

Oct. 13, 1953

W. H. INMAN ET AL
COLLAPSIBLE CARTON

2,655,304

Filed Feb. 5, 1951

2 Sheets-Sheet 1

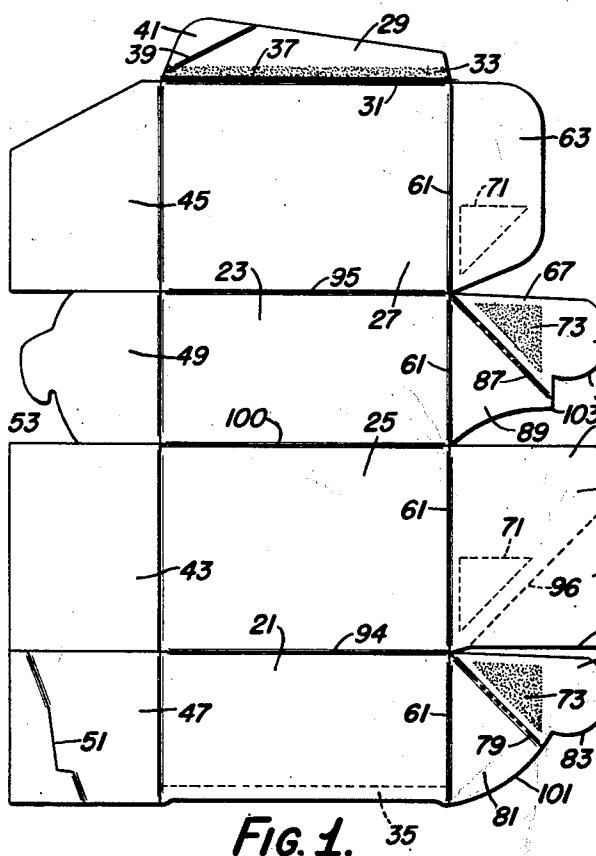


FIG. 1.



FIG. 2.

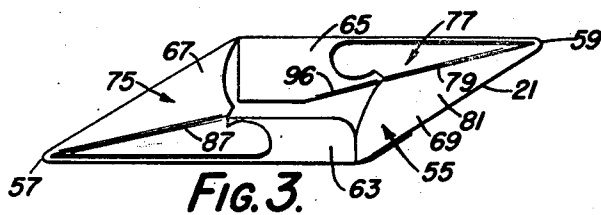


FIG. 3.

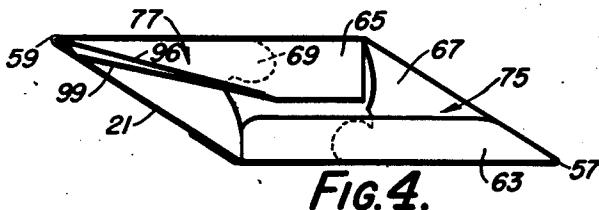


FIG. 4.

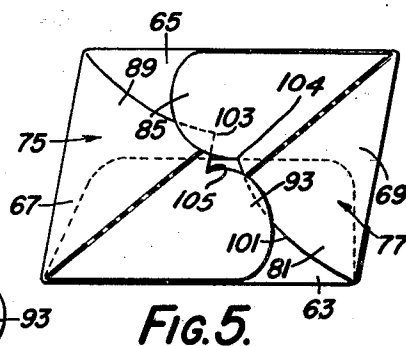


FIG. 5.

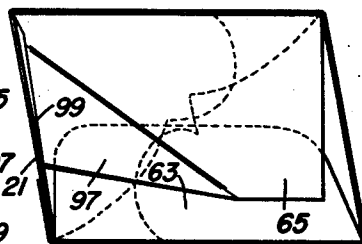


FIG. 6.

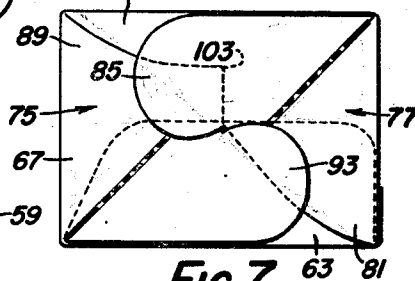


FIG. 7.

