readily accessible when the carton is opened.

In Figure 7 of the drawings I disclose a modified form of construction which is indicated in general by the letter B. This arrangement is very similar to the construction previously described and, accordingly, the body of the carton is not described in detail. The various carton panels are foldably connected along a line of fold 62 to end closing flaps 63, 64, 65 and 66. The various carton walls are also connected along a fold line 67 to closing flaps 69, 70, 71 and 72. The flaps 64, 65 and 66 at one end of the carton and the flaps 70, 71 and 72 at the opposite end of the carton are generally rectangular in form and are designed to extend in superimposed relation in the usual way. However, the flaps 63 and 69 are connected with flap extensions 73 and 74 which are connected to the flaps along fold lines 75 and 76. The flap extensions 73 and 74 are provided with arcuate side edges 77 and 79, respectively, which are shaped to fit the contour of the inner surface of the wall when the extensions incline inwardly and downwardly from the ends of the carton. The edges of these flaps rub against the interior of the hollow core and tend to resist rotation of the core within the carton.

In Figures 11 and 12 of the drawings a modified form of construction is illustrated which is illustrated in general by the letter C. This arrangement is in general similar to the constructions previously described and the carton is shown as having a front wall 80, a bottom wall 81, a rear wall 82, and a top wall 83. These various walls are provided with end closing flaps of the type described to close the ends of the carton and preferably to resist rotation of the enclosed core. A glue flap 84 is hingedly connected to the forward edge of the front panel and is adhered to the inner surface of the front wall 80 near its upper extremity. A metal cutting edge 85 is also preferably attached to the upper surface of the front wall 80 along its upper edge.

In the particular arrangement illustrated, the top wall 83 is provided with a weakened line of separation such as a perforated line 86 which extends longitudinally from end to end thereof at a point materially spaced from the fold line connecting the top panel 83 to the glue flap 84. Usually, the perforated line 86 is approximately midway between the forward and rear edges of the top panel. The ends of the perforated line 86 are connected by diagonally extending cut lines 87 and 89 which extend from the junctures of the weakened line 86 and the fold lines connecting the top panel 83 to the closing flaps and the juncture between the top panel 83 and the glue flap 84. As illustrated, these cut lines 87 and 89 converge forwardly and inwardly. Accordingly, when pressure is exerted upon the portion of the top panel 83 forwardly of the weakened line 86, the top panel is separated along the top panel throughout its length forming a flap hingedly connected to the glue flap 84 and which may incline downwardly into the interior of the carton to some extent as is indicated in Figure 12 of the drawings.

When the line of perforations 86 has been broken, it is possible to insert the thumb and fingers into the

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carton and to thread the extremity of the sheet material between the forward portion of the top panel and the rearward portion thereof. The sheet material is indicated in general by the numeral 90 and the free extremity 91 thereof is illustrated as extending through the top of the carton so as to overlie this top part.

In view of the fact that the flap which is formed by breaking the line of perforations 86 is the full width of the carton, the ends of the flap tend to bind against the end walls of the carton thus holding the flap in proper position to strip the outer lamination of material from the roll and to direct the material to the cutting edge 85.

In order to simplify the grasping of the free end 57 of the leader 54, or the end 60 of the roll of sheet material 59, the center portion of the tear strip is widened outwardly. The cut score lines 46 and 47 are provided with outwardly arcuated center portions 48' and 48, increasing the size of the opening intermediate its ends. The curved shape of the centers of the weakened lines does not interfere with the removal of the tear strip.

When the leader 57 is omitted, the stock at the end of the roll may be cut away on either side of center to provide a narrow end extension which may be easily grasped. In other words, the leader may be integral with the roll of sheet material if preferred.

In accordance with the patent statutes, I have described the principles of construction and operation of my dispenser 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 carton for use in containing a roll of sheet material and in combination therewith, the package including a generally rectangular carton including a series of panels foldably connected together and secured in tubular relation, a cutting edge secured to a marginal portion of one of said panels and extending longitudinally thereof, a weakened line of separation extending longitudinally of an adjoining panel in spaced relation to said cutting edge and parallel thereto, and cut lines connecting the ends of said weakened line of separation and the edge of said adjoining panel which is foldably connected to said one panel, said cut line converging inwardly toward said cutting edge and a roll of sheet material wider than the distance between the ends of said converging cut lines which are adjacent to said cutting edge enclosed within said carton and having a free edge which may be drawn through said adjoining wall of said carton when said weakened line of separation is separated and a portion of said sheet material may overlie the portion of said adjoining panel between said weakened line of separation and said cutting edge outwardly of said converging cut lines.

2. A dispenser package including an elongated generally rectangular carton including a series of four panels connected along parallel fold lines, a glue flap connected to one end panel of the series by a fold line and a cutting edge secured to the other end panel of the series to project slightly therefrom, said glue flap being positioned inwardly of, and adhered to the edge of said other end panel to which said cutting edge is attached, a removable tear strip extending longitudinally across said one

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end panel intermediate the fold lines connecting it to the glue flap and to the adjacent panel of said series, end closure flaps on said panels secured in carton end closing relation, and a cylindrical core within said carton having sheet material wound thereupon.

3. A dispenser package including an elongated generally rectangular carton including a series of four panels connected along parallel fold lines, a glue flap connected to one end panel of the series by a fold line and a cutting edge secured to the other end panel of the series to project slightly therefrom, said glue flap being positioned inwardly of, and adhered to, the edge of said other end panel to which said cutting edge is attached, a removable tear strip extending longitudinally across said one end panel intermediate the fold lines connecting it to the glue flap and to the adjacent panel of said series, end closure flaps on said panels secured in carton end closing relation, two of said closure flaps on two opposed said panels lying in a common plane inwardly of the remaining closure flaps and including closure flap extensions foldably connected thereto and extending towardly the center of the carton, and a cylindrical core within said carton having sheet material wound thereupon, said glue flap extensions extending into said core.

4. The structure of claim 3 and in which said glue flap extensions are in face contact.

5. The structure of claim 2 and in which said tear strip is defined by spaced weakened lines of separation including parallel end portions and outwardly bowed intermediate portions, and including a leader strip secured to the outer free edge of the wound sheet material, said leader strip being of substantially equal width to said outwardly bowed portions of said tear strip and secured to said wound sheet material in substantial registry with said outwardly bowed portions.

6. In combination, an elongated carton of generally rectangular form having an opening therein extending longitudinally thereof throughout at least a major portion of the length thereof, a roll of sheet material free of adhesive coating supported within said carton, a leader comprising a strip which is narrow relative to the roll of sheet material and having an end interposed between the free outer edge of said roll of sheet material and the remainder of the roll and adhered to both of the opposed surfaces, said leader extending at least partially about said roll.

7. The structure of claim 6 and in which the strip is more strongly adhered to the free outer edge of said roll of sheet material than to the remainder of the roll.

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