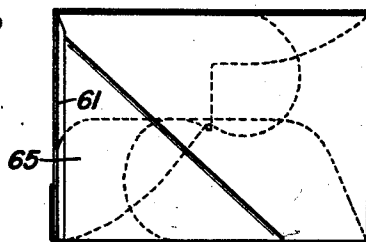


FIG. 8.

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2 Sheets-Sheet 2

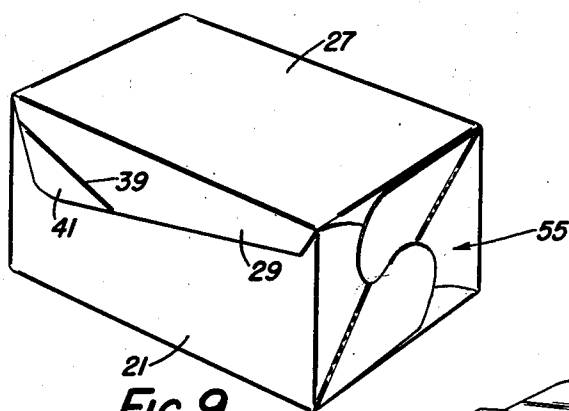


Fig. 9.

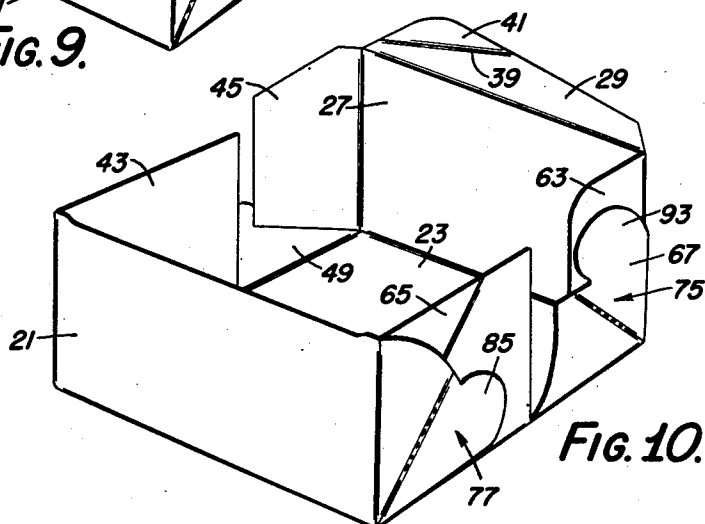


Fig. 10.

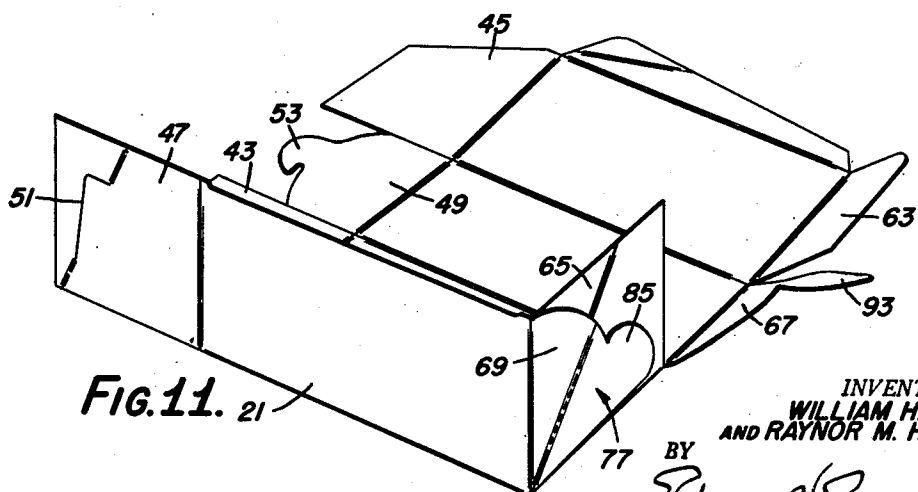


Fig. 11.

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2,655,304

COLLAPSIBLE CARTON

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Application February 5, 1951, Serial No. 209,478

8 Claims. (Cl. 229—39)

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This invention relates to collapsible cartons and more particularly to cartons made of fibrous material, such as cardboard for packaging ice cream and other frozen comestibles and the like, one object of the invention being to provide an improved carton capable of being readily collapsed to flat condition for shipping and storage, quickly erected for filling and easily torn apart to expose the contents.

Another object is to provide a carton of the above character which may be readily swung from its flat condition to erected position by merely applying pressure at its opposite corners and which may be readily torn down to expose its contents by pulling apart its side walls.

Another object is to provide a carton having the above advantages and so constructed that the side walls may be cleanly torn apart along a predetermined line to expose the contents without peeling ragged strips or ribbons from the carton material.

Another object of the invention is to provide a carton having the above advantages and including self-erecting bottom closure flaps detachably secured together so that they may be separated from one another to complete the stripping down of the carton to expose its contents.

Still a further object of the invention is to provide a carton of the stripping character described in which the bottom closure flaps are adapted to swing upwardly inside of the carton as the carton is collapsed to its flat condition and to swing automatically to bottom closing position when the carton is distended and erected.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 is a plan view of a one-piece blank cut and scored ready for folding to form a carton embodying the present invention;

Fig. 2 is an end view looking toward the outside of the bottom of the carton, and shows the assembled carton collapsed to its flat position;

Fig. 3 is an end view similar to Fig. 2, but shows the carton in partially erected position;

Fig. 4 is similar to Fig. 3, but shows the construction of the bottom as viewed from the top of the carton;

Fig. 5 is similar to Fig. 3 but shows the carton more nearly fully erected;

Fig. 6 is similar to Fig. 5, but shows the construction of the bottom as viewed from the top of the carton;

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Fig. 7 is similar to Fig. 3, but shows the carton in the fully erected position;

Fig. 8 is similar to Fig. 7, but shows the construction of the bottom as viewed from the top of the carton;

Fig. 9 is a perspective view showing the carton in the completely erected position;

Fig. 10 is a perspective view showing the bottom sections disengaged and the carton in partially opened position, and

Fig. 11 is similar to Fig. 10 but shows one of the bottom sections separated and the carton more fully collapsed.

The invention is embodied in the present instance in a container made from a cardboard blank, such as shown in Fig. 1, cut from a sheet of stock, the entire surfaces of both sides of which may be coated or otherwise treated with paraffin, or other waxes, or cellulosic lacquers, or other known material, to render the same impervious to moisture, vapor, water and grease.

The blank is preferably scored, as indicated by multiple lining in the drawings, to form two pairs of opposed side walls 21 and 23 and 25 and 27 (Fig. 1) which in the present instance, are rectangular in shape, so as to produce when folded, a straight walled container. Side wall 27 has a securing flap 29 hingedly attached thereto along a score line 31. When the blank is folded flap 29 is detachably secured to the outer surface of side wall 21, adjacent the free edge thereof, by means of suitable adhesive which, as shown in Fig. 1, may be applied to flap 29 as at 33, or to side wall 21 as at 35, or to both. Flap 29 has adjacent the inner side thereof and parallel to hinge line 31 a score or line of weakening 37 (Fig. 1) to interrupt the fibrous structure of its surface and prevent surface peeling of side wall 27 when the carton is opened, as will be hereafter more fully described. Line of weakening 37 may be formed by a cut line extending partially through closure flap 29, or a series of closely spaced perforations or by other suitable means as well known and understood in the art. Flap 29 has a diagonally extending score line 39 adjacent the left hand corner thereof, as viewed in Figs. 1 and 9, for forming a hinged pull tab 41 which may be easily grasped for opening the carton.

The side walls have foldable extensions or flaps at the opposite ends thereof which form top and bottom closures for the erected carton. The top closure flaps, as presently described, are so arranged and constructed that when the carton is moved from its closed position, as shown in Fig. 9, to its partially unfolded and opened po-

sition, as shown in Fig. 10, the top closure flaps automatically disengage one another. The top closure, as shown in Fig. 1, preferably comprises a rectangular flap 43, a trapezoidal-shaped flap 45 foldably attached to opposite side walls 25 and 27, respectively, and a pair of locking flaps 47 and 49 foldably attached to the other pair of side walls 21 and 23, respectively, as shown in Fig. 1. Flap 47 has an L-shaped slit 51 cut therein and opposed flap 49 has a tongue-shaped projection 53 at the outer end thereof for engaging slit 51 to hold the top closure flaps in superposed position for sealing the top of the carton when in the erected position, all as will be hereafter more fully described.

The carton is also provided with a novel self-erecting bottom closure shown generally at 55 (Figs. 3 and 9) which not only seals the bottom of the carton when said carton is erected, as shown in Figs. 7 and 9, but which also is adapted to swing upwardly inside of the carton when the carton is collapsed to its flat position, as shown in Fig. 2. This permits the carton to be folded and glued by the manufacturer and shipped in a flat condition to the user who erects it by merely applying pressure to the opposite bottom corners of the carton 57 and 59 (Fig. 2). During the erection of the carton, the bottom closure flaps automatically swing downwardly to their erected positions normal to the side walls of the carton, as shown in Fig. 9, and as will be more fully described.

The bottom closure, as shown in Fig. 1, comprises two pairs of opposed bottom flaps hingedly attached to the respective pairs of opposed side walls along score lines 61. Flaps 63 and 65 form the inner pair of flaps and are detachably secured to the outer pair of flaps 67 and 69, respectively, by glue or other suitable adhesive which may be applied either to the inner flaps 63 and 65 as at 71, or to the outer flaps 67 and 69 as at 73, or to both. Flaps 63 and 67 and flaps 65 and 69, when secured together as above, form two interengaging bottom closure sections, shown generally at 75 and 77, respectively (Figs. 3, 5 and 10).

Outer flap 69 has a diagonally extending score line 79 (Fig. 1) which divides the flap into inner and outer portions 81 and 83, respectively. The outer end of outer portion 83, which is free from adhesive, is preferably curved as shown at 85 in Fig. 1 and is adapted to frictionally engage the outside surface portion of opposed end flap 67 as the carton is erected, serving further as a pull tab by means of which the carton may be torn open to expose its contents, as hereafter more fully described. Similarly, opposed end flap 67 has a diagonally extending score line 87 (Fig. 1) which divides said flap into inner and outer portions 89 and 91, respectively, the outer portion being curved at the outer end thereof forming a pull tab 93.

In folding the blank, end flaps 63, 65, 67 and 69 are all folded inwardly through 180° about score lines 61 so as to lie substantially parallel to their respective side walls. Thereafter, outer portions 83 and 91 of end flaps 69 and 67 are reversely folded about score lines 79 and 87, respectively, and are thus doubled over their respective inner portions 81 and 89. This brings glue areas 73 into exposed position and as said carton is folded first about score line 94 (Fig. 1) and then about score line 95 (Fig. 1), glue areas 73 are brought into contact with glue areas 71 on flaps 65 and 63, respectively. Flaps 63

and 67, and flaps 65 and 69 are thus detachably secured together, forming two bottom closure sections shown generally at 75 and 77, respectively (Figs. 3 and 4). Flap 65 has a diagonally extending score line 96 which divides the flap into outer and inner portions 97 and 98, respectively. Score line 96 is on the reverse side on flap 65, as viewed in Fig. 1, and is preferably a cut score line. Score line 96 allows outer triangular portion 97 to bend upwardly towards the top of the carton, as the carton is being erected, thereby relieving the tension set up in flap 65 during the erection of the carton by the engagement between an edge 99 (Figs. 1 and 4) of flap 65 and the inner surface of side wall 21 (Fig. 4). Score line 96 also insures that flap 65 will lie in a flat plane forming a smooth inner bottom surface when the carton is swung to its fully erected position, as shown in Fig. 8. Score lines 79 and 87, as best shown in Fig. 3, are so arranged that outer flaps 69 and 67 may easily fold about said lines and move bottom sections 77 and 75 upwardly inside of the carton as the carton side walls are swung to their collapsed condition. As the carton is erected, the above flaps move in the opposite directions to their respective erected positions, as hereafter described. Concurrently with the folding and gluing of the bottom closure sections, closure flap 29 is brought into sealing engagement with the outer surface of side wall 21. When the carton is moved to its erected position, as shown in Figs. 8 and 9, flap 29 is swung about score line 31 to a position substantially perpendicular to side wall 27 and side wall 23 is swung about a score line 100 to a position substantially perpendicular to side wall 25.

With the carton side walls and bottom end closure folded and glued, as described above, the carton is now ready for shipment to the user thereof. The carton can be shipped in its collapsed condition, as shown in Fig. 2, thereby requiring a minimum of shipping and storage space and greatly facilitating the handling thereof. When it is desired to swing the carton from the above collapsed position to its erected position, as shown in Figs. 7-9, it is only necessary to press inwardly on the opposite corners 57 and 59 of the collapsed carton. This movement causes the carton to move into a partially erected position, as shown in Figs. 3 and 4, at which point the upper right corner of bottom closure flap 63 (as viewed in Fig. 3) is between the inner portion 81 of flap 69 and the inner surface of side wall 21. As the above pressure is continued the carton moves into a more nearly erected position, such as represented by Figs. 5 and 6, at which point the inner portions 81 and 89 of end flaps 69 and 67, respectively, are moved under the curved pull tab portions 93 and 85 of the respective opposed flaps 67 and 69. The free edge of end flap inner portion 81 is convexly curved as at 101 (Figs. 1 and 5) and as the carton moves from its position, as shown in Figs. 3 and 4, to its position, as shown in Figs. 5 and 6, this curved free edge acts as a bearing surface and engages and rides against end flap 63 so that when the carton bottom is fully erected, as shown in Figs. 7 and 8, inner flap portion 81 has passed under the outer portion of pull tab 93 and is between said pull tab and flap 63. The inner portion 89 of opposite end flap 67 is shaped so as to perform substantially the same function in regard to pull tab 85 and bottom flap 65. Although the

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free edge of inner portion 89 may be curved in the same manner as that of inner portion 81, we prefer to shape it with an outwardly projecting bearing surface 103, as shown in Figs. 1 and 5. It is to be noted that bearing surface 103 passes under pull tab 85 and engages the outer surface of flap portion 98 and serves to guide inner portion 89 and flap 63 into position between pull tab 85 and end flap 65 in much the same manner as corresponding inner portion 81 is guided in between pull tab 93 and flap 63. The greater projection of edge portion or part 103 adjacent the fold line 87, as compared with the corresponding free edge portion of flap 69, serves to delay the closing of inner flap 65 relative to inner flap 63 to effect sequential closing of said inner flaps so that the larger flap 65 is brought to the innermost position, as shown.

As shown in Fig. 5, each of the outer bottom flaps 67 and 69 thus has a portion, as 81, engageable inside the opposite outer flap and also a portion, as 85, engageable outside of the opposite outer flap, with the outside portion, as 85, overlying the folding score line of the opposite outer flap so that the outer flaps, by such interengagement, serve to flatten each other and the associated bottom closure and maintain it normal to the side walls in the erected position of the carton. The curved outer portions 85 and 93 of these outer flaps terminate adjacent the folding score lines 79 and 87, respectively, in notches 104 and 105, respectively, for limiting the relative erecting movements of these flaps and these notches are positioned in flat portions of the free edges of the flaps spaced from the folding lines 79 and 87 to thereby facilitate the relative movement of these flaps into engagement with each other at these notches, without interference by the angular folding at said folding score lines.

It is to be noted that with the carton bottom in its fully erected position, as shown in Figs. 7 and 8, pull tabs 93 and 85 are not in interlocked relationship but rather said pull tabs are merely in frictional engagement with portions of the opposite end flaps thereby releasably holding said flaps and bottom closure in its erected position. At the same time rectangular bottom flap 65 has been pulled downwardly and outwardly by the above movement of outer end flap 69 to which it is adhesively secured, so that rectangular flap 65 substantially covers the entire bottom of the carton, overlapping flap 65 making a smooth and uniform inner bottom surface. The free edges of flap 65 are substantially parallel to but are not in contact with the fold line 61 between the remaining bottom flaps and their respective side walls. Similarly, end bottom flap 63 has been swung to its erected position normal to the side walls of the carton and as said flap is substantially greater than one-half the bottom area of the carton in its erected position and extends inwardly beyond the midpoint of the carton, it serves to reinforce and strengthen the frictional engagement between bottom sections 75 and 77 and close any gap that might occur between said bottom sections adjacent the center of the bottom, so as to insure a substantially tight bottom closure.

With the carton bottom in the erected position, as shown in Figs. 7 and 8, the carton may then be filled with ice cream or the like through the open top end thereof after which the top flaps may be folded over each other in super-

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posed position to close and seal the carton (Fig. 9). Opposed flaps 43 and 45 are first folded into position and then the locking flaps 47 and 49 are folded into position and tongue 53 is passed through slit 51 for locking the top, as well understood in the art.

To open the carton, it is only necessary to grasp tab 41 which may be folded upwardly about score line 39 for easy accessibility. Securing flap 29 is then pulled away from side wall 21, breaking the detachable connection therebetween. As flap 29 and connected side wall 27 are moved away from side wall 21, to their positions shown in Fig. 10, bottom section 75 moves out of engagement with the bottom section 77 and tongue 53 is pulled out of slit 51, thereby disengaging the top closure means. Thus, with one motion the top is completely opened, the bottom partially opened and the side walls pulled away, as in Fig. 10, to partially expose the contents of the carton, for removal by slicing or otherwise as desired. If it is desired to further unfold the carton to more fully expose the contents thereof, it is only necessary to separate one or both of the bottom end sections 75 and 77. Bottom section 75 can be readily torn down by grasping pull tab 93 and breaking the adhesive connection between outer flap 67 and inner flap 63. Fig. 11 shows the carton unfolded with the above end section 75 torn down. In a like manner, the carton can be completely unfolded and returned to its initial position as a flat blank, as shown in Fig. 1, by merely separating the remaining end bottom section 77. This leaves the contents of the carton resting solely on side wall 25 and fully exposed for easy slicing or other suitable means of removal.

When it is desired to remove only a portion of the contents and return the partially filled carton to a refrigerator for subsequent access, the carton is partially opened as shown in Fig. 10, without destroying the bottom closure sections 75 and 77. After removing the desired portion of the contents, the side wall may then be folded back around the remaining contents to substantially the position shown in Fig. 9 and the bottom sections 75 and 77 thereby reengaged by each other to close the bottom and hold the carton in substantially closed position, the top closure flaps being also engaged with each other if desirable. The described bottom closure construction and the described side wall separation by means of releasable flap 29, in cooperation with each other, thus facilitate the repeated opening and reclosing of the carton having separable side walls, as well as one having a bottom closure of the self-erecting type described.

Thus it will be seen that our invention provides an improved carton for packaging ice cream and other frozen comestibles, which may be quickly and easily opened by the consumer by merely pulling on flap 29 and breaking the connection between said flap and side wall 21. This opening movement automatically disengages the top closure flaps and moves the two bottom sections 75 and 77 out of engagement with one another for exposing the contents of the carton. In addition, the bottom sections are provided with easily accessible pull tabs 93 and 85 by means of which the sections can be readily torn-down for completely unfolding the carton to fully expose the contents thereof for easy removal in the form of slices or the like.

We also provide flap 29 with a line of weak-

ening 37 which provides a discontinuity of fibrous structure and prevents surface peeling of side wall 27. Any peeling of side wall 21 will automatically terminate at the upper free edge thereof and thus, the carton may be quickly and easily torn down to expose the contents thereof without causing peeling of the carton surfaces which has often occurred in the past with cartons having a tear-down construction.

Not only does our carton have the above advantages which render it attractive to the consumer, but also it is formed from a single blank of fibrous material which may be cut, scored, folded and glued by automatic machines. In addition, the carton involves little wastage of material and this fact plus the above ease of manufacture makes it a more economical and efficient type of carton construction.

The carton requires a minimum of storage and shipping space, for after being folded and glued it may be readily collapsed to a thin, flat tube-like form which is easily handled and transported. The carton is quickly erected by merely pressing inwardly on the opposite corners of the collapsed carton during which movement our improved bottom closure sections automatically move into interengaging position for sealing the bottom and holding the carton in its erected position.

It will thus be seen that the invention accomplishes its objects and while it has been herein disclosed by reference to the details of a preferred embodiment, it is to be understood that such disclosure is intended in an illustrative, rather than a limiting sense, as it is contemplated that various modifications in the construction and arrangement of the parts will readily occur to those skilled in the art, within the spirit of the invention and the scope of the appended claims.

We claim:

1. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together, said side walls having top and bottom closure flaps foldably connected thereto at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, adjacent ones of said bottom closure flaps being secured together in pairs for forming the bottom of the carton in two sections, said sections being located on opposite sides of a hinge connection between adjacent side walls and on opposite sides of said detachable connection, said sections in their erected positions being normal to the side walls, of the outer closure flap in each of said bottom sections having a freely projecting edge portion forming a pull tab thereon frictionally engaging the opposite one of said outer bottom flaps for holding said carton in said erected position, the outer flap in each of said bottom sections having a score line extending thereacross diagonally inwardly from the corner included by said section and said bottom sections being adapted to fold upwardly inside of said carton upon relative lateral shifting of the side walls to their collapsed condition, locking means on two of said top closure flaps for releasably locking said top flaps in closed position in the erected posi-

tion of said carton, said detachable connection being adapted to be broken for distending said side walls, and for moving one of said bottom sections out of engagement with the other of said bottom sections for partially unfolding said carton to expose the contents thereof, said pull tabs providing grasping areas for separating said inner and outer flaps in each of said bottom sections for further unfolding said carton.

2. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly connected side walls, a detachable connection between two of said side walls including a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together, said side walls having top and bottom closure flaps foldably connected thereto at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections, said sections being located on opposite sides of a hinge connection between adjacent side walls and on opposite sides of said detachable connection, said sections in their erected positions being normal to the side walls and frictionally engaging one another for holding said carton in the erected position, the outer flap in each of said bottom sections having a score line extending diagonally across said flap, said outer flaps being adapted to fold inwardly about said diagonal score lines upon relative lateral shifting of the side walls to their collapsed condition, locking means on two of said top closure flaps for releasably locking said top flaps in closed position in the erected position of said carton, said locking means being arranged for disengagement by detachment and unfolding of said side walls, said detachable connection being adapted to be broken for distending the side walls, disengaging said top locking means and for moving one of said bottom sections out of engagement with the other of said bottom sections for partially unfolding said carton to expose the contents thereof.

3. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly-connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together each of said side walls having top and bottom closure flaps foldably connected therewith at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections extending normally to the side walls and frictionally engaging each other for holding said carton in erected position, said sections being located on opposite sides of a hinge connection between adjacent side walls and on opposite sides of said detachable connection the outer flap of each section having a folding score line extending thereacross diagonally inwardly from the corner of the box included by said section, said outer flaps being foldable inwardly about said score lines together with said inner flaps

upon relative lateral shifting of the side walls to collapsed position, and each of said outer flaps having a portion engageable inside and a portion engageable outside of the opposite outer flap with a notch in its edge between said portions for engagement with the notch of the other of said flaps, said edge notches having interengaging sides extending substantially parallel with the direction of engaging movement of said flaps to provide releasable frictional engagement therebetween, whereby said detachable connection is adapted to be broken for distending said side walls and moving one of said bottom sections out of engagement with the other of said sections for partially unfolding said carton to expose the contents thereof.

4. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said walls together, each of said side walls having top and bottom closure flaps foldably connected therewith at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps with each of said outer flaps secured to the adjacent inner flap for forming the bottom of the carton in two sections normal to said side walls and frictionally engaging one another for holding said carton in erected position, each of said outer flaps having a folding score line extending thereacross diagonally inwardly from the corner of the box included by said section, said outer flaps being foldable inwardly about said score lines together with said inner flaps upon relative lateral shifting of said side walls to collapsed condition, each of said outer flaps having a portion engageable inside and a portion engageable outside of the opposite outer flap with said outer portion overlying said score line of the opposite outer flap, and each of said outer flaps having a notch in the flat free edge thereof between said portions thereof and spaced from said score line for engagement with the notch of the other of said outer flaps, said notches having interengaging sides extending substantially parallel with the direction of engaging movement of said flaps for release by disconnection and distension of said securing flap and side walls.

5. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly-connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together, each of said side walls having top and bottom closure flaps foldably connected therewith at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections normal to the side walls and frictionally engaging each other for holding said carton in erected position, the outer flap of each section having a folding score line extending thereacross diagonally inwardly from the corner of the carton included by said section, said outer flaps being foldable inwardly about said score

lines together with said inner flaps upon relative lateral shifting of the side walls to collapsed position, each of said outer flaps having inner and outer portions on opposite sides of said score line engageable inside and outside of portions of the opposite outer flap, said inner portions of said outer flaps having parts extended to engage and guide said inner flaps during movement to erected position and one of said parts being extended to a greater distance from the free edge of its flap than the other of said parts for engagement with the inner flap of the opposite section to delay the closing thereof and provide predetermined sequential closing of said inner flaps relative to each other in the erection of the carton.

6. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly-connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together, each of said side walls having top and bottom closure flaps foldably connected therewith at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections normal to said side walls and frictionally engaging one another for holding said carton in erected position, the outer flap of each section having a folding score line extending thereacross diagonally inwardly from the corner of the box included by said section and dividing the same into inner and outer portions, said outer flaps being foldable inwardly about said score lines together with said inner flaps upon relative lateral shifting of said side walls to collapsed position, said inner and outer portions of each of said outer flaps engaging inside and outside of the opposite outer flap with said outer portion overlying said score line and each of said outer flaps having a notch in the flat free edge thereof between said portions thereof and spaced from said score line for engagement with the notch of the other of said outer flaps, said edge notches having interengaging sides extending substantially parallel with the direction of engaging movement of said flaps for release by the disconnection and distension of said securing flap and said walls, said inner flaps overlapping each other in erected position to form with said outer flaps a tight closure for the carton, said inner portions of said outer flaps having parts extended to engage and guide said inner flaps to erected position, and one of said parts being extended to a greater distance from the free edge of its flap than the other of said parts for engagement with the inner flap of the opposite section to delay the closing thereof and provide predetermined sequential closing of said inner flaps relative to one another in the erection of the carton.

7. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly-connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side

walls together, each of said side walls having top and bottom closure flaps foldably connected therewith at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in two sections normal to said side walls and frictionally engaging one another for holding said carton in erected position, the outer flap of each section having a folding score line extending thereacross diagonally inwardly from the corner of the box included by said section and dividing the same into inner and outer portions, said outer flaps being foldable inwardly about said score lines together with said inner flaps upon relative lateral shifting of said side walls to collapsed position, said inner and outer portions of each of said outer flaps engaging inside and outside of the opposite outer flap with said outer portion overlying said score line, each of said outer portions of each outer flap having a notch in the flat free edge thereof between said portions thereof and spaced outwardly from said score line for engagement with the notch of the other of said outer flaps, said edge notches having interengaging sides extending substantially parallel with the direction of engagement of said flaps for release by disconnection and distension of said securing flap and side walls, said inner flaps overlapping each other in erected position to form with said outer flaps a tight closure for the carton, said inner portions of said outer flaps having parts extended to engage and guide said inner flaps to erected position, one of said parts being extended to a greater distance from the free edge of its flap than the other of said parts for engagement with the inner flap of the opposite section to delay the closing thereof and provide predetermined sequential closing of said inner flaps relative to one another in the erection of the carton.

8. A collapsible carton with self-erecting bottom comprising a one-piece blank cut, scored and folded to form four hingedly connected side walls, a securing flap hingedly connected to one of said side walls and having a detachable adhesive connection to another of said side walls with a free edge portion adapted to be grasped and pulled for detachably connecting said side walls together, said side walls having top and

bottom closure flaps foldably connected thereto at the opposite ends thereof, said bottom flaps being arranged in pairs of opposed inner and outer flaps, each of said outer flaps being secured to the adjacent inner flap for forming the bottom of the carton in sections, said sections being located on opposite sides of a hinge connection between adjacent side walls and on opposite sides of said detachable connection, said sections in their erected positions being normal to said side walls and frictionally engaging each other for holding said carton in erected position, the outer flap of each section having a folding score line extending thereacross diagonally inwardly from the corner of the carton included by said section, said outer flaps being foldable inwardly about said score lines together with said inner flaps upon relative lateral shifting of said side walls to collapsed position, and locking means on two of said top closure flaps for releasably locking said top closure flaps in closed position in the erected position of said carton, said detachable connection between said side walls being releasable for distending said side walls and moving one of said bottom sections out of engagement with the other of said sections for partially unfolding said carton to expose the contents thereof.

